

Weblogs 1994 – 2000: A Genealogy

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I, Rudolf Ammann, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated.

Abstract

Using extensive fieldwork in the online archival record, this thesis accounts for the descent and emergence of the weblog as a digital genre during its formative period up to the year 2000. The work examines the weblog's process of genre formation as diffusion of innovation within a heterogeneous discourse network. It describes this process as a series of several consecutive and cumulative reinterpretations of the emerging genre's form and intended purpose, effected for the most part by the most central actors in the network.

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The errors, omissions and lapses of judgement in this work are mine.

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1 Introduction

This thesis accounts for the emergence of the weblog as a digital text genre up to the year 2000. In contrast to previous historiographical accounts, the work relies on contemporaneous archival materials rather than the retrospective assertions of early bloggers. Unlike other accounts, this thesis does not posit ‘origins’ by invoking similarities and dissimilarities to antecedent text genres: it reconstructs empirically the emergence of a discourse network that operated under a shared set of rules whose use addressed a communicative purpose.

1.1 A different story

Due to its archival approach, this thesis recounts events and establishes connections that have not been recounted or established by the retrospective assertions of early bloggers. Conversely, the work does not accord the retrospective assertions of early bloggers the privileged status they conventionally enjoy and, in fact, it contradicts them in many instances, sometimes drastically.

This work rests on a social network analysis of the earliest weblogs in the 1997 to 1998 period and studies in especially close detail the contributions made to the emerging genre by the three actors found to be most central to this network. The single most central among these actors is Jorn Barger of *Robot Wisdom Weblog*, who emerges from his conventionally accepted status as the mere coiner of the term *weblog* and is recognised as the framer of the network’s initial social resource discovery programme, as well as the activist who purposely set about raising a distributed network of peers: the ‘weblog community’. Dave Winer of *Scripting News* appears as the second most central figure in the network: a programmer and writer whose prior work was fundamental to Barger’s conceptualisation of the weblog, yet who at the time was pursuing a large-scale project of his own which was antithetical to the distributed network that Barger was raising. Cam Barrett of *CamWorld* appears as the third most central actor who managed to popularise Barger’s concept of the weblog, yet also mixed its definition with extraneous elements which, over the course of 1999, led to the disintegration of weblogging as social discovery.

The thesis introduces various actors who were previously absent from the historiography of blogging, among them the late Chris Gulker, Steve Bogart, and Michal Wallace. Gulker played a crucial part in re-conceiving parts of Winer’s work as a distributed network: in doing so, he was the first to envisage what would, in due course, be known as the blogosphere. Bogart and Wallace both played central roles helping Barger’s concept of the weblog find more widespread acceptance.

The thesis models the process of genre formation as diffusion of innovation, yet it assumes such diffusion to entail a fair amount of *bricolage* in which innovation is re-framed and translated to different contexts in selective acts of reinterpretation.

The genealogy of the weblog as presented in this thesis, then, examines the following events: Winer adopted the site model the web zine *HotWired* had implemented in its 1996 redesign and made it into the default model of his content management software in early 1997. Barger reinter-

preted a part of this site model, the ‘news page’ and isolated it from the web zine publishing model, re-purposing it to his vision of a distributed network of information scavengers involved in social resource discovery. Barrett’s reinterpretation of Barger’s rule set in early 1999 popularised the weblog as a new digital genre, but also opened it to further reinterpretations, in the course of which the weblog became assimilated to the zine genre, a process formally concluded with the introduction of the permalink in early 2000.

At the heart of the genre formation process over the 1997 to 2000 period lies Barger’s failed attempt at refashioning the data structure of Winer’s news page into a movement dedicated to social discovery.

1.2 Chapter previews

This thesis consists of the following chapters:

2 Literature review contemplates the historiography of early weblogs as uncritical repetition of assessments made by early webloggers themselves. The usual ‘brief history of weblogs’ is a concatenation of such assessments, sometimes based on the assumption of a single origin in a ‘first blogger’, and frequently assuming that the different accounts given by the early webloggers add up to a simple conflict-free linear narrative.

3 Methodology discusses genre formation with respect to continuity and discontinuity as privileged categories and proposes a somewhat modified version of Michel Foucault’s archeo-genealogical approach.

Key terms in genre theory and diffusion of innovation are defined.

A procedural description of research strategies is offered.

4 Winer: DaveNet discusses the earlier of Winer’s two online publications, *DaveNet*, as a response to the exigence of identity production. It advances the claim that *DaveNet* emerged in 1994 from the culture of dial-up bulletin boards, notably The WELL, and tracks Winer’s efforts of identity production through his attempts, undertaken in the following years, of transferring this culture to the web. *DaveNet*’s specific identity production is studied as a work narrative aimed at establishing Winer’s leadership position in the software industry.

5 Winer: Scripting News tracks the genealogy of Winer’s *Scripting News* to an antecedent text genre in software documentation, the changelog, of which Winer posted several instances to the web starting in early 1995. In a longitudinal comparison, the chapter contrasts *Scripting News* with *DaveNet* under the aspect of the respective communicative purpose they responded to at different times. The chapter focuses especially on how the respective purposes interweave and eventually merge.

The ambiguity of *Scripting News*’ communicative purpose is discussed against *DaveNet* as a va-

cillating commitment to current awareness reporting and identity production, with the latter steadily increasing over time.

6 Barger: Genre and exigence establishes the motivation behind Jorn Barger's online involvement. Working from the hitherto untapped source of Barger's prolific usenet postings throughout the nineties, the chapter discusses Barger's pursuit of an idiosyncratic research agenda in artificial intelligence as his primary intent. The FAQ genre is identified as the vehicle through which Barger initially sought to promote his programme and rally adherents to it.

Robot Wisdom Weblog, launched in December 1997, is discussed as a renewed attempt of Barger's to promote this research agenda under a newly defined text genre responding to the exigence of social resource discovery, yet indirectly also representing a continued attempt to raise a network around Barger's research agenda.

7 Barger: Polemic identifies Jiddu Krishnamurti's teachings on self knowledge as the source of both Barger's research agenda and of the vocal polemic he conducted to draw attention to it. Barger's polemic is described as an epistemic and ethical critique of cognitive science, paired with an autobiographical narrative of exclusion. Barger's notorious anti-Jewish agitation from 2000 onwards is discussed as a variant of this polemic amongst a succession of earlier variants with different targets.

8 Barger and Winer: Transcendentalists reconsiders Barger's self-described research agenda as cyber-utopian activism and compares it to Winer's ideological commitments, finding that the two share a particular concept of selfhood rooted in an anthropological optimism whose antinomian lineage derives from a dominant strain in American public discourse, transcendentalism.

9 Reciprocity: Social Network Analysis provides some empiricism on the original discourse network of the weblog. This chapter, first presented as a conference paper at Applications of Social Network Analysis 2010 (Ammann, 2011), works from a data set of the earliest networked weblogs. Manually gathered in archival fieldwork, the data set covers the period of early 1997 to the end of 1998 and allows for the identification of the most central actors in the network and to account for the dynamics of network cohesion.

Conventional centrality measures calculated for this network identify Barger, Winer and Barrett as its most central actors of the period.

An examination of the longitudinal dimension of network formation reveals that Barger's innovation of link crediting drove the emergence of an interacting network in early 1998.

10 Winer: Large Dynamic Sites describes Winer's adoption in 1996 of collaborative web content management as his company's strategic direction and tracks Winer's pursuit of this programme through to its collapse in the dotcom bust of 2000.

The contribution of this chapter lies in a general overview of a software development cycle of the late nineteen-nineties that was prototypical for the emergence of social media. It also demonstrates that Winer's news page, as implemented in *Scripting News*, was conceived as an integral and inseparable part of Winer's collaborative content management programme. As this programme relied on a centralising topology rather than a decentralising one, it is shown to be antithetical to a distributed peer network such as the earliest weblogs. The chapter describes Winer's publishing programme as the baseline against which Gulker, Barger and others worked their transformative reinterpretation involving a distributed and open discourse network dedicated to social resource discovery.

11 Sippey, Gulker, and Barger offers a substantial reworking of a paper presented at Hypertext 2009 (Ammann, 2009a). The chapter deals with the adoption and transformative reinterpretation of Winer's news page feature in the work of Michael Sippey, Chris Gulker, and Jorn Barger.

The chapter discusses the early news page adopters (11.1), especially the most visible amongst them, Michael Sippey (11.2), as adopters of Winer's news page prototype who undertook little effort to transform it in a significant way.

The section on Chris Gulker's news page (11.3) discusses Gulker's transformative reinterpretation of the news page as a node in his (largely notional) NewsPage Network rather than part of the default site architecture adopted in Winer's content management software.

Section 11.4 discusses Jorn Barger as the seminal thinker of weblogging, who proposed the rule set of the weblog and the commons-based programme of the emerging discourse network in differentiating the weblog from the older web zine genre, especially as implemented in the default site model of Winer's Frontier project. Barger, who appears in hundreds of 'brief histories' of weblogs merely as the coiner of the term *weblog*, in actual fact laid the foundations of the 'filter blog' as a commons of distributed social resource discovery.

12 Wallace and Dutton discusses the response within the discourse network of the weblog to news personalisation, the idea of tailoring streams of news updates that are uniquely relevant to the individual recipient. The different forms that personalised news assumed – intelligent agents, push media and personalised portals – are discussed in terms of the response they drew from leading actors of the discourse network. Especially, the chapter offers detailed case studies of Michal Wallace and Denis Dutton's separate rejections of personalised portals, and of their strong positions taken relative to Barger's weblog programme. Whereas Wallace's support of Barger's weblog programme amounted to an endorsement, and in fact celebration, of a discourse network of peers interacting in an open commons, Dutton's rejection of Barger's weblog programme represents a conventional publishing paradigm in which a publisher caters to a defined audience.

the weblog programme as a commons-based movement. In popularising Barger's rule set but rejecting the programme, Barrett in fact *foreclosed* the weblog movement, mooting the definitional question.

13 Barrett and Gillmor continues from the previous chapter and explores the earliest transformative reinterpretations brought to bear on Barger's rule set and weblog programme. The chapter develops a novel view of Cam Barrett and questions the widely accepted founding narrative which casts him as the founder of a movement (see 2.2). Instead, Barrett is seen originating a string of un-attributed reinterpretations of Barger's rule set in which certain elements of Barger's project were consecutively replaced with elements borrowed from the web zine genre. Barrett, while reinterpreting Barger's rule set, had little use for the weblog programme as a commons-based movement. In popularising Barger's rule set but rejecting the programme, Barrett in fact *foreclosed* the weblog movement, mooting the definitional question and inviting further reinterpretations.

The section on Dan Gillmor section (13.3) deals with a deliberate experiment in trying to extend the boundaries of the weblog genre which descended from Barrett's redefinition of the weblog.

14 Powazek, permalinks examines several related developments which culminated in early 2000, closing the genre formation process from which the weblog was born.

The section on Derek Powazek (14.1) discusses the initiative of a noted web designer to redefine the weblog and assimilate its exigence of social resource discovery to the genre conventions of the web zine.

The section on permalinks (14.2) discusses the implementation of granular addressability for weblog posts as an end point of the genre formation process in which Barger's rule set is superseded.

The section on on the dramatic relations of Jorn Barger and Dave Winer (14.3) recapitulates the rocky relationship between the two most central figures in the early weblog network and documents the conflict between the two that caused Barger to withdraw from the network in April 2000.

15 Conclusion attempts to string together the various aspects of this thesis into a coherent statement.

16 Appendices offers several complementary materials: A timeline which itemises in chronological order many of the events discussed; a catalogue of the known instances of Barger's AI manifesto and related postings; a statement on this thesis and Wikipedia.

2 Literature review

As yet, critical archival work on blogging in its formative period is virtually non-existent. Researchers typically rely on the retrospective accounts of the early bloggers who were writing from their vantage point as participants and observers.¹ Most prominent and most authoritative among these accounts have been the ones given by Jorn Barger, by Rebecca Blood and by Dave Winer. Each of these accounts has its own limitations, and derivative work has tended to compound rather than overcome these limitations. This chapter briefly reviews these three accounts and surveys the subsequent work.

2.1 Jorn Barger's list

The first historical account of weblogs was composed by Jorn Barger of *Robot Wisdom Weblog*, who, in August 1998, chose to frame his narrative in terms of family descent:

A growing network of freelance editors have begun maintaining “news pages” or weblogs, linking to the best articles from every possible source, accompanied by honest summaries.

A granddaddy of these sites is Dave Winer's Scripting News, and his Frontier scripting environment is the favored utility (Win95 and Mac) that makes maintaining a weblog no harder than maintaining a bookmark file. (Barger, 1998aa)

In his particular framing, Barger asserts that the sites sprang from Dave Winer's example, yet wryly relegates Winer's site to 'granddaddy' status, refusing to acclaim Winer as their direct progenitor. Barger proceeded to identify Chris Gulker's list of the 'NewsPage Network' (Gulker, 1998a), which included *Robot Wisdom Weblog*, as a 'list of first-generation descendents' (Barger, 1998aa), while describing his own list, not extant in a 1998 version, as an inventory of 'second-generation weblogs' (Barger, 1998aa).

Few people were discussing weblogs at the time, and Barger's account went unchallenged. At that point, Barger had already staked his claim of being 'a leader among the growing network of weblogs and news-pages' (Barger, 1998x), and webloggers had been dubbed a 'merry band of linkers' (Bogart, 1998g) who engaged in 'cross-pollination' (Wallace, 1998j) amongst themselves. These sites displayed patterns of reciprocity and thus functioned as a self-aware community as early as the spring of 1998 (see 9.3), yet there was no prestige riding on the question of who had got this

¹ One exception is a research paper in which Kumar et al. (2003) present a social network analysis in which they study the emergence of a weblog community under the criterion of a 'strongly connected component' (Broder et al., 2000), ie a dense subgraph as a signature indicator of an online community. According to this criterion, they found evidence of community formation only at a later point than Garrett and Blood: they claim that in early 1999 there was 'no strongly connected component of more than a few nodes' (Kumar et al., 2003). My own social network analysis of the 1997 – 1998 era (see 9.3) shows that a strongly connected component did very well exist at the core of this network as early as 1998.

The difference between these their findings is likely to derive from Kumar et al.'s failure to account for the effect of a cultural innovation, the introduction of permalinks in 2000 (see 14.2), which multiplied the cross-linking between weblogs (Coates, 2003) and greatly boosted the effect of the introduction of credit linking in early 1998 (see 9). By failing to account for the fact that the ground rules of blogging changed in 2000 in a drastic way, Kumar et al. compare apples with oranges.

community started: it was small, inconsequential, and any wider public had yet to take note of its existence. Regardless of the fact that Barger's short piece of weblog historiography only reached a very small readership, it managed to set the main theme of the 'history of weblogs', the 'ascription of primacy to the first blogger' (Varadarajan, 2007), or, as Barger's original framing suggests in its mildly paradoxical quibble about 'granddaddy' and 'first-generation descendants': 'who's the father?' (McCullagh & Broache, 2007). Barger's widely read Weblog FAQ of October 1999 cemented the framing with its 'What was the first weblog?' (Barger, 1999t) question, in response to which Barger pointed to Justin Hall (Wittig, 2003; Walker, 2005, p. 51; S. Rosenberg, 2009a, p. 17 – 45), whose 'Links from the Underground was one early prototype' (Barger, 1999t).

2.2 Rebecca Blood's founding narrative

Weblogs only started to attract widespread attention in May 1999, and some of the publicity was adversarial, such as web zine author Leslie Harpold's column on 'Logrolling' (1999), which denounced weblogs as a passing fad. In response to Harpold, Jesse Garrett, who had started his *Infosift* weblog in 1998, pointed to Marc Andreessen as the actual progenitor, and his 'What's New' page at NCSA/Mosaic as the first weblog (Garrett, 1999c), which had run from 1993 to 1996, a line of descent Garrett (2001a) prided himself on having been the first to point out. In 1999, Garrett also posted his 'ye olde Skool' (Garrett, 1999a) list of the first webloggers, which suggests that he was thinking about weblogs in historical terms, and he championed Vannevar Bush, the proponent in 1945 of the proto-hypertext system Memex, as the spiritual fore-father of blogging (Garrett, 2001b),² implicitly invoking Bush's prediction of 'a new profession of trail blazers, those who find delight in the task of establishing useful trails through the enormous mass of the common record' (1945).

While including both *Scripting News* and *Robot Wisdom Weblog* in his 'olde Skool' list, Garrett never cited either Barger or Winer for having made any special contribution to the emergence of the form, and he discredited any idea that *anyone* played an outstanding role, ascribing agency to the web instead: webloggers in 1998 resembled 'all these isolated pockets, like tide pools' (Garrett, cited in: S. Rosenberg, 2009a, p. 82), so that 'the same form had developed in isolation – it was like convergent evolution. When different animals evolve towards the same solution to a problem, what that means is there's something about the environment that's shaping that evolution. In this case the environment was the Web itself' (Garrett, cited in: S. Rosenberg, 2009a, p. 82). However, Garrett takes credit for having helped put a stop to this random convergence³ when he became 'active in the early formation of the weblog community' (Garrett, 2004). In November 1999 he stated:

Barely a year has passed since I forwarded to Cameron [Barrett of *CamWorld*] a dozen URLs

2 The putative prefiguration of filter weblogs in Bush's trail blazers has been drawn out in closer detail by Dennis Jerz (2003).

3 Archival evidence disproves Garrett's notion of a "convergent evolution" with regard to his own site: Garrett drew the "inspiration" (Garrett, 1999b) and "primary influence" (Garrett, 1999e) of his *Infosift* weblog from Sippey's *Obvious Filter*, which in turn was a readily apparent re-implementation of Winer's *Scripting News* (Brookshaw, Hammond, & Talley, 1997; Winer, 1997bh).

of sites similar to ours. I don't think either of us expected that list, from the rant that followed to its eventual form as the massive CamWorld sidebar, to kick off the tempest-in-a-teapot known as Weblog Mania '99. (Garrett, 1999e)

The reference of the 'rant' is to Barrett's essay 'Anatomy of a Weblog' (Barrett, 1999b) and the 'sidebar' is the list of weblogs (Barrett, 1999c) which Barrett posted to his sidebar when publishing the essay. Garrett's term 'Weblog Mania '99' amounted to a semi-jocular evasion: Garrett favoured the term 'weblog nation' (Garrett, 1999a), but the term 'weblog community', which was Barger's coinage of January 1999 (Barger, 1999d), had Barrett's backing from at least April 1999 (Barrett, 1999g), so the evasion had the advantage of not requiring any commitment to either of these two competing terms. While modestly belittling the weblog community as a 'tempest-in-a-teapot', Garrett claimed to have assisted Barrett in creating the two foundational artefacts, the essay and the list, around which he alleged the community to have coalesced.

Rebecca Blood, a blogger from April 1999 (Blood, 2002a), Garrett's wife from 2001 (Blood, 2001), and a widely cited authority on early weblogs due especially to her essay 'Weblogs: A History and Perspective' (Blood, 2000b), followed Garrett's historical account, not least because her view of weblogs was informed by 'countless hours of discussion about weblogs' (Blood, 2002b, p. 189) with her husband who had 'watched this whole thing take shape' (Blood, 2000a) from much earlier than she herself had. In her *Weblog Handbook*, she repeats Garrett's assertion that Mosaic's *What's New* page, was 'the progenitor of the format' (Blood, 2002b, p. 2), and she chose Bush's prediction of 'trail blazers' (Bush, 1945) as the epigraph of the book (Blood, 2002b, p. x). More significantly, she came to popularise Garrett's founding narrative of the weblog community.

Blood, who describes herself as an 'avid watcher of the weblog community since it became a phenomenon' (2000c), picked up the narrative of Garrett and Barrett's alleged founding acts and made them the historiographical core of a series of publications on blogging. In these publications she embroidered Garrett's account, retelling the narrative in a number of versions in which she helped herself to Barger's term 'weblog community' (Barger, 1999d) – used interchangeably with the term 'movement' (Humphries, 1998b) – enlarging on the central claim that 'the history of weblogs is more about a community than a form' (Blood, 2002b, p. 147).

Blood offered the first retelling of Garrett's narrative on *Metafilter.com*, a forum frequented by early bloggers, where she claimed that Garrett 'pulled together that first list of "sites like his" and passed it on to Cam Barrett, who posted it, wrote his weblog rant, and got the whole "movement" started' (Blood, 2000a). Reiterating Garrett's belief that most webloggers in 1998 were 'completely unaware of the other sites that resembled theirs' (Blood, 2002b, p. 3), Blood contends that the weblog community coalesced out of virtually nothing in early 1999:

In 1998 there were just a handful of sites of the type that are now identified as weblogs (so named by Jorn Barger in December 1997). Jesse James Garrett, editor of Infosift, began compiling a list of "other sites like his" as he found them in his travels around the web. In November of that year, he sent that list to Cameron Barrett. Cameron published the list on *CamWorld*, and others maintaining similar sites began sending their URLs to him for inclu-

sion on the list. Jesse's "page of only weblogs" lists the 23 known to be in existence at the beginning of 1999. Suddenly a community sprang up. (Blood, 2000b)

In a more recent telling of the same narrative, Blood slightly enriches its particulars and re-introduces Barrett's 'Anatomy of a Weblog' (Barrett, 1999b) and his list of blogs as a permanent feature in his sidebar, through which *weblog* became the 'accepted term' (Blood, 2002b, p. 3). Barrett, then, according to Blood, in setting up his list of weblogs and in posting his accompanying analysis, provided the two founding artefacts through which a 'movement was born' (Blood, 2002b, p. 3).⁴

Blood complements her tale of origin with a narrative of disintegration at the hands of the blogging platforms that arose in 1999, notably Blogger. According to Blood, the 'original Weblog community' (2004, p. 54) was pristine and homogeneous. It consisted of 'original weblogs' (2000) which were 'original sites' (2002a, p. 150) with an 'original style' (2000). According to Blood, the 'aims of the community' (2004, p. 54) were known and uncontested: the community rested on a set of 'primary values' (2002a, p. 154) and was 'united by their belief in the value of information exchange' (2002a, p. 153) and thus, above all, it formed 'a cohesive unit' (2002a, p. 101).

According to Blood, this cohesive and homogeneous community, however, was disrupted by automated platforms such as, especially, Blogger (2000, 2002a, p. 5 – 8, 2002b, p. ix – x, 2004, p. 54 – 55). The number of weblogs created using the newly emerging weblog platforms such as Blogger, 'crushed the movement before it could reach critical mass' (2000). As Blogger quickly became the most visible platform, and due to its lack of 'an interface that emphasized links as the central element of the form' (2004, p. 54), caused an 'explosion of short-form diaries' (2003, p. 61) and thereby 'changed Weblog culture' (2004, p. 54). Weblogs 'were suddenly overshadowed by a large and growing community that was using Blogger to create a completely different kind of site' (2002a, p. 149). Links, previously considered the defining feature of a weblog, were gone from 'entry after entry of of blurts and personal observations, with few, if any, links to other sites' (2002a, p. 149). An 'influx of short-form diarists' (2002a, p. 149) was now posting 'linkless entries about whatever came to mind' (2004, p. 54). Blood believed that the 'original' weblogs had thereby been, in a word, 'co-opted' (2002a, p. 153).

2.3 Dave Winer's evolving narratives

One-upping Garrett's nomination of Marc Andreessen as the first blogger, Winer suggested broadly that 'Tim Berners-Lee actually ran the first weblog, which was also the first WWW site, info.cern.ch' (Winer, 1999v): Berners-Lee's site was a 'weblog in every sense of the word' (Winer, 2003b). More specifically, however, Winer has been seeking 'credit as the first blogger, because the blogs that were inspired by Scripting News [...] ended up inspiring the blogs that inspired all the

4 Through Blood's efforts, Garrett's founding narrative came to be 'taken as gospel by a lot of the working press' (Winer, 2001r), who provided their own paraphrases: 'Mr. Garrett compiled a list of sites similar to his and sent it to Cameron Barrett, who published it on CamWorld. This sparked an interest in Web logging, and the boom was on' (Powers, 2002). And: 'By 1998, Jesse James Garrett, editor of Infosift, had begun seeking out other weblogs. He sent a list of known weblogs to Cameron Barrett, another early blogger, and the names were posted on the net. The first community of bloggers was formed' (Wild, 2004).

blogs you see today' (Winer, 2007l). In the months leading up to the milestone 'Manila' release of the Frontier software (Userland, 1999) in November 1999, Dave Winer started to present himself as the first blogger (see 14.3.4). In this period, Winer noted that weblogs had been getting 'some good ink' (Winer, 1999ah), and, as he believed that weblogs had reached the 'cusp of acceptance' (Winer, 1999ae) and that their power was 'sure to grow' (Winer, 1999ae), he began to charge the question of who created the first weblog with an urgency it didn't have before. Thus Winer began to point out that he had maintained his weblog since 'since 1997' (Winer, 1999y) and that it was not 'subject to debate which weblog was first' (Winer, 2000aa), thereby strongly implying that he had not been sufficiently credited as the first blogger and offering a direct challenge to Barger. Ever since, Winer has been promoting himself as the first blogger. In early November 2000, he changed his site's motto to: 'The longest continuously running weblog on the Internet, started 4/1/97' (Winer, 2000ay).

However, Winer's telling of the story has evolved over the years. Initially, Winer's definition and history of blogging stuck to the conventional definition: 'a collection of links, updated frequently, often several times a day, that represent the interests of a single web person' (Winer, 1999p). He asserted that 'like music DJs, webloggers start with basic ingredients, other people's stories, and mix them into a selection of carefully chosen and delicately prepared morsels of web goodness' (Winer, 1999y) and offered as his earliest formal definition: 'Weblogs are often-updated sites that point to articles elsewhere on the web, often with comments, and to on-site articles' (Winer, 1999bi). According to this definition, Winer claimed to 'have run my own wee blog since 1997' (Winer, 1999y) and stressed that his was the 'longest continuously running weblog on the Internet, started 4/1/97' (Winer, 2000ay).

By 2003, it had become clear that the conventional definition of the weblog as a 'link-driven sites' (Blood, 2000b) no longer held true for the majority of weblogs: One quantitative study of hosted weblogs found in 2003 that 'the typical blog is written by a teenage girl who uses it twice a month to update her friends and classmates on happenings in her life' (Henning, 2003). Since his appointment as a resident fellow at the Harvard Law School's Berkman Center for Internet and Society in 2003 (Festa, 2003), Winer has been promoting the 'unedited voice' as both the guiding principle of his software and the definition of blogging. Winer now maintains that the 'unedited voice of a single person' (Winer, 2003d) is the sole and sufficient defining criterion of a weblog (Winer, 2003f, 2003g, 2005c, 2008a, 2008c).⁵

5 Winer propagates the web as the 'editorless writing medium' (Winer, 1999i) which empowers its users to engage in 'writing without a safety net' (Winer, 2007a). His more recent weblog definition deeply intertwines with his radically individualistic and libertarian critique of editorial workflow features in web authoring software that, by their very nature, will enforce 'the voice of a greater entity, often a corporation or a publication' (Winer, 2003d) and thus squelch the voice of the individual. Editorial workflow, in Winer's view, encourages writing that is 'watered down, pre-digested, dumbed-down and neutered' (Winer, 1999i) and therefore amounts to a strategy through which corporations silence and subjugate their employees:

The purpose of workflow is to keep content off the web. To provide a sense of security to company management that all the right people have to approve something before anyone outside the company can read it. This can include relatively harmless checks, like making sure that Web standards are respected, or it can make sure that the company's lies are preserved, that no truth leaks out from behind the firewall. (Winer, 2001j)

Winer has asserted that the absence of editorial workflow features is the single most distinctive trait of Frontier (Winer, 2001j). Contrary to the claim that he 'never implemented it' (Winer, 2001j), however, editorial workflow was in fact considered a 'major feature' (Winer, 1997bs) of Winer's software throughout the weblog's formative

Along with his redefinition of the weblog as a manifestation of ‘voice’, Winer came to include *DaveNet* into the definition, and thus to identify his earliest *DaveNet* pieces of October 1994 as his first blog posts. In 2005, having failed to ‘get nominated for Lifetime Achievement in weblogs’ (Winer, 2005a) at the fifth annual Bloggies Awards, Winer decided to put a boast in the HTML code of his site’s header graphic that remains there today and advertises *Scripting News* as ‘the weblog started in 1997 that bootstrapped the blogging revolution’ (Winer, 2005b). Using the term *bootstrapping* as popularised by Douglas Engelbart in the sense of incremental, iterative advancement of a solution to a particular engineering problem (Bardini, 2000, p. 24), Winer claims that he made it ‘his business to bootstrap a community of bloggers that grew into the huge network that exists today’ (Winer, 2007l). Moreover, he ‘tried to convince many, including leading [venture capitalists] and tech companies, to help bootstrap blogging, but I was left to do it myself’ (Winer, 2007e). Central to Winer’s claim is not only *Scripting News* as the ‘original weblog’, but the software as well: Frontier’s NewsPage extension was ‘something that really took off’ (Winer, 2008b) when a ‘fair number of sites popped up that more or less followed the pattern of *Scripting News*’ (Winer, 2008b).

2.4 A brief history of the brief history of weblogs

Ever since Rebecca Blood’s ‘history and perspective’ (2000b), the ‘brief history of weblogs’ (Rettberg, 2008, p. 22 – 30) has been a recital which any serious piece of prose on blogging re-enacts from a sense of obligation, and which in some cases attempts to stand alone as ‘a short history of blogging’ (Riley, 2005). In December 2000 Phil Gyford submitted an academic thesis which included a brief history of weblogs (2000, p. 81 – 82) which was ‘drawn on material by Jorn Barger and Rebecca Blood’ (2000, p. 82) and prefigured most such efforts. The briefest and least ceremonious of these incantations is Ethan Zuckerman’s executive summary: ‘Dave Winer’s *Scripting News*, begun in April 1997, is widely acknowledged as the first blog. Jorn Barger of Robot Wisdom is widely credited with coining the term ‘weblog’ in December 1997’ (2008, p. 47). A common trait shared by brief histories of weblogs, even of the academic variety such as the ‘History of Weblogs’ in Lois Scheidt’s doctoral thesis (2009, p. 6 – 9), is their refusal to go beyond a perfunctory concatenation of claims that originated in Barger’s, Blood’s or Winer’s respective accounts, a process glorified in one case as the ‘ethnomethodology’ (C. R. Miller & Shepherd, 2004).

There is something almost grotesquely naïve about advice such as this: ‘For additional historical information on weblogs see the discussion by Rebecca Blood [5] or by Dave Winer [8]’ (Bar-Ilan, 2005, p. 297). The advice makes the basic two assumptions that underlie the ‘brief history of weblogs’, namely that the early bloggers’ retrospective narratives on the emergence of blogging are reliable and that the sum of their accounts amounts to a true, linear, conflict-free narrative. The brief history of weblogs has two distinctive features: it is not based on critical archival research, and it adopts a view of its subject as a linear succession of milestone events that were free of conflict and untouched by contention within a homogeneous weblog community that emerged as ‘a cohesive

period (see 10.7).

unit' (Blood, 2002b, p. 101).

Scott Rosenberg helpfully clarifies that the search for the first blogger was a 'pointless goal' (S. Rosenberg, 2007), yet in his monograph on the history of weblogs (2009a), he does little to dispel the impression that 'Justin Hall, the inspiring pioneer of link-filled Web diaries, was the ur-blogger' (S. Rosenberg, 2007), and that Hall, therefore, was the first blogger. Rosenberg's book provides insightful biographical sketches of the 'pioneers' of blogging, although these sketches are limited by the book's main thesis, that their shared trait was a commitment to the *presentation of self*, which is an ethos that was prevalent in web genres that preceded the weblog, such as the web zine (Michalski, 1995, p. 3), the personal homepage (H. Miller, 1995; Erickson, 1996; Chandler, 1998), and the online diary (Firth, 1998).

3 Methodology

The genealogy offered in this thesis examines the formative stage of the weblog as a text genre. It considers the diffusion of innovation as the core of a networked genre formation process to which human actors bring their own intentions, creativity and ideological commitments rather than merely succumbing to ‘influence’.

The present chapter beats a path to this insight through several discourses on genre and innovation. It also offers a description of the research process used, as, primarily, a way of dealing with archival sources.

3.1 Discontinuity: the unprecedented ‘native’ genre

Some of the earliest attempts to characterise the emerging weblog genre emphasised its being unique and unprecedented. It was considered unprecedented for lack of a model to imitate, as the Internet had ‘made something possible that wasn’t possible before’ (Dutton, cited in: Richardson, 1999). The weblog was ‘an example of a medium finding something that works and that’s unique to the medium’ (Williams, cited in: Gallagher, 2000).

The term that came to express this sense of unprecedented uniqueness is *native*. The weblog was considered outstanding among ‘new forms of content native to the Web’ (Werbach, 1999, p. 11), it was a ‘native online form’ (Werbach, 2001, p. 21). Like the coinage *Web 2.0* that appeared a few years later, this metaphorical use of the term *native* is drawn from its technical sense in software engineering.⁶ Applied to weblogs, the *native* metaphor suggested that the new genre was unique to the web because it had been engineered to specifications that belonged uniquely to the medium. As such, the term implied qualitative superiority over a legacy genre such as the personal homepage, which was believed to lack such distinction.

The term *native* persevered for a considerable while,⁷ not least because its appearance had been preceded by an attempt in genre theory to find a new, unprecedented genre in the digital realm, as distinct from new genres that were somehow less new, or merely transposed from the pre-digital realm. Genre theory had been interested in the emergence of genres since Carolyn Miller’s observation ‘that the set of genres is an open class, with new members evolving, old ones decaying’ (C.

6 An application was said to be *native* if its binary code used the instruction set of the processor on which it ran. This sense of the term had come into popular usage especially among Apple users in the second half of the nineties, when the Macintosh product lines were switched to the PowerPC, a 32-bit microprocessor, replacing the Motorola 68000. Legacy applications written for the ‘68k’ processor continued to run under emulation at the price of reduced performance. *Native* applications, written for the instruction set of the PowerPC, benefited from much faster performance (*Inside Macintosh*, 1994, p. 1 – 7) and therefore carried broad connotations of superiority over legacy applications.

7 Weblogs were considered ‘a unique form, native to the Net’ (Gillmor, 2001) and web users had developed their own ‘native format for writing online’ (Hourihan, 2002). Weblogs were said to be ‘native to the web’ (2002b, p. 9, 2002c, p. xi), they were considered ‘perhaps the first native publishing format for the Web’ (Tepper, 2003). They were deemed ‘arguably the first form native to the Web’ (Blood, 2003, p. 61), and they were called ‘web-native’ (Shirky, 2003), a ‘textual genre native to the World Wide Web’ (D. G. Jerz, 2003), and a ‘Web-native content genre’ (Nielsen, 2005).

Miller, 1984, p. 153). Following Miller's line of inquiry, Joanne Yates and Wanda Orlikowski maintain that 'genres emerge within a particular sociohistorical context and are reinforced over time as a situation recurs' (1992, p. 305). They posit that adaptive changes 'may be so extensive that they lead to the emergence of a new or modified genre' (1992, p. 308) and instantiate the process with a detailed discussion of how the memo genre emerged and then shaped the genre conventions governing e-mail correspondence (1992, pp. 311 – 318). Researchers building on Yates and Orlikowski's work have tried to formalise the notion of emergence, leading Kevin Crowston to propose a typology of *reproduced*, *adapted* and *novel* genres, with each consecutive type being less indebted to antecedent genres. In a random sample of Web pages, he finds that 80% of his sample pages belonged to a reproduced genre, and 11% appeared to be novel genres, including the 'hotlist, home page and Web server statistics' (Crowston, 1997, p. 36). Shepherd and Watters attempt to elaborate this taxonomy and suggest a classification of digital genres that ranges, in order of increasing innovation, from 'replicated' and 'variant', which are seen as 'extant genres', to 'emergent' and 'spontaneous', which are seen as 'novel genres' (Shepherd & Watters, 1998, p. 98). Spontaneous genres 'have no counterpart in other media and include such cybergenres as the home page, the hot list, and FAQ's' (Shepherd & Watters, 1998, p. 99). Dillon and Gushrowski concur with these researchers in believing that 'home pages have no obvious paper equivalent' (Dillon & Gushrowski, 2000, p. 203) and support their assertion that 'the personal home page might be the first unique digital information genre' (Dillon & Gushrowski, 2000, p. 205) with an empirical study in which a test group of graduate students showed a statistically relevant preference for home page features isolated from a sample as typical. All of these studies share a view of digital textuality which privileges discontinuity in the putative category of the unprecedented.

In the same manner as genre theory of the nineties in its focus on 'the first unique digital genre' (Dillon & Gushrowski, 2000, p. 203) depended on the absence of an 'obvious paper equivalent' (Dillon & Gushrowski, 2000, p. 203) to determine the unique unprecedentedness of a new genre, the metaphorical term *native* implied a *non-native* counterpart over which its referent offered an upgrade, made a qualitative leap. Thus, years before the emergence of weblogs, Stuart Moulthrop proposed 'a category of native hypertext: writings implemented electronically without first (or ever) appearing in print' (Moulthrop, 1992, p. 173). Print was the conventional counterpart against which the unique unprecedentedness of a digital genre needed to be established.

Accordingly, the concept of the weblog as *native* genre depended on print as the benchmark against which to measure its unprecedentedness: 'Freed from the constraints of the printed page (or any concept of 'page'), an author can now blog a short thought that previously would have gone unwritten' (Hourihan, 2002). Some observers have claimed that the web was 'framed against printed pages, and it grew from that point with a document- and print-centric view' (Bausch, Haughey, & Hourihan, 2002, p. 87) and that the weblog as a native genre represented a new paradigm, a 'way of looking at small chunks of information within a larger framework' (Bausch et al., 2002, p. 90). In this view, the conventional home page had not yet participated in this paradigm shift: it was 'an attempt to transfer the product of an older medium – paper – into the new' (Blood, 2002b, p. 9). Web-

logs, because ‘everything about them – their format, their reliance on links, their immediacy, their connections to each other – is derived from the medium in which they were born’ (Blood, 2002c, p. xi), were deemed unprecedented in their perceived lack of precedent in print.⁸

3.2 Continuity: Writing space and remediation

An approach fundamentally different from the static taxonomies of the genre theorists and the resultant concept of a ‘native’ weblog genre appeared in Jay Bolter’s *Writing Space: The Computer, Hypertext, and the History of Writing* (1991). The benchmark against which Bolter’s work compares digital writing continues to be print, but instead of examining digital textuality for its qualitative discontinuity, Bolter seeks to emphasise the continuity in the potential for cultural impact which he asserts to be analogous between the introduction of print technology in the 15th century and the dawn of the digital age (1991, p. 3 – 10). Overall, providing an expansive contextualisation of digital textuality in the history of print, Bolter’s book privileges continuity over discontinuity.

Bolter’s landmark collaboration with Richard Grusin, *Remediation* (1999), is in many respects a sequel to *Writing Space*. The subtitle of the revised second edition of the earlier book suggests as much: *Computers, Hypertext, and the Remediation of Print* (Bolter, 2000). In *Remediation*, moreover, Bolter and Grusin purport to offer ‘a genealogy that dates back at least to the Renaissance’ (1999, p. 21), thereby inscribing their project within the paradigm of Michel Foucault’s genealogical method as the progenitor of their quest ‘for historical affiliations or resonances and not for origins’ (Bolter & Grusin, 1999, p. 21). Consequently, they offer their ‘genealogy of new media’ (1999, p. 273) as ‘a genealogy of affiliations, not a linear history’ (1999, p. 55).

As *Writing Space* (Bolter, 1991) puts forward an antithesis to the discourse on digital textuality as radical discontinuity, *Remediation* seeks to provide a synthesis. The book offers a genealogical perspective which repackages the continuity of broad historical analogies as *hypermediacy*, pairing it as part of a ‘double logic’ (1999, p. viii) with *immediacy*, which acts as a counterpart and contributes a radically discontinuous element in which every act of media formation aspires to ever greater non-mediation. *Remediation*, as a consequence, amounts to a commonsensical interplay, viewed from a generalising distance, of continuity and discontinuity. Yet Bolter and Grusin’s hypermediacy does not transcend the ‘broadly comparative’ (Kirschenbaum, 1999) perspective of *Writing Space*, and thus remains limited to drawing analogies. Nor does immediacy, as the putative absence of mediation, ever transcend its status as a normative abstraction.

As an antidote to these shortcomings, I would like to propose a return to the virtue of close archival work characteristic of Foucault’s archeo-genealogical method and a redefinition of the interplay between continuity and discontinuity that offers a connection to the realm of human concerns, aspirations, and intentions.

⁸ A refinement of the early genre taxonomies of digital writing appears in Susan Herring’s taxonomy of computer-mediated discourse (S. C. Herring, Scheidt, Bonus, & Wright, 2004; S. Herring, 2007).

3.3 Discontinuity and continuity: Genealogy

In his early work, Michel Foucault privileged discontinuity in his opposition to structuralist and hermeneutic historiography and its adherence to the notion of continuity in linear grand narratives. Proposing his archaeological method as ‘analysis of discourse in its archival form’ (Foucault, 1999a, p. 290), he rejected traditional unities of historiographic description such as periods or centuries and instead examined ‘phenomena of rupture, of discontinuity’ (Foucault, 2002, p. 4) in an attempt to ‘detect the incidence of interruptions’ (Foucault, 2002, p. 4). Foucault identified such discontinuities as delimiters of an irreducible unity he called a *discursive formation* (Foucault, 2002, p. 210 – 212). Such a formation is not bounded by arbitrary temporal markers, but by the predominance of an *episteme*, a paradigmatic set of rules or a ‘regularity of a discursive practice’ (Foucault, 2002, p. 161) which governs legitimate expression within a given formation. Foucault would examine large arrays of archival materials in order to identify and dissect the episteme of a particular formation, showing in his archaeological studies how different historical discursive formations are governed by different epistemes. However, archaeology does not aim to show how such formations relate to each other.

Foucault accounts for changes from one discursive formation to another, explained either as continuities or discontinuities, in another methodological framework, that of *genealogy*, which he developed later in his career and within which he retained the archaeological method as a form of historiographical description. Foucault’s genealogy, which submits to the rigours of archival work in a procedure that is ‘gray, meticulous, and patiently documentary’ (Foucault, 1999b, p. 369), exceeds the frame of archaeology specifically to account for the changes and relationships between different discursive formations.

Genealogy still rejects grand narratives. As an examination of descent rather than putative origin, it ‘permits the discovery, under the unique aspect of a trait or a concept, of the myriad events through which – thanks to which – they were formed’ (Foucault, 1999b, p. 374). Genealogy, then, in reconstructing lines of descent, aims to identify ‘the accidents, the minute deviations – or conversely, the complete reversals – the errors, the false appraisals, and the faulty calculations that gave birth to those things which continue to exist and have value for us’ (Foucault, 1999b, p. 374). As an ‘unstable assemblage of faults, fissures, and heterogeneous layers that threaten the fragile inheritor from within or from underneath’ (Foucault, 1999b, p. 374), genealogy supplants any grand narrative of elevated origins and finds historicity in the situationally contingent.

3.4 Discourse network and diffusion of innovation

Friedrich Kittler redefines Foucault’s concept of the discursive formation as a *discourse network*, as a ‘network of technologies and institutions that allow a given culture to select, store, and process relevant data’ (Kittler, 1992, p. 369).⁹ In this redefinition Kittler also, characteristically for his re-

⁹ My usage of the term *discourse network* is also indebted to its cognate ‘discourse community’ as a mainstay of genre theory, especially John Swale’s definition of discourse communities as ‘sociorhetorical networks that form in order to work towards sets of common goals’ (1990, p. 9). The term preceded Swales: ‘Use of the term ‘discourse community’ testifies to the increasingly common assumption that discourse operates within conventions defined by

search programme and perhaps paradigmatically for ‘German media archaeology’ (Parikka, 2012, p. 91), steps beyond the realm of discourse and examines *techné*, the media apparatus, as the defining episteme that governs such a network.

In this thesis, I will follow Kittler in treating the discursive formation under investigation as a discourse network, which will allow me to quantify and model certain aspects of the network in an empirical analysis of the link patterns between its actors (see 9.2). However, I will not dwell on hardware and its materiality which is so central to German media archaeology. Instead, I will focus on the software to the extent that it embodies a *programme*, a set of rules that governs communication within a discourse network. I will study this programme not just as a rule set defining a generic norm, but also as a community model, and its standardisation as the locus of contestation that defined a conflicted process of genre formation taking place, for the most part, between 1997 and 2000.

Unlike Kittler, I will not abstract away from the human and the social, which I will treat, following a certain branch of genre theory, as a recurrent situation to which use of a genre needs to address itself, proving, in the performance, its adequacy as part of governing discourse.

This thesis, then, is a case study offering a genealogy of an emerging discourse network going through its definitional crisis in a conflict which highlights ‘the heterogeneity of what was imagined consistent with itself’ (Foucault, 1999b, p. 375). The thesis cuts against the grain of the widely accepted yet unexamined assertion that the original discourse network was ‘a cohesive unit’ (Blood, 2002b, p. 101): instead it studies the interplay of continuity and discontinuity as a protracted conflict over the communicative purpose and the governing rule set of the emerging discourse network.

The genealogy offered in this thesis tracks the diffusion in time, and through the discourse network, of a particular innovation. The process of such diffusion is assumed to be mostly *bricolage* (Levy-Strauss, 1966, p. 16 – 33; Douglas, 1987, p. 66 – 67; Balkin, 1998, p. 23 – 41; Campbell, 2005, p. 56 – 61) – the tinkering with and the rearrangement of elements that are ready to hand and which may be blended with elements that diffuse from elsewhere: an ‘innovative recombination of elements that constitutes a new way of configuring organizations, social movements, institutions, and other forms of social activity’ (Campbell, 2005, p. 56). The diffusion of innovation as ‘the spread of practices through a population of actors’ (Campbell, 2005, p. 53) needs to be separated from its conventional definition, however, in which an innovation is ‘adopted uncritically and in toto’ (2005, p. 54). As an innovation diffuses, it need neither prompt a ‘mindless mechanical transfer of information from one place to another’ (Campbell, 2005, p. 55) nor result ‘in homogeneous or isomorphic outcomes’ (Campbell, 2005, p. 54). There may be considerable ‘variation in how the structure, strategy and success of movements and organizations diffuse across sites’ (Campbell, 2005, p. 55). Moreover, there are ‘important cognitive steps involved in the diffusion process’ (Campbell, 2005, p. 49) such as *framing* (2005, p. 48 – 61) which requires the ‘strategic creation

communities’ (Herzberg, 1986, p. 1). Of especial note is Patricia Bizell’s observation that discourse communities are ‘masses of contradictions’ (1987, p. 18). Focusing on ‘contradictions that arise from membership in various discourse communities’ (1992, p. 234), she proposes to study the ‘value contradictions that arise when discourse communities overlap’ (1992, p. 224).

and manipulation of shared understandings and interpretations of the world' (Campbell, 2005, p. 49) and *translation*, which is the process by which 'practices that travel from one site to another are modified and implemented by adopters in different ways so that they will blend into and fit the local social and institutional context' (2005, p. 55). The genealogy offered in this thesis, especially in its second part, is a close-up view of a discourse network in which 'innovative bricoleurs' (Campbell, 2005, p. 57) engage in the process of spreading an innovation. This thesis favours the term *reinterpretation*¹⁰ over Campbell's *translation*. The genealogy of the weblog is a genealogy of consecutive reinterpretations.

3.5 Archival fieldwork as information seeking

The archival fieldwork undertaken for this thesis is a blend of quantitative analysis and critical, interpretative reading, both performed on a body of archival material. Heeding Foucault's observation that genealogy 'requires patience and knowledge of details, and it depends on a vast accumulation of source material' (1999b, p. 370), I gathered such material – manually, over a long period, and especially for this thesis – from heterogeneous and widely dispersed sources.¹¹

Procedurally, the heart of the work lies in extensive note taking based on an interplay between search queries and various reading strategies which range from skimming to close reading of documents that promised to repay close attention expended on them. The work can be accounted for using the Foster model of information seeking,¹² which posits three core processes, each composed of a number of behaviours, all of which are non-sequential and may feed into any of the others. Embedded in *cognitive approach*, and their *internal* and *external contexts*, the core processes are *opening*, *orientation*, and *consolidation*. These are discussed in the following.

3.5.1 Cognitive approach, extrinsic and intrinsic context

For the data gathering towards this thesis I favoured *openness of approach*, departing from 'no prior

10 Unlike Campbell's term *translation*, the term *reinterpretation* implies no expectation of fidelity towards an 'original', and, more importantly, it suggests creative licence. Ron Eglash's roughly corresponding term 'appropriation' (2004) is tailored specifically to unintended use of technology. However, it presumes a power differential as a constitutive element of its definition, which does not appear consistently relevant to the subject of the present study.

11 The archival mainstay of this thesis are postings by the most central actors in the discourse network examined. The database records created for this study include 780 web postings by Dave Winer, nearly 550 web and usenet postings by Jorn Barger, 55 web postings each by Michal Wallace and Michael Sippey, some 50 web postings by Cam Barrett, 54 web postings by Chris Gulker, 26 web postings by Steve Bogart, 16 web postings by Dan Gillmor, 9 items by Derek Powazek, and 6 items by Denis Dutton. These materials are complemented by a plethora of contemporaneous sources gathered from outside the network, such as 64 articles from the *New York Times*, 17 articles from *InfoWorld*, amongst many others.

12 The Foster model of information seeking (Foster & Ford, 2003; Foster, 2004, 2005; Foster, Urquhart, & Turner, 2008; Foster, 2011) is empirically grounded in a naturalistic study of research practices among interdisciplinary scholars. The model resists the conventional idea of a linear process consisting of stages and iterative activities. Instead, it posits three interacting processes and three levels of contextual interaction, each composed of several individual activities and attributes. Over time, the core processes and developing context interact dynamically to allow each process to feed into any other. The model treats such interaction as non-linear, with behavioural patterns remaining available throughout the course of the research. Thus, the model provides a conceptual meta-framework designed to account for the 'concurrent, continuous, cumulative, and looped cycles occurring throughout a research project' (Foster, 2004, p. 232), in a way which reflects 'actual behaviors and real-world solutions rather than the artificial conceptualization of stages' (Foster, 2004, p. 235).

framework for judging relevance’ (Foster, 2004, p. 233). My approach, moreover, was *nomadic* in that it resisted to stay within ‘known disciplines and well-trodden resources’ (Foster, 2004, p. 233). I collected and used the source material in the manner of Walter Benjamin’s *chiffonnier*, the rag and bone man as materialist historian: ‘the rags, the refuse – these I will not inventory but allow, in the only way possible, to come into their own by making use of them’ (Benjamin, 1999, p. 460).

Chiefest amongst the extrinsic contexts which necessitated the archival excavations on which this thesis builds is the lack of previous access to sources. In the absence of a canonical corpus of relevant materials,¹³ I needed to assume the role of a ‘peripatetic collector’ (Wohlfarth, 1986, p. 146) and gather my sources from the online archival record. Where they had disappeared from the current web, I used the Internet Archive’s *Wayback Machine* to retrieve pages, despite the service’s limitations (Murphy, Hashim, & O’Connor, 2007, p. 63 – 4). I also relied on Google’s archive of usenet postings (Stellin, 2001), primarily to reconstruct Jorn Barger’s career. Supported by university subscriptions to online databases, I used Nexis and ProQuest for contemporaneous news coverage and wire feeds.

The determinants that make up the *intrinsic context* of this work are primarily my ‘home discipline and previous experience’ (Foster, 2004, p. 233). My academic background lies largely in the English Department, whose preoccupations with composition and computers, with hypertext and electronic literature, and its openness to cultural studies (Kirschenbaum, 2010, p. 6) were all contributory factors, both to my perspective and my choice of subject matter. My level of experience and prior knowledge of the subject matter itself include somewhat close if informal observation of – and limited participation in – the web zine, online journalling and weblog scenes from 1999 onwards, as well as implementation, usage and maintenance of weblogging and content management software starting in 2001.¹⁴

3.5.2 Opening: Depth exploration and chaining

Trying to identify and extract relevant sources, my initial data gathering was guided by my prior knowledge, informally acquired from 1999 onward, which agreed with the consensual assumption that the period was an unequivocal point of origin. Working from this basis, I trawled through the online archival record of the time, using *breadth exploration* in an ‘expansion of searching to allow exploration of every possibility’ (Foster, 2004, p. 233) and *eclecticism* for ‘finding information that combines active, passive, and serendipitous information acquisition’ (Foster, 2004, p. 233). Examination of the sources involved keyword searching (Foster, 2004, p. 233) using Google’s various ad-

13 The only existing collection of early writings on weblogs is contained in a slim paperback volume edited by Rebecca Blood, *We’ve Got Blog: How Weblogs Are Changing Our Culture (2002d)*, which purports to be an anthology of ‘real-time responses to the formation and expansion of the community’ (Blood, 2002c, p. xii). The selection omits key materials, especially from the period that precedes the onset of community formation according to Garrett’s founding narrative (see 2.2).

14 At the time I casually perused online forums such as *Dreamless.org*, and *Metafilter.com* (Zeldman, 2001, p. 391) and actively participated in Lance Arthur’s *Glassdog Club* (Powazek, 2002, p. 251 – 153) and Dan Beauchamp’s *Red-Cricket* boards (Zeldman, 2001, p. 392), all of them online gathering places for digital artisans of various kinds. Blogging and content management software I have used and implemented in various projects includes Greymatter (B. Stone, 2002, p. 50 – 53), Movable Type (Cadenhead, 2004), Textpattern (Potts, Sable, Smith, Lindley, & Fredborg, 2007), WordPress (Lerner, 2004), and Drupal (Byron, Berry, Haug, Robbins, & Eaton, 2008).

vanced search interfaces.

Things came into sharper focus only upon the discovery, made at separate consecutive points, that Dave Winer and, respectively, Jorn Barger were not only the most prolific writers in the discourse network I was examining, but also the ones who were most deeply exercised by the question of defining a programme for the web: Winer's content management programme versus Barger's social resource discovery programme. This finding occasioned me to engage in *depth exploration*, to coin a term extending Foster's taxonomy. Winer's writings are concentrated for the most part in his two main publications, *Scripting News* and *DaveNet*, whereas Barger's writings are collected on his *Robot Wisdom* site but also dispersed across a wide range of usenet groups. Rather than rely on any of the retrospective accounts of Winer's and Barger's intentions, struggles and achievements, I read those sources at considerable depth in an attempt to understand the essence and trajectory of Winer and Barger's respective web careers.

A third focus for depth exploration emerged in the weblogs listed in the original version of Cam Barrett's compilation (1999c), Michal Wallace's earlier list (1998w), and Chris Gulker's ultimate prototype of this 'blogroll' feature (1997l, 1998a), all of which I discovered in the process of excavating source materials for this thesis. Barrett's list had previously been identified as a seminal artefact of the discourse network (see 2.2), but no archival instances of these lists had been presented before in the literature on early weblogs.

Starting from these lists, I pursued the activity of *chaining* (Ellis, 1989), of following references from one source to another, not merely to gain 'a broader information horizon' (Foster, 2004, p. 234), but to understand the immediate context against which the discourse network coalesced. Chaining allowed for access to further materials hyperlinked by the early weblogs, both in the non-weblog parts of the sites in the network, such as 'About' pages which reflected on the practice, and documents from the web at large. The Wayback Machine ('About,' n.d.) proved to be an invaluable resource for such excavations where the original pages had lapsed.

The notes taken as part of *opening* the research topic, as well as their subsequent qualitative analysis, were done without using qualitative data analysis software, nor, for that matter, relying on any assignation of codes as favoured, paradigmatically, in grounded theory (Corbin & Strauss, 2008, p. 195 – 199). All notes were taken in word-processed files using LibreOffice (Schoonmaker, 2012) with the corresponding bibliographical data maintained in the Zotero (Puckett, 2011) citation manager.

3.5.3 Orienting: Review and analysis

Foster's *orientation* process is centered on 'picture building' (Foster, 2004, p. 234), the creation of sense from information. Engaging in *review* as 'considering material already gathered' (Foster, 2004, p. 234), I worked through my collected source materials, generating new word-processed files from existing ones, progressively sifting and re-ordering chronologically sorted materials into collections sorted by themes and categories. In the process I broke down the materials and distilled them into minimally short expressive sentence fragments, ready for further processing into chapter

drafts.

Reading the sources critically and interpretatively, I identified and selected such fragments according to nascent and loosely defined ‘relevance criteria’ (Foster & Ford, 2003, p. 234). These were guided by the concerns outlined in the theoretical framework above, such as the detection of continuities and discontinuities in exigence/communicative purpose and questions of formal rules, as well as the protagonists’ aspirations and ideological commitments that shaped these things.

While reviewing the data extracted from the sites in the early weblog lists, I also found that the data was recoverable almost in its entirety, allowing for the compilation of a data set that captured the links traversing back and forth between the sites. I used this data set for a social network analysis of the discourse network (see 9), thereby adding a complementary quantitative component to the analysis.

3.5.4 Consolidating: knowing enough, networking and incorporating

The third core process in Foster’s model, *consolidation*, is concerned with judging and integrating the work in progress. The process involves assessing whether information needs have been met, or whether further information is required. Thus, *knowing enough* requires questioning ‘whether sufficient material to meet the present information need had been acquired’ (Foster, 2004, p. 234).

The work of the peripatetic collector has its asperities, not least of which is unlimited abundance of the digital medium which creates a vortex in which *knowing enough* becomes an ever receding, unreachable horizon.

There is a need to pull back from this vortex. *Knowing enough* correlates to the size of the data: the archival data is not ‘big data’ in the sense that the sum of Winer and Barger’s writing does not exceed the amount of data a PhD thesis in, for example, conventional literary studies would need to deal with – just vastly more scattered, requiring more effort to access than picking up the critical edition of a writer’s collected works. Barger and Winer wrote extensively, but their output is not in excess of what a single human reader can process given sufficient time and effort. Search queries often helped as a shortcut to finding relevant passages, yet my work on this thesis has primarily been of close, interpretive reading variety. The point of *knowing enough* was reached when the interpretative reading of the sources had generated an interpretation that was internally consistent, with further material yielding rapidly diminishing returns in either opening new perspectives or challenging established ones.

Foster rubricates *networking* under *opening* as a strategy of ‘locating information and sources’ (Foster, 2004, p. 233). In this thesis, however, I used networking as a *consolidating* strategy, since *knowing enough* was, in most cases, a self-imposed precondition of contacting experts and informants in an effort to validate and refine my conclusions. The unwillingness to rely on any sort of oral history or interviewing techniques as a primary source of information stems from my refusal to arbitrate between what I knew to be conflicting narratives of origin that were firmly entrenched in different sections of the discourse network and had been well aired publicly, often among considerable acrimony (see 2). Making the online archival record my primary source, rather than information

freshly elicited through interviews, allowed me to maintain a critical perspective on the sources, and stay relatively unencumbered by the obligation politeness would have imposed, of taking the elicited information at face value or defer to it as unquestionably reliable.

My website provided a special case of *networking*. Having laboured quietly on this thesis without discussing it in public even beyond the PhD upgrade milestone, I posted my initial conference paper (Ammann, 2009a), drawing responses from actors in the original discourse network (Auffleck, 2009; Barger, 2009b; Berlinger, 2009; Bogart, 2010; Gulker, 2009; Lyke, 2009; Winer, 2009). Subsequent postings included another conference paper (Ammann, 2011) and a number of shorter pieces, some of which engendered profitable discussions.

In the act of *incorporation*, an ongoing or recurrent effort to ‘assemble the material’ (Foster, 2004, p. 234), I worked up narrative and expository drafts from the thematically sorted extracts, often using a technique of ‘literary montage’ (Benjamin, 1999, p. 460). The copy and paste required in the process resulted in a collage of sorts, with the syntactic granularity of citations mostly maintained below the sentence level. This collage of densely referential prose retains the language and expressiveness of the source while using the conventions of scholarly citation to safeguard continued access to the sources for further examination.

4 DaveNet and identity production

Dave Winer maintained ‘two content flows’ (Winer, 1997bk) during many years of his career as ‘one of the most prolific content generators in Web history’ (Cone, 2001): *DaveNet* and *Scripting News*. The earlier of the two online publications, *DaveNet*, consisted of short essays, posted at irregular intervals, primarily distributed via e-mail, and archived on the web. The more recent *Scripting News* is a stream of frequent, reverse-chronologically ordered and date-stamped updates that has appeared on the web since February 1997, when it made its début using a format in which hyperlinks were annotated with very brief commentary. Winer discontinued *DaveNet* in 2004, some ten years after its launch, yet *DaveNet*’s demise had been imminent since 24 April 2000, when Winer declared that he was ‘concentrating all my writing into one flow’ (2000ag). With this announcement, some of *DaveNet*’s narrative and exposition got absorbed into *Scripting News*. In this development, Winer ‘started writing about himself more’ (Haughey, 2002) on *Scripting News*, thereby making it a more personal publication that ‘was no longer a general news site about web scripting’ (Haughey, 2002).

This chapter aims to track the emergence and concurrent evolution of these two ‘flows’ with respect to their status as members of pre-existing text genres, as determined by their respective communicative purpose. The communicative purpose as ‘prototypical criterion for genre identity’ (Swales, 1990, p. 10) varies between identity production and current awareness reporting. These purposes tangled over time, bled into each other, were ambiguous in certain respects at various times, and all but merged in the spring of 2000, indicating a convergence that marked the end point of a formative development.

4.1 Winer’s early career

Winer founded the software company Living Videotext early in his career. In 1983, within a year of launching the company, he established outline processors as a new category of consumer-grade software products with the release of ThinkTank, which was the outliner that ‘made the term generic’ (Sandberg-Diment, 1986). He earned his first million dollars from this product (Bartimo, 1984) and found even greater success with another outliner, More, ‘a killer app for organizing ideas’ (Ray Ozzie, cited in: Cone, 2001), which became ‘a hit when it was introduced in mid-1986’ (Cone, 2001).

Winer sold Living Videotext to the software publisher Symantec in 1987, agreeing to an undisclosed deal in which ‘stock would be redistributed’ (“Software units,” 1987). He ‘got liquid’ (Winer, 2000az) after Symantec became a publicly traded company in 1989, and ‘made all the money he thinks he’ll ever need’ (Cone, 2001) as the price of Symantec’s shares rose rapidly following its public stock offering. Winer has been ‘living off the money’ (Winer, 2004b) ever since.

In 1988, Winer founded his second company, UserLand, on a risky proposition. The firm was ‘privately held, funded entirely by Winer’ (Userland, 1991), and developed a software product named Frontier, originally a system-level scripting environment for the Macintosh (E. Dyson,

1991). Entering the system software market with his new product, Winer was well aware of the widely circulated predictions that Apple intended to create a similar product named AppleScript, but he chose to dismiss these predictions as a ‘bluff’ (Winer, cited in: Swaine, 1991).

This gamble turned out to be a source of great irritation, as Apple did choose to create AppleScript (Cook, 2007). Winer got ‘frustrated by the Sisyphean task of competing with a platform vendor’ (Cone, 2001). He ‘retired from the software business in December 1993’ (Winer, 1997bw), thinking of himself as a ‘dead software guy’ (Winer, cited in: Cone, 2001) and looked towards an alternative career as he ‘took an 11-day, 100-hour course in massage’ (Winer, 1995ar) and got ‘certified as a massage therapist’ (Winer, 1995x).

Winer soon returned to software development, however. In the summer of 1994, he spent three months working on ‘an ‘online-aware’ software product’ (Winer, 1994k), and in September attended the Agenda ’95 conference in Phoenix, Arizona, which attracted some four-hundred computer industry executives, who were eager to discuss the rise of the internet (O’Connor, 1994). Winer found the event a ‘great experience’ (Winer, 1994f) as it promised ‘much nice business to do’ (Winer, 1994f) and made him consider the internet as ‘an opportunity to get creative again’ (Winer, 1995af).

Winer initially sought such opportunity in e-mail automation (Winer, 1994e, 1994i), but his involvement in the San Francisco newspaper strike of November 1994 kindled his enthusiasm for the web, giving his career as a software developer a new focus. During the labour dispute he volunteered his services and helped the striking journalists of the *San Francisco Examiner* and the *San Francisco Chronicle* automate the workflow of a website named the ‘Free Press’ (Winer, 1994i) which carried their journalistic output for the duration of the 11-day strike (Bialik, 2004). In the process, Winer learned to code HTML from the site’s lead developer, Cynsa Bonorris, a programmer, system administrator and project organizer for the WELL online community (Pernick, 1994). Winer and Bonorris engaged in ‘six hours of the best collaborative programming I’ve ever done’ (Winer, 1994j) while pooling their skills to create an automated workflow for the site.

The newspaper strike also put Winer in touch with the *Examiner*’s director of development, Chris Gulker, a user of his software who had been working to ‘automate print production for his newspaper using Frontier’ (Winer, 1997at). Gulker supported the management side of the dispute (Gulker, 1994a; Winer, 1994j), yet ‘shared scripts and techniques’ (Winer, 2003e) with Winer in the opposing camp and engaged him in a ‘friendly competition’ (Winer, 2001g) that helped Winer ‘understand how Frontier could play a role in publishing’ (Winer, 2001g).

The collaborations with Bonorris and Gulker made Winer ‘totally itchy’ (Winer, 1994j) to run his own web server, as a web driven by scripted automation would ensure that ‘editorial people can be editorial people, writing text, not HTML’ (Winer, 1994j). Thus, he re-defined his Frontier scripting environment as an ‘essential developer tool for Internet publishing’ (Winer, 1994k) and announced that this would be ‘a new business for UserLand Software’ (Winer, 1994k). As Winer was now trying to meet the needs of ‘great writers who want to try out their ideas on the worldwide web’ (Winer, 1995f), he had become an entrepreneur invested in the idea of making the web work as a writing medium.

4.2 DaveNet as network

Winer was a follower of Douglas Engelbart and believed in the Engelbartian creed that the computer was ‘a medium for improving idea development and group communication’ (Bardini & Friedewald, 2002, p. 193). To Winer, computers were ‘primarily significant because they make people better communicators’ (Winer, 1988), and he believed that his mission as a programmer was ‘connecting people to people’ (Winer, 1995n). Given this commitment, it was somewhat ironic that in the mid-eighties Winer found himself creating the stand-alone productivity tools that brought him fame and fortune as ‘one of the more important software designers of the PC era’ (Cone, 2001). However, his passion for group communication tools emerged at various inflection points even in his early career, when he played with the project of creating a bulletin board system. While biding his time in 1982 prior to the launch of his original ThinkTank outliner, which he released in 1983 as a stand-alone productivity tool only because ‘the world was into standalone productivity apps’ (Winer, 1995an), Winer built out the prototype of his software into an online system named Living Bulletin Board System (LBBS), which ‘allowed multiple users to link messages to a tree structure’ (Winer, 1988). This bulletin-board system, renamed TankCentral soon after, was intended as Living Videotext’s ‘cornerstone product’ (Winer, 1995an), yet never got released and only served as an internal communication system at Living Videotext instead (Winer, 1995an). When Winer sold the company in 1987, his development plan was to build on the prior art established in LBBS and ‘produce a LAN version’ (Winer, 1988) of his highly successful More outliner, but the plan for such a networked outliner was not pursued any further by Symantec, the new owner and publisher of the software.

When Winer was setting up shop again as a developer in October 1994, he began to distribute essays using automated e-mail (Winer, 1994e). He seeded this project, named *DaveNet*, from among his personal contacts in the software business, ‘a long list of influential people’ (Michalski, 1995, p. 9), which consisted of about ‘one thousand industry insiders’ (Brockman, 1996). Winer treated the project in many respects as a re-implementation of the earlier bulletin-board system, comparing the operation of this ‘online essay service’ (Winer, 1994d) to ‘being the sysop of a BBS’ (1994d). Consequently, *DaveNet* was intended to ‘evolve into a forum that you can access directly over the net and contribute to’ (1994e). On this projected forum, reader replies to Winer’s posts would ‘all be accessible’ (Winer, 1994l), so ‘lots of other people will be able to read your comments and comment on them’ (Winer, 1994l). This did not happen, however: while *DaveNet* pieces continued to go out at a steady clip via e-mail, it took Winer until June 1995 to complete work on ‘a web-hosted bulletin-board’ (Winer, 1995an). He ran a test site for a short while (Winer, 1995aq), but chose not to switch *DaveNet* to this piece of infrastructure.

Instead, Winer continued to run *DaveNet* using his original e-mail setup, with web archives added in January 1995 (Winer, 1995a).¹⁵ He stipulated that ‘replies are on-the-record and for-attribu-

¹⁵ Winer redesigned his automated posting system for the task of keeping *DaveNet*’s web archives updated, and the site would receive his future essays as well: ‘Every time I release a new essay, it automatically uploads it to the DaveNet web site, and rewrites the home page to contain a pointer to the new essay’ (1995a). In the *DaveNet* redesign of May 1996, Winer implemented a ‘Suck-style user interface’ (Winer, 1996a) in which the most recent essay rather than a

tion, unless you state otherwise' (1994e) and quoted liberally from the responses he got to earlier pieces, allowing him to control the flow of information across the network he had thereby created. His automated posting script sent out every new *DaveNet* instalment in groups of eight e-mails which had their reply-to field set to the same randomly selected group of eight subscribers, making *DaveNet* 'more intimate than an ordinary mailing list' (Michalski, 1995, p. 9), and resulting in an experience which Winer likened to 'sitting at a table of eight people eating dinner at an industry conference. When people reply to one of these essays, seven other people usually see the reply, and of course I do too' (1994e).

The defining feature of this automated system was not the groups of eight as such, however, but the structural holes between them. In creating *DaveNet*'s network topology, Winer divided his subscribers into a new multitude of separate network segments with every post that went out. Setting himself up as the sole actor who bridged the structural holes between these segments, he gained the 'information benefits' (Burt, 1995, p. 28) of controlling the flow of information that came back from these segments. As the network's sole bridging actor, he held a unique broker position (Burt, 1995, p. 35): he was free to recycle any new information that reached him in reply to any previous *DaveNet* piece and to distribute it to the whole network in a new piece. Effectively, Winer had thus set himself up not just as the author of his communications, but as *DaveNet*'s 'benevolent editor with wide reaching powers' (Scott Wiener, cited in: Winer, 1994f).¹⁶

Winer saw *DaveNet* as an early implementation of a significant trend that accorded well with his Engelbartian leanings: 'richer connections between people, implemented using the Internet' (Winer, 1995n). When Winer decided to re-position his software product Frontier as 'an essential developer tool for Internet publishing' (Winer, 1994k), he was trying to build a technology that transcended the limitations of Mosaic/Netscape's browser in that it would be 'much better at connecting people to people' (Winer, 1994m). Accordingly, *DaveNet* as implemented in automated e-mail re-interpreted the generic predecessor of the bulletin board and, running under a unique community model, afforded Winer an central editorial choke point on the flow of information.

4.3 Identity production as communicative purpose

If, technologically, *DaveNet* adapted the design of the bulletin-board system, using a hybrid of automated e-mail and web archives, the text genre it supported was closely aligned with the culture that had sprung up around bulletin boards, deriving its communicative purpose from this culture – especially from the most visible bulletin board system of the time, the WELL.

table of contents would appear on the front page, heeding the 'lesson in the values of simplicity and immediacy' (S. Rosenberg, 1997b) that Suck.com had taught the nascent web (Sharkey, 2005). This interface adjustment prefigured the elevation of *Frontier News* to *Scripting News* in February 1997 (see 5.1.6)

¹⁶ As *de facto* editor in chief, Winer managed to post a *DaveNet* piece reproducing verbatim a reply from Microsoft chief executive and *DaveNet* subscriber Bill Gates (Gates, 1994). Winer achieved a similar high-profile success with a message from the reclusive Steve Wozniak, co-founder of Apple, who wrote to express his agreement with an opinion Winer had stated in *DaveNet*. In his response, Wozniak claimed that Apple had 'hurt and alienated both the loyal developers and loyal users' (Wozniak, cited in: Winer, 1995aw). This message was 'a scoop' (Winer, 1996am) that subsequently got reported in *The San Francisco Chronicle* (Einstein, 1995). Winer openly solicited other such contributions (1995ay).

4.3.1 The WELL and Tom Mandel

The WELL was a conferencing environment set up in 1985 serving the greater San Francisco area. It supported written, asynchronous conversation via a dial-up bulletin board (Hafner, 1997; Turner, 2006, p. 141 – 174) and acted as a ‘salon of creative, thoughtful, and articulate participants who are interested in one another’s stories in a self-absorbed, cabalistic way’ (Hafner, 1997). It also came to epitomise ‘virtual community’, a concept which had gained currency especially through Howard Rheingold’s writings on the WELL (1987, 1993; Silver, 2000, p. 23). Accordingly, the WELL touted itself as ‘the premier model of virtual community’ (Pernick, 1994).

The experience of participating in the WELL was typically described as a crossing of boundaries between established forms of communication: Despite being text-based, ‘contributions to the WELL constituted a kind of vocal performance’ (Turner, 2006, p. 155), and these contributions were received as ‘a new hybrid that is both talking and writing yet isn’t completely either’ (Coate, 1998). Communication on the WELL was also believed to transgress the conventional demarcations between the public and the private: on the WELL, the ‘boundary between public and private was extraordinarily fluid’ (Turner, 2006, p. 154). This, paradoxically, created an ‘experience of interpersonal intimacy’ (Turner, 2006, p. 158) within a distributed system that aspired to be a public service by virtue of being open to anyone with a computer, a modem and a telephone connection.

The WELL’s ‘celebration of disembodied intimacy’ (Turner, 2006, p. 176) converged around figures such as Tom Mandel, a consultant in corporate scenario planning at Stanford Research Institute, who had made himself into ‘one of the main ingredients of the Well’ (Vanderleun, 2005) during its first decade, up to his death in April 1995. Having earned a reputation for being among the community’s ‘most prolific’ (Akst, 1995) and ‘most visible members’ (Hafner, 1997), he used the WELL to share his experience of dying from lung cancer over a period of weeks with a large audience of fellow WELL users (Kuntz, 1995; Rheingold, 2000, p. 326).

Mandel, if anything, defined and exemplified the communicative purpose of his medium. He was considered ‘one of the first people to see the online world not as a curiosity or a tool but as a place to live’ (Rossney, 1995). He was acclaimed for having made the medium ‘grow and mature’ (Vanderleun, 2005): through his postings to the WELL, he was believed to have ‘taught a generation of pioneers what it takes to live online’ (Rossney, 1995). To this end, he had ‘used the medium to discuss his childhood, his thoughts, his work and his needs’ (Vanderleun, 2005), yet ‘his most lasting contribution was the example of how he lived out his life and, in the end, his death openly and without apology on the Net’ (Vanderleun, 2005). Mandel’s contribution, then, ‘gave the Net an example of how to transmit your soul’ (Vanderleun, 2005) and thereby turned the medium into a ‘place where it really is the content of one’s character that is the first and foremost thing people see’ (Vanderleun, 2005). As Mandel ‘kept almost nothing back’ (Vanderleun, 2005), the perceived intimacy of the online medium found its authentic manifestation in identity production: ‘What Tom gave to the Net was himself’ (Vanderleun, 2005). The man was the message.

4.3.2 Identity Production and DaveNet

The term *identity production* refers to the creation and maintenance of a socially constructed, outwardly perceived self, often but not exclusively through discursive means. The classic text on identity production is Erving Goffman's *The Presentation of Self in Everyday Life* (1959). While Goffman's work provided a dramaturgical analysis of face-to-face interaction, his analytical concepts have also been widely applied to online communication over the last two decades.¹⁷ In line with the observation that the experience of browsing the early web 'gave an intense illusion, not of information, but of *personality*' (Wolf, 1994), the field of genre studies generated an extensive literature on personal home pages and identity production from the mid-nineties.¹⁸

Winer used the generic descriptor '*home page*' (Winer, 1995a, 1995ac, 1995ad) for *DaveNet*'s web archives¹⁹ and accepted the conventional view of the personal home page as the locus of identity production, likening the genre to a front porch that is decorated 'with all the things you like, things that say something positive about you' (Winer, 1995aa). Beyond this, he went to some lengths trying to explain its communicative purpose in terms of identity production.

When starting up in 1994, Winer emphatically denied that *DaveNet* instantiated the newsletter genre²⁰ and assured his readers that established computer industry newsletters – such as Stewart Alsop's *PC Letter*, Esther Dyson's *Release 1.0*, Denise Caruso's *Digital Media*, among a host of others – had 'nothing to fear' (1994k) from him. He insisted that he was not, nor aspired to be, 'a computer industry analyst' (1995o). Instead, Winer was 'writing to learn, to be connected to the world, to express myself' (Winer, 1994k). He therefore downplayed the weightiness of his essays, calling them 'Amusing Rants as opposed to Earthshaking Discoveries or Radical Pronouncements or Stirring Eloquence' (1995e), indicating that he had 'been in *relationships* that were less intimate than my *DaveNet* chatter' (1995o). *DaveNet*'s subject matter was 'just the things that occur to me as I live my life. It's one life, it's mine. *DaveNet* is one way I share what I have' (1996l). In *DaveNet*, Winer allowed himself to 'skim over details, leave out a lot of facts, leave a lot of puns in, and just let my ideas reverberate around, without the benefit of complete logical arguments behind them' (1996ak). *DaveNet*, in brief, was committed to identity production as its communicative purpose. Again, the man was the message.

DaveNet's commitment to identity production in fact derived from the WELL too. Its 'un-

17 For a survey of this work, see Bernie Hogan (2010, p. 379).

18 One early Goffmanite study found that 'personal homepages are new kinds of personal presentation in a new medium' (H. Miller, 1995). Moreover, personal homepages were 'not being used to 'publish information'; they are being used to construct identity – useful information is just a side effect' (Erickson, 1996). Personal homepages were 'narratives of self-evaluation' (Roberts, 1998), and home page maintainers were engaged 'in *bricolage*, adopting and adapting borrowed material from the public domain of the Web in the process of fashioning personal and public identities' (Chandler, 1998). For a survey of this literature, see Nicola Döring (2002).

19 Alternatively, *DaveNet* was said to belong to the then-flourishing *zine* genre, an idiosyncratic and eclectic form of personal web publishing. The discourse on zines was dominated by the idea of identity production as well, as zines favoured a 'person's continuing compendium of humor, insight, literature or wicked prose' (Michalski, 1995, p. 2) and conveyed 'the most important aspect, the preeminence of a person's voice or approach' (Michalski, 1995, p. 3).

20 The view of *DaveNet* as an 'internet newsletter' (Einstein, 1995) remained pervasive despite Winer's disavowal, although commentators who called *DaveNet* a newsletter would often qualify the term to draw attention to its identity production aspects: *DaveNet* was 'a delightful newsletter, chock full of insight and personality' (Sumser, 1996) or 'a stream-of-consciousness newsletter distributed by e-mail' (Markoff, 2001).

guarded, rambling manner was less like a trade-magazine column than a late-night discussion among friends' (S. Rosenberg, 2009b, p. 48) because its communicative mode was prefigured and legitimised by the WELL, in addition to being modelled on it. Winer joined the community in August 1994 (Winer, cited in: Baio, 2008), and met the 'core of the West Coast Web' (Winer, 2003c) there, whose assembly on the WELL, Winer speculated in hindsight, was 'necessary for the Web to get going' (2003c). Winer also admired Mandel's writing and extended a heartfelt farewell to him, expressing his appreciation in a final salute: 'You did something great by sharing your life with all of us' (Winer, 1995ai).

Moreover, Winer explicitly defended *DaveNet* by appealing to the precedent the WELL had set. A few months after *DaveNet*'s launch, Winer received a message from a reader expressing concern over his essays' failure to conform to the accepted standards of a newsletter: 'I really don't care about your new house, the fog, football, or whether you and the folks at HotWired are going to be chummy. Too much ego, too little substance. But when you have something to say, I'd love to hear' (Anonymous, cited in: Winer, 1995o). The request plunged Winer into a crisis which forced him to define and defend the communicative purpose of *DaveNet*, so he devoted a *DaveNet* piece to the question of why he would 'like to share *more* about my life, not less' (1995o). Stating that he was 'proud to be part of the virtual community' (1995o), Winer proclaimed *DaveNet* and the WELL to be separate manifestations of the same commitment to identity production: he observed that WELL users 'talk about real stuff, on-the-record, for-attribution' (1995o) as they 'put their names on their feelings' (1995o). Likewise, Winer declared that the discussions engendered by *DaveNet* were about 'real stuff' (1995o). Winer thus countered the criticism of being too self-centred with an appeal to the communicative purpose that governed the WELL. Identity production was not a side order, it was the main dish: 'if I accept limits on what I write about in order to please my readers, *DaveNet* would lose all its value for me' (1995o). Winer wanted to give 'more space to write about life, people, and yes, about technology too' (Winer, 1995o) because he was fashioning *DaveNet* after a pre-existing norm that he wished to observe: Just as Mandel's writing was celebrated for elevating the 'content of one's character' (Vanderleun, 2005) to become the object of the communicative transaction, Winer promised *DaveNet* to convey 'pure unadulterated human being' (1996l). Winer called this norm 'the Internet style' (1995o).

Winer considered WELL-style identity production to be both exemplary and *normative* for the emerging practice of writing on the web: a model for him to reinterpret on the web and for others to adopt following his example. He intended *DaveNet* to help 'open space for others to write in the Internet style' (Winer, 1995o), as 'any trail I blaze is open for other writers to explore' (1995o). Consequently, Winer opposed the view, popular among many entrepreneurs, of the web as 'a publishing system in the sense that magazines, newspapers and books are publishing systems' (Winer, 1995x). Winer's alternative ideal derived from the WELL culture of 'people wanting to connect, in a real and genuine way, to other people free of the filters of older media' (Vanderleun, 2005) – or, as Winer expressed the idea: 'lots of writing and lots of new writers. No publishers' (1995x). This ideal rested on the WELL's participatory communication model, where the 'quality of discourse

was very high' (Winer, 1999aa) even in the absence of publishers and editorial process. When Winer stated his wish that 'lots more people would write about their lives' (1995o), he generalised from the WELL experience: If everybody engaged in the practice, Winer reasoned, we 'could all learn from each other. Friendship would mean a lot more. We could grow more quickly, accomplish more in our lives, live more richly, have more fun' (1995o).

Winer meant to commercialise this mode of communication on the web. His ambition to 'open space for others to write in the Internet style' (1995o) worked both ways: on the one hand he wanted to build a technology that was 'much better at connecting people to people' (Winer, 1994m) and thereby redeem the WELL's stated intention of giving 'online discourse the lowest possible threshold to entry' (Hafner, 1997). On the other hand, he assumed his example to consist in the reinterpretation of 'the Internet style' (Winer, 1995o) as taken from bulletin-board conferencing and transplanted to the web.

4.4 Work narrative as identity production

Even as Winer asserted his right 'to write about life' (1995o) in *DaveNet* rather than conform to established definitions of newsworthiness, and even as he aimed to 'share myself thru writing' (1996aw) despite the criticism of being too personal, he kept strict limits on the private information he chose to divulge. He rejected any 'obligation to tell you everything about myself' (1996aw) and claimed that 'most of who I am is not public' (1996aw).

With some understatement, however, Winer refused to 'draw a line that excludes my life as a software developer' (1996aw). Empowered by an internet that made it 'possible to express real stuff' (Winer, 1995az), the one thing that Winer considered most real and wanted to share the most was his work. As a consequence, the identity production in *DaveNet* centred on a work narrative whose aspects ranged from the reporting of diurnal minutiae to, especially, portrayals of his work as conspicuous demonstration of empowerment. As Winer maintained that the 'ability to share a point of view openly without help from a PR firm is the right and responsibility of every CEO' (2000am), the objective of his narrative lay in the construction and maintenance of the subject position of an empowered, powerful technology leader as facilitator of empowerment.

4.4.1 A second act

Winer's 'life' was inseparable from the company he led. He never paused to formalise UserLand's governance to any significant degree (Winer, 2007d), and, keeping the firm 'closely held' (Zachary, 1992), he acted as majority shareholder and 'one of only two board members' (Winer, 2007g) in addition to being chief executive, lead programmer and financial backer through most of its history.²¹

21 After selling Living Videotext to Symantec in 1987, Winer kept working at Symantec but resigned 'after six months of feeling ineffective' (Winer, 1988). He continued to 'hold stock in the company' (Winer, 1988) until after Symantec's IPO, but had sold it at a large profit by 1994, when UserLand was the 'only software company or online company that I own stock in' (1994k).

Winer was in a position to finance his second company, UserLand, and 'fund development continuously' (Winer, 2000az). UserLand was 'privately held, funded entirely by Winer' (Userland, 1991). He 'invested several million dollars' (Winer, 1998q) in his company and worked 'without getting a salary from UserLand' (Winer, 2007j). User-

As a consequence, Winer's discourse about his company and about his work were identical: when he used the pronoun *we* rather than *I*, he did so either to mark a higher degree of formality or to underline the shared effort he was engaged in with his developers. In substance, there was no difference: to all intents and purposes, UserLand was Winer.

UserLand was also inseparable from Winer's personal ambition. As president of his first company, Living Videotext, Winer had received the MacUser Editor's Award for best product for his outline editor More in 1986 ("Eddy Awards 1986," 1996). Having hit this 'bona fide home run' (Winer, 1988), Winer reflected that he had achieved a major success only 'once in my career' (1995af). More's success allowed him to get 'recognized for something you want recognition for' (Winer, 1995q) and to savour the 'nicest feeling in technology' (Winer, 1995af), which he identified as 'watching your product become a standard' (1995af). More had thus provided him with his one 'moment of glory, when everything coalesced, when everyone looked to us for where we were going' (2000am). Winer's consuming ambition for UserLand was to develop a product that would recapture 'the glory of my past life as a software entrepreneur' (1999j). His continued exertions as a developer, therefore, were an attempt to deliver another 'product that galvanizes the world' (Winer, 1999j), that would prove 'as timely as MORE, and as uncontested in the marketplace' (Winer, 1988). Winer, in a word, was eager to 'do it again' (Winer, 1995af).

Driven to deliver another resounding success in the software business, Winer chronicled his attempts to navigate the uncharted territories of the internet in an attempt to 'fit in' (Winer, 1996aq) and 'find a new happy place in the world' (Winer, 1998x). *DaveNet* reflected a quest to discover 'where us little guys fit in' (1998ae), an ongoing search for opportunities that would allow Winer to re-define where he would 'fit in in the feeding chain' (Winer, 1997at) and create for himself 'a new mission, a new place in the world' (Winer, 1997bq).

4.4.2 Work narrative as identity production

The vehicle which carried Winer's identity production in *DaveNet* was the work narrative as pre-figured and practised on the WELL. The WELL's administrators were expected to report to the community as part of their job description – and to excel at it: 'a system administrator who is not also adept at telling the saga of his or her work may be less respected and known than one who can both troubleshoot and tell about it in an entertaining way' (G. A. Williams, 1994, p. 249). The description of *DaveNet* as 'amusing rants from Dave Winer's desktop' (Winer, 1995e) matched this quality.

land's team consisted of 'only 4 employees' (Winer, 1998t). As UserLand had no discernible revenue in the five years from 1993 to 1998, Winer was forced to 'pay the bills' (Winer, 1997i) and 'write checks for \$50,000 every month' (Winer, 2001n). At the end of June 1998, he could 'stop writing checks to support UserLand' (Winer, 1998x) as the company became 'profitable both in June and July' (Winer, 1998ac) thanks to the for-pay Frontier 5.1 (Winer, 1998x) release of June 1998.

Winer stepped down as chief executive after major heart surgery in 2002, leading to the virtual collapse of the company (Winer, 2007d) soon after. From 2000 onwards, Manila and its successor, the blogging client Radio Userland generated some revenue, but Winer's dream of delivering another software product that would match or exceed MORE's commercial success remained unfulfilled: all in all UserLand Software 'went through two boom cycles and never participated in the bonanza' (Winer, 2007d).

Winer self-consciously asserted the subjective perspective of his work narrative. His ‘personal story of the development of the Internet’ (Winer, 1999u) was a celebration of the joy he experienced in his work. His formula for the narrative, to ‘learn about the process, and share what we’ve learned’ (Winer, 1996g) explicitly disclaimed any objectivity: ‘I aim to learn and teach, to amuse and evoke, and most important to share myself thru writing’ (Winer, 1996aw). Winer’s promise to ‘weave, turn corners, learn, process new information’ (1996bc) and to ‘share what I discover’ (1997bw) was a manifestation of writing ‘in the Internet style’ (1995o) especially in its non-compliance with the conventions of the trade press: Winer ridiculed the fact that the press ‘just *has* to have a pompous strategic statement, puffy meaningless quotes from analysts, in order to take something seriously’ (Winer, 1995ba). In *DaveNet* he countered the pretence of authoritativeness with the strategy of telling ‘what my software does, why it’s important, and leave out the fluff’ (Winer, 1995ba), thereby offering an unapologetically subjective account of his work process. Winer wanted a ‘chance to present a software product exactly as I see it, without having to teach anyone how to use it’ (Winer, 1996ak), which called for the practice of ‘telling you how I conceived the software, not how I want you to perceive it’ (1996ak). In discussing his work, Winer was bidding for ‘a chance to explain why I find it beautiful’ (1996ak). The expressive nature of this work narrative defined *DaveNet* as a form of identity production whose claim to relevance lay in the promise of its authenticity.

4.4.3 Identity production as open development

Winer presented *DaveNet*’s work narrative as an exemplary use of the empowerment afforded by his medium: ‘What if everyone wrote about their issues. We could all learn from each other. Friendship would mean a lot more. We could grow more quickly, accomplish more in our lives, live more richly, have more fun’ (Winer, 1995o). True to this ideal, Winer wished for ‘an audience that could watch while I work’ (1998p). As he wanted his work process to ‘be open, so people could see how the pieces fit together’ (Winer, 1998p), *DaveNet* was a learning journal, and as Winer aimed ‘to share what I’ve learned’ (1995o), he was hoping to turn software development into an educational experience in which ‘people don’t have to relearn the lessons if people are open about the lessons they’ve learned’ (Winer, 1999q). For this reason, Winer recommended that people should ‘tell the story publicly and say what you learned’ (2000u) as the practice would ‘make us all more effective at gathering the support we want’ (2000u).

Especially, Winer wanted to ‘bounce ideas off’ (Winer, 1995au) his competitors and, writing ‘both as a developer and a platform vendor’ (Winer, 1996bc), suggested to his peers that they ‘let other people know what you’re doing and why’ (Winer, 1997ai), and thereby ‘be adults, and communicate our directions to each other’ (Winer, 1997ai). Winer hoped that ‘every person leading a development team would do the same – narrate their work as they go along’ (Winer, 1999q). He advised to ‘do the development openly’ (Winer, 1997i) to strengthen independent developers by making their voices heard. *DaveNet*’s communicative purpose of identity production, of facilitating ‘the flow of information from the mind of a developer to people who are interested in knowing how that

mind works' (Winer, 1999q), was an attempt to exercise power through marking presence: The work narrative as identity production created a 'place to be powerful and feel the power of others' (Winer, 1999k).

4.5 The Grand Narrative

The commodification of computing as a consumer-oriented technology in the nineteen-eighties, commonly referred to as the personal computer revolution, promised to empower the user. The revolution, according to its grand narrative, was destined 'to enable the power of the individual, and to undermine the power of the old to control the new' (Winer, 2000ak). *DaveNet's* work narrative tapped into this grand narrative of the personal computing industry and helped Winer define the cornerstone of his identity production, an aspirational subject position as leader of this revolution.

4.5.1 A cyclical revolution

The Agenda '95 conference of September 1994 in Phoenix, Arizona, was attended by some four-hundred computer industry executives. While exchanging 'gossip about the software biz' (Winer, 1994f), they also discussed the question of whether 'the business models that built the computer business won't work in the digital consumer future' (O'Connor, 1994), and whether the internet might reduce their industry to 'mere parts suppliers who control nothing' (O'Connor, 1994).

In its October issue, *Wired* magazine ran a story on the question. True to *Wired's* reputation as the 'magazine that, more than any other, depicted the emerging digital world in revolutionary terms' (Turner, 2006, p. 3), it presented the rise of the web as the 'second phase of the revolution' (Wolf, 1994)²² and framed the story as a face-off between two industrialists on the opposing sides of the events it was reporting on: Microsoft's chief executive Bill Gates as the perceived leader of the industry versus Marc Andreessen, the creator of the Mosaic browser, soon to incorporate under the name Netscape, who embodied the surging 'momentum of the Web' (Wolf, 1994). As the web browser was sure to become 'the world's standard interface to electronic information' (Wolf, 1994) and take its destined place as 'the DOS/Windows of cyberspace' (Wolf, 1994), Andreessen seemed poised 'to transform a large sector of the computer industry a second time' (Wolf, 1994).

Winer dealt with the question in a *DaveNet* essay entitled 'Bill Gates vs The Internet' (1994c). The piece was a 'public epiphany' (Winer, 2001k) of which Winer was 'really proud' (Winer, 1995bc) and which was 'seminal' (1995av) in that it put him 'on the map' (Winer, 1995at) as a commentator, not least because Gates chose to respond personally, denouncing its 'demagoguery' (Gates, 1994). In this essay, Winer followed *Wired* in casting Gates' company as the old regime that was to be swept from power: according to Winer, Microsoft, unable to compete with the rising web, had been 'caught flat-footed' (1994c). In contrast to *Wired's* telling of the tale, Winer chose not to personify the challenger that Microsoft was up against. He envisaged the rise of the web as a typical

²² The idea of a 'second phase' was promoted by *Wired's* chief editor Louis Rossetto, who was noted for his belief that 'the digital Revolution is whipping through our lives like a Bengali typhoon' (1993) and who claimed in September 1994 that the arrival of the first graphical browser, Mosaic, 'signaled the start of the second phase of the online revolution' (1994a).

instance of user intransigence which would ‘undermine the standards of the old industry’ (Winer, 1998u) and ‘rewrite the rules’ (Winer, 1998u) every once in a while. The users had ‘stopped waiting for Bill and the rest of us’ (1994c) and created the web’s technological standards, a process in which ‘none of the platform vendors had any say’ (Winer, 1994c). Such ‘rebellious spirit’ (Winer, 1994c) manifested itself in cyclical resurgence: ‘The users outfoxed us again. It happens every fifteen years or so in this business, We lost our grounding, the users rebelled, and a new incarnation of the software business has been created’ (Winer, 1994c). In Winer’s telling, the industry’s incumbents were now ‘struggling (even flailing) to not be random idiots’ (1994c). This reversal was not brought about by Andreessen’s browser; it was owed to users empowering themselves as they would ‘allow a new industry to form, let the old one wither and fade, even die, and then repeat the process all over again’ (Winer, 1994c). Such cyclical waves of user empowerment would keep on rolling, Winer predicted, and he was looking forward to ‘a process of revolution and refinement, over and over, possibly for the rest of our lives’ (1996as). Being cyclical and self-perpetuating, the internet revolution, as Winer saw it, was irreversible as well: ‘Once the users take control, they never give it back’ (1994c).

4.5.2 A retelling

The personal computing revolution was envisaged and fostered by a generation of technologists whose dominant rhetorical trope was ‘the empowerment of the individual human being’ (Freiberger & Swaine, 2000, p. 446) and who pursued ‘a vision of *personal* computing in which computers would be used to enhance the most creative aspects of human intelligence – for everybody, not just the technocognoscenti’ (Rheingold, 1985, p. 15). Winer was especially indebted to Ted Nelson’s articulation of these ideas in the book *Computer Lib* (1974), which had exerted a ‘strong influence’ (Winer, 1995ao) on him during his formative years and made him subscribe to Nelson’s view that ‘computer power didn’t have to reside exclusively in the corporate world, that they could be used to foster free expression and empower people where earlier forms of communication, TV, radio, and print, were largely one-way, hierarchic, and disempowering’ (Winer, 1999t).

The company that had cultivated the grand narrative of the empowered user in the most visible fashion, and that was most enthusiastically celebrated for its pioneering role in the rise of personal computing, was Apple. Its founders had ‘brought about this revolution’ (Freiberger & Swaine, 2000, p. xxv) by ‘taking the power away from big business and big government and putting it in the hands of people’ (Steve Hayden, cited in: Bradley Johnson, 1994). The company’s signature cultural achievement, the ‘packaging of the awesome power of computer technology into a little box that anyone could own’ (Freiberger & Swaine, 2000, p. 488), amounted to a ‘populist revolt against the tyranny of big business’ (Freiberger & Swaine, 2000, p. 152) and expressed a ‘defiant rejection of sterile corporate life and the celebration of individuality’ (O’Guinn, Allen, & Semenik, 2008, p. 338). Positioning itself as a ‘liberating anticorporate corporation’ (O’Guinn et al., 2008, p. 338), Apple became ‘the hip, the young, the cool, the democratic, and antiestablishment’ (O’Guinn et al., 2008, p. 338). Winer shared this belief in Apple as the ‘symbol of the revolution’ (Winer, 2000ap).

In fact, both *Wired*'s 'second phase of the revolution' (Wolf, 1994) as led by Andreessen and Winer's cyclical revolution as fomented by users were retellings of the same grand narrative of user empowerment.

4.5.3 A second act

Winer's narrative of the web as a user-driven revolution that was 'happening again' (Winer, 1994c) was inseparably entwined with, if not identical to, his entrepreneurial ambition to 'do it again' (Winer, 1995af), to create another wildly successful software product that would 'become a standard' (Winer, 1995af). Winer suggested that people gave 'too much power to the icons of our industry' (1996av), as leading companies such as Oracle and Sun Microsystems were 'arrogant and clueless' (1996av). By contrast, Winer aspired to deliver 'personal tools, scaled to all levels of sophistication' (Winer, 1996ac) that were 'not a corporate sell' (Winer, 1996ac), that were 'fun and empowering' (Winer, 1996av), and that would overcome the 'mess' (1996av), the 'inbred thinking, a stifling of ideas, stagnation' (Winer, 1994c) that were characteristic of the industry incumbents. The consummation of his goal, the empowerment of users, was to leave the magnates of the industry 'powerless to control the world we will live in' (Winer, 1996av). Once Winer would manage to 'hit another Mac home run' (Winer, 1996an), this success would reveal itself as an iteration, a cyclical recurrence, of the personal computer revolution.

The problem that stood between Winer and his ambition, ironically, was Apple. Winer had been a loyal Apple developer since the company's beginnings: 'there hasn't been a day since 1979 that I wasn't invested, at times with all my assets, in software built around Apple's products' (1997bq). He was also a great believer in Apple's marketing and took its slogans personally: 'Think Different does actually say who I am' (1997bv). But Apple was not 'the rebel machine anymore' (Mark Stahlman, cited in: Winer, 1995z), and in Winer's view Apple had proven to be 'more or less clueless' (1995bc) about the web. In Winer's experience as a developer for the Macintosh platform, Apple, the great champion of user empowerment, had become disempowering.

4.6 Telling the second act

Shortly after 'Bill Gates vs the Internet' (1994c), Winer posted the 'other hell-raiser' (Winer, 1997bw) among his early *DaveNet* essays. This other essay, 'Platform is Chinese Household' (1994h), was an 'angry love letter to Apple' (Winer, 1994h), an unflattering portrait of the company as a platform vendor that had lost its touch, that deprived its independent developers of business opportunities, and that had ceased to command either affection or loyalty among them as a consequence.

Combined, the two essays managed to 'define what DaveNet is about' (Winer, 1997bw) and to set up the framework within which Winer would weave his work narrative. The most defining turn in these two founding pieces of Winer's career as a writer lies the shift in the second essay from Microsoft to Apple as the target of Winer's polemic, a shift which coincides with the fundamental adjustment in his identity production that would define Winer's online persona. While 'Bill Gates vs

the Internet’ defines its author as a member of the ‘old software industry’ (1994c), the ‘Chinese Household’ essay marks Winer’s public adoption of a dual and complementary subject position as both empowered user of the internet and as technology leader – as, implicitly, not a victim but the leader of the revolution he had invoked in the earlier essay.

For the next few years Winer presented himself in these two capacities as both frustrated developer and as putative saviour of the moribund Apple corporation, which was widely held to be in terminal decline at the time.²³ As frustrated developer, Winer was openly and clamorously resentful of Apple for having blocked Frontier’s ascent to become the Macintosh platform’s leading scripting environment. As putative saviour of Apple’s viability as a going concern, Winer kept second-guessing the company’s strategic direction,²⁴ insisting that a return to its former glory could be brought about only if Apple chose to abandon its misguided development agenda and focused all its attention ‘on the growth that’s possible thru the net’ (1996aj).

4.6.1 Technology Leader

In *DaveNet*, Winer articulated his ongoing attempt to stake out for himself ‘a new mission, a new place in the world’ (Winer, 1997bq) through the grand narrative of user empowerment. Seeking to ‘find a way to fit in, with power and respect’ (Winer, 1997be), he aimed to redefine himself as a ground-breaking industrialist of the web, a ‘benevolent leader’ (Winer, 1999j) who would ‘rewrite the rules of the industry’ (Winer, 1999j) and, above all, ‘lead a revolution’ (Winer, 1999w).

Winer refused to take the view propagated in *Wired* that Netscape was to ‘become the world’s standard interface to electronic information’ (Wolf, 1994) and dismissed the claim: ‘something richer and deeper is needed to make it really fly, and it’s got to be *much* easier for businesses to get on the air, and it has to be much better at connecting people to people’ (1994m). Winer refused to hail Netscape as the leader of the revolution because its browser was failing at the crucial task of turning the web into a writing space that delivered on the WELL’s egalitarian promise of universal accessibility.

At the same time, Winer did not believe UserLand was big or strong enough to deliver the feat on its own, so he was looking to Apple as a partner. He appointed himself as a ‘critic and public advisor to Apple’ (Winer, 1998s) and insisted that the embrace of web content development was the best hope of turning around Apple’s ailing fortunes and avert the company’s widely predicted demise. Having repositioned his UserLand company to ‘make the Macintosh a much more productive environment for Internet content developers’ (Winer, 1994k), he hoped to ‘make some magic hap-

23 For a review of the predictions of Apple’s imminent demise in the 1995 to 1997 period, see Pogue (2006).

24 Winer was especially critical of OpenDoc and Cyberdog. OpenDoc (Piersol, 1994), adopted by Apple in July 1993 (Soat, 1993), was a technology which ‘focused on visual integration by embedding components’ (Cook, 2006, p. 8). As such, it fundamentally differed from Apple’s earlier strategy of data and behavioural integration between applications through scripting. OpenDoc and its internet component named Cyberdog (Kissell & McKee, 1997), were repellent to Winer as they represented Apple’s attempt to ‘blow past the leading edge’ (Winer, 1995ag). Winer rejected this as a typical error of strategy in which Apple would ‘invent stuff, then fail to commercialize it’ (1995ag). He deplored Apple’s ‘Cyberdog-at-the-center vision of the Mac web client world’ (1996ap) and insisted that the company’s pursuit of this technology weakened the company’s competitiveness. He was disappointed by Apple’s continued support for the technology in its ‘Internet Strategy’ (Jones, 1996a) through which, he contended, it ‘lost the leading position in its own market’ (1997bo) because ‘Web content development wasn’t part of the story’ (1997bw).

pen for web content developers, who still prefer Macs, and for clients who surf from the Mac desktop' (Winer, 1995al). Winer used *DaveNet* to articulate his views on the 'empowerment of Mac users and developers' (Winer, 1997bq) and noted that 'the Mac doesn't seem defeated' (Winer, 1994k) if it was properly viewed as the 'leading content development platform' (Winer, 1995i). He observed that a 'vast majority of the content that appears on the web is authored using Macintoshes' (1995e) and that, as the creative industries were a market segment that had traditionally been dominated by Apple computers, the Macintosh had been the 'platform of choice for content developers' (1995bc). Winer believed that Apple did not have to 'cede this market to Microsoft' (Winer, 1995e) and would be able to re-establish its leadership on the internet: The Mac was 'participating in the booming worldwide web software business' (Winer, 1995ag) even if Apple was not 'taking advantage of the unique power of the Macintosh' (Winer, 1995ag).²⁵

Winer was trying to redefine Apple as a benevolent and generous company that could countenance 'relinquishing control of the Mac OS' (Winer, 1994b), that would invest in independent developers rather than do its own research and development, and that thereby would become 'a new platform vendor acting as an open distributor, instead of as an exclusive innovator' (Winer, 1996au). Apple, as re-imagined by Winer, would be a 'technology company founded on the principles of openness, one that built on the competitive efforts of hundreds of independent entrepreneurs' (1996au). By allowing its developers to 'drive the development of the platform' (Winer, 1995av), Apple would be 'participating in evolution instead of trying to stall it' (Winer, 1996au).

To encapsulate this belief, Winer modified a line by John F. Kennedy: 'Ask not what the Internet can do for you, ask what you can do for the Internet' (1995av). He intended the modified line as a slogan for 'Apple's new philosophy' (1995av) or, respectively, Netscape's 'only winning strategy' (Winer, 1995ax). Either company, he suggested, could only defeat Microsoft in the battle over the web if they became an enabler of empowerment and put their full support behind independent de-

25 Winer propagated a 'newly directed Macintosh' (1995av) which was focused on the internet and would derive its strength from its association with UserLand. Priding himself on 'doing exactly the kind of development [Apple] should want' (1995ah), he was looking to 'do a deal' (Winer, 1995e) that would allow him to 'really develop the potential of the Macintosh platform' (Winer, 1995ac).

In his view, the Macintosh needed to be 'pre-configured for net authoring and browsing' (1995e), which would make it the 'ideal Internet client machine' (1995av). Winer expected that the free-of-charge release of Frontier 4.0 (Winer, 1995aj) would hasten the arrival of a 'turnkey Internet client' (Winer, 1995ak), and he intended the to define a future 'Internet client machine market' (Winer, 1995as) in which large numbers of new machines would be sold, especially to home users.

Winer continued to insist that Apple's research and development had 'totally missed the worldwide web' (1996ao) and that, as consequence, Apple had 'none of the source code needed to make the Macintosh a competitive Internet platform' (1996ae). He contended that Apple should collaborate with him on a market-leading internet strategy because Frontier could 'tie together the leading Macintosh Internet applications into a customizable suite of client, content development and server solutions' (1996af) which would be 'much more powerful than anything running on other platforms' (1996f) and 'make the Macintosh the most powerful web content development platform' (1996ai).

Winer kept canvassing for a new Apple strategy in which independent developers would create Apple's software (1996e), and eventually he published a manifesto named 'The Macintosh Internet Strategy' (1996aq) in which he presented, speaking on behalf of a group of independent developers, a 'plan for the evolution of all aspects of the Macintosh Internet world' (1996aq). This plan foresaw that independent developers would build their own Macintosh internet client without waiting for Apple's approval. It proposed that independent Macintosh developers define 'cross-platform web standards' (1996aq) in an effort to 'make the Mac the most powerful environment for all aspects of website management, from the written word to delivered page' (1996aq).

velopers like him rather than relying on their own internal research and development. Apple's strategy to 'look inward for the answers' (Winer, 1995y) was not only 'to the disadvantage of their users and developers' (Winer, 1995y), it also undercut the company's best hope for survival and its chance to be the revolutionary leader again, to create an outcome in which the 'phoenix bird rises from the ashes' (Winer, 1995av).

In the grand narrative of user empowerment, Winer would restore Apple to its fabled status of empowering the powerless against the powerful: with Apple redefined as the owner of a 'platform that's loyal and fair to its users and developers' (Winer, 1996au), Apple could lead the current iteration of the cyclical user revolution just as it led the previous one. Winer's second act would be Apple's second act as well: 'Upgrading the web' (Winer, 1997bq) with their forces combined, they would spark a 'paradigm shift just like the switch to personal computers' (Winer, 1995as).

4.6.2 Cross-platform scripting and web writing for the rest of us

Winer's plans for Apple did not turn out as intended. In the summer of 1996 he turned his campaign to make Apple abandon its non-hardware research and development and let independent software creators take over (Winer, 1996e) into a manifesto for 'the evolution of all aspects of the Macintosh Internet world' (Winer, 1996aq). He presented this 'plan for the revival of Apple' (Winer, 1998s) on behalf of a consortium of independent developers who were intent on establishing a 'powerful, independent developer community on the Mac centered around Internet standards and applications' (Shotton, 1996) and who would focus on the development of Macintosh web development and content creation tools with or without Apple's support. Winer chose not to bet his company on the success of this initiative, however, and in August 1996 he announced that there would be a Windows port for Frontier 5.0 (1996at). Having concluded that 'a Mac-only strategy couldn't be commercial' (1997bw), he marked his commitment to both the Apple and the Windows platform in January 1997 when he stuck the phrase 'news and commentary from cross-platform scripting community' (Winer, 1997p) to the top of his newly created *Scripting News* feature, and thus redefined himself as the leader of his 'cross-platform scripting community' (1997aq, 1997bi). There was a brief interlude in early 1997 when Apple and Winer worked out a 'common strategy' (Winer, 1997v) as a consequence of which Winer believed to be 'solidly in the web publishing market' (Winer, 1997v), but the initiative failed to lead to a lasting collaboration (see 10.6). It was in July 1997 that Winer decided he would no longer 'revolve around the Mac' (Winer, 1997bq) and noted that Apple's 'revolution is over' (1997bq). At the same time, he defiantly asserted that he did not need Apple to succeed: 'our power comes from ourselves and each other' (1997bq). Winer was determined to lead the web revolution on his own without a larger company to assist him.

If Winer's second act was henceforth to be decoupled from Apple's second act, he still chose to define it in the language of Apple's first act. Frontier's Manila release (Userland, 1999) of November 1999 was the culmination of a development cycle started in 1996 (see 10.3, 10.10). In his work narrative, Winer started to lead up to the release in May 1999 when he first announced Manila's principle of browser-based web authoring (Winer, 1999k). During the following six months that led

up to the software release in November, Winer began to tout the release as a cultural moment whose significance matched the launch of Apple's Macintosh computer in 1984, a product which had cemented Apple's status as the 'symbol of the revolution' (Winer, 2000ap). Winer reminisced that he had been 'writing tools for end-users' (1999z) in the 1980s, and stated his wish to 'do it again, start over, this time for the net' (1999z) because the web's hard-to-use native interfaces put its users back in the situation 'where we were before the Mac' (Winer, 1999k). Winer repeatedly played on the slogan with which Apple had advertised the Macintosh as 'the computer for the rest of us' (Schrage, 1984), a phrase that Apple intended to highlight both the power of its product and the ease with which it allowed new users to become proficient. Winer appropriated the slogan to claim an equally transformative status for Manila, and to imply that the revolutionary promise of the web was finally going to be fulfilled in a piece of software that allowed users to write on the web without any familiarity with the web's technologies. Remaking the Macintosh slogan, Winer promised that the Manila release would 'deliver the good stuff to the Rest of Us' (1999k): web writing would take 'the turn for The Rest of Us' (1999k), and Manila would deliver 'Content Management for the Rest of Us' (1999n, 1999o). Manila would define user empowerment for the web, and in so doing it would make good on the promise of Winer's grand narrative.

4.6.3 Globalisation and identity production

Having fulfilled his long-term development goals in the Manila release of *Frontier* and having witnessed enthusiastic adoption of its implementation in *Edit This Page* (see 10.10), Winer introduced a new motto to *Scripting.com*: he discarded the line 'News and commentary from the cross-platform scripting community' (1997p) that had been sitting atop his front page since the launch of *Scripting News* in February 1997 and revived his modified John F. Kennedy quotation, putting it in his site's header banner: 'Ask not what the Internet can do for you. Ask what you can do for the Internet' (2000f).

Winer intended the presidential quote to put his leadership in a nutshell. He adopted the modified Kennedy quote in January 2000 while making preparations to attend the World Economic Summit at Davos, where he was invited to join the political and business leaders as one of '500 academic and media leaders' (Knobel, 2000). The event, which was held 'for 'global community builders', who can act as catalysts and facilitators in creating 'new powerful global communities'' (Thrift, 1999, p. 284), provided a stage for Winer to redefine his leadership and to elevate this self-portrayal in a way that matched the revolutionary importance he assigned to Manila (see 10.10). The *ask not* line was a piece of identity production specifically tailored to project Winer's identity as a global leader amongst global leaders.

Accordingly, the *ask not* line marked Winer's boldest-yet aspirational self-positioning as industry leader: it proclaimed a fulfilment of the leadership aspiration that had been at the heart of Winer's work narrative ever since he first proclaimed himself the champion of the web revolution (1994h, 1995av). Winer described Kennedy as a 'young president with a big reach' (2000l), whose greatness as a leader lay in that he 'took us to the moon' (2000l). Kennedy was admirable 'for his call to US

citizens' (Winer, 2000p) to 'think big' (Winer, 2000l) and, especially, to 'think about big ideas' (Winer, 2001m). The big thinking that Kennedy inspired in Winer accounts for the adoption of the line as his company's motto marked Winer's symbolic self-apotheosis as leader of the internet revolution, as the premier enabler of user empowerment.

As if to highlight Winer's transformation from aspirational proponent of the internet's iterative revolutionary power in 1994 to his self-assigned leadership as its quasi-presidential enabler in 2000, Davos saw a brief rematch between Winer and Bill Gates. Winer attended the media leaders lunch with Microsoft's former chief executive, who had just stepped down from his CEO position and assumed his new job title of chief software architect. During the questions and answers that followed a brief speech by Gates, Winer had an exchange with the Microsoft executive:

I referred to the previous day's challenge from Clinton to business leaders. Bill, can we find a shared vision? His eyes lit up. A well-rehearsed story. Our consistent vision for 25 years has been to bring the power of the personal computer to millions of people. 'That's the past,' I said, 'What about the future?' With fist-pounding enthusiasm, he said that was their vision for the future too. I wasn't satisfied. 'What about a shared vision Bill?' I kept hoping that he would say The Web, The Web that's the vision we share! In my wildest dreams he would say Ask not what the Internet can do for you. But he didn't. (Winer, 2000i)

The exchange reiterated the main theme of user empowerment in 'Gates vs the Internet' (1994c). At the time, Gates' response (1994) validated and accredited Winer as a commentator whose opinion mattered. In Davos, Winer was angling for a similar validation.

In the end, he had to make up the validation himself in the regular course of his identity production in *DaveNet*. While presenting the *ask not* line at the World Economic Summit to as an encapsulation of his advice to his 'fellow media leaders to embrace the web fully' (2000i), Winer needed to come to terms with the event's signature theme of *globalisation*. He determined without further ado that globalisation was 'just another word for the Web' (2000h), which allowed him to conclude that globalisation had to be just another manifestation of the cyclical user revolution of the internet. As such, it had to lead to the same results Winer he been predicting since the first iteration of his grand narrative in 'Bill Gates vs the Internet' (1994c), namely a reversal of the established economic order: 'the economy we participate in penalizes companies that live by the old rules, and only rewards the inventive ones that take advantage of the electronic one-ness of the world' (Winer, 2000h). Winer declared that the destined outcome of globalisation was identical to the destined outcome of the personal computer revolution: 'to enable the power of the individual, and to undermine the power of the old to control the new' (2000ak). Globalisation as another iteration of the personal computing revolution underpinned Winer's subject position as the enabler of a 'voice for anyone with something to say' (Winer, 2000i), a commitment to 'enable all the voices in the world, to empower people *and* help them create new businesses' (Winer, 2000i).

4.7 Discussion

The identity production in *DaveNet*'s work narrative squarely rests on Winer's version of the grand

narrative of empowerment, according to which users take charge in cyclically recurrent revolutionary moments. When Winer stated in his first telling of the grand narrative that ‘once the users take control, they never give it back’ (1994c), he described the inevitability of this outcome as a consequence of the web’s open protocols. When he revisited his claim in 2000 and decreed that ‘once the power is in the hands of the users, there can be no turning back’ (2000ap), he strongly suggested that such empowerment was an affordance of his software design. With a long-term development cycle culminating in the release of his Manila content management system in November 1999 (see 10.10), Winer now believed that the empowerment of the user was no longer a hypothetical prediction but a demonstrable achievement embodied in his software. By implication, Winer’s subject position in his work narrative as the enabler of user empowerment was no longer aspirational but had become, he believed, observable fact.

This elevation of Winer’s subject position was expressed nowhere better than in the switch from his site’s motto ‘News and commentary from the cross-platform scripting community’ (1997p) to ‘Ask not what the Internet can do for you. Ask what you can do for the Internet’ (2000f). Having served for three years as the governor of a community of coders, he was now running for the presidency of the web revolution.

Both of these mottoes appeared on the *Scripting.com* front page. For that reason, they were associated with *Scripting News*, the feature on the home page, rather than *DaveNet*. To the extent that the mottoes were a crucial part of the identity production in Winer’s work narrative, they brought the communicative purpose of identity production from *DaveNet* to *Scripting News*. This calls for a closer look at the descent of *Scripting News*: Winer’s news page derived from earlier reverse-chronologically ordered update streams that were committed to communicative purposes other than identity production.

5 Scripting News: Current awareness vs. identity production

Scripting News, Dave Winer's weblog, launched on 1 February 1997. In the second half of 1999, Winer started to promote the idea that *Scripting News* was the earliest weblog (see 14.3.4) and that it derived from a predecessor he ran during his 24 Hours of Democracy project of February 1996. Neither of these two claims have ever been challenged, although both of them rely on arbitrary assumptions of definition.

Instead of relying on Winer's assertions, this chapter attempts to reconstruct a genealogy of *Scripting News* from the earliest reverse-chronologically ordered structures that Winer used on the web. *Scripting News* inherited the generic communicative purpose of these earlier structures, yet also interacted with the DaveNet's generic communicative purpose of identity production (see 4.3.2), thus gradually emerging from a set of competing purposes, as well as its complementary relation with *DaveNet*.

5.1 Changelogs and current awareness reporting

5.1.1 AutoWeb: A fork in the road

Winer's second website, *AutoWeb*, followed shortly after the launch of *DaveNet*'s web archives (Winer, 1995a) and came online at the end of January 1995. It was dedicated to a software product Winer was developing, *AutoWeb*,²⁶ which he called a 'newsroom system for the worldwide web' (Winer, 1995k), and which was patterned after Chris Gulker's 'virtual newsroom' (see 11.3.1). Winer was using *AutoWeb* to build his sites, and he was distributing the beta builds of the software to the public at no charge.

Winer's *AutoWeb* site was 'a fork in the road' (Winer, 1995k) because it differed from the *DaveNet* site. Providing beta builds of the software and documentation, it was intended for developers who used Winer's software. Being therefore 'more technical' (Winer, 1995k) than *DaveNet*, the *AutoWeb* site freed Winer from the conventions of the essay form and allowed him to explore the use and adaptation of text genres in software documentation, such as the changelog, a detailed development and maintenance record which is kept over the lifespan of a software product and usually takes the form of a reverse-chronological timeline, with the most recent changes added at the top.²⁷

²⁶ Winer feverishly worked on the *AutoWeb* application in early 1995, and posted many reminders of its imminent release (Winer, 1995c, 1995d, 1995e). He launched a website (Winer, 1995f) with a first beta release (Winer, 1995r) on Jan 27 1995: Second beta release (Winer, 1995g), the *AutoWeb* 1.0 Documentation (Winer, 1995j). He continued work throughout February, next beta release of *AutoWeb* (Winer, 1995m) and launched his first weblog-like structure towards the end of the month, intending it to 'accumulate technical information, sample scripts, fun projects, and other nerdly phenomena' (Winer, 1995t). Still in late February, a final-feature release (Winer, 1995u) Feb 26, 1995: *AutoWeb* 1.0b7 (Winer, 1995v). On 3 March 1995 Winer still had 'work to do on *AutoWeb*' (Winer, 1995w). There was never a 1.0 release, but 1n May 1995, the free 'Aretha' release of *Frontier* (Winer, 1995aj) included *AutoWeb* (Duncan, 1995).

²⁷ A changelog 'includes every change without exception, detailed information about the reason for making each change, the location at which the change was made, the name of the person who made the change, contact informa-

In *AutoWeb*'s changelog, Winer posted 'change notes as the features go in' (Winer, 1995m), thus giving users of the software an opportunity to 'follow the progress' (Winer, 1995m) of its development. The reverse-chronological list of the site's 'Version Notes' (Winer, 1995s) linked to a list of *AutoWeb* beta releases spanning the period from January to February 1995, with each list item pointing to a page of changelog items for the respective release.

Winer's *AutoWeb* site used reverse-chronological timelines for other features as well. The 'AutoWeb FAQ' (1995l), for instance, consisted of user queries, each with an answer appended. In late February 1995, Winer was ready to start a new instance of such a list structure whose purpose was not limited to the distribution of code and documentation: Winer intended to launch an aggregation page that would 'accumulate technical information, sample scripts, fun projects, and other nerdy phenomena' (Winer, 1995t) and would thus gather miscellaneous items relating to the software project. This feature never went beyond its first day's worth of listings, however, as Winer decided to stop *AutoWeb* development effort shortly after.²⁸

Even so, the use of reverse-chronological structures on the short-lived *AutoWeb* site reflected a departure from the *DaveNet* site. Unlike *DaveNet*'s static archives, these structures embodied Winer's ongoing engagement of his software users via a website. The concept of the aggregation page prefigured Winer's later news pages, including *Scripting News*, in that it evolved the changelog from its initial focus on the software alone, and extended its purview to the technological and social context within which it existed.

5.1.2 Current awareness reporting as communicative purpose

While the *Autoweb* site differed from *DaveNet* in being 'more technical' (Winer, 1995k) and addressing a different intended audience, it also served a different communicative purpose. Its publicly maintained changelog, which was updated in real time, was a piece of current awareness reporting. The term current awareness denotes knowledge of recent developments in a particular field of interest: current awareness reporting thus involves the review of documents, the selection of relevant items and notification of the users thereof (Kemp, 1979, p. 13).²⁹

5.1.3 Clay Basket

Winer relied on the timeline structure again during the public beta period of Clay Basket,³⁰ a piece

tion for that person, and the date on which that change was made' (Chen, Schach, Yu, Offutt, & Heller, 2004, p. 199).

28 The feature was never updated after its initial post, so it is impossible to tell from the page alone if it was going to be reverse-chronological, but it is knit to the same pattern as the reverse-chronological version notes index page (Winer, 1995s).

29 For a brief literature review on current awareness reporting see Ballard & Blaine (2010, p. 107 – 108).

30 On 23 March 1995, Winer declared his desire to 'add outlining to the web', thus intimating a new software product that was not just as a bookmark manager but also as web authoring tool (Winer, 1995ab). On 29 July 1995 he announced Clay Basket (Winer, 1995at), advertising it on 22 September 1995 as a 'powerful authoring tool for web content development' (Winer, 1995az). From 9 October to 19 November 1995 he maintained a Clay Basket changelog named 'New Features' (Winer, 1995bb) during a public beta period. On 26 Oct 1995 he advised: 'Watch the main [documentation and download page for Clay Basket] page for news' (Winer, 1995bb), suggesting that this page may have been a 'news page'. 18 Nov 1995 Release of Clay Basket 1.0b7 (Winer, 1995bb). On 16 April 1996, 'Flaming Lists' is probably a *DaveNet* piece about the Clay Basket list hosted by WebEdge (Winer, 1996ag). 27 April: First entry in *Frontier news*, therefore latest point at which Winer first starts building a site in soon-to-be-

of software intended for bookmarking and web authoring that superseded AutoWeb later in 1995. Winer promised to be especially ‘verbose and helpful’ (1995bb) in this new changelog, and so, between 9 October and 19 November 1995, he posted thirty reverse-chronological, time-stamped and hyperlinked entries in his ‘New Features’ (1995bb), sharing information about the latest features and modifications as he was adding them to the product: instructions, commentary and replies to user queries. Winer treated this changelog as a hasty stopgap measure and an intimate work journal, delivering his updates in choppy, truncated and unpremeditated prose. He also continually referenced the accompanying download page that provided the latest revisions of his software and acted as a substitute for formal documentation.

Winer’s *Clay Basket* changelog thus embodied a new stance towards documentation: the user was no longer supposed to consult a manual of a finished software product as in the days before the internet – the user was now invited to follow the developer’s postings and take an interest in the on-going reporting of a work in progress.

5.1.4 24 Hours of Democracy: A realtime difference

In February 1996, as a response to the restrictions on free speech imposed by the passage of the Communications Decency Act,³¹ Winer organised a protest asking web users to post essays on the subject of freedom and democracy (1996y). Using his Clay Basket web building application, he set up a website that acted as a hub for the undertaking. As part of the site Winer put reverse-chronological list structures in place, such as the project’s news page (1996h) that he has since repeatedly identified as his first weblog (Winer cited in Festa, 2003; Winer, 1999v, 2001q, 2007f). This news page (1996h) provided ‘pointers to announcements and related news stories’ (Winer, 1996s), which were links to updates and announcements mostly on internal matters, such as new additions to the project site.

Winer’s 24 Hours of Democracy protest was celebrated as the ‘first-ever Internet many-to-many event’ (Stahlman, 1996), and Winer was quick to point to his project’s network topology as an exemplary use of the technology: ‘by design it’s a very distributed Internet sort of thing’ (1996q). This design was a matter of necessity rather than choice, however, as the limitations of Clay Basket did not allow Winer to centralise the project in a single site (see 10.2). The widely distributed nature of Winer’s event called for content aggregation strategies that would bring the effort together. Such aggregation was provided in a straightforward, continuously updated index that listed all contributions

released Frontier 4.0? 11 May 1996 ‘DaveNet website goes on the air at www.scripting.com. The most recent essay is always on the home page.’ (Winer, 1996a) 11 May 1996 Frontier 4.0 released (Winer, 1996a). 11 May 1996 ‘Clay’ page set up on Scripting.com (Winer, 1996a). 22 July 1996 ‘Tutorials’ and other pages on scripting.com/clay updated for the last time.]

31 The project was a piece of online activism that came hard on the heels of the Electric Freedom Foundation’s *Blue Ribbon Campaign*, and the *Interactive Days of Mourning* declared by the Voters Telecommunications Watch. These earlier campaigns urged that webmasters display a blue ribbon on their sites and, respectively, change the background colour of their pages to black in protest against the Communications Decency Act, a part of the telecommunications reform bill that the US Congress had just passed and that president Clinton signed into law on 8 February 1996. The protests expressed concerns that the measures designed to protect minors from exposure to sexually explicit materials were unconstitutional curtailments of free speech (O’Connor, 1996). Winer’s protest aimed to amplify those concerns – which were later validated by a Supreme Court ruling that found the legislation to be in violation of the First Amendment (Greenhouse, 1997).

as they became known, a compilation that eventually tallied up 1,078 essays (Winer, 1996b).

In addition, Winer linked selectively to the distributed essays in four separate ‘tours’ (1996v, 1996w, 1996x, 1996z). Each of these tours was an annotated list of selected links to essays that were part of the protest, resembling ‘a page of pointers to cool web sites, but with a realtime difference’ (Winer, 1996aa). While the main index list aimed for completeness and the news page retailed links on new developments within the project, the tours offered an editorially mediated view of the submitted essays, as Winer only linked to essays he deemed the ‘most compelling ones or the most interesting ones’ (Winer, 1996q) – or those that were, at a minimum, ‘remarkable in some way’ (Winer, 1996aa). The tours were also intended as models for others to follow, and there were at least eight people who adopted the model and posted their own paths of recommended reading through the corpus of submitted essays (Winer, 1996y). Thus, in a highly distributed event, the task of winnowing for quality was decentralised too.

Winer’s 24 Hours of Democracy project thus used reverse-chronological structures in two separate ways. The news page, descended from the *AutoWeb* and the *Clay Basket* changelogs, was mostly inward-looking and reported on the project itself: it reported news of the community activism project like its predecessors reported news of the respective software development project. The ‘tours’ were a new departure, however, in that they were outward looking, serving as an editorial selection of the best essays that were being posted as part of the protest all across the web. Winer’s tours were novel in their element of editorial selection.

The reverse-chronological access structures in the 24 Hours project also transcended their strictly informational use in earlier publishing efforts: as they ‘helped glue the community together’ (Winer, 2001q) and the linking allowed ‘new flows to build’ (Winer, 1996l), they acquired an element of sociability.

5.1.5 Frontier News: Facing both ways

As 24 Hours of Democracy project revealed *Clay Basket*’s limitations as a web building tool (see 10.2) and Winer abandoned it just as he had abandoned the *AutoWeb* software earlier, he decided to build a more powerful web framework into his scripting environment *Frontier*, which would be released as *Frontier 4.0* in May 1996 (Winer, 1996a).

Intended to carry ‘news of releases for the *Frontier* scripting community’ (Winer, 1996a), the *Frontier News* page launched on 27 April 1996, several weeks before the web-centric *Frontier 4.0* release, but in time for the first beta releases of the software, thus following a pattern established in the *AutoWeb* and *Clay Basket* changelogs, both of which had been launched simultaneously with the respective first beta releases of the software they related to. The newly launched *Frontier News* was primarily concerned with software updates: users of the software were encouraged to bookmark the location and monitor the page for new releases. But while *Frontier News* was a continuation of the practice already established in the *AutoWeb* and *Clay Basket* changelogs, this practice was also integrated the outward-directed editorial policy of the ‘tours’ used in the 24 Hours of Democracy project. The specific innovation of *Frontier News* lay in melding the inward-pointing and the outward-

pointing references into a single open-ended stream. Thus in *Frontier News* Winer linked to anything he deemed relevant to Frontier development: release announcements of his own software, new instalments of his *DaveNet* series (1996al), but also release announcements by developers building on Frontier, impressive new sites built in Frontier, and general industry news and opinions from across the web.

5.1.6 The birth of *Scripting News*: More voluminous and more outwardly directed

As a matter of ‘not flying blind’ (Winer, 1997i), Winer studied his server logs looking for usage patterns that would guide the process of developing his websites (Winer, 1996am). By December 1996 he had learned that *Frontier News* was not only widely read, but had, in fact, become the most popular destination of his site (Winer, 1997i), followed in second place by the awkwardly conventional home page that consisted merely of a welcome message and a table of contents (Winer, 1996ay). Winer never visited his home page himself, deeming it an embarrassment for its static nature, but having realised that ‘dynamic sites’ (Winer, 1997i) were ‘worth visiting’ (Winer, 1997i), he ‘changed the structure of this website’ (Winer, 1997k) and promoted his news page, the ‘most dynamic page on the site’ (Winer, 1997i), to the front page, thus uniting the two most frequently requested pages to make things ‘flow better’ (Winer, 1997k). By elevating *Frontier News* from its obscure location to the main page of *Scripting.com* on 1 February 1997, Winer created *Scripting News*.³²

The promotion of *Frontier News* to the *Scripting.com* home page in February 1997 did not coincide with any sudden change in editorial policy: the news page was still ‘changing every day’ (Winer, 1997o), it was still the product of a single editor serving up the same mix of lightly annotated pointers to product updates and industry news. In maintaining this eclectic editorial stance *Scripting News* continued to ‘distribute flow thru other sites inside and outside of your firewall’ (Winer, 1997ba), meaning that it did not only link into *Scripting.com* but linked out to noteworthy pages from all across the Web. Winer’s news page was undergoing a gradual shift, however, in which its links became both more voluminous and more outwardly directed: over the course of

32 The press has been claiming for years, incorrectly, that *Scripting News* was launched on 1 April 1997 (Berlind, 2005; Bobbie Johnson, 2007; McCullagh & Broache, 2007; Shedden, 2010). In making this claim, the journalists followed Winer himself, who had been making the claim repeatedly ever since he first paused to determine the launch date in December 1997 (Winer cited in Festa, 2003; Winer, 1997bz, 2007b, 2007c, 2007f, 2007h, 2007i).

The error is due to Winer’s late adoption of an automated archiving regimen after elevating the news page to his site’s front page. During the second half of 1996, Winer had got into the habit of archiving *Frontier News* in monthly instalments, simply by wiping the front page clean at the end of a month, transferring the month’s worth of postings to a new archival page, then starting the front page anew from an empty page at the beginning of the new month. Winer continued this practice in the first three months of 1997, resulting in *Scripting News* archives for February (Winer, 1997j) and March (Winer, 1997w) that were still in the old *Frontier News* mode.

Yet at the end of April 1997, Winer felt he did not want to wipe his site’s front page for the beginning of May and automated the archiving in a way that would always keep ten days’ worth of postings on the front page while compiling separate, monthly archive pages concurrently (Winer, 1997aw). This adjustment both overcame the need for manual archiving and avoided an empty front page on the first day of a month. The adjustment also resulted in a new location for the monthly archives, and accounts for the deceptive appearance that the *Scripting News* archives go back only to April 1997 (Winer, 1997ao), creating the illusion that *Scripting News* was launched on 1 April 1997. I posted a fully documented account of the mis-identified launch date to the web (Ammann, 2010a), which Winer has kindly acknowledged (2010, 2012).

eight months, the volume more than quadrupled, while the percentage of external, outward-bound links more than tripled (see Table 1). The promotion of *Frontier News* to *Scripting News* coincided with the establishment of a stable rate of external links of just over half of all links posted.

Month	Overall links	External links	Internal links	External links (%)
1996 Oct	47	8	39	17
1996 Nov	34	11	23	32
1996 Dec	79	28	51	35
1997 Jan	124	49	75	39
1997 Feb	185	98	87	53
1997 Mar	168	88	80	52
1997 Apr	207	111	96	54
1997 May	201	108	93	54

Table 1: Monthly link counts for Winer’s news page from October 1996 to May 1997, tabulated from archive pages (Winer, 1996ax, 1996az, 1997c, 1997j, 1997w, 1997ao). February marks the elevation from *Frontier News* to *Scripting News*.

The increase in volume and percentage of outward-bound links is attributable to Winer’s realisation that ‘dynamic sites are worth visiting’ (1997i): in his attempt to create ‘sites worth coming back to’ (Winer, 1997v) he wanted to develop a base of repeat-visitors by ‘putting interesting stuff on your home page as often as you can’ (Winer, 1997av). ‘Growth’ (Winer, 1997ak) was Winer’s stated pursuit, as he wanted his site to become ‘a larger entity’ (Winer, 1997ak).

One main contributing factor for this increase was Winer’s desire to be an ‘editorial organization’ (see 10.8): the elevation of *Frontier News* to the *Scripting News* home page was therefore accompanied by the introduction of a new feature named ‘Special Stories’, which were user-generated articles that Winer sourced from a variety of places, including his e-mail inbox. Posting such ‘Special Stories’ to *Scripting.com* added to the growth he was looking for and allowed him to link to them from his home page.

All in all, the promotion of *Frontier News* to *Scripting News* was a structural adjustment, informed by the analysis of usage trends gleaned from access logs and aimed at making things ‘flow better’ (Winer, 1997k). The adjustment did not herald any change in editorial policy but occurred within a trend towards higher volume, in a much more conspicuous position on the site’s front page, and it represented Winer’s strategy in which he would ‘look for patterns and try to insert my software into the flow’ (Winer, 1997i), thus identifying features which attracted web traffic and trying to amplify whatever it was that made these features attractive.

5.1.7 DaveNet vs. Scripting News

Even if the elevation of the news page to the site’s front, and thereby the creation of *Scripting News*, coincided with a gradual quantitative change rather than a sudden qualitative adjustment, the change recalibrated the relative importance of Winer’s ‘two content flows’ (1997bk), *DaveNet* and *Scripting News*. It marked a point at which *DaveNet* became ‘just a part of what we’re doing editorially’

(1997aq) whereas the newly elevated news page became the ‘umbrella for all our editorial stuff’ (1997aq) and thereby attained greater centrality along with its much greater visibility on the front page.

While ‘each flow of content [was] developing its own identity’ (Winer, 1997bi) relative to the other, Winer kept assessing and comparing the two publications for their reach and impact over time. In 1995, when analysing his server logs, Winer discovered that *DaveNet* was his ‘most powerful voice’ (Winer, 1995bd). In the course of 1996, however, he noticed that his new page had become ‘consistently the number one’ (Winer, 1997i) in page requests, but he estimated that due to its e-mail distribution, *DaveNet* still reached ‘further than *Scripting News*’ (1997bz). Regardless, *Scripting News* was ‘growing at a very fast pace’ (Winer, 1998ad), leading Winer to accord *Scripting News* an increasingly important role. In a telling gesture, Winer listed ‘all *DaveNet* subscribers’ (1997d) among the credits of the *Frontier* 4.2 release of January 1997, but gave credit to ‘all *Scripting News* readers’ (1998a) for the *Frontier* 5.0 release of January 1998. The gesture underscores that *Scripting News* had usurped *DaveNet*’s status as Winer’s ‘crown jewel’ (Winer, 1997bj) within a year of its launch.

5.2 Differentiation and convergence

The rise of *Scripting News* followed a path of incremental differentiation from the news page’s precursors in earlier reverse-chronological lists, as well as eventual convergence with *DaveNet*’s communicative purpose of identity production (see 4.3.2). This differentiation and convergence of the reverse-chronological, date-stamped entries since their first appearance on Winer’s site in early 1995 occurred both in the dimension of generic communicative purpose and intended audience.

5.2.1 Software documentation to current awareness resource

The *AutoWeb* and *Clay Basket* changelogs, Winer’s initial reverse-chronological streams, allowed users to ‘follow the progress’ (Winer, 1995m) of the software development; these features thus largely served the conventional purpose of software documentation. *Frontier News* equally offered *Frontier* users a means of ‘staying in touch’ (Winer, 1997g) with the software development effort, but it had an extended communicative purpose in that it covered the wider purview of *Frontier* development, allowing its readers to stay abreast of new developments in *Frontier* and the larger context of internet development. This widening of the focus from software documentation characterised *Scripting News* as well, in which Winer aimed to ‘take the broad view of the interests of scripting people’ (Winer, 1997bj) and ‘deliver the broader story’ (Winer, 1997bi). The evolution from Winer’s earliest changelogs on the web to *Scripting News* coincided with a broadening of the communicative purpose served by reverse-chronological structure in which software documentation transformed into current awareness reporting.

5.2.2 Ambiguity of purpose

Once *Frontier News* had broadened the purpose of the news page from software documentation to

current awareness reporting, its successor *Scripting News* entered a complementary, symbiotic relationship with *DaveNet*, in which it adopted certain characteristics of *DaveNet* and eventually superseded it. For a while, their co-existence may have been as Mark Bernstein suggested in early 1998 when he remarked that *Scripting.com* combined ‘opinionated personal essays with daily product support and development updates, a curiously effective mix’ (1998a). In this view, Winer’s two publications displayed a division of labour in which their respective communicative purposes – of *DaveNet* as identity production and, of *Scripting News* as current awareness reporting – were complementary and balanced.

Such a balanced equilibrium may or may not have existed at any one point. Over time, any such balance was getting destabilised by a strong and irreversible trend for *Scripting News* to be less pre-occupied with ‘daily product support and development updates’ (Bernstein, 1998a) and to adopt the purpose of identity production characteristic of *DaveNet*.

One indication of this trend was UserLand’s re-introduction of a news page named *Frontier News* in November 1997 (“First simultaneous,” 1997). This feature was launched simultaneously with the earliest public alpha releases of Frontier 5.0, the first version of UserLand’s flagship software product to be offered both for Mac and Windows. The editorial direction of the resurrected *Frontier News* was assumed by UserLand employee Brent Simmons, who was tasked with the brief of covering ‘new utilities, add-ons and interesting Frontier websites’ (Winer, 1997ca). This move relieved *Scripting News* of much of its current awareness purpose, allowing Winer to explore issues that were both further afield and more intimately entwined with his personal interests, however much he aimed to present these personal interests as a ‘broad view of the interests of scripting people’ (1997bj).

Scripting News’ shift towards identity production set in earlier than that, however, as Winer began to treat *Scripting News* as a repository of the day-to-day informational gleanings that he would work up into his *DaveNet* essays. *Scripting News* soon became a collection of building blocks and ‘background for my *DaveNet* pieces’ (1997ap), which worked ‘like a bibliography for *DaveNet*’ (Winer, 1997bz), even as the links appeared ‘often far in advance of their coverage in these email reports’ (Winer, 1997bi). As *Scripting News*’ increasingly outward orientation gradually turned it into an aggregation of ‘the facts and points of view that I use to form my own point of view’ (1999s), it veered quite early from a strict interpretation of the current awareness remit it nominally served.

Not all readers were equally quick to appreciate the personal, expressive nature of *Scripting News*. Columnist Chris Nolan noted fairly early on that the publication traded in Winer’s personal interests: ‘Dave’s readers can now go to him, instead of waiting for him to come to them, and he can refer them on to things he likes, linking related ideas, topics and web sites’ (1997). Similarly, Jorn Barger noted that *Scripting News* was part of an ‘emerging paradigm for web hypertext’ (1997ac) and asserted that Winer’s implementation of this paradigm had as its central theme ‘everything and anything that excites the hacker/idealist in Dave’ (1997al). Another reader was confused for a while about the inclusion of materials that were of dubious value from the current

awareness perspective he expected, but then he realised that *Scripting News* made perfect sense once he accepted that it was ‘a daily listing of whatever the heck Dave thinks is relevant’ (Sink, 1998). Thus, while Bernstein’s view of *Scripting News* as ‘daily product support and development updates’ (1998a) seems categorically irreconcilable with, say, Barger’s view of the news page as ‘anything that excites the hacker/idealist in Dave’ (Barger, 1997al), the two views merely reflect the fact that *Scripting News*’ communicative purpose was a shifting target, and that its ambiguity was greatly increased by the absence of a clear-cut dividing line between Winer the man and UserLand the company.

5.2.3 The twilight of current awareness reporting

The communicative purpose of current awareness reporting in *Scripting News* was not obviated overnight, however. For one thing, it never existed in a pure form to begin with. Even in the earliest, supposedly utilitarian pieces of online documentation Winer made sure to ‘include some of the humor and irreverence of DaveNet rants’ (Winer, 1995h). Current awareness did need to contend with a rival communicative purpose: As early as June 1997, Winer asserted that the spirit of *DaveNet*’s work narrative applied to *Scripting News* as well: he was ‘learning a lot and I share much of what I learn’ (1997bm). As a consequence, he saw fit to assert quite aggressively that *Scripting News* engaged in identity production rather than current awareness reporting, telling his readers point-blank: ‘you are not my customer’ (1997bm).

Still, the message took some time to sink in, and Winer needed to assert *Scripting News*’ remit of identity production against the views of readers who felt, for instance, that the expression of controversial opinion on public affairs had no place in the most visible publication of a commercial software company. These conflicting views of *Scripting News*’ communicative purpose led to a crisis when Winer expressed a political opinion that some of his readers found objectionable: In January 1999, Winer used *Scripting News* to call for the resignation of US President Bill Clinton (1999a), thereby restating an opinion that his friend Doc Searls (1998) had voiced in the reader comments on the most recent *DaveNet* piece (1998ag). Winer instantly got criticised by some of his readers for using *Scripting News* as a platform for political opinion. In response, he put his critics on notice that they ‘may not attempt in any way to influence the views expressed on this site’ (1999b) and that he was not going to tolerate any interference. Dismissing his critics as ‘meddlers’ (1999c) he insisted that *Scripting News*’ influence derived solely from his willingness to take ‘a stand’ (1999c).

This incident recalls the early *DaveNet* episode in which an unnamed reader tried to impose rules on what Winer could write about in his essays, drawing an angry refusal from Winer in which he asserted *DaveNet*’s communicative purpose of identity production in his refusal to ‘accept limits on what I write about in order to please my readers’ (1995o). With Winer’s rejection of having political opinion criticised as unsuitable for *Scripting News*, *DaveNet*’s communicative purpose now extended to *Scripting News* as well. The stream of reverse-chronologically ordered and date-stamped items was no longer the current awareness reporting that had evolved from a programmer’s changelog – it had become a vehicle for identity production as well.

5.2.4 Committing to the individual voice

Winer's assertion of identity production as *Scripting News*' communicative purpose in the crisis over his political remarks was roughly contemporaneous with the proclamation of weblogs in late 1998 as a 'movement' (Humphries, 1998b) and the coinage in January 1999 of the term 'weblog community' (Barger, 1999d). Winer's association with the discourse network of the weblog was far from immediate, however, and his initial assessment was that weblogs might be enjoying some short-lived popularity and publicity but would soon 'disappear' (1999m). The association remained tenuous throughout the year 1999 (see 14.3.4).

Winer was slow to commit to the weblog community. Even as weblogs were beginning to attract press coverage in 1999, Winer would not unambiguously commit *Scripting News* to the idea of speaking his mind as an individual person. In September 1999 one journalist noted: 'What makes a Weblog a truly creative pursuit and not just a soulless, arbitrary list is the individual voice that emerges from the screen, the personality that squeezes out between the links like sunlight between the slats of a Venetian blind' (Keller, 1999). In the same month of September 1999, Winer unequivocally characterised *DaveNet* as 'my personal story of the development of the Internet' (1999u), yet in the same piece of writing he would not use any pronouns in the first person singular when discussing *Scripting News*:

We link to stories that we feel are relevant to people who do professional web development. We offer an opinion, often when no one else does. We don't mind taking a leadership position, but we have a healthy respect for new information and second opinions. Some people are surprised that we also cover speech and social issues – we feel the web is deeply intertwined with current culture, and that a well-informed web developer can benefit by being aware of the broad issues that effect the web. (Winer, 1999u)

The consistent pluralisation of personal pronouns in this passage points to the fact that *DaveNet*'s communicative purpose of identity production did not apply unreservedly to *Scripting News* yet: the pluralisation indicates that Winer intended to be seen writing *Scripting News* on behalf of his company rather than as an individual, thereby retaining a vestige of current awareness reporting as the publication's communicative purpose.

Winer let go of this vestige only when he decided to join the weblog community in autumn 1999 (see 14.3.4). Despite his claim that *Scripting News* had been a 'blog since 1997' (Winer, 1999y), Winer was an outsider to 'the weblog world' (Winer, 1999x), when, in October 1999, he first expressed a desire 'to be part of this ring of weblogs' (1999x). In November 1999, by which time he declared himself to be 'part of the weblog community' (1999an), Winer noted one blogger's recommendation to 'use your site to say 'Here's what I've done, here's what I can do, here's what I'm passionate about'' (Kitchen, 1999) and hailed the comment as 'the best expression of the weblog spirit that I've heard so far' (1999al), adding that the recommendation captured 'how I view *Scripting News*' (1999al). In doing so, he explicitly identified the work narrative, his chosen approach to identity production in *DaveNet*, as *Scripting News*' communicative purpose.

5.3 Crisis

The quasi-symbiotic balance between *Scripting News* and *DaveNet* ended as Winer's involvement in the weblog community deepened, especially after his own weblog hosting service, *Edit This Page*, launched in December 1999, gathered a head of steam in the early months of 2000 (see 10.10). As a consequence of this involvement, the slow '3-5 hour essays' (Winer, 2000v) of *DaveNet* became a 'a tired format' (Winer, 2000v), especially as Winer felt that 'with *Scripting News* I connect' (2000v). Working amidst a 'churning pot of weblogs' (Winer, 2000ag), he would now 'update *Scripting News* two dozen times a day, and never find the time to write a long essay to put it all in perspective' (Winer, 2000w). As a consequence, Winer announced in April 2000 that he would put *DaveNet* 'on hiatus' (2000w), and that he was 'concentrating all my writing into one flow' (2000ag). Winer proposed – suitably using a long-form *Scripting News* post – that in this 'evolving format of *Scripting News*' (2000ag), the weblog had become the defining locus of the work narrative, and thereby of identity production:

All people who participate in open development processes will someday have weblogs. How do I know this? Because it vastly amplifies your effectiveness. What do you give up by running one? As long as you allow for off the record conversations, nothing. And in an open process how many conversations require it? Ideally none. If the technologies we're deciding on are as revolutionary as some think they are, don't we want to leave a trail behind of our thought processes, and when connections were made and how they came about? (2000ai)

In October 2000, Winer characterised *Scripting News* as 'stories about my life as a software developer' (2000aw) and *DaveNet* as 'one of the few weblogs that actually has its own stories' (2000aw). As the communicative purpose of *Scripting News* had become identity production, and *DaveNet* was a weblog now, the respective communicative purposes between the two flows had become exchangeable, their difference had therefore become immaterial.

5.4 Discussion

Matt Haughey, an early blogger and author of a brief history of blogging,³³ has questioned Winer's assertion that *Scripting News* had been a 'blog since 1997' (Winer, 1999y), implying that only the 'evolving format of *Scripting News*' (Winer, 2000ag) that Winer practiced from April 2000 onward deserved to be named a weblog:

scripting.com wasn't something I consider to be a weblog until Dave started writing about himself more. From 1997 – some point in 2000, it was largely scripting issues, programming news, new software updates for Frontier, etc, but at some point in 2000, it felt more to the reader (me in this case) that it became Dave's personal site and was no longer a general news site about web scripting. (Haughey, 2002)

Haughey did not want to press his point too hard, however, and conceded: 'I don't think anyone

³³ Haughey, a one-time employee of Pyra (Harmon, 2003), the company which created Blogger.com, has been running an 'influential community blog called Metafilter' (S. Rosenberg, 2009a, p. 117) since 1999. He has also researched and written a brief history of weblogs (Bausch, Haughey, & Hourihan, 2002, p. 8 – 12).

writing a weblog history today would ever not mention *scripting.com*' (2002). Even so, he was still ambivalent, adding that *Scripting News* used to be 'mostly about highly technical issues and recent releases of Userland products. Is that a weblog? I'd say yes today, with hindsight, but way back in 1998-99, most blogs were highly personalized' (2002). Haughey's ambivalence about calling the early *Scripting News* a weblog tracks perfectly with the ambiguous communicative purpose that *Scripting News* embodied from its outset: the dissonance between Winer's notification to *Scripting News* readers that 'you are not my customer' (1997bm) and Bernstein's view of *Scripting News* as 'daily product support and development updates' (1998a) is a perfect illustration of this ambiguity: *Scripting News*, for much of its early history, occupied an indeterminate and shifting point between current awareness reporting and identity production, with the latter steadily rising over time.

6 Genre, exigence, and *Robot Wisdom Weblog* as network cultivation

Jorn Barger was the most central actor in the emerging discourse network of the weblog in 1998 and he instigated the practice of link crediting which introduced the spark of reciprocity that brought Chris Gulker's dormant NewsPage network to life as a corresponding network of information foragers engaged in social resource discovery. Little is known about Barger's intentions in creating and cultivating this network, as existing accounts are based on tentative assumptions, cursory interviewing, and thin archival work.

A sustained engagement especially of Barger's usenet postings throughout the nineties reveals that his principal investment in the internet, from 1993 onward, was the promoting and furthering of his idiosyncratic and highly ambitious research agenda, through which he aimed to create a comprehensive computer simulation of the human condition based on the study of literature as descriptive psychology. Having failed to advance this project within the customary parameters of an academic career, he attempted to mobilise support for his research agenda by creating an online community of practice around it instead. Thus, Barger's overriding concern in his online activism from 1993 to 2000 was network cultivation. Unlike Winer, who succeeded almost instantly in building *DaveNet* from the large list of his existing e-mail contacts (see 4.2), the defining feature of Barger's involvement in the internet was his struggle and eventual failure to rally a network of supporters to his programme. No such lasting network ever took hold. Yet the discourse network of the weblog that did emerge from Barger's efforts was inextricably entwined with the network cultivation efforts he undertook on behalf of his research agenda and, ironically, seemed acceptable to Barger as a replacement for a short while (see 8.1).

This chapter, then, reconstructs Barger's attempts at network cultivation as the crucial piece of background against which the discourse network of the weblog emerged. The chapter situates these attempts in the context of Barger's aborted career as an academic researcher and his desire to use the internet to create an support network for his research agenda that would work as an alternative to academe. The chapter examines the text genres he relied on as vehicles of this effort – the FAQ and the weblog – and relates the exigence inherent in these genres – the recurrent, situated need that the respective text genres addressed – to Barger's intention in deploying them.

6.1 A collector and a classifier (Literature review)

Jorn Barger's *Robot Wisdom Weblog* was 'popular [...] with journalists' (Dibbell, 2000) and elicited much enthusiasm from the press.³⁴ Only two authors ever attempted sustained portrayals of Barger and his weblog, however: Julian Dibell (2000) in a magazine article and Scott Rosenberg (2009c) in a book chapter. Both of these authors celebrate Barger's work, noting that his site was 'frequented by thousands of the Net's most knowledgeable' (Dibbell, 2000), that it offered a 'mesmerizing se-

³⁴ For commendatory press reviews of *Robot Wisdom Weblog*, please consult Barger's Wikipedia article. I put them there.

quence of arcana’ (S. Rosenberg, 2009a, p. 87), and was a ‘cornucopia of offbeat delights’ (S. Rosenberg, 2009a, p. 91).

Both authors are somewhat puzzled by Barger, who is seen as ‘strange and complex’ (S. Rosenberg, 2009a, p. 95) and who had ideas that ‘don’t summarize easily’ (Dibbell, 2000). Dibbell sees Barger as a ‘collector, of a sort’ (2000), who engages in self-portraiture ‘rendered in the medium of his own daily, unexpurgated curiosities’ (2000). Rosenberg examines Barger’s study of artificial intelligence (2009a, p. 74), but despite the comparatively greater depth at which he probes Barger’s background, he fails to establish any substantial connection between this background and Barger’s aspirations and motivations as one of the most transformative figures in the early history of blogging: in essence, Rosenberg falls back on Dibbell’s view, taking Barger at his own word as a ‘collector and classifier’ (2009a, p. 74).

Both Dibbell’s and Rosenberg’s work is premised on the ‘lazy thesis’ (Barger, 2007f) that Barger’s weblog was a continuation in substance of his pursuits as an AI researcher. To support this thesis, both Dibbell and Rosenberg assert rather than demonstrate a direct connection between Barger’s study of artificial intelligence and his weblog. Neither of the two authors attempts to examine the form or substance of Barger’s online postings prior to launching his weblog, although both of them do take passing note of Barger’s usenet involvement. Dibbell observes that this involvement was so intense that, as a consequence, Barger’s ‘real-life interactions took a dive’ (2000). Rosenberg states that usenet ‘offered plenty of listeners for any idea, the more unconventional the better’ (2009a, p. 78), implying, incorrectly, that Barger had a usenet audience who appreciated his postings for their novelty factor. Both authors miss the fact, discoverable from close archival study of Barger’s usenet postings, that Barger had spent years wandering the online medium trying to canvass support for his grand project.

6.2 Story representation and interactive fiction

In 1989, Jorn Barger assumed a position as research programmer at the artificial intelligence department that had just been founded by Roger Schank, Northwestern University’s Institute for the Learning Sciences (ILS) in Evanston, Illinois. Barger had discovered Schank’s work in 1987, two years prior to getting employed at ILS, and thought of it ‘as ‘on target’ in a unique way’ (Barger, 1993h). He applauded Schank’s ‘scruffy’ (Crevier, 1993, p. 168) school of AI, not least in its self-portrayal as a ‘lonely island of story-content-savvy realism in a desolate sea of ‘straight’, math-and-logic-oriented AI’ (Barger, 1993e). He also admired it for its attempt to provide a basis on which to represent human psychology computationally, and for wrestling ‘unapologetically with the absurdly difficult question of whether a small finite set of symbols can represent the full breadth of human experience’ (Barger, 1993d). He believed that Schank’s work could lead to ‘a rigorous *representation* of the generalized human experience’ (Barger, 1995av), which was a crucial part of Barger’s search for ‘psychological models that might be translatable into AI’s language of rules, in the hope of someday building a realistic computer ‘agent’’ (Barger, 1996r).

Barger’s ambition lay ‘primarily in the area of interactive fiction’ (Barger, 1993h) and in the ‘ap-

plication of Schank’s ideas to interactive fiction’ (Barger, 1993c). In particular, he pursued the idea of a ‘neat, Schankian end run, in the form of a database of standard stories that, by simple recombinations, give birth to a rich microworld’ (Barger, 1993b). In doing so, he aimed to ‘give a deeper weight to the concept of ‘virtual reality’’ (Barger, 1993b) and, in particular, he intended to create a ‘new literary genre and/or a new form of computer-based art/entertainment’ (Barger, 1991e) which would feature artificial personality: ‘characters that have their own motives and emotions that you can interact with much more flexibly and richly than is now possible’ (Barger, 1990).³⁵ Barger hoped to create a ‘video-game, of the interactive-fiction genre, that would make use of some (yet-to-be-discovered) carefully articulated theory of story-plots and human emotions’ (Barger, 1993q). To this end, Barger was looking to build, on the basis of Schank’s work, an ‘exhaustive inventory of such histories, broad enough to support true interactive *literature*’ (Barger, 1993d).

6.3 Research: Story indexing and Joyce

In late 1991, while working at ILS on his ‘assigned project’ (Barger, 1993ac) of the Story Archive (Bareiss, Ferguson, & Fano, 1991), a large corpus of stories in multimedia format which included news footage, speeches, lectures, and interviews with experts in various domains, Barger invented a story indexing scheme which could serve as ‘the basic layer of a new way to handle semantic nets’ (Barger, 1991f), and which he believed to be vastly superior to anything that had been proposed in the area of Schankian case-based reasoning.³⁶ He asserted that his ‘simple, elegant, and powerful way of combining primitives’ (Barger, 1993ac) would ‘pack story-content into memory simply and economically’ (Barger, 1992b), thereby promising ‘a new combinatorial strategy for dealing with the full range of representable knowledge’ (Barger, 1994b).

Barger had a complementary research interest which lay in his passion for James Joyce’s monumental novel *Finnegans Wake*, a classic of early twentieth-century high-modernist literature, whose study he considered a ‘way of life’ (Barger, 1991c). While at ILS, Barger established a connection between Joyce’s literary work and the data structures he was working on as an AI programmer: he believed that the novel’s generative structure consists of an ‘inventory of human psychology’ (Barger, 1991c), and he hoped to extract a universal, computationally tractable case base of the human

35 Barger, an adherent of Games AI for its ‘pragmatism about the primitive semantic units that make simple storytelling possible’ (Barger, 1993m), deeply admires game designer Chris Crawford, whom he credits for the idea that ‘the next step in game evolution is the creation of artificial personality’ (Barger, 1990). Crawford’s work is fundamental to Barger’s notion of simulation as the basis the scientific method: ‘The *real* challenge, though, that’s rarely discussed, is to create not the mirror of the *physical* world, but the psychological one, that allows the characters in that world to behave like real humans’ (Barger, 1997ad). Barger expected that Crawford’s approach to story generation would supersede post-modernism and deconstruction in the academic teaching of literature within a decade (Barger, 1997u).

36 Barger made this discovery, which he later came to call ‘fractal thicket indexing’ (1993q), after ‘wrestling at length’ (Barger, 1994j) with a general-purpose indexing scheme that was being applied to the Story Archive, the ‘Universal Indexing Frame’ (Schank et al., 1990). Yet his discovery amounted to a ‘redesign’ (Barger, 1992b) of another general-purpose indexing scheme, the ‘Thematic Hierarchy for Indexing Stories in Social Domains’ (Schank & Fano, 1992). Barger’s indexing scheme also descended from navigational structures used in one of ILS’ earliest expert systems, Ask Tom (Barger, 1996n). Barger’s proposal has never appeared in a peer-reviewed publication, and neither has Barger ever provided a working prototype.

experience from Joyce's work.³⁷ In August 1991, Barger launched a *Finnegans Wake* mailing list, which gathered 'a group of fellow-travellers' (Barger, 1991d) of, eventually, 'some 100 Joyceans' (Barger, 1992a) who were discussing the novel 'under Jorn's leadership' (Barger, 1994e). While studying a facsimile edition of Joyce's notebooks for *Finnegans Wake* as part of his mailing list activities, Barger's conviction solidified that the novel had a 'deep connection' (Barger, 1992a) to Schankian case-based reasoning and might in fact be instrumental in the effort to 'find an indexing scheme that will allow the construction of programs that demonstrate their intelligence by *telling interesting stories, in context*' (Barger, 1992a).

Barger believed that his work could be 'a powerful force for the good of humanity' (1994j) and he pursued an ulterior goal that was far from humble. He subscribed to a 'naive idealism' (Barger, 1993j), which he held to be as a 'perfectly ordinary scientific optimism, a simple faith in the universe's comprehensibility' (1993n), and he aspired to help 'effect some serious changes' (1994e) through his work. Moreover, he held the strong belief that 'computers can teach us to understand ourselves' (1989), enabling us 'to see ourselves in new ways because the computer provides a perfectly objective mirror' (Barger, 1989). He was convinced that a 'spiritual lesson of computers can arise from their ability to simulate human behavior' (1989) because 'as our ability to create game-characters that act human improves, we will be forced to consider who we are and why we feel and act as we do' (Barger, 1989). The combination of Schankian AI with interactive fiction, especially as based on a universal taxonomy of the human mind as derived from Joyce's work, would eventually confront our species with a comprehensive computer simulation of the human condition, which, Barger believed, would engender 'a profound revolution in human self-understanding, to be swiftly followed by a parallel revolution in human self-government (Barger, 1994j).

However, Barger could not pursue either of his research projects much further while at ILS. He was relieved of his position after a dispute with Schank, which came to a head when Barger used an all-hands meeting at ILS to complain that he was not 'allowed any forum' (Barger, 1992b) in which his indexing proposal could get 'a fair hearing' (Barger, 1993ac) because of his status as a mere research programmer rather than graduate student. His work contract was 'terminated as of Dec. 31, 1992' (Barger, 1993ac).

6.4 Network cultivation: Usenet as knowledge commons

Being unemployed, Barger felt that he could not pursue his research on his own. Prior to his employment at ILS, he had pursued his studies 'in perfect intellectual isolation' (Barger, 1998ad), which made his ideas 'hard to articulate' (Barger, 1998ad). Getting employed at ILS, however, he 'found himself able to discuss, for the first time in his life, many insights that he'd previously had to keep to himself, simply because they'd seemed meaningless to others – topics about human nature and the nature of the scientific psychology, especially' (Barger, 1994e). As he was cut off from such discussions after his departure from ILS, Barger found that he could not work in isolation and that

³⁷ None of Barger's work on Joyce is known to have appeared under peer review, except for a single chapter in an edited volume which provided a 'preliminary stratigraphy' (1994a) of a notebook of Joyce's.

he needed ‘a community of interest’ (Barger, 1994b) in which to discuss his research.

After leaving ILS, he was determined to ‘program a prototype of his a.i. idea, working alone’ (Barger, 1994e). For guidance, in an attempt to cultivate a professional online network, he turned to the comp.ai newsgroup, a usenet forum frequented by academics in the field of artificial intelligence. Barger hoped this group would function as a knowledge commons (Hess & Ostrom, 2007) in which amateurs and academic researchers could work together in mutual respect. He expected, especially, that the group would be governed by ‘the *hacker ethic* of playfulness, openness’ (Barger, 1994b). On the basis of the hacker ethic, which he took to be the ‘belief that knowledge should be openly shared, and [that] people should be judged by their capabilities and not by their degrees’ (Barger, 1996x), Barger suggested a ‘populist strategy’ (1993n) of open knowledge dissemination and deliberation on usenet. He demanded from adherents of the ethic a ‘serious effort to *trickle down* some of their expertise, on a regular basis, in their home newsgroups’ (Barger, 1993n). This, he argued, would turn all the newsgroups in usenets science and computing hierarchies into ‘lively ongoing seminars *on every topic under their charters*’ (Barger, 1993n). Such an open knowledge commons would serve as the online version of the the forum which ILS, according to Barger, had declined to offer him for his ideas.

Barger’s invocation of the hacker ethic as the basis of a knowledge commons was deeply indebted to Stewart Brand’s Whole Earth franchise, as Barger ‘grew up on Whole Earth Catalogs’ (Barger, 2000j) and was ‘greatly inspired by the early editions’ (Barger, 1995bd) of Brand’s compendium, which he appreciated as a ‘portal to much good obscure reading’ (Barger, 2007b). Asserting that the Catalog ‘challenges people to get their hands dirty’ (Barger, 1995bd), Barger also celebrated the Catalogs’ spirit of self-reliance and their DIY ethos.

However, Barger rejected Brand’s WELL as a model for online network cultivation because it was insufficiently open to serve as an online knowledge commons. In the course of the eighties, Barger claimed, Brand’s publications had become ‘less and less relevant, more and more the creation of a sort of isolated privileged california clique’ (1995bd). Accordingly, Barger’s ‘feud with the Well’ (Barger, 1999c) stemmed from his conviction that the celebrated forum was ‘quite literally a gated community’ (1999c), that it displayed a ‘smug parochialism’ (1993y), and that it was ‘revoltingly elitist’ (1999c). Barger objected to the WELL’s limited ‘accessibility’ (1993aa) and concluded that the WELL had largely ‘sold out’ (1996b): Barger felt that Brand’s online community did not live up to the openness it ostensibly championed.

It was usenet, Barger found, that represented the WELL’s ideal of accessibility to a much greater extent than the WELL itself did: ‘Netnews is the cyber-utopians’ dream world community, as near as anyone’s ever seen, and the WELL is not, because Netnews is global, and effectively free, and practically uncensored’ (Barger, 1993z). A great believer in ‘utopian ideals of group process’ (Barger, 1993t), Barger celebrated usenet for being ‘freely, anarchically open to all’ (1993t). He asserted that ‘the social revolution of the Internet is 99% on netnews’ (1995bd) and proclaimed that usenet was ‘the most revolutionary social experiment in history, bar none’ (1993ad).

6.5 Comp.ai and counter-FAQ as manifesto

Barger found his utopian ideals of usenet thoroughly disappointed by his experience of the comp.ai newsgroup. He approached the group while trying to assess his prospects as an AI researcher and was advised to pursue his ideas independently: ‘write them up, get them published, and wait for your work to be recognized’ (Goodman, 1993). In response, Barger posted a 500-word summary of his proposal to the newsgroup, ‘A New Topology for Story Indexing’ (1993i), inquiring if there was ‘any journal that would publish something like this’ (1993i), and whether this work looked ‘*result-like*’ (1993j). In July 1993, he posted an extended 1,800 word version under the title ‘Fractal thicket indexing overview’ (1993q) with a view to getting it discussed by the newsgroup, yet failed to spark any discussion, prompting him to note drily that the field appeared not ‘eager for new ideas in this area’ (1994g).

Despite this setback, Barger pursued other avenues to getting his work discussed by the online group. In mid-August 1993, he decided to make some of his materials available for FTP download (Barger, 1993r), and by the end of the month he asked the maintainer of the comp.ai newsgroup’s AI FAQ to ‘add a pointer’ (Kantrowitz, 1994). The request was refused, however, which left him deeply resentful (1993ac).

A few months later, Barger ventured to post a summary of his complementary research project to the comp.ai newsgroup, the Joycean hypothesis he had been pursuing for some time,³⁸ and which posited that *Finnegans Wake* ‘tried to exhaustively inventory the range of possible story-complication’ (1994g). Barger acknowledged that the hypothesis sounded implausible and that it lacked any obviously apparent appeal to conventional AI, yet he asserted that the matter was of vital importance to the field. Again, Barger failed to elicit any discussion from the group. However, he did get a response to the question he had raised again in passing, of why a ‘pointer to my ftp-site’ (Barger, 1994g) had earlier been refused for inclusion in the AI FAQ. He was advised that his materials were unfit for inclusion because the AI FAQ was ‘concerned with issues of a factual nature’ (Kantrowitz, 1994), and that the materials he had made available for download were mere ‘opinion’ (Kantrowitz, 1994).

This dismissal further inflamed Barger’s grievance about the lack of attention he had been able to attract to his work from the profession. In response, Barger packed his two propositions, the fractal thicket indexing proposal and the Joycean hypothesis, into a ‘scratchy first draft’ (1994i) of an article that purported to be a survey of the whole domain of artificial intelligence, including an overview of its history and ancient pre-history. He posted the draft to comp.ai, and declared his intention to ‘re-post regularly’ (1994i) in the manner of a FAQ. Within a month’s time, Barger greatly expanded his overview, adding materials from the group’s regular AI FAQ, from which he ‘pillaged freely’ (Barger, 1994j), and published the revised article in late June as the 1.0 version of his ‘Short Course in AI’ (1994j), presenting it as an ‘opinionated alternative’ (1994j) to the regular AI FAQ.

³⁸ Barger’s Joycean hypothesis is older than his indexing proposal: In June 1991 he suggested in a newsgroup conversation that *Finnegans Wake* rests on ‘an inventory of human psychology’ (1991c) and that it therefore qualifies as AI. In September 1993, Barger asserted in his Joyce FAQ that Joyce’s work was ‘a *thesaurus of story plots*’ (1993u) and pointed out that a summary of the hypothesis could be downloaded from his FTP site.

The comp.ai newsgroup's regular AI FAQ, in keeping with widespread usenet practice, had been posted to the group at monthly intervals ever since the introduction of the document in August 1992 (Kantrowitz, 1992). In imitation of this practice, Barger re-posted his alternative FAQ dozens of times to comp.ai and to a variety of other newsgroups.³⁹ He ignored requests to stop posting it to the comp.ai group (Barger, 1997n) as he believed such requests were attempts to 'suppress' (Barger, 1995o) his work.

Barger's insistence on reposting his alternative FAQ to the group was an act of defiance: since his research projects had 'almost never been met [with] any show of interested two-way discussion' (Barger, 1995aa), Barger chose to post the 'Short Course in AI' as a means of forcing his work on the group's attention. Judged by one comp.ai subscriber to be a 'very weird almost countercultural look at AI' (Pinto, 1995), Barger's counter-FAQ was, in essence, the manifesto of his grand project.

6.6 Research agenda and network cultivation

Barger's 'Short course in AI' (1994j) is provocative in tone and idiosyncratic in content; as a manifesto it sets forth Barger's grand project as a research agenda centred on his twin interest in knowledge representation as a basis of interactive fiction and in *Finnegans Wake* as Joyce's embodiment of a universal taxonomy of the human condition. Barger bundled his programme with a fierce polemic against the academic establishment (see 7.2) and tied it to a quest for an online community of interest in which to pursue and advance his programme.

At the core of Barger's research agenda lies the assertion that 'databases of stories are what AI researchers should be trying to build' (Barger, 1993ac). In this, Barger follows Schank's work, seeing himself as 'a post-Schank Schankian' (Barger, 1993e) who aimed for his contribution to become the 'logical successor' (Barger, 1993ac) to Schank's work on story representation. Accordingly, the largest of the counter-FAQ manifesto's nine sections, 'Understanding human behavior via *stories*' (1994j), accounts for nearly one sixth of the whole document. The section boldly declares Barger's research agenda to be the legitimate heir to AI's main line of descent, claiming a direct ancestry that goes back to pre-Aristotelian times, and asserts that its central problem, hitherto unsolved, had always been 'a neat, universal sorting of the *full range* of human experience' (Barger, 1994j).

In the manifesto's section on 'Understanding human behavior via *stories*', Barger also promotes his two research projects directly. He touts his fractal thicket indexing as a 'new data topology that unites the concept of the abstraction hierarchy with the idea of orthogonal dimensions' (1994j) and sets out its particulars in some detail. He also introduces his Joycean hypothesis and hails *Finnegans Wake* as a 'universal inventory of story-elements' (1994j), demanding that 'anyone who tries to inventory the whole range of the human experience must follow Joyce' (1994j). Barger concedes that the 'analysis of Joyce's AI here has barely been begun by scholars' (1994j), but he is unperturbed by the lack of available research into the subject – other than his own preliminary findings which he was making available to download.

³⁹ For a full publication history of Barger's FAQ postings and similar declarations that set out his research programme, see Appendices (16.2).

It was for this reason that he presented his manifesto as an antithesis to the official AI FAQ, intending it ‘to *encourage* debate and discussion’ (1995ax), whereas the group’s official document, he claimed, was designed to ‘take no stands, and consequently stimulate no discussions’ (1995ax). Barger’s counter-FAQ was an attempt to get his research agenda noticed in the face of an academic newsgroup that had chosen to ignore it.

6.7 Alternative Science: Wisdom FAQ and New Game FAQ

In the act of posting the AI manifesto of his counter-FAQ (1994j), Barger ratified his self-described status as a *persona non grata* (1994g) among academic AI researchers and abandoned his ideal of usenet as a universal knowledge commons in which academics and amateur scientists would share and deliberate knowledge in the open spirit of the hacker ethic. Having had his research agenda ignored by the academic establishment, Barger still held on to the ‘belief that knowledge should be openly shared, and people should be judged by their capabilities and not by their degrees’ (Barger, 1996x). He reaffirmed his commitment to usenet as a knowledge commons even if the profession chose not to engage in it to any sufficient degree. Barger hoped that usenet would ‘play a very positive role’ (Barger, 1995h) in overcoming what he saw as the ‘pathologies of scientific communication’ (1994j) and the ‘ridiculous artificial methodological conventions’ (1996u) of academic publishing, and that it would support the principles of the hacker ethic rather than defy its open and meritocratic spirit. He still hoped that his grand project would ‘get *re-thought*, re-evaluated, re-appraised’ (Barger, 1995bc) and was determined to promote and pursue this project as ‘alternative science’ (Barger, 1996u) outside the profession.

Barger intended, for this reason, to found an ‘alternative community of social scientists’ (Barger, 1996i) on usenet which would operate under an ‘amateur cognitive science paradigm’ (1996u). Thus, he repeatedly reposted his AI counter-FAQ (1994m) to various newsgroups outside the AI domain, promoting his research agenda among these groups (see Appendix 16.2 for a posting history). As Barger was looking to start from ‘a forum for sharing our experiences’ (1995y), he pinned his ‘desire to see a new community form’ (Barger, 1995ad) on a group of fellow amateurs, because ‘people, right now, who are most qualified to do human sciences must be people outside the “system”’ (Barger, 1995ac).

In his attempt to rally non-academics to his research agenda, Barger issued a revised version of his research agenda roughly a year after his initial counter-FAQ (1994j). This follow-up text consisted of five usenet postings (1995x, 1995y, 1995ab, 1995ac, 1995al) which he gathered into a web page under the title ‘Twentieth Century Social Science: A Complete Fiasco?’ (1995am). While Barger framed the document as a ‘radical critique’ (1995ae) of the social sciences, its contents mark it as a reprise of his AI manifesto. He appealed again for a community to form around the programme as he tried to enlist amateurs to ‘a new system that allows them the freedom to be at odds with convention, while still working together as a scientific community’ (1995ac). However, knowing that AI was reputed as a ‘complicated and arcane subject’ (Barger, 1994e), he preferred to tout his programme as an alternative to the social sciences. As he was addressing amateurs now, Barger avoided

any discussion of recondite subjects such as his specific research interests in story indexing and *Finnegans Wake*, yet he still attempted to advance his research agenda as it stood. The programme continued to be centred on an ‘inventory of all the ways humans might act’ (Barger, 1995am), which he hoped to extract from novels, claiming that ‘literature possesses longstanding, finely-honed skills *at using language to depict our brains at work*’ (1995am). As the inventory of human psychology thus established would eventually be built into a ‘computer simulation of the human personality’ (Barger, 1995am), the programme, newly re-tailored to amateurs, also remained true to its ultimate goal.

Barger tried to implement his research agenda within a participatory ‘amateur cognitive science paradigm’ (Barger, 1996u) especially in two projects, Wisdom FAQ and New Game FAQ. When he denounced the ‘pathologies of scientific communication’ (1994j) and suggested that the exclusionary practices of which he accused academic research had the consequence that ‘the hypothesis-generation phase in many sciences seems to have retreated underground’ (1993n), he had a particular ‘underground’ in mind: He wanted to develop his research agenda in the non-academic field of interactive fiction, especially as represented on usenet by ‘a group of us from rec.arts.int-fiction’ (1994u).

Starting from this band of enthusiasts, Barger launched a collaborative project named Wisdom FAQ through which he aimed to create a ‘knowledgebase especially for interactive fiction’ (Barger, 1994j) which would provide an ‘extensive library of intelligent objects that ‘know’ how to interact realistically, including a rich model of human behavior’ (Barger, 1994u). Barger set up a mailing list that welcomed ‘non-technical contributors’ (1994u) and invited participation by ‘anyone interested’ (1995r).

In addition, Barger cultivated the same participatory spirit in a successor to the Wisdom FAQ, the New Game FAQ, in which he attempted to unlock the secrets of James Joyce’s ‘detailed scientific *inventory of human psychology*, based on literary and historical prototypes’ (Barger, 1996al). Although he did not run a mailing list for this project, Barger widely reposted its FAQ⁴⁰ and invited ‘Joycean newcomers to get in on the ground floor of the study of this material’ (Barger, 1996am).

Both of these attempts to rally a network of amateurs to his research agenda ended in failure. The Wisdom FAQ, the collaborative project that aimed to create a case base for the domain of interactive fiction, never caught on: after having ‘limped along for a year or so’ (Barger, 2002d), during which time it was ‘pretty inactive’ (Barger, 1996ab), it eventually collapsed without having ‘accomplished a whole lot’ (Barger, 1996c). The same goes for the New Game FAQ, Barger’s attempt to create a following for his Joycean studies: Barger had to concede that the people he sought to win over ‘turned out to be unequal to my challenge’ (2002c).

6.8 Exigence: FAQ as network maintenance

The FAQ’s generic exigence is intrinsically tied to the network embodied in a newsgroup: the recurrent social action it performs lies in network maintenance. As a FAQ aims to ‘codify and transmit

⁴⁰ See Appendices (16.2.4) for a publication history of the New Game FAQ.

group knowledge' (Harrison & Stephen, 1996, p. 442), it will 'summarize accumulated knowledge and codify the specialized knowledge of experienced users' (Harrison & Stephen, 1996, p. 442); it performs these tasks in the interest of optimising the flow of information across the network. A FAQ is maintained specifically as 'a starting point for new members of the group' (Crowston & Williams, 1999) so as to minimise the burden on the network's domain experts of having to answer the same questions over and over again. The creation of a FAQ is 'often the first sign that a group has resolved some of the hurdles of collective organization' (Kollock & Smith, 1996, p. 121 – 22) because a FAQ serves to acculturate newcomers and peripheral participants into the network.

Barger cherished 'utopian ideals of group process' (Barger, 1993t) and upheld an 'ideal of social involvement' (Barger, 1993ab), both of which he saw embodied in usenet at its best. He also believed that the quality of the information contained in a FAQ is a 'measure of a newgroup's health' (Barger, 1993n). Yet his treatment of the FAQ genre⁴¹ was at odds with convention, and the 'wider definition of a FAQ' (Fawthrop, 1998) he espoused was not geared towards the recurrent need of network maintenance. Barger contended that 'for a sense of community to develop, there have to be a few serious people who aren't afraid to express their ideas' (1993z), and he treated the FAQ as a vehicle for such activism rather than a repository of group consensus. A FAQ, according to Barger, should not be a record of actual frequently-asked questions with answers provided, but a 'compact summary of a topic-area, with carefully chosen links to Net resources for further exploration' (1997x), yet it could also allow its author to 'mount a couple of soapboxes' (1997x). Its exigence, according to Barger, was 'to *encourage* debate and discussion' (1995ax). As Barger tried 'to make community happen' (Barger, 1993ab) using the FAQ genre as a vehicle, he extended and re-purposed the genre for his own ends, shifting its conventional exigence of network maintenance towards network cultivation as dictated by the need to gather an online 'community of interest' (Barger, 1994b) around his research agenda.

6.9 Web: Alt.hypertext and alt.etext

Barger changed little about his research agenda over the years, but he chose to extend it with the advent of the web. He launched his own website, *Robot Wisdom*, in early February 1995 (Barger, 1999ad), starting from 'a couple of hypertext tutorials' (1995d) on artificial intelligence and James Joyce.⁴² Prior to building his website, Barger had 'never expected much of hypertext' (Barger, 1995l), as his experience of contributing to 'a not-very-special hypertextbook' (Barger, 1993g) at ILS had left him unimpressed by the technology. He changed his mind about hypertext when he encountered the web, which engrossed him to the point of worrying that his preoccupation with web design would lead him 'off my normal research-track' (1998l). He soon overcame this misgiving,

41 In addition to the FAQs discussed in this chapter, Barger maintained other usenet FAQs on topics such as Kate Bush (1991b), Racter (1993p), ASCII art (1993w), James Joyce (1993x), Thomas Pynchon (1994q) and Lynda J. Barry (1998ak). Both of his FAQs on weblogs (1999d, 1999t) were web pages rather than usenet posts, and they may be the only ones of Barger's FAQs that adhered to the conventional Q&A formula.

42 By 23 February 1995, Barger's new website sported an 'opinionated overview of AI' (Barger, 1995e), which was a 'WWW-version' (Barger, 1995g) of the AI counter-FAQ updated and enriched 'with live links' (Barger, 1995i).

however, and wondered if the study of electronic text might be ‘the hidden gateway to a new paradigm for psychological science’ (1997y), eventually concluding that ‘the abstractions of hypertext design are exactly at the center of AI-theory’ (Barger, 1998l). Again, Barger sought to explore these new aspects to his research agenda collaboratively, and he chose to use the FAQ genre as a vehicle through which to create a suitable online forum for such discussions.

Barger hoped to form ‘a group dedicated to talking about these issues’ (1995d) as soon as he had joined the alt.hypertext newsgroup and offered to create a FAQ ‘about hypertext design’ (Barger, 1995f), because, he asserted, such a FAQ would provide ‘a way of building trust between the Hypertext Old Guard and the Young WWWeb Turks’ (1996j). Neither suggestion resulted in the intended outcome, and the group adopted a FAQ that came about without Barger’s input (Blustein, 1997).

Barger discovered that alt.hypertext was an uncongenial environment for his aspirations (see 7.3), and took his quest for a community of interest to emerge around his hypertext ideas elsewhere. Again, he chose the FAQ genre as a launch pad. His ‘Electronic Text (alt.etext) FAQ’ (1997y) is a large compendium that he undertook to write in the summer of 1997 but never finished, posting the piece in its unfinished state as a preview in August 1997. Noting that alt.etext was an ‘underutilised newsgroup’ (1997y), Barger declared candidly that he intended to build it ‘into a community’ (1997y): He proposed this ‘Electronic Text FAQ’ explicitly as a community-building effort, as he believed that creating a FAQ was the ‘most effective way of bringing a dead group to life’ (Barger, 1997an).

The unfinished alt.etext FAQ hints at an eventual integration of Barger’s research agenda with his more recent preoccupation with hypertext. The draft weighs in at some 10,000 words and represents Barger’s most expansive FAQ ever, yet Barger had barely managed to evolve the piece beyond its introductory history of electronic text. However, he did include a detailed table of contents and a corresponding array of section headings, in which he outlined the domain of electronic text in a single taxonomy. According to the table of contents, the final section was to discuss ‘Hypertext and interactive fiction’ (Barger, 1997x), strongly suggesting that future revisions of the document were to include an extended version of Barger’s research agenda. Indeed, the document’s preamble promises as much, as it states that to ‘fully understand the psychology of human communication implies a full understanding of *all* human behavior’ (Barger, 1997x) and that electronic text is ‘a microcosm of human psychology’ (Barger, 1997x) which embodies ‘all aspects of the psyche *in a uniquely well-documented fashion*’ (Barger, 1997x). Those sections, had they ever been completed, would have needed to explain how exactly electronic text was a ‘hidden gateway to a new paradigm for psychological science’ (Barger, 1997x).

However, Barger never returned to revise the document any further, let alone to finish it. When the alt.etext newsgroup got interested in drafting a FAQ in December 1997 (Fawthrop, 1997), Barger had already moved on; he was still sympathetic to the effort but no longer showed any interest in contributing (Barger, 1997an), as he was focused on his new weblog now. In fact, it can be assumed that he got ‘sidetracked’ (Barger, 1997x) from completing the electronic text FAQ by the

very process that led him to launch *Robot Wisdom Weblog*.

The common thread uniting Barger's exertions in the FAQ genre from the posting of his AI manifesto (1994j) to his Electronic Text FAQ (1997x) is his intention to use the genre as a vehicle for promoting his research agenda, thereby bending the genre's exigence of network maintenance within an established newsgroup and re-purposing it towards his own ends of network cultivation relating to his programme.

6.10 Scripting News, Anacam and identity production

Barger was introduced to Dave Winer's Frontier software in August 1997 when he posted a question to alt.hypertext wondering 'how to draw online readers into difficult texts [and] how to flesh out hot-lists of weblinks into readable prose' (1997v). In a reply to this question, he had his attention drawn to Frontier, which supported 'a whole new form of bookmarking and subsequent publishing' (Edmonds, 1997). Barger did not act on the recommendation immediately, yet in the following month of September he was studying *Macintouch.com*, one of Winer's inspirations of the News-Page concept (Winer, 1997i). Barger appreciated *Macintouch* as a 'newsletter design with lots of short paragraphs summarizing mac news, with a few words highlighted in each paragraph to represent the links to offsite resources' (Barger, 1997ac). This was a design that provided a 'perfectly serviceable way to offer a lot of links in readable form' (1997ac) and represented, Barger believed, an 'emerging paradigm for web hypertext' (1997ac).

Shortly before launching *Robot Wisdom Weblog* in December 1997, Barger reviewed Winer's software and called *Scripting News* his 'favorite webpage' (1997al) because 'Dave reads widely on the Web and uses Scripting News to post a running annotated hotlist of the interesting nuggets he finds – a strategy which seems to me the ideal prototype for Internet info exchange' (1997al). Barger consequently became a 'big Dave-Winer booster, admiring Frontier and Scripting News and promoting them enthusiastically' (Barger, 1999l). *Robot Wisdom Weblog*, clearly, was modelled on *Scripting News*.

If *Robot Wisdom Weblog* was modelled on *Scripting News*, it owed most of its inspiration to *Anacam*. In August 1997, the rock musician Ana Voog of Minneapolis, MN, set herself up with a webcam in imitation of Jennifer Ringley's *JenniCam*, keeping a camera continuously running in her apartment, thus exposing her private life to constant public observation on the web (Voog, 2008). Unlike Ringley, Voog claimed art status for her project, advertising it as 'the Internet's 1st 24/7 Art+Life Cam' (Voog, 2007). Despite the claim, she simultaneously exalted and deflated her site's artistic merit: 'It's profound because it raises a lot of questions about privacy, and porn vs. art. But it's stupid because it's just me laying on the couch' (Voog, cited in: Marin & Sawhill, 1998). While Voog was happy to diminish the artistic aspect of her site as 'self-indulgent' (Voog, 1997a), she allowed of no equivocation regarding the authentic veracity of her self-portrayal: intrigued by the technology that allowed her to communicate her ideas 'so immediately to the whole entire world' (Voog, cited in: Marin & Sawhill, 1998), she celebrated its immediacy as an absence of any mediation. In fact, Voog insisted on the immediacy and authenticity of her identity production, turning

proclamations such as ‘i move, i talk, i’m real!’ (Voog, 1997c) and ‘HERE’S MY LIFE, I’M A REAL PERSON’ (Voog, 1997a) into the fundamental value proposition of her website, even to the extent of taking offence at the description of her efforts as a *show*, rejecting the term for its insinuation of inauthenticity (Voog, 1997b).

Some contemporaneous commentators were eager to support Voog’s claim. She was seen as a potential competitor, if not successor, to the pop singer Madonna (Sprague, 1997), yet *real* in her immediacy: many artists promised to offer ‘a glimpse into their real lives, but singer/songwriter Ana Voog has actually made good on that pledge’ (Sprague, 1997). In the eyes of many, Voog’s artistic identity production was unimpeachably authentic.

Barger was intrigued by the camgirls and showed especial appreciation for the ‘astonishing new webcam offered by video-artist Ana Voog’ (Barger, 1997ai): he thought of Ana as a ‘graphic artist who’s extremely creative with the live video medium, in her choice of lighting and background, and her interactions with the camera’ (Barger, 1997ag). He believed that she, unlike any of the other camgirls, had an artist’s touch, as a consequence of which she was ‘bound to become a net superstar’ (Barger, 1997ag). Barger set up a fan page on his website (1997af) and declared that the idea of opening one’s private life to public inspection was ‘very brave and revolutionary’ (Barger, 1997ag). He considered AnaCam to be part of ‘the greater context of performance art’ (Barger, 1997aj), because Voog’s project was ‘about *showing more of the ordinary*, breaking down the distinction between the performance and the performer’s life’ (Barger, 1997af).

To Barger, then, Voog was exemplary in the seemingly authentic immediacy of her identity production. She was an ‘idealistic performance artist’ (Barger, 1999y) whose work ‘showed a real life’ (Barger, 1999af). To this extent, Voog’s work embodied the promise of the web as a new medium: Barger rejected the idea of running a webcam himself because his appearance ‘might frighten the horses’ (1997aq), but he chose to emulate Voog’s example in conceiving of *Robot Wisdom Weblog* as ‘a form of performance art, where the performance (pace Andy Kaufman) is *reading in public*’ (Barger, 1999ac). Barger, therefore, adopted Winer’s news page model of reverse-chronologically ordered daily updates in the spirit of ‘breaking down the distinction between the performance and the performer’s life’ (Barger, 1997af). The performance remained the same from Barger’s previous genre of choice, the FAQ: it was still the provision of ‘carefully chosen links to Net resources for further exploration’ (Barger, 1997y). But linking as a form of self-portrayal was qualitatively different from linking to provide a ‘summary of a topic-area’ (Barger, 1997y), and it served a different generic exigence.

6.11 Exigence: weblog as identity production and network cultivation

Barger subscribed to the received idea of the web as a medium of identity production even before Voog set up shop in 1997. Noting that ‘the general goal of a personal WWWeb page is to provide *a detailed portrait of its author’s interests and opinions*’ (1996z), Barger felt that this goal posed the challenge of how to do identity production properly and exhaustively: he wondered how to ‘compose a *practically universal* overview of the world as you see it’ (1996z). The most economical way

of doing such self-portraiture seemed to be annotated linking: to embed ‘*interest-links* in a textual context of *opinionated annotations*’ (1996z). The data structure that seemed best suited to help fulfil this ambition was the abstraction hierarchy, the structure that underpinned both Barger’s fractal thicket indexing and most of his FAQs: ‘it would seem there’s a fairly objective measure possible, of how closely a given WWWebsite approaches this universality, by comparing it to some of the great universal-index projects like Mortimer Adler’s Syntopicon, or even the Yahoo index’ (1996z). Identity production was the exigence which the genre of the personal homepage was widely accepted to answer (see 4.3), yet Barger had been contemplating the use of the abstraction hierarchy for annotated links as an alternative vehicle to support this exigence in a systematic way.

Barger’s adoption and modification of Winer’s news page model in the spirit of *Anacam*’s aesthetic of authentic immediacy marked a departure from his earlier efforts to provide richly linked hypertext, especially in the FAQ genre, that aimed to ‘offer a compact summary of a topic-area, with carefully chosen links to Net resources for further exploration’ (Barger, 1997y). This shift from a static to a dynamic mode of presentation was driven by Barger’s admiration of Voog’s aesthetic, which validated constant updates rather than systematic classification and presentation. Voog’s immediate, authentic and always-on model of identity production appeared to redefine the medium for Barger as a different, more effective way of doing identity production.

In fact, it can be assumed that only *Anacam* taught Barger to re-conceptualise and re-frame *Scripting News* as a piece of identity production. Winer’s news page was by no means universally seen as an instance of identity production – in the prevailing contemporaneous view, Winer’s *Scripting News* shared with other news sites a ‘newsletter design with lots of short paragraphs summarizing mac news’ (Barger, 1997ac) and was considered, quite prosaically, a compendium of ‘daily product support and development updates’ (Bernstein, 1998a). It was Voog’s project, comparable to Winer’s news page model in its continuous updating schedule, that led Barger to read Winer’s stream of updates as a direct, immediate and authentic rendition of ‘everything and anything that excites the hacker/idealist in Dave’ (Barger, 1997al). The enthusiasm Barger felt for Winer’s work responded to the enthusiasm he found in Winer’s work, enthusiasm being an under-appreciated ‘aspect of the hacker ethic’ (Barger, 1993n). In calling *Scripting News* the work of a ‘hacker/idealist’ (1997al), Barger not only marked a contrast to the ‘hypocrisy’ (Barger, 1993g) of the hypertext product he had helped create at ILS (Schank, Ferguson, Birnbaum, Barger, & Greising, 1991), he was celebrating Winer for including ‘especially the Web’ (Barger, 1997al) among the things that excited him. Implicitly, Barger’s celebration of Winer’s enthusiasm for the web marked the antithesis to the ‘crimes of academic hypertext theory’ (Barger, 1999f), chiefest of which was the academics’ alleged ‘sentiment against the WWWeb [which was] motivated more by power and money than by science’ (Barger, 1996h). Barger did not only adopt Winer’s Frontier system and its NewsPage model, he adopted Winer’s news page model as a data structure through which ‘everything and anything’ (Barger, 1997al) would fit into a continuously updated structure, rendering resource discovery a form of identity production.

Anacam was an epiphany to Barger beyond the potential of identity production that it entailed.

Barger asserted that it ‘completely changed the way I see the Internet, from a place of disembodied brains, to a groupbrain that provides a place for everyone’s bodies as well’ (1997ah). The embodiment that Barger perceived in Voog’s identity production is obviously rooted in Voog’s immediate and ostentatious display of her body as an object of desire. The embodiment of identity production in Barger’s weblog model, however, is mostly figurative: Barger’s implied dichotomy between mind and body corresponds directly to the distinction between his core intellectual pursuits as *mind* and all of his other areas of interest as *body*: the ‘Heavy Stuff’ (Barger, 1999w) – Barger’s interest in James Joyce and artificial intelligence, as well as their summation in Barger’s *robot wisdom* programme – versus everything else, which was ‘any and everything that interests me, from net culture to politics to literature’ (1997ao).

The newly found embodiment of Barger’s ambitious intellectual pursuits within his lesser interests did not imply any transcendent union of the two, nor did it hint at any integration that was greater than the sum of its parts: it was a configuration in which the figure of the mind authenticated itself against the background of the body, a text intended to highlight its context. The immediate text of Barger’s wider interests as put on display daily in Robot Wisdom Weblog would be instrumental in attracting a larger audience to the context of his research agenda. The communicative purpose of the weblog continued to be advocacy for his ideas, but the ‘running commentary on all the Web articles that I find interesting’ (Barger, 1999i) would now ‘pre-triangulate their context for any random reader’ (Barger, 1999i). Thus, through the body of *Robot Wisdom Weblog*, readers would gain access to the mind it embodied: ‘regular weblog-visitors gradually gain a much clearer sense of how I think’ (Barger, 1999i). Barger intended the always-on, uncensored and authentic display of his other, putatively more popular interests to reduce impediments to the understanding of his less popular ideas, especially those with a track record of known unpopularity and proven failure to attract a following, namely his research agenda.

Barger’s initial attempts to build a community of interest around his research agenda, based largely on his interpretation of the FAQ genre as a knowledge representation structure suitable for network cultivation, had failed to produce the intended result: ‘the more articulate i got / the more extreme / became my isolation’ (Barger, 2006c). *Robot Wisdom Weblog* was a change of strategy intended to reverse the negative development: ‘the blog was an attempt / to bridge that rift’ (Barger, 2006c). When Barger noted that the initial purpose of his weblog was to ‘demonstrate that not all my interests are obscure, and not all my ideas are contrarian’ (Barger, 2000g), he identified a change in strategy which was now intended to appeal to a larger part of the web’s population. Making a daily performance of displaying the full range of his interests, Barger aimed to embed his research agenda within the context of his wider, more accessible interests and thereby lower the threshold for people to step across and contemplate the research agenda. In his weblog, Barger was required to ‘focus almost entirely on more familiar topics instead of just Joyce and AI and hypertext theory’ (Barger in: Rhodes, 1999), but he intended the recognition he was building in this fashion to serve the purpose of promoting his research agenda. *Robot Wisdom Weblog* pursued web foraging as resource discovery with an implicit exigence of identity production, but its ulterior aim remained

the same elusive goal Barger had been chasing in his online engagement ever since his departure from ILS: network cultivation.

6.12 Discussion

Barger's adoption of the weblog model marked a break with the FAQ as genre of choice – a break which is most visible in the static nature of the domain taxonomies Barger used to work out for his FAQs versus the dynamic stream of a daily weblog. If the genre exigence, moreover, of the FAQ was network maintenance and the genre exigence of the emerging weblog genre began to look like resource discovery as identity production, the common thread between them was the ulterior goal that Barger hoped to attain through them: getting word out about his research agenda and rallying a network of supporters around that agenda. *Robot Wisdom Weblog's* ulterior purpose was identical with the ulterior purpose Barger had pursuing with very little success since he first posted his AI counter-FAQ as a manifesto in June 1994: it was an attempt at network cultivation.

7 Jorn Barger, polemicist

Jorn Barger conceived and promoted the weblog genre within the context of his grand project of *robot wisdom*, whose furtherance and promotion became the primary motive of his online activism after leaving ILS (see 6.11). During this period, Barger also became noted for an intemperate, extremist and often defamatory communication style, which became a significant part of his reputation.⁴³ Especially, there is the ‘enigma of Jorn’ (Caddis, 2003) in which for the first ten years of his prolific postings across usenet and the web, Barger showed no inclination to discriminate against any minorities, so when he turned against Jews for no readily apparent reason, the apparently sudden reversal seemed to be ‘out of character’ (Caddis, 2003). The following pages provide a genealogy of Barger’s anti-Judaic agitation as a late form of a polemic he had been conducting since 1993 to promote his research and rally support to its programme. The Bargerian enigma becomes less puzzling once it is understood that the essence and rhetorical patterns of Barger’s anti-Judaic agitation had been present all along as part of this polemic under different guises. Ultimately, Barger’s research agenda and its associated polemic both stem from the same essentialist and antinomian conception of selfhood.

7.1 Self-knowledge is the beginning of (robot) wisdom

Jorn Barger built his grand project of the *robot wisdom* programme on the most fundamental of his philosophical commitments, the ‘great anti-guru’ (Barger, 2002a) Jiddu Krishnamurti’s radically antinomian teachings as expressed in the *Commentaries on Living* (Krishnamurti, 1967a, 1967b, 1967c), which Barger celebrated as a ‘beautiful pure vision of *life without denial*’ (1994r). Barger chose Krishnamurti’s teaching that ‘self-knowledge is the beginning of wisdom’ (1967a, p. 104, 1967b, p. 3) as the abiding basis of his life’s main project, the ‘cybernetic psychology’ (Barger, 2007d) of *robot wisdom*. Barger’s grand synthesis of the arts and sciences rests on the premise that ‘deep AI will never be achieved without deep self-knowledge’ (Barger, 1999z), as it is only such ‘an awareness of one’s mental states that provides the background perspectives that makes one’s a.i. work *mature*’ (Barger, 1994e). Robot wisdom, moreover, also ends with the Krishnamurtian goal of ‘psychological revolution’ (Krishnamurti, 1967c, p. 41 – 47; Barger, 1996s), which Barger conceived of as a ‘profound revolution in human self-understanding’ (Barger, 1994j) that would be brought about by a computer simulation of the human condition.

43 In his book chapter on Barger, Scott Rosenberg chronicles his own experience of Barger’s unexpected slide into anti-Jewish agitation yet does not attempt to relate it to any other aspects of Barger’s work (2009a, p. 93 – 97).

Hypertext scholar Mark Bernstein commends my preliminary work on Barger and the NewsPage network (Ammann, 2009a), both as a contribution to our ‘understanding of the rhetorical utility of links’ (Bernstein, 2011) and for its unexpected finding that Barger was the ‘key figure in the invention of the community that we call the blogosphere’ (Bernstein, 2009). Bernstein finds it ‘surprising that Barger seems to have played this central role’ (2009) and raises a number of questions. He asks, among other things, to what extent Barger’s contribution to the early discourse network of the weblog is ‘tinged with, or influenced by’ (2009) his extremism, including the stark anti-Jewish agitation he is mostly reputed for nowadays (S. Rosenberg, 2009a, p. 94 – 95). This chapter addresses this question by discussing Barger’s extreme positions within the context of his grand project.

Jiddu Krishnamurti (1895 – 1986) demanded self-reliance in spiritual matters and taught a radical antinomianism which rejects the idea that adherence to any code of religious law or system of beliefs is beneficial in any way. He dismissed all values and norms as insufficient for the true spiritual life. There is only truth, which ‘must be discovered, but there is no formula for its discovery’ (Krishnamurti, 1967a, p. 104). Discovery, however, is bound to be mired in error and illusion unless it is guided by self-knowledge, which is ‘awareness of the ways of desire’ (Krishnamurti, 1967b, p. 79). Self-knowledge is ‘the beginning of wisdom’ (Krishnamurti, 1967b, p. 3), and the lack of such knowledge results in ‘self-hypnosis, a projection of one’s own thought and desire’ (Krishnamurti, 1967c, p. 6 – 7), so that in its absence ‘experience breeds illusion’ (Krishnamurti, 1967a, p. 100) and ‘learning leads to ignorance, strife and sorrow’ (Krishnamurti, 1967b, p. 3). As there is no wisdom to be found anywhere outside the individual human being who is in possession of self-knowledge, Krishnamurti rejects all forms of organised religion: ‘there is no path to wisdom, for all paths are separative, exclusive’ (Krishnamurti, 1967b, p. 120). The pursuit of conformity to exogenous standards is in itself an impediment to self-knowledge, therefore an obstacle to wisdom and a contributory factor to ‘conflict confusion and antagonism’ (Krishnamurti, 1967a, p. 248). Krishnamurti rejects the need for anyone to follow any religious or ethical system, as ‘only a dead thing can be forced to conform to a pattern’ (Krishnamurti, 1967a, p. 143). His goal of ‘psychological revolution’ (Krishnamurti, 1967c, p. 41 – 47), which is the natural outcome of wisdom, aims for the end of ‘the whole hierarchical, authoritarian attitude towards life’ (Krishnamurti, 1967c, p. 44) and expects to establish a ‘completely different economic-social structure’ (Krishnamurti, 1967c, p. 45) which is based on a ‘culture not based on ambition and acquisitiveness’ (Krishnamurti, 1967c, p. 47).

In April 1974, while reflecting on Krishnamurti’s work, Barger experienced an epiphany which allowed him to put his ‘spiritual room in order’ (Barger, 2006c) and abandon ‘the priorities of academics’ (Barger, 2006c). He dropped out of college, rejected information technology as an easy career path, and stayed away from computers for the next six years as he ‘worked on self-discovery the way lots of people did in the 70s’ (Barger, 1996a). This endeavour took him to Stephen Gaskin’s intentional community The Farm, where he spent half a year as a tofu maker (Barger, 1999a). At The Farm, Barger learned about Gaskin’s concept of ‘psychic energy’ (Barger, 2000a), which he formalised as a meta-language for story representation named Anti-Math (Barger, 1993af). Wishing to animate Anti-Math, Barger returned to computers in the early eighties, taking jobs converting arcade video games to mini computers (Barger, 1996a).

Barger retained Krishnamurti’s concept of self-knowledge and applied it to literature, believing that great writers compose their work from great self-knowledge. Especially, Barger asserted that James Joyce wrote his novels from great and hard-won self-knowledge, and that his work needs to be studied under this aspect. Aged sixteen, Barger claims, Joyce ‘rejected the whole moral structure he’d been raised within – not just Catholicism, but also every sort of conformity to convention’ (Barger, 1995be). As a consequence, Joyce ‘found it necessary in his work to challenge fearlessly all the *taboos* of the literary censors’ (Barger, 1995aq). Yet as he ‘genuinely sought to *forge a new conscience* for humanity by seeking a way of living that was true to his own nature’ (Barger,

1995be), he had to confront a most arduous challenge: he had ‘to *test* every bit of conventional wisdom, to learn the deepest truths about human psychology like a scrupulous scientist, by personal experiment’ (Barger, 1995be).

Barger states that Joyce was exemplary in his ‘uncompromising self-discovery’ (1995ah) and ‘unflinching self-observation’ (1996aj) and posits ‘a ‘self-knowledge horizon’ [...] that makes it difficult for humans to see themselves in a detached manner, from ‘outside’, from a distance’ (2004a). The ability to penetrate this self-knowledge horizon and see beyond it is an ‘important form of *wisdom*’ (Barger, 2004a) because ‘humans are afraid to look deeply into their own motivations and desires, because these never entirely fit the prevailing social standards. So there’s always a degree of denial, and this prevents the sort of detached observation that true psychological science must require’ (Barger, 1995r). In his early literary efforts, while modelling his work on Ibsen’s, Joyce managed to overcome the forces of denial that keep ordinary human beings from true self-knowledge: As he taught himself ‘to *disentangle* the essence of a human character from its accidental context, and *isolate* it in the fewest possible words’ (Barger, 2004a), he ‘managed to systematically penetrate his own self-knowledge horizon, so that we can see in the surviving chapters of *Stephen Hero* a level of wisdom unprecedented in a 22-year-old’ (Barger, 2004a).

The psychological barriers to self-knowledge that Joyce overcame in his artistically formative years have, according to Barger, an equivalent in the culture at large, as there is ‘a social structure of *denial* that strongly resists every attempt to make a clear statement of the human predicament’ (Barger, 1995q). This cultural defence formation, Barger maintains, has been addressed by artistic means for a long time: as narrative fiction is essentially ‘descriptive psychology’ (Barger, 2003c), the domain of literature ‘has *for centuries* been refining extremely useful strategies for representing self-knowledge’ (Barger, 1995q). Barger was convinced that cognitive science, in order to make any real progress, needed to ‘tune back in to these’ (1995q) and ‘come to terms with the database of human insights that is literature’ (1995ao). Joyce was peerless in the degree of wisdom he gained from relentless introspection, which eventually allowed him to build *Finnegans Wake* on ‘an inventory of human psychology’ (Barger, 1991c). Consequently, Barger believes that ‘we *literally* can only approach a real science of psychology by trying to reconstruct the discoveries that Joyce built into his three novels’ (1995be). He therefore urges that ‘anyone who tries to inventory the whole range of the human experience must follow Joyce’ (1994j) and asserts that there is ‘no higher challenge for AI, now, than to *reconstruct* Joyce’s inventory of human psychology’ (Barger, 1995q). The beginning of *robot wisdom* as a research agenda lies in Joyce’s universal taxonomy of the human psyche because it is a representation of of Krishnamurtian self-knowledge, the beginning of all wisdom.

7.2 AI Polemic

Krishnamurtian self-knowledge does not only underpin Barger’s research agenda, it is also the basis of the long polemic Barger conducted to attract attention to his programme. As Barger believes that AI ‘requires a level of self-honesty that has never been emphasized in AI research’ (Barger, 1994j), he berated the academic establishment for its lack of such self knowledge. Thus, Barger opened his

manifesto (see 6.5) with the provocative claim that AI ‘is way too important to leave to the experts’ (1994j), proceeding to round on these experts as ‘hypocrites who crave money, status, and power’ (1994j) and who ‘have turned AI into a battle for territory, obstructing progress, obscuring their trivialities behind impressive-sounding jargon, and turning this fundamental, urgently important domain of science into an exclusive club’ (1994j). In publishing his AI manifesto, Barger launched his career as a self-described ‘AI gadfly’ (1998y), a polemicist who would denigrate the field as ‘a *hoax*’ (1996a) and as ‘a self-important *fraud* perpetrated by egotists who think they need a bigger cash-fix from the Dept of Defense’ (1997n). Barger kept railing against an academic elite he believed to lack any self-knowledge and made this polemic the most visible feature of his grand project, iterating it through a number of ever more expansive enactments over a couple of years.

Barger dismissed AI at large as a ‘very immature domain’ (1994i) whose leading figures were turning an ‘urgently important domain of science into an exclusive club’ (1994j) and engaged in the ‘suppression of innovation’ (1994i). To a considerable extent, this polemic against the AI establishment was retributive in nature. Barger lambasted AI because of comp.ai’s ‘refusal to include any mention of my net resources’ (1995au) in the AI FAQ, an exclusion he condemned as an attempt to ‘suppress net resources about AI’ (1995av). More importantly, the polemic expressed Barger’s disillusionment with comp.ai, the newsgroup he deemed the ‘most powerful communication utility in the history of AI’ (Barger, 1995bf), which, however, fell short of his cyber-utopian expectations (see 6.5). In Barger’s view, the newsgroup’s refusal to discuss his work proved that the group was dominated by an elitist establishment which treated the group as ‘their personal domain’ (Barger, 1995o), and was waging a ‘campaign to try to prevent its free use’ (Barger, 1995bf), thereby ruining it as ‘a forum for any sort of ‘outreach’ to non-insiders’ (Barger, 1995au). Having come to see the newsgroup as a ‘battleground between arrogant elitists and populist educators’ (Barger, 1995ai), Barger believed to be fighting for scientific innovation and for ‘non-elitist’ (Barger, 1995o) viewpoints to get a fair hearing.

In making these allegations, Barger revisited and extended a polemic he had been conducting against Northwestern University’s Institute for the Learning Sciences (ILS) and, especially, its founder Roger Schank. In this polemic he intertwined three separate elements: an epistemic critique, an ethical critique, and a narrative of exclusion in which Barger figured as a victim of an immature and corrupt academic establishment.

In his epistemic critique, Barger accused ILS of ‘homely-looking ambitions’ (1993g), claiming that the software products the institute created for its corporate funders were immature and did not build on any deep research and development. Barger rejected the claim that these products derived ‘any added value from the [institute’s] purported AI-expertise’ (1995n), and asserted that the quality of ILS software products barely ever went beyond ‘prototypes and unfinished product releases’ (1996y). Moreover, if these products were at all open to inspection, they always turned out to be ‘quite hollow’ (Barger, 1995n). Barger held product development projects at ILS to be ‘transparent boondoggles’ (1995n) from which the funders did not ‘get *even remotely* good value for their multi-million dollar investments’ (1995n). More fundamentally, Barger accused ILS of ‘pseudo-scientific

ideals' (1993k) that narrowed their outlook. Deploring that the study of literature and interactive fiction were 'sociologically taboo to them' (1993k), Barger complained, in essence, that the institute was too blinkered by its epistemic limitations to take an interest in his research agenda.

Barger reinforced his epistemic critique of ILS with an ethical critique. Accusing Schank of 'hypocrisy' (1993g), he railed against his former employer's 'deep insecurity and ruthless power-mongering' (1993ac), his 'racism and sexism' (1993ac) and his attempt to 'intimidate an entire domain into inaction' (1993ac) in order to 'sate his craving for money, status, power, and esteem' (1993ac). Barger therefore contended to have a '*responsibility*' (1994i) to 'blow the whistle on Schank's use of intimidation to maintain power and obstruct progress in AI' (1995n). As Barger tried to warn the world of ILS, to expose 'fraud and imposture at the top levels of the AI community' (Barger, 1995j) and, more generally, to 'see AI's standards raised, its house cleaned' (Barger, 1995aw), he claimed to be 'blowing the whistle' (1995aw) as a service to the public.

Barger underscored his epistemic and ethical critiques of ILS with an autobiographical narrative of exclusion which portrayed his departure from ILS as a consequence of Schank's 'manipulative machiavellian intimidation strategies to lock good science out' (1993k). Barger contended that Schank had him 'terminated' (1994j) to get rid of a rival. He maintained that Schank had become 'Schankian AI's worst enemy' (1993e) by treating story indexing as 'his private domain' (1995ap), thereby bringing 'story-representation to a near standstill' (1994f) and 'preventing the necessary growth of AI' (1993ac). His own work, however, Barger believed, marked a significant advance on the state of the art, and was about to solve the central problem that Schank had 'been pursuing his whole career' (Barger, 1993f). He was certain that his work was poised to supersede a central part of Schankian theory and become its 'logical successor' (Barger, 1993ac). Expecting to 'outshine [Schank] in his chosen domain' (1996y, 1996ae), Barger believed that Schank saw his 'territory' (1994b) invaded by Barger and considered Barger's innovations 'dangerous threats to the status quo' (1993n). Barger, in short, believed Schank had him removed as a challenger to his pre-eminence in the field.

At its core, Barger's narrative of exclusion vents his grievance that ILS rewarded rank over merit. ILS, as Barger saw it, was pervaded by a 'hypocritical social hierarchy' (1994e) where 'programming was seen as 'inherently uninteresting,' and programmers [were] ignored at the bottom of a status hierarchy that included senior faculty, faculty, senior grad students, etc, all outranking us lowly coders' (1993q). Barger alleged that because of his status as a programmer he was not allowed to contribute his indexing idea to the project he was assigned to and not even 'allowed any forum to present it in' (1992b). Thus, Barger's narrative of exclusion is driven by his sense of having been hurt by the 'elitism, power-tripping, and dishonesty' (1993l) at ILS. Barger's ethical critique, according to which the domain of artificial intelligence as a whole engaged in the 'suppression of innovation' (1994i) was a generalised reiteration of his claim that ILS was 'determined to actively suppress his indexing discovery' (1994e). In Barger's view, a 'scientific tragedy' (1993ac) had occurred when arbitrary distinctions of rank were used to stifle his work.

7.3 Polemic extended

After launching his website in early 1995, Barger turned to the alt.hypertext newsgroup, looking for expert advice on hypertext design, especially of ‘how to design pages that communicate complex ideas better than non-hypertext’ (Barger, 1995d). He did not find the group congenial, however, and he complained that the ‘academics who claim to have expertise on these matters are not helping out in the least’ (1996g).

In putting this critique forward, Barger re-purposed the polemic he had used against the artificial intelligence establishment and directed it against ‘*academic hypertext gurus*’ (1995ak), whom he accused of being ‘stuck in an old-fashioned, elitist mindset that just doesn’t fit with the democratic utilitarianism of the WWWeb’ (1995ak). Such jibes did not make him any more popular on alt.hypertext than he had been on comp.ai, and his contention that the hypertext newsgroup was ‘something of a warzone, with the pre-WWW hypertext people trying to claim that the WWWeb is a total bore’ (1996o) amounted to a reprise of his assertion that comp.ai was as a ‘battleground between arrogant elitists and populist educators’ (1995ai). In either case, Barger’s war metaphor embellished the fact that his confrontational polemic drew much attention, but also made him many enemies.

Barger strongly believed in the web’s promise of a universal knowledge commons (see 6.4), and he saw this promise under threat from academic hypertext researchers who did not share this enthusiasm. He contended that the ‘most notable thing about the alt.hypertext newsgroup is how rarely anyone discusses hypertext design... and when they do, it’s never applicable to the problems of WWWeb design’ (1996g). He also alleged that the academics on alt.hypertext held the web to be ‘beneath the interest of the experts’ (1996k), arguing that the newsgroup’s interest in hypertext systems other than the web was a sign of elitist, exclusionary politics: ‘To make claims about the superiority of a hypertext design strategy without simulating it as far as possible on the WWWeb is *scientifically irresponsible*’ (1996h). The responsibility Barger invoked was a responsibility of inclusiveness. In Barger’s view, the academics were ‘selfishly blocking the free dissemination of good advice’ (1996o). Denouncing what he saw as the establishment’s dereliction, he urged the need to ‘rise up and overthrow those who have abdicated this responsibility’ (1996g).

As alt.hypertext did not live up to Barger’s ideal of how a knowledge commons should work, he felt free to extend his ethical critique of the academics in AI to the academics in hypertext. He also felt free to extend his narrative of exclusion. He protested that people were ‘viciously and dishonestly’ (1996l) trying to suppress his own contributions to hypertext theory despite his having ‘posted hundreds of original insights’ (1997ak), and that they were trying to ‘crush the discussion’ (1998k). In denouncing alt.hypertext as a bastion of elitist establishment orthodoxy who were remiss in providing practical guidelines to web designers and conspiring to suppress his own ideas in particular, Barger refashioned his narrative of exclusion to a new context.

Barger broadened the purview of his polemic even further, applying both its ethical and epistemic critique to the social sciences, even as he lowered the volume on the ethical critique and emphas-

ised the epistemic critique.⁴⁴ In his polemic against the social sciences, Barger chose to generalise the epistemic critique of the ‘pseudo-scientific ideals’ (1993k) he found at ILS and freely extended this critique to the social sciences at large, claiming that throughout the century of their existence as formal academic disciplines, ‘no well-defined hypothesis has yet been proposed’ (1995am), as the social sciences had been ‘chasing a phantasm’ (1995am) in their pursuit of a ‘false and destructive model’ (1995am) whose claim to objectivity, moreover, was ‘utterly bogus and hypocritical’ (1995ad). Specifically, Barger suggested that the malaise ‘resulted from *mismapping* the methodology of the physical sciences onto the human domain’ (1995y, 1995am).

The social sciences, Barger maintained, had shirked ‘the necessary first stage of science, which consists of detailed observation, precise description, and analytical classification of the full range of phenomena in the domain. Instead, eager to seem like physics, they’ve jumped straight to the stage of hypothesis *testing* thru experiment, when they haven’t even got a decent hypothesis to test’ (1996ag). The social sciences, being thus constrained in a ‘false methodological strait-jacket’ (1995ad), had produced very little of substance, and a complete summary of their contributions during the century of their existence as an academic discipline might turn up ‘on the order of a hundred rules’ (1995x). The social sciences, according to Barger’s polemic, were stuck at an ‘immature level’ (1995ad) for lack of self-knowledge.

When Barger critiqued the social sciences as a false application of the scientific method, he did so from his particular understanding of Krishnamurti’s teachings. In decreeing that ‘knowledge of others has to rest on a groundwork of self-knowledge’ (1995ad), he appropriated self-knowledge as the ‘beginning of wisdom’ (Krishnamurti, 1967a, p. 104, 1967b, p. 3) and made it the ‘necessary first stage of science’ (Barger, 1996ag). In denouncing the institutions of academic research for their debilitating effect on the discovery of wisdom, he was restating Krishnamurti’s case against all forms of organised religion: ‘If you shackle your trial-and-error methodology with narrow academic constraints, your progress forward can slow to a standstill. This is what has happened, for the last century’ (Barger, 1995z). Barger claimed that these constraints continued to render scientific progress impossible: ‘so long as one is *personally enmeshed* in this realm – concerned with attaining status, for example, or intimidated by those who claim high status – one won’t be able to discover the simple expression of its laws that real AI requires’ (1996ad). Conformity in fact was the main obstacle to wisdom as it precluded self-knowledge, leading to a loss of discovery and fostering an attitude in which science became a ‘body of Truth to be conformed to’ (Barger, 1997t). Barger held that the ‘academic structures of social science research were making progress within those structures impossible’ (1995z) because blind conformism had a penchant for ‘dangerous challenges to original thinking’ (1997t). True social science became impossible wherever conformity to the established order precluded self-knowledge.

44 In the ‘radical critique’ (Barger, 1995ae) of his ‘Fiasco’ (1995am) manifesto, Barger chose not to level the ethical critique at the social sciences, but elsewhere he extended all parts of his polemic from artificial intelligence to the social sciences, making the same allegations anew: the social sciences were a ‘vast wasteland of empty misleading jargon’ (1995v), they were mired in ‘pretense and status games’ (1995h) and they were governed by ‘an elitist and obscurantist impulse for denying education to all but the select few’ (1995an).

The corresponding narrative of exclusion in Barger's polemic, as refashioned for the social sciences, hinged on his understanding of self-knowledge as well. The sciences, Barger claimed, used intimidation and denial to justify and perpetuate their epistemic immaturity. He declared that 'objective self-analysis is a *literary talent*' (1996ad) and that the scientific culture of AI suffered from 'a *fairly sadistic* underlying opposition to *the value-system of Art*' (1996ad). According to Barger, natural scientists 'often feel that the Purity of Science depends on intimidating others' (1995m), which he interpreted as a 'classic denial mechanism, involving their own fears of having their private feelings known' (1995m). The natural sciences had a neurotic 'fear of literature' (Barger, 1996ad) and relied on the defence mechanism of denial because aesthetics required 'a very *tentative and vulnerable experimentation* that scientific culture finds emotionally unbearable' (Barger, 1996ad). Barger, therefore, interpreted any criticism of his grand project as a denial of self-knowledge.

Having denounced the social sciences as a fiasco, Barger eventually expanded his polemic even further and claimed that science at large was 'profoundly diseased, an embodiment of death-in-life' (1998h). Science, he claimed, had been 'co-opted by the culture of denial as battlegrounds for greedy egos' (1998h). Eventually, he turned all the familiar elements of his polemic against the internet, addressing it as a manifestation of 'fallible humanity' (2000l). Recriminating with the internet at large for its immaturity, he decried 'people's tendency to ignore facts and act as if the world conformed to their prejudices' (2000l); he criticised the pervasive lack of ethics, deploring 'people's tendency to see themselves as more deserving (smarter, better looking, more honest, etc) than their peers' (2000l); and he re-invoked his narrative of exclusion, excoriating the tendency of any newsgroup to be 'dominated by stupid, cruel people, with intelligent discussion being squelched as it arises' (2000l).

As the target of Barger's polemic kept inflating over the years, mushrooming from ILS to the leading representatives of AI and hypertext, to the social sciences and to science at large, there was a steady predictability to the elements of this polemic, which always consisted of the epistemic and ethical critiques with some variant of the exclusion narrative added.

7.4 Polemic transformed

The initial form of Barger's polemic centred on his critique of how to do science properly, but during the same period Barger also developed a quasi-political variant of the same discourse by extending the same patterns from academic research to the realm of current affairs. This sideline of Barger's polemic resulted from Barger's exposure in 1994 to Noah Chomsky's media critique and ended in a protracted string of postings in which Barger pinned all the grievances of his ethical critique on Judaism. Throughout, this discourse was driven by iterative and ever more expansive versions of Barger's narrative of exclusion.

Barger, who avowed to be 'not very political' (1996m), took a quasi-political turn in April 1994 when attending a screening of the documentary on Noah Chomsky's media critique, *Manufacturing*

Consent (Achbar & Wintonick, 1992). Barger was deeply impressed by the film⁴⁵ and declared that he could not name a documentary that he would recommend more highly, nor any other documentary that had changed his ‘perception of the world so dramatically’ (1994f). He concluded from the film that the ‘horrendous realities of American (and world) social structures’ (1994f) needed to be confronted.⁴⁶

Chomsky’s critique of the public sphere was highly congruent with the critique Barger had been voicing of ILS. The critique avers that the range of publicly represented opinion has decreased dramatically as a result of media consolidation in fewer and fewer hands, thus creating a process which has the ‘same results as a conspiracy, without the parties ever sitting down and plotting the direction they wanted to move’ (Barger, 1997s). Chomsky’s media critique, especially in its assertion that ‘non-approved viewpoints are rendered powerless by marginalizing those who dare to advocate them’ (Barger, 1994f), offered a parallel to Barger’s personal sense of victimization as expressed in his narrative of exclusion: the ‘dishonesty of the US media’ (Barger, 1995ai) which the Chomsky documentary purports to expose was identical to the ‘deep-rooted dishonesty’ (Barger, 1994e) of which Barger had been accusing ILS.

Thus, Chomsky’s critique did not change the substance of Barger’s ‘perception of the world’ (Barger, 1994f) at all: instead, it inspired Barger to extend the purview of his polemic from the leading figures in artificial intelligence to the American newsroom and, by implication, to the public sphere at large. If the academic world had hitherto seemed divided between ‘arrogant elitists and populist educators’ (Barger, 1995ai), Chomsky’s critique, which held that ‘the US defines itself as fairplay-oriented when in fact it’s the opposite’ (Barger, 1996aa), inspired Barger to extend his polemic and generalise that there are ‘two types of people in the world: those who want fairplay, and those who want privilege’ (1996aa). Accordingly, before his exposure to Chomsky’s media critique, Barger defined his polemic as an act of whistle-blowing against Schank (1995j, 1995n, 1995aw), but having inferred from the documentary that the social dynamics of the American news room were identical to the social dynamics of Schank’s ILS, Barger felt free to reinvent his polemic as political discourse.⁴⁷

45 Barger professed to ‘like chomsky’ (1996m) and even called him ‘heroic’ (1995ai) for his political activism but concedes that he has not studied his linguistic work, which he suspects to be ‘way off track’ (1995w) because it has not resulted in practical applications: ‘Cognitive science has built nothing useful upon Chomsky’s model’ (Barger, 2001b).

46 In April 1996, Barger announced an overview of his ‘whole political philosophy’ (Barger, 1996z) and posted an unfinished page to his website under the title ‘Politics’ (Barger, 1996aa). He updated the document a year later, in April 1997, renaming it the ‘Responsible Party Political Platform’ (Barger, 1997f) without significantly updating its contents.

47 Barger allowed his newly politicised polemic to seep into his research programme, as Chomsky’s analysis inspired him to broaden the purview of his grand project and redefine society at large as its object. As the world, rather than merely ILS, was ‘under the thumbs of utterly cynical predators’ (Barger, 1996s), this world stood to be redeemed by a newly politicised robot wisdom project, at whose core continued to be ‘a *computer model* of the human predicament, that can unflinchingly put the lie to their rationalizations’ (Barger, 1996s). Barger thus re-purposed his research programme as a quasi-political platform for radical change under the banner of a fictitious ‘Responsible Party’ (Barger, 1997f). Whereas Chomsky, who had ‘looked for, but failed to find, any way to connect his linguistics with his activism’ (Barger, 1994f), Barger managed to establish an apparently seamless connection between his research programme and his newly found political outlook simply by redefining his programme and its associated polemic as a political cause.

Barger's newly found quasi-political views were a patent projection of his own victimology onto the canvas of nationally reported news stories. Thus, he described the FBI's siege of the Davidians' compound in Waco, TX, in 1993 (Knight, 2003) as a 'political flashpoint' (Barger, 1999v) that re-defined his views on current affairs. He felt 'compassion for the Davidian victims' (1998c), believing 'that the gov't forces machinegunned anyone who tried to escape the fire, and that the fire broke out immediately after incendiary grenades were launched by the tanks' (1997o). He maintained that it was 'crystal clear that the gov't lied' (1998t), that a 'DoJ whitewash' (1996w) and a 'media stone-wall' (1997o) had taken place. Moreover, he insisted that 'one-sidedness' (1997f) had occurred in the media, and 'media games' (1996ac) had been played in which the reporting was 'blatantly dishonest' (1995ba). He claimed further that the truth about how the fire started was 'still being hidden' (1996aa), and that the media coverage of the crisis amounted to an instance of those 'real conspiracies to hide the truth' (1997r) that Chomsky described. Thus, in the context of Barger's polemic, his conspirational 'Waco' appears to be a figurative, quasi-allegorical extension of his own narrative of exclusion, of having, himself, been 'viciously terminated' (Barger, 1993h) at the hands of an ethically bankrupt establishment.

While Barger's application of his newly politicised polemic to the Waco siege elicited little response, his eventual extension of the polemic to Judaism met with a strong backlash. In October 1999, while annotating Robert Stone's *Damascus Gate* (1998), a novel which is set in Jerusalem and deals with religious themes, Barger discovered the work of Israel Shahak, a Jewish scientist and cultural critic whom he believed to be 'Israel's Chomsky' (1999ae) and of whom he presently became a 'fan' (Barger, 2007c). The particular work Barger had discovered was an online copy of *Jewish Fundamentalism in Israel* (Shahak & Mezvinsky, 1999), which he added to his annotations as a 'scholarly analysis' (1999x) by way of providing background to the concept of *anti-Zionism*.

In December 1999, Barger linked to a current news item in which the rivalry between Israeli newspaper dynasties was reported to have resulted in armed violence and an alleged assassination plot (Barger, 1999ae). The same day, by way of providing context to the story, Barger linked to a somewhat recent piece in the *Jerusalem Post* which raised the question of whether 'something has gone fundamentally and terribly wrong with the Israeli media as a whole' (Sommer, 1999). For even more context, Barger offered a medley of ten paragraphs he had gleaned seemingly at random from throughout *Jewish Fundamentalism in Israel*, including one paragraph which discusses one rabbi's belief that Jewish DNA is divine and which likens this belief to 'the doctrine that made Auschwitz possible' (Shahak and Mezvinsky, cited in: Barger, 1999ae), thus effectively branding one particular instance of Judaic teaching as racist. Barger head-lined his link to the full text as: 'Long, extremely lucid (and appalling) history of Jewish fundamentalism' (Barger, 1999ae).

This posting proved controversial. Leonard Grossman, a blogger of Jewish extraction, was deeply upset about it and responded by posting a 3,600-word essay, appended with notes and links to additional resources, which expressed his view that Barger's introduction of the text was 'extremely provocative' (Leonard Grossman, 2000a) and that his selection of paragraph samples 'heightened their inflammatory nature' (Leonard Grossman, 2000a). Grossman went on to discuss at

great length the responsibilities and obligations the online writer had in selecting and fact-checking sources, and managed to start a discussion in which several webbloggers commented on the ‘responsibility of the Weblog author and the nature of the Weblog’ (Leonard Grossman, 2000b). Barger refused to discuss the issues Grossman had raised and dismissed the concerns as ‘character assassination’ (Barger, 2000b), leaving the matter to quieten down unresolved.

In December 2000, Barger gave renewed umbrage with his weblog’s headline ‘Is Judaism simply a religion of lawless racists?’ (2000m), which instantly drew objections from his fellow bloggers (Cadenhead, 2000), who discussed the posting as a symptom of Barger’s ‘serious hangups about Judaism’ (Haughey, 2000e) if not ‘anti-Semitism’ (Bergstrom, 2000). Barger responded to the renewed concerns, posting a brief 240-word statement which remains the fullest account of his views on Judaism. In the statement, he embraces the term *anti-Judaism* while rejecting *anti-Semitism*. He raises the question if bloggers had a responsibility to counteract the US media’s pro-Israel bias, and further suggests that Judaism is in fact inherently racist (2000n).

Barger never explained himself any further on the matter, but from this point onward, he kept linking to articles that portrayed Jews, Israel and Judaism in a negative light, often accompanying the links with acerbic headlines and eventually displaying stark anti-Judaic slogans at the top of *Robot Wisdom*’s front page. As anti-Jewish agitation became a permanent feature of Robot Wisdom Weblog, increasing numbers of readers turned away from the site and Barger fell from pre-eminence among the ‘Gods of Weblogs’ (Winer, 1999az) to all but complete obscurity (S. Rosenberg, 2009a, p. 97).

Barger’s unexpected slide into anti-Jewish agitation appears paradoxical, as he had never expressed any prejudice against any specific religion, ethnicity or race in the decade of prolific and wide-ranging usenet posting and the half-decade of web authoring that preceded it. However, his anti-Jewish pronouncements match all the signature elements of the polemic he had been conducting since his departure from ILS, revealing that the paradox is only an apparent one. Barger’s anti-Jewish agitation is a direct continuation of the ethical critique and the narrative of exclusion that featured in earlier instances of his polemic.

Barger identifies the object of his anti-Jewish agitation in ‘Judaism as an ideology’ (2000n). Calling himself ‘consistently and relentlessly anti-racist’ (2001d), he rejects *anti-Semitism* because it ‘blurs the distinction between attacking a race (genetic,) and attacking an ideology’ (Barger, 2000n). Barger labels his position ‘anti-Judaism’ (2000n) to highlight his opposition to Judaism on doctrinal rather than racial or ethnic grounds, as he specifically takes exception to the doctrine that the Jewish had been chosen by God, which he considers ‘as dangerous a meme as Hitler’s Aryan ‘Master Race’’ (2000n).

Barger’s claim of Judaism’s inherently discriminatory nature, an over-generalised borrowing from Shahak and Mezvinsky’s work, was prefigured in a minor sub-thread of his early polemic. The slogan ‘judaism is racism’ (Barger, 2006a), which appeared at the top of the *Robot Wisdom* front page for a while, revisits a minor part of Barger’s polemic against Roger Schank at ILS. Noting that ‘Schank is Jewish’ (1993ac), Barger claimed that at ILS allegations of Schank’s racism had been

‘taken for granted’ (1993ac), as Schank disapproved of his Jewish students marrying non-Jewish partners ‘on the grounds that this might lead to ‘intelligent Jewish genes’ contributing to some future Hitler’ (Barger, 1993ac). Barger had further accused Schank of ‘racist admission policies’ (1995n), implying preferential treatment of Jewish students.

Barger’s fulminations against Jews reiterate the long-standing ethical critique of his polemic. His slogan ‘Judaism worships fraud’ (2005) across the top of his front page is a case in point: Barger accused Schank of ‘fraud and imposture’ (1995j) and suggested he was relieved of his position at ILS for protesting that he had been ‘asked to commit fraud’ (1995av) in his work.

Furthermore, Barger’s claim that his critique of Judaism was limited to the legitimate, and indeed necessary, target of ‘Judaism as an ideology’ (2000n) is identical in form to his claim that his earlier attacks on Schank amounted to whistle-blowing. It is identical in substance as well. When Barger denounces ‘Jewish racism’ (2008d, 2009a), ‘jewish exceptionalism’ (2008c), and ‘Jewish intolerance’ (2008b), he is airing the view that Judaism embodies an ‘ethical system that differs dramatically from the universal consensus (fairplay, honest dealings, equality)’ (2008a). This assertion revisits, in nearly identical terms, the earliest strains of Barger’s polemic in which Schank’s ILS appears as a place of ‘elitism, power-tripping, and dishonesty’ (1993l). Barger’s assertion that to ‘criticize Jewish ethics is honorable – the opposite of racism’ (2008a) revisits his earlier critique of ‘Roger Schank’s ethics’ (1994f), which he deemed ‘disgraceful’ (1994c) for their reliance on ‘manipulative machiavellian intimidation’ (1993k) to attain the exclusionary aim of defending his research ‘territory’ (1993ac, 1994b) against incursions by outsiders.

As Barger’s idea of Jewish ‘racism’ is a figurative extension of his narrative of exclusion, the term ‘democracy’ appears in a similar non-literal usage in the slogan ‘judaism is racism is incompatible with democracy’ (2006b) which Barger put up on *Robot Wisdom Weblog* in 2006 and which remains there today, representing the most provocative encapsulation of his polemic. Barger maintains that the US polity is debased by corporate interests beyond hope of repair, and therefore calls it merely a ‘pseudo-democracy’ (2001c). Barger’s own definition of democracy, by contrast, is of the cyber-utopian variety, consisting of the ‘democratic utopia’ (1993s), the ‘participatory-democracy’ (1993s), the ‘democratic utilitarianism’ (1995ak), and the ‘real democracy of the Net’ (1999c), which happens to be identical with his ‘cyber-utopians’ dream world community’ (1993z) of the online knowledge commons he hoped to join or create after leaving ILS. Thus, Barger’s anti-Judaic polemic after 2000 is an iteration, and continuation by other means, of his old polemic, which initially was directed against ILS. In this polemic, just as the term *racism* encodes the discrimination on the basis of status that is the main theme of Barger’s narrative of exclusion, the term *democracy* is removed from its consensual, political meaning and stands for the meritocratic ideal of the hacker ethic Barger invoked as the set of principles that should govern the online knowledge commons he was dreaming of (1993n). In the end, ‘judaism is racism is incompatible with democracy’ (2006b) is a figurative rendition of the claim that has animated Barger’s polemic since his departure from ILS, namely that Roger Schank discriminated against Jorn Barger and thereby violated the meritocratic ideal of the hacker ethic.

7.5 Expansion of robot wisdom programme: Diminution of community

The purview of Barger's research agenda and the target of its associated polemic inflated in tandem. This development is inseparable from the steadily decreasing hopes of Barger's network cultivation effort: the unlikelier the community of interest became that he wished to gather around his research, the larger his claims became about the purview of his research agenda and the bigger the target of his polemic.

In his initial AI manifesto, Barger touted the research agenda of his grand project as a 'new direction for story representation' (1994j), shortly after to call it a new 'design-paradigm for interactive fiction' (1994u). These were the most modest descriptions of his research agenda. By the time he posted his AI manifesto, Barger had already advertised his project as a 'new paradigm for computer science' (1993o) and a 'new paradigm for cognitive science' (1993q). Subsequently, he promoted it as a 'new paradigm in the human sciences' (1995r), an 'amateur cognitive science paradigm' (1996u), a 'new paradigm for cognitive psych' (1996v), a 'new paradigm for psychological science' (1997z), eventually to elevate his project to the status of a 'radical reshaping of the entire scientific method in light of a completely new concept of science based on literary art under the added discipline of the new technologies of artificial intelligence' (1998h). The iterations in which Barger's research agenda mushroomed from a 'new direction for story representation' (1994j) to a 'radical reshaping of the entire scientific method' (1998h) remained unchanged in substance and underwent no real modification in its programmatic agenda.

The inflationary expansion of both the research agenda and the accompanying polemic to increasingly larger targets coincided with a diminution of Barger's confidence in being able to rally a 'community of interest' (Barger, 1994b) to his grand project: over time, such a community was becoming ever less likely, however much Barger wished that his work would be 'rearranged or expanded by the contributions of others' (1998h), a wish that remained unfulfilled.

Barger's network cultivation efforts never succeeded, except for a short while, when he managed to rally the early webloggers around the cause of social discovery, starting in the spring of 1998 (see 11.4.5). Barger, however, did not manage to assert any leadership over this network and abandoned it in April 2000 (see 14.3.5).

Having turned his back on the discourse network of the weblog, Barger briefly reverted to the idea of usenet as a knowledge commons. He revisited the hope that there would be an 'open source academia' (2000i) and that the internet might yet sustain an 'inevitable tendency for a rising-and-converging noosphere' (2000i), yet he soon gave up on this hope as well. Purporting to share research notes on *Finnegans Wake*, Barger deployed all three elements of his polemic against 'fallible humanity' (2000l), thereby not only positioning himself 'alone against the consensus-reality of the community' (2000l) and abandoning the hope of ever gathering an 'alternative community of social scientists' (1996i), but effectively abandoning any distinction between his research agenda and the polemic he had previously been conducting to advertise his programme. In the act of extending his polemic to humanity at large under the guise of passing along research notes, he effectively declared his research agenda and his polemic to be the same thing.

Having turned his back on the ‘weblog community’ and having given up on usenet as a suitable replacement, Barger was ‘standing alone against the consensus-reality of the community’ (2000l), retreating ‘to joyce [sic!] studies / and the history of ideas’ (Barger, 2006c). He congratulated himself on his ‘courageous originality’ (Barger, 2000l) and waxed boastful of his isolation: ‘As I wait for the world to catch up, I’m exploring many sideways attacks on the hardest remaining unsolved problem, which is a discrete analysis of human motivations’ (2002f). While undertaking these efforts on his own, he would still post restatements of his research agenda as the ‘new methodology for the human sciences’ (2003d) that was required to ‘re-think the scientific method if we’re going to successfully extend it into the psychological realm’ (2003d); he still needed to ‘collate tens of thousands of literary descriptions of human behavior, respecting the subtleties of the novelists’ language’ (2003d). He still reiterated the same polemic, insisting that ‘twentieth-century attempts to apply the methodology of natural science to the human sciences have been a complete failure’ (2003d). He continued to feel that there was a need for a network of scientists dedicated to his programme, which he now envisaged as the equivalent of the 17th century Royal Society, ‘a core-group with righteous standards’ (2003b). However, Barger made no further attempt to raise such a network. Having tried for many years, through his manifestos, programmatic statements and participatory initiatives, to promote his research agenda and enlist a network to it that was inspired by the hacker ethic and a Krishnamurtian sense of self-knowledge, Barger best summed up the irony of his internet involvement: ‘the more articulate i got / the more extreme became my isolation’ (2006c).

The logic of Barger’s anti-academic polemic affixing itself to anti-Judaic agitation lies in his isolation: the severance of his research agenda from the quest for a ‘community of interest’ (Barger, 1994b) to grow up around it. By December 2000, when Barger first posted his medley of Shahak’s paragraphs (2000m), Barger had largely given up trying to assemble a community around his research agenda. Since the polemic had always been a way of advertising this research agenda, the targets of the polemic needed to remain within the ‘corporate-academic culture of hierarchy and conformity’ (Barger, 1997j). As the targets of this polemic steadily inflated from the 40-year tradition of artificial intelligence to the 100-year tradition of the social sciences, to the 500-year tradition of the natural sciences, they increased to the several-thousand-years tradition of Judaism, driven by the very grandiosity of Barger’s grand project. Thus, the slide into anti-Judaic agitation in Barger’s polemic is a symptom of Barger’s grand project beginning to disintegrate under the weight of a grandiose programme which had failed to attract any followers.

Barger’s polemic, in all three of its elements – the epistemic critique, the ethical critique and the narrative of exclusion – descended from the same antinomian conception of selfhood which also underpinned his research agenda: a quasi-religious belief that he held a great degree of self-knowledge that would resist assimilation into conformism.

8 Jorn Barger and Dave Winer: Self-knowledge, integrity, and transcendentalism

Jorn Barger prides himself on his original thinking and continues to ‘wait for the world to catch up’ (Barger, 2002f) to his research agenda, even as he abandoned his attempt to rally a community of interest around this programme soon after withdrawing from the discourse network of the weblog in April 2000 (see 14.3.5). The status of Barger’s Robot Wisdom project as a scientific research agenda, however, is open to question.

As a research agenda, Barger’s Robot Wisdom project fails basic standards, both pragmatic and ethical. Pragmatically, Barger has not managed to deliver anything on his programme beyond an overview of his fractal thicket indexing proposal (Barger, 1993q) and a précis of his Joycean hypothesis (Barger, 1994g). He accepts that to demonstrate the viability of his programme, he would need to ‘program a prototype’ (Barger, 1994e). However, he has failed to provide such a prototype, which, in a field that judges new ideas by the successful ‘design and implementation of working systems’ (Agre, 1997, p. 138), nullifies the claims he has been advancing in favour of his programme.⁴⁸ Ethically, Barger is guilty of misrepresentation in failing to declare the intellectual lineage of his grand project. The project rests on Barger’s re-interpretation of Krishnamurtian self-knowledge and his adaptation of Schankian case-based reasoning. Throughout years of canvassing support for the project online, he acknowledged neither. For all the centrality that self-knowledge has to Barger’s programme and polemic, he never discussed or even named Krishnamurti as the source and exemplar of this standard of authenticity.⁴⁹ These two instances of misrepresentation do

48 Barger does not question the AI principle according to which the ‘the ‘result’ of an AI research project is a working system whose methods seem original and broadly applicable’ (Agre, 1997, p. 138). Indeed, he is happy to declare Chomskyan linguistics a failure on the basis of this principle: ‘Cognitive science has built nothing useful upon Chomsky’s model’ (2001b).

49 Barger’s research programme squarely rests on Schankian story representation. Barger initially put himself forward as ‘a post-Schank Schankian’ (1993e) and advertised his research programme as ‘a neat, Schankian end run, in the form of a database of standard stories that, by simple recombinations, [will] give birth to a rich microworld’ (1993b). But Barger failed to acknowledge his debt to Schankian theory throughout the years in which he made ever larger claims about the nature of his programme.

Barger has also been curiously reluctant to acknowledge Krishnamurti’s work as the cornerstone of his *robot wisdom* edifice. He professes himself a ‘fan’ (2007c) of Krishnamurti’s, praises him as a philosopher who ‘eloquently and poetically rejects the whole philosophical project’ (Barger, 2011) and eulogises Krishnamurti’s *Commentaries on Living* (1967a, 1967b, 1967c) as a ‘beautiful pure vision of *life without denial*’ (1994r). Barger also intimates that, aged 21, he had a liberating epiphany while ‘pondering krishnamurti’ (Barger, 2006c) and that he came to understand at that time that genuine progress depended ‘on spiritual self-knowledge’ (Barger, 2007f). However, Barger never acknowledged that his grand project of *robot wisdom* derived unequivocally from Krishnamurti’s tenet that ‘self-knowledge is the beginning of wisdom’ (1967b, p. 3). Neither did Barger ever acknowledge that the ulterior aim of *robot wisdom*, which he described in his manifesto as ‘a profound revolution in human self-understanding, to be swiftly followed by a parallel revolution in human self-government’ (1994i), was in fact identical with Krishnamurti’s ‘psychological revolution’ (1967c, p. 41 – 47).

Barger has often invoked the concept of self-knowledge as a normative requirement on his own authority. He has asserted that self-knowledge was ‘the most important element in every sort of communication’ (1993a), that ‘AI demands self-knowledge’ (Barger, 1994b), that ‘psychology requires self-knowledge’ (1995ac), that ‘even our knowledge of ants has to be filtered thru our self-knowledge’ (1995as), yet he never appealed to Krishnamurti’s authority nor demonstrated the validity of these assertions beyond his claim of first-hand empiricism. Having committed himself to ‘deep introspection and self-honesty’ (Barger, 1991a) in the creation of an artificial life simulation, he found he needed to account honestly for the motives ‘that we humans find most emotionally powerful, threatening, problematic’ (Barger, 1991a) and that this was ‘unbelievably arduous’ (Barger, 1995be) as one has ‘to test every bit of

not only fail the elevated standards of ‘self-honesty’ (Barger, 1994j) which Barger ascribes to himself and touts as the basis of his research agenda: they fail the standards of scholarly ethics.

Stripped of its putative status as a research agenda, Barger’s Robot Wisdom project, while unique in its idiosyncratic eclecticism, is far from original in its ideological commitments and represents a cyber-utopian outlook that is somewhat typical of its time. The project pursues a form of cyber-utopian activism which came to fruition in the discourse network of the weblog which Barger initiated in 1998: This network was much closer in spirit to a counter-cultural ‘movement’ (Humphries, 1998b) than whatever Barger’s goal of an ‘alternative community of social scientists’ (Barger, 1996i) might have looked like, had he actually managed to convene it. As a ‘community of non-corporate truth-tellers’ (Barger, 1999ab), it also represented an ideal of authenticity that reached further back than the cyber-utopianism of the eighties and is ultimately founded in the utopian movement of American transcendentalism. This chapter attempt to sketch such a genealogy for Jorn Barger’ project, and for Dave Winer’s project as well.

8.1 Counter-culture and authenticity

Cyber-utopianism, a ‘naïve belief in the emancipatory nature of online communication’ (Morozov, 2011, p. xiii), emerged in the nineteen-eighties (Turner, 2006, p. 136 – 139) holding a ‘deeply anti-authoritarian outlook’ (Markoff, 2005, p. xxii) which celebrated its adherents as ‘cultural rebels’ (Turner, 2006, p. 138) and glorified the figure of the hacker as a ‘cultural adventurer who sought to inhabit the outlaw area’ (Turner, 2006, p. 139). Among its proponents, it was especially Stewart Brand who ‘helped synthesize a vision of technology as a countercultural force that would shape public understanding of computing’ (Turner, 2006, p. 6). Brand evolved and propagated a ‘counter-cultural vision of the Internet’ (Turner, 2006, p. 3) in which ‘the cybernetic discourse and collaborative work styles of cold war military research came together with the communitarian social vision of the counterculture’ (Turner, 2006, p. 9), and which sought to ‘boost democratic participation,

conventional wisdom, to learn the deepest truths about human psychology like a scrupulous scientist, by personal experiment’ (Barger, 1995be). Self-knowledge, after all, was the beginning of robot wisdom.

In other instances, Barger used various strategies to veil his debt to Krishnamurti, such as attributing the concept of self-knowledge to ‘some modern thinkers’ (Barger, 1998v), or invoking Socrates and George Gurdjieff (Barger, 1993ae) for the same. Barger variously explained, without any attribution to Krishnamurti, that his concept of a *self-knowledge horizon* derived from Sigmund Freud (Barger, 1995r) or Alan Watts (Barger, 2007a) or presented *self-knowledge* in opposition to what Alan Watts (1966) called the ‘taboo against knowing who you are’ (Barger, 2002e).

Barger is quite inventive when translating Krishnamurti’s definition of self-knowledge into the idiom of the natural sciences. For Krishnamurti’s definition of self-knowledge as ‘awareness of the ways of desire’ (1967b, p. 79) he offers paraphrases such as: ‘watch our brains in action’ (1995y), ‘observing (and experimenting with!) our brains’ (1995y), and ‘abandon all preconceptions, and try to discover the full range of things this complex system can do’ (Barger, 1995y). Prospective amateur social scientists of the Bargerian school need to ‘watch the movements of the mind in a detached fashion’ (Barger, 1995am), to which end they had to cultivate a ‘high level of personal detachment’ (Barger, 1995am). Bargerian social scientists also have to engage in the ‘required objective self-analysis’ (Barger, 1996ad) and the ‘pursuit of detached self-observation’ (Barger, 1999u). None of these translations come with any attribution to Krishnamurti.

The reasons for Barger’s obfuscation of his intellectual debt to Krishnamurti may be complex and manifold. It may bear pointing out that his redefinition of Krishnamurtian self-knowledge as ‘detailed observation, precise description, and analytical classification’ (1996ag), let alone its reproduction in a computer simulation of the human existence, is fundamentally alien to Krishnamurti’s teaching.

trigger a renaissance of moribund communities, strengthen associational life' (Morozov, 2011, p. xiii).

Cyber-utopianism inherited its counter-cultural agenda and much of its post-industrial socio-cultural values from its predecessor in the decade prior to its emergence: the new communalist movement of the seventies. This movement renounced conventional political action and embraced 'technology and the transformation of consciousness as the primary sources of social change' (Turner, 2006, p. 4). Such 'politics of consciousness' (Turner, 2006, p. 208 – 9), being the hallmark of the new communalists' outlook, entailed a quest for 'individual liberation from the false consciousness of society and self-fulfilment based on genuine values related to human life and the rest of nature' (Schiff, 1973, p. 138). Typical of both the cyber-utopian and the new communalist outlook is an anthropological optimism in which human nature is good, and in which the individual's authentic, truthful expression of this nature needs to be asserted against a world of corrupt institutions.

8.2 Jorn Barger: Self-knowledge

Jorn Barger unequivocally counts himself among the 'cyber-utopians' (1993z). He also was a member of the new communitarian movement in its day, having spent six months in 1978 living at the commune that would become a great talent pool for the WELL (Turner, 2006, p. 147), Stephen Gaskin's intentional community The Farm (Barger, 1999a). Barger had 'worked on self-discovery the way lots of people did in the 70s' (Barger, 1996a): his attempt to 'maximize self-discovery' (Barger, 1995ac), his belief that 'true evolutionary ethics can only insist that we be true to ourselves' (Barger, 1995bb), and his insistence that 'you can't serve society except by being absolutely true to yourself' (1997w), were wholly representative of the movement's politics of consciousness. Much as Barger invoked self-knowledge as the indispensable basis of a new science of the human condition, much as he claimed to possess 'a great deal of that level of understanding' (1994e), much as the 'life without denial' (Barger, 1994r) and Barger's claim to 'courageous originality' (2000l) were fundamental to Robot Wisdom as a research agenda, this basis of Barger's programme was as deeply rooted in the communitarian politics of consciousness as it was a direct continuation of the movement as an activist social undertaking. Barger's demand for 'uncompromising self-discovery' (1995ah), was a manifestation of a particular brand of counter-cultural activism much more than a sober basis of a new science, especially where Barger demanded that it 'must become a way of life' (1995ar).⁵⁰

50 The clearest indication of robot wisdom's debt to the new communitarian movement may be Barger's effort to prescribe a lifestyle to his 'alternative community of social scientists' (Barger, 1996i). As part of the desirable 'lifestyles of the human scientists' (1995ac, 1995am), he recommended that scientists should develop the 'skill of meditation' (1995am) and practice 'some creative art' (1995am). Above all, however, he decreed that 'one's life has to become one's experiment' (1995am) and that 'self-discovery must become a way of life' (1995ar). In doing so, Barger elevated self-knowledge to 'our solemn duty as scientists' (1995y) and non-conformity to a paramount lifestyle requirement: 'the first thing, for self-knowledge, is to be yourself – you can't learn what you are if you're busy trying to conform to some image' (1995ac). Since 'you can't serve society except by being absolutely true to yourself' (1997), Barger believed the 'freedom to be at odds with convention' (1995) to be a mandatory freedom.

Barger, when describing his *Anacam* epiphany (see 6.10) as the realisation that the internet could be a ‘groupbrain that provides a place for everyone’s bodies as well’ (Barger, 1997ah), had another name for such an embodied discourse network: *authentic media*. Barger believed that the web offered the technology, ‘inexpensively, in a primitive way’ (Barger, 1997ar) that allowed people to work towards a ‘dream of authentic media’ (Barger, 1997am) and that the weblog he had launched, offering ‘the best stuff I find as I surf, on a daily basis’ (1997ao), represented a ‘tiny step towards this goal’ (1997ar). The goal consisted in forging a network of ‘original, authentic, self-discovering individuals’ (Barger, 2002e) who would, while practising social resource discovery on the web, engage in an ‘internet way of self-knowledge’ (2002e). Believing that webcams accelerated a trend in which televised network news was ‘fading from view’ (Barger, 1997as), Barger envisaged a medium that would – figuratively or literally – support an ‘*authentic TV station*’ (1997am) where ‘on-air personalities were allowed to have moods, and be a mess sometimes’ (1997am) and whose predominant mood would be ‘anger-at-the-power-elite’ (1997am).⁵¹ In authentic media, the studio was a ‘commune with the equivalent of a webcam’ (Barger, 1997am). Clearly, the authenticity such a studio embodied was of the counter-cultural, communitarian variety.

Barger characterised the progenitors and true champions of authentic media by their large degree of authenticity: He saw both Dave Winer the ‘hacker/idealist’ (Barger, 1997al) and Ana Voog the ‘idealistic performance artist’ (Barger, 1999y) as exemplars of the authenticity he sought to foster among members of his ‘amateur cognitive science paradigm’ (1996u) and practitioners of ‘*alternative science*’ (Barger, 1996u), namely that ‘one’s life has to become *one’s experiment*’ (1995ac) and that ‘self-discovery must become a way of life’ (Barger, 1995ar). Barger found Ana Voog’s video performances ‘extraordinarily intimate’ (1997ag) as well as ‘very brave and revolutionary’ (1997ag), because they were ‘breaking down the distinction between the performance and the performer’s life’ (Barger, 1997af), thereby proclaiming the essence of her art to be authentic self-portrayal, untainted by conformity to any extraneous standards.

Barger judged authentic discourse networks by the authenticity of its peers and their refusal to bow to any sort of conformity. Authenticity, Barger claimed, pertains to a person who is in possession of self-knowledge, as ‘an “authentic” person is one who doesn’t *disown* any of their own

51 Such a station would combine ‘the uncensorability of [Howard] Stern with the intimacy of a 24/7 webcam like Ana Voog’s, plus the activism of Neutopia, plus the muckraking of a Brian Redman or Ian Goddard’ (Barger, 1997ar). This cast of media characters illustrates the aspirations Barger had for his weblog, and, ultimately, for the intended discourse network as an instance of authentic media. Brian Redman and Ian Goddard were conspiracy-minded commentators with a libertarian, anti-government agenda, both of whom had a strong online presence through which they were ‘challenging the official story’ (Goddard, 1999) and reporting ‘the news the mass media doesn’t tell you’ (Redman, 1997). ‘Neutopia’ refers to usenet celebrity Libby Hubbard, pseudonymously known as Doctress Neutopia, who was a follower of Buckminster Fuller and a utopian activist who aimed to ‘lift our dysfunctional system to a higher social order’ (Doctress Neutopia, 2004). This ‘Queen of Netnews’ (Barger, 1995a) was a favourite of Barger’s among the ‘likeable utopian loonies’ (Barger, 1995ai) who populated usenet, especially those ‘who have lain their hearts out on the line, quirks and all, [and] are like the first performance artists of this medium’ (Barger, 1994h). Their art consisted in baring their ‘intimate life’ (Barger, 1995a). Howard Stern, a ‘talk-radio blowhard who deals in relentlessly off-color humor’ (Sullivan, 2005), qualified under this definition as well: Barger was willing to grant him ‘a *comparatively* high degree of authenticity... though it never reaches above his solar plexus’ (Barger, 1997ar). The point of comparison that made Stern’s authenticity look creditable was mainstream media, whose authenticity in Barger’s view, per Chomsky’s critique (see 7.4), was non-existent.

motives' (Barger, 1998v). Moreover, he asserted that denial as a form of inauthenticity was driven by anxiety to conform to external norms: 'humans are afraid to look deeply into their own motivations and desires, because these never entirely fit the prevailing social standards' (Barger, 1995r). While the pressure to conform was 'making us blind' (Barger, 2007a), authentic discourse networks would countervail such pressure and 'raise the general level of cultural maturity' (Barger, 1998ai) as their peers evinced 'a level of inner peace or authenticity, like the ideal hip DJ that should have emerged from the 60s cultural revolution, but somehow didn't' (Barger, 1998ai). To encourage authentic media, Barger identified a need for 'fostering such voices, and levelling the playingfield by legislation or technical innovation or social activism' (1998ai).

In the end, Barger's goal of authentic discourse networks followed from the revolutionary intent promulgated by the new communitarian politics of consciousness: the enemy was the forces of denial which attempted to suppress self-knowledge: 'Capitalism (in the broadest sense) has no use for original, authentic, self-discovering individuals, because they naturally opt out of the conformist consumer culture. So the profiteers of that culture actively propagandise against self-knowledge, encouraging instead self-distrust and self-hate' (Barger, 2002e). Barger maintained that the dominant conformist culture depends on people being prevailed upon, or intimidated, to deny their self-knowledge: 'people can be challenged to look at their own motives and feelings as *of doubtful credibility*, and this is the basis of all the worst hierarchical social control' (1996ad). Encouraging people to overcome the 'fear of trusting one's deepest feelings' (Barger, 1997w) had the potential to disrupt the conformist culture and thereby become *revolutionary* in the sense of Krishnamurti's 'psychological revolution' (1967c, p. 41 – 47): If people 'dared to express the emotions they feel, the elite could be overthrown in a matter of hours' (Barger, 1997w). It was the authenticity of authentic media that made them dangerous to the dominant culture, as the 'equivalent of withdrawing the mindless Prozac of the mass media' (1998ah) could trigger a 'revolution against current socio-political injustices' (1998ah).

The ultimate and eventual outcome of Barger's Robot Wisdom project had always been a 'profound revolution in human self-understanding, to be swiftly followed by a parallel revolution in human self-government' (1994i). Its logic followed from Krishnamurti's teaching that the wisdom derived from self-knowledge would result in a 'completely different economic-social structure' (Krishnamurti, 1967c, p. 47) in which 'the whole hierarchical, authoritarian attitude towards life must come to an end' (Krishnamurti, 1967c, p. 44) and give way to 'a wholly different culture, a culture not based on ambition and acquisitiveness' (Krishnamurti, 1967c, p. 47). But Krishnamurti's antinomianism was only one expression that happened to be congenial with the seventies' new communitarian *zeitgeist* and its politics of consciousness. Even as Barger sought to reframe Krishnamurti's self-knowledge as the basis of a research agenda in which 'a computer-simulation of our culture (robot wisdom)' (Barger, 1999ab) would be built on Joyce's universal taxonomy of the human psyche, the revolutionary intent of this enterprise owed more to counter-cultural activism than to science. Accordingly, the discourse network of the weblog which coalesced around Barger's weblog programme as a 'groupbrain that provides a place for everyone's bodies as well' (Barger,

1997ah) corresponded to a new communitarian rather than a scientific ideal. Most tellingly, Barger managed to convince himself that the discourse network of the weblog was a ‘community of non-corporate truth-tellers’ (1999ab), and that in such capacity it might even replace his research agenda: it ‘may even make the simulation irrelevant’ (1999ab). Thus, for the brief cultural moment in which Barger’s network cultivation efforts appeared to flourish in the discourse network of the weblog, he was willing to abandon Robot Wisdom as a putative research agenda and trade it for the hope of the weblog community as a communitarian movement.

8.3 Dave Winer: integrity

The hypertext scholar Mark Bernstein finds my identification of Jorn Barger as the key figure in the emergence of blogging both surprising and compelling, yet he would like to see a ‘good historical analogy to Barger’ (2009) in order to allow for a more intuitive understanding of this implausible network builder and the central position my research accords him. I would like to propose Dave Winer as the most suitable and illuminating subject for such comparison by analogy, as Winer had successfully raised his own *DaveNet* network only a few years prior to the emergence of Barger’s ‘weblog community’. The comparison I offer in the following pages focuses not so much on any traits of character or professional achievements that the analogy might invite, but on the shared ideas that drove the two men’s respective efforts in network cultivation.

In the early nineties, both Winer and Barger picked themselves up from a deep career crisis and looked to the internet as an opportunity for redefining themselves as leaders of extravagantly ambitious projects. Barger sought to convene ‘a core-group with righteous standards’ (Barger, 2003b) in order to bring about a ‘radical reshaping of the entire scientific method’ (Barger, 1998i). Similarly, Winer aimed to lead the ‘revolution for writers and thinkers’ (Winer, 2000ag), which would bring about a ‘paradigm shift just like the switch to personal computers’ (Winer, 1995as). Winer was hoping to preside over a new iteration of the events that Apple had presided over in the previous decade (see 4.4.1).

Both Winer and Barger pursued their respective network cultivation efforts in attempts to re-implement the WELL, the virtual community founded by Stewart Brand in the hope ‘that computer networks might bring back to life the New Communalist dream of a community of shared consciousness’ (Turner, 2006, p. 145). Barger wanted to advance his Robot Wisdom program by building a commons of learning that was true to the WELL’s counter-cultural ideals in a way that he felt the WELL itself was not, or had ceased to be (see 6.4). Winer, by contrast, was eager to reinterpret the WELL’s writing in ‘the Internet style’ (Winer, 1995o) for the web and thereby commercialise the existing idea of the WELL, as in similar fashion he had successfully commercialised the existing idea of outline processing, and as, without success, he had initially tried to commercialise the existing idea of Unix-style shell scripting in Frontier (see 4.1).

Most importantly, however, Winer and Barger share a commitment to a virtually identical ideal of authenticity, as Barger’s concept of *self-knowledge* has a counterpart and near-perfect equivalent in Winer’s notion of *integrity*. In the same way that Barger believes that ‘the first thing, for self-

knowledge, is to be *yourself* (Barger, 1995ac), Winer believes that ‘everything starts with integrity’ (Winer, 2001d). Winer demands from himself, and from others who write on the web, a self-conscious truthfulness to authentic selfhood, claiming, ‘as long as I stay true to what I believe, there’s value in what I write’ (Winer, 1996ar). According to Winer, a writer’s expression has the necessary quality of integrity if it expresses ‘something real, something that reflects how they really feel’ (Winer, 1995q). Winer, incidentally, came by his standard of authenticity via the same cyber-utopian counter-culture as did Barger.

At its most elementary, Winer’s standard of authenticity, integrity, derives from the WELL’s copyright and personal liability policy, as explained on the first login screen on the WELL, which stated: ‘You own your own words. This means that you are responsible for the words that you post on the WELL and that reproduction of those words without your permission in any medium outside of the WELL’s conferencing system may be challenged by you, the author’ (cited in: Turner, 2006, p. 145). Stewart Brand had introduced the policy to protect the WELL against any legal accountability that might arise from the exercise of free, unedited speech on their conferencing system (Hafner, 1997). In the same spirit, Winer sought to adopt the policy as a terms-of-service contract between UserLand and the writers whose work the company hosted. Aiming to enable a ‘voice for anyone with something to say’ (Winer, 2000i), Winer discussed the policy, somewhat tortuously, as a response to ‘issues of editorial integrity as they apply to a publisher/editor relationship in the new post-slashdot world of online journalism’ (Winer, 2000x). In restating the WELL’s policy for his web-based business, he believed he was seizing the ‘opportunity to set a blueprint for others to follow’ (Winer, 2000x), guaranteeing his hostees a ‘lack of editorial interference’ (Winer, 2000ae) and promising them ‘the power over your content’ (Winer, 2000x). Winer’s ideal of editorial integrity as the ‘unedited voice of a person’ (Winer, 2003d) flowed straight from the WELL, where he had known the exhilaration that came from having ‘no editor between you and me’ (Winer, 1996l) and where he came to appreciate editing as a form of interference with his writing that would ‘take a lot of the controversy out of it, take the immediacy out of it’ (Winer, 1996c). Winer’s idea of authenticity as editorial integrity went two ways: it shielded the publisher from liability for the writer’s words and the writer from editorial intervention.

The WELL’s ‘you own your own words’ policy was believed to go deeper, however: it also implied that the information provided by WELL users belonged to them in a more fundamental way. Information on the WELL ‘was not merely an object of exchange, but a representation of its creator’s consciousness’ (Turner, 2006, p. 145).

Writing has integrity, according to Winer, if it expresses a true essence, a writer’s authentic identity. Writing has integrity if its author ‘is what he or she appears to be [...] so that what we say, and who we appear to be, are in synch’ (Winer, 2001d). Accordingly, Winer claims that his writing states ‘exactly what I believe’ (1996c) and makes the criterion of staying ‘true to what I believe’ (Winer, 1996ar) his writing’s sole and sufficient claim to relevance. Writing in the internet style, consequently, is not required to be true with regard to any externally, inter-subjectively verifiable reality – it needs to be true to the writer’s authentic beliefs. Winer’s integrity does not imply or re-

quire moral fortitude or ethical purpose but authenticity as trueness to the writer's own perception of selfhood. As Winer's writing offers 'all what I think, what I really think, for better or worse' (Winer, 2003f), its integrity seeks to convey 'pure unadulterated human being' (Winer, 1996l). In this, it displays an anthropological optimism that pits the pure authenticity of the individual against the corruption of the world at large: the authentic becomes inauthentic if it strays beyond truthfulness to itself and seeks to act politically: 'as soon as I start trying to achieve an effect at one or more large companies with my pieces, they would lose their relevance' (Winer, 1996ar). It espouses an expressionism that has no criterion of veracity outside the writer's commitment to truthfulness in self-portrayal: 'if you ever catch me saying something that you believe is untrue, it's only an integrity issue if, when I said it, I knew that it was not true' (Winer, 2003a). For such radical subjectivity to escape the charge of solipsism, it needs to be pitted against an external world that is inherently corrupt and stands to benefit from authentic expressiveness as an antidote to its corruption.

Winer understates his belief when he says, 'my integrity is important to me' (Winer, 1996aw). In fact, he is a 'one-issue man' (Winer, 1996l, 2000l) who holds that 'without integrity my life is meaningless' (1998t). To Winer, integrity has an existential dimension: he claims that his brain 'has an integrity mechanism that has something to do with survival, because the bad feeling is primal and feels related to survival' (2001d). This existential dimension comes with a deep anxiety, however, as Winer believes without integrity, 'we lose our humanity and become something else, something less' (2001d). While arguing that human beings find that 'the judgment by and acceptance of our contemporaries is very important to our survival' (2001d), he reveals the source of this anxiety to be social. Throughout his life Winer had 'placed the highest value, derived the most happiness, from simply being heard' (Winer, 1995q). Now that the internet had given him the opportunity of 'building a reputation as a writer and thinker' (Winer, 1997bw), allowing him to 'feel like I'm appreciated and respected by my fellow Macintosh developers, script writers and users' (1995b), integrity came into focus as the industry standard of identity production. As Winer touts his public writing as a 'small contribution to what I see as a revolution in education and business (2003a), the revolution he envisages consists in 'a fundamental change in the way written information and ideas flow' (Winer, 2001l). The change implies the bid to monopolise the subject identity production in the act of constructing an online persona as a putatively authentic, uncorrupted reflection of an essential individuality.

Just as Barger displayed a deep grievance about the lack of self-knowledge as the putatively most basic requirement in science, a grievance which was deeply intertwined with the lack of recognition he managed to get for his work from the profession, Winer developed a deep grievance about the lack of integrity in the press, which was deeply intertwined with the trade press' inability to report on his work in the manner and detail he wished his work to be reported. Thus Winer notes that it is impossible to 'coax integrity from the process' (2001c) of trying to get the press to report his achievements adequately, and he proposed self-publishing as an antidote: 'our voices can be heard without interpretation, without a corrupt analyst to say we're too small, to be crushed by the giants, or (the honest truth) we don't pay him enough (because we want integrity in their profession)'

(Winer, 2001c). Such lack of integrity in the trade press was simply a function of its complicity in the corruption of the world at large: members of the press were ‘playing footsy with the people they’re supposed to be watching and when they try to grab stuff that doesn’t belong to them, they don’t blow the whistle’ (Winer, 2002b). Winer’s signature claim that ‘writers who work for others have less integrity to offer than those who do it for love’ (2001) glorifies the web as a ‘medium of high-integrity journalism’ (Winer, 2000a) which was bound to hasten the ‘explosive deconstruction of the brand names of journalism’ (Winer, 2001) as a consequence of amateur writers being given a chance to speak their own authentic truths about themselves.

8.4 Transcendentalism

The cultural critic Geert Lovink discusses Winer’s views on blogging in some detail (Lovink, 2012, p. 96 – 99), noting that Winer defines blogging as ‘primarily an act of an introspective individual who reflects on his or her thoughts and impressions. For this US techno-libertarian, blogs are expressions of free speech, of an individualism that believes each is entitled to his or her own opinion and should be brave enough to say it’ (Lovink, 2012, p. 97). Lovink reads Winer’s definition as ‘a good example of a particularly raw, Western, heroic individualism’ (2012, p. 97) which idealises the blogger as a solitary dissident: ‘the loner who begs to differ’ (Lovink, 2012, p. 97). Lovink summarises Winer’s view of blogging as ‘a brave act because he associates writing with authenticity – unedited and uninfluenced by a group. Somehow, writing is a pure expression of an individual’ (Lovink, 2012, p. 98). Lovink notes that ‘Winer’s emphasis on authenticity goes back to an old Romantic idea that has lost its currency in postmodern society’ (Lovink, 2012, p. 98). This is no doubt true. Winer declares himself to be ‘a poet, an American artist’ (1997b). His anti-establishmentarian narrative turns on the poetic justice in which a courageously authentic self asserts its integrity against a corrupt status quo, assuming the mantle of the most Romantic of heroes, the ‘antithetical quester’ (Bielik-Robson, 2011, p. 33 – 105).

However, Lovink fails to identify the specific type of romanticism on display in Winer’s work. It is the same romanticism amply evidenced by Barger’s work: a utopian romanticism whose genealogy reaches further back than just the new communitarian movement of the seventies. It reaches back via the poets Hart Crane and Walt Whitman to Ralph Waldo Emerson (Hirsch, 1975, p. 335), to the transcendentalist movement which emerged in the 1840s and whose attitudes prefigured the communitarian and utopian as the ‘most direct antecedent of the modern counter-culture’ (Schiff, 1973, p. 130).

Like the transcendentalists, the new communitarian movement sought ‘a change in the quality of life where humanism abounds and consciousness expands, where the human spirit is liberated from materialist concerns, where man returns to nature for new life styles, meaningful social participation and relationships, and organic community’ (Schiff, 1973, p. 132).

Lovink deflates this heroicism and insists that there is nothing particularly courageous about expressing an opinion on a blog, claiming, moreover, that the medium is aware of the fact: ‘what is encouraged and applauded, what gets the comments stirred up and starts rash of cross-posting, is the

outrageous, the beyond the pale, the extreme’ (Lovink, 2012, p. 97). Therefore it does not matter ‘whether anyone actually supports the outrageous point of view – it can still be said with zero effort just for jokes or kicks, for hits or attention’ (Lovink, 2012, p. 97). Lovink overlooks that moderation has never been a virtue of the transcendentalist tradition. Transcendentalist subjectivists have always been ‘identifying their intuitions with the voice of God’ (Hirsch, 1975, p. 335), as a consequence of which, to them, ‘restraint is the epitome of evil’ (Hirsch, 1975, p. 335). Barger for one holds ‘infinite personal courage’ (Barger, 2008a) as an imperative requirement for ‘being absolutely true to yourself’ (Barger, 1997w) as an inherently good, pure, pristine individuality challenges the many abuses of a corrupt status quo. Authenticity is flaunted as self-knowledge in a conspicuous contrarianism whose arch conviction of righteousness is self-validating in the face of any and all disagreement because the melodrama of revolution determines that the opposing side is always villainous.

8.5 Discussion

Lovink is right in claiming that Winer is no postmodernist. Neither is Barger. Neither of the two, when embracing the web as their medium of choice in the mid-nineties, was even remotely inclined to view the medium as a ‘convergence of contemporary critical theory and technology’ (Landow, 1992). Neither of the two had any sense of the multiplicity of selfhood posited in post-modernism, nor any sense of the layers of irony in which post-modern thinking conveys its portrayals of selfhood. Instead, Winer and Barger shared, under the different names of *integrity* and *self-knowledge*, an identical belief, fierce and passionately held, in an essentialist conception individuality, whose immediate and genuine expression they held to be a sacred calling of both existential dimension and revolutionary impact. Each in their several way, they were looking back to the cyber-utopian culture of the WELL, but also to its predecessor in the new communalist movement, and, ultimately, to the most uniquely American tradition of rugged, self-reliant individualism founded by the transcendentalist movement of the eighteen-fourties. Both Winer’s self-knowledge and Barger’s integrity are bids to monopolise production in the online medium and lay exclusive claim to the social construction of an online persona in the image of a transcendental essence which is pure and good, whose portrayal is authentic, and whose implicit politics of consciousness harbours a revolutionary intent.

9 Reciprocity and the emergence of the discourse network

9.1 Introduction

This chapter examines the discourse network of early weblogs under the aspect of an emerging social network and tracks the dynamics of network formation as the ‘weblog community’ (Barger, 1999d) coalesced. It does so by looking for the incidence of reciprocity as an indicator of social relations within the network (Molm, 2010), and seeks to detect signs of its routinisation – of reciprocity turning into a shared norm.

Reciprocity as a pattern of mutual obligation in social exchange has been studied for decades (Komter, 2005, p. 108 – 113), and it was understood early on as ‘the pattern of exchange through which the mutual dependence of people, brought about by the division of labor, is realized’ (Gouldner, 1960, p. 169 – 70). Thus, reciprocity has been recognised as a ‘starting mechanism’ (Gouldner, 1960, p. 177) that allows social relations to be taken up ‘among strangers who have no established norms, no knowledge of one another, and no initial basis for trust’ (Molm, Collett, & Schaefer, 2007, p. 209).

Being ‘an underappreciated and highly important aspect of creating social capital through networks’ (Molm, 2010, p. 126), reciprocity is an indispensable ingredient to network formation: ‘networks must include either direct or generalized reciprocity’ (Molm, 2010, p. 126) because reciprocated exchange allows actors in an emerging collectivity to ‘develop the trust and affective bonds that promote productive exchange relations’ (Molm, 2010, p. 127). Reciprocity, therefore, is ‘both a defining feature of social exchange and a source of societal cooperation and solidarity’ (Molm, 2010, p. 129). Among the known principles of network formation, reciprocity ranks as the most basic, preceding popularity, and triadic closure as structures of attachment in an emerging network (Schaefer, Light, Fabes, Hanish, & Martin, 2010, p. 61).⁵² Following the insight that an emerging collectivity is marked by the onset of ‘routinized social relations’ (Lin, 2001, p. 136) as soon as ‘social relations and sharing of resources are established and maintained’ (Lin, 2001, p. 137), it is the routinisation of reciprocity that needs to be detected in the network to demonstrate its emergence.

In this chapter, the discourse network of early weblogs is examined for reciprocity under static and dynamic aspects using social network analysis. Under the static aspect, the network data is checked for reciprocal dyads, which are then related to conventional network measures such as degree centrality and the ad-hoc measures of outlink count and peer discovery as qualifiers of the reciprocated dyad count. To shed light on the longitudinal dynamics of community formation, the incidence of link types over time is plotted and the distribution of the inherently reciprocal link type

⁵² Reciprocity has also been identified as a dominant motivator in digitally mediated networks. Studies have found it to be a crucial factor in online communities generally (Wellman & Gulia, 1999; Wasko & Faraj, 2000), but also specifically in a large corporate e-mail network (Constant, Sproull, & Kiesler, 1996), in file-sharing networks (Giesler, 2006; Gu, Huang, Duan, & Whinston, 2009), in journalling networks (Gaudeul & Peroni, 2010; Gaudeul & Gianetti, 2012), and other online social systems (Sadlon, Sakamoto, Barrett, & Nickerson, 2008; Chan & Li, 2010).

of attribution is compared against a qualitative reading of the archival data.

9.2 Data

The data set that underpins this study was gathered in an attempt to establish a complete record of the links that connected the earliest network of weblogs.⁵³ The reported period ranges from January 1997, when Dave Winer’s NewsPage software was first released (Winer, 1997c), to 31 December 1998, by which time weblogs had been hailed as a ‘movement’ (Humphries, 1998b) following the launch of the weblog page on the Open Directory Project site in November 1998 (Carter, 1998e).

The News Page network	Other Presurfers	WebLogs
<ul style="list-style-type: none"> • Daniel Berlinger’s Digital Prairie • Steve Bogart • BookLab.com • Bump • Paul Hardwick • Iditarod • Psyberspace • RasterWeb • The Record-Journal Editor’s Page • Relativistic Heavy Ion Collider • Molly Ringwald • Robot Wisdom WebLog • Phil Suh • Andy J. Williams • Dave Winer (Gulker, 1998a) 	<ul style="list-style-type: none"> • wired news • scripting news • robot wisdom • slashdot.org • whump.com • camworld • the obvious • freshmeat • hack the planet • flutterby.com • memepool • jgg.net • peterme.com • honeyguide • drudge report (Wallace, 1998v) 	<ul style="list-style-type: none"> • Scripting News • Hack the Planet • Manifestation • Flutterby • jgg.net • Whump • Robot Wisdom • Honeyguide • Tomalak’s Realm • WindowSeat • PeterMe • Memepool • BradLands • Haddock • NowThis.com • rc3 • GrokSoup • NTKnow • Perfect • PigDog • more weblogs (Barrett, 1999c)

Table 1: Three early weblog lists used as seeds of the data set, quoted in full from the original sources

Few of the first weblogs are extant in their original locations, so the data could not be harvested using automated spidering and needed to be collected in a patient, manual process of discovery and extraction. Much of the data is sourced from the Internet Archive (“About,’ n.d.) and from archives

⁵³ For human readability and ease of access to the archival sources, the data set is maintained as a chronologically ordered list on a web page (Ammann, 2009c). List items consist of a timestamp followed by a plain English Subject-Verb-Object sentence. For every item, the timestamp is hyperlinked to the URL of the respective link being reported, the subject and object of the sentence are hyperlinked to the source and the target of the link, respectively. The verb in any given line, i.e. *list*, *credit* or *endorse*, corresponds to one of the three link types identified in the data set.

maintained by the original bloggers themselves, often in locations other than the original ones. Going through such widely distributed sources using a variety of search strategies, the data was compiled into a list, one link at a time.

As the data was gathered from widely distributed locations and is more than a decade old, its preservation is inevitably less than perfect, which somewhat diminishes the integrity of the data set. Contrary to what might be expected, however, the data is fairly robust: archives that are wholly missing tend to belong to sites located on the periphery of the network,⁵⁴ whereas the archives of central sites are well preserved. Overall, the missing data affects the results only marginally.

To identify the sites that were part of the discourse network, three weblog lists⁵⁵ were chosen that are roughly contemporaneous with the reported period: Chris Gulker's 'Newspage Network' list

54 The sites that are wholly or partly missing are listed below, in order of increasing degree centrality:

Psyberspace (degree centrality: 2) In March 1998, Andy Edmonds promised Barger 'some nice crosslink action' (Edmonds, 1998b) from Psyberspace. It cannot be ascertained if this ever happened: only one isolated weblog page has been preserved from around the same time (Edmonds, 1998a). The bulk of Edmonds' early weblog is, unfortunately, not retrievable, as the current registrant of Psyberspace.net has the Internet Archive's holdings blocked by a robots.txt query exclusion. Psyberspace has an overall inlink count of 4.

Phil Suh (degree centrality: 2) Phil Suh's news page archives from 1997 and 1998 have disappeared without a trace. The Internet Archive has no matches. The site's overall inlink count of only 4 does not suggest that the missing archives contain a large number of relevant outlinks.

Ragged Castle (degree centrality: 3) Andy Affleck (né Williams) states in his archives that the posts from May 1998 to July 2000 are missing due to a 'hard drive incident and a lack of backup problem' (Affleck, 2001). Ragged Castle's inlink count is 7.

Drudge (degree centrality: 4) The *Drudge Report* never maintained archives, but the Internet Archive has a few pages. The absence of links from Drudge into this network is unproven but strongly presumed on the basis of Matt Drudge's known resistance to being identified as a blogger. Drudge's inlink count is 20.

Obscure Store (degree centrality: 6) Jim Romenesko's *Obscure Store & Reading Room* was first noted on 2 July 1998 as a 'very promising, professional-looking weblog-like page' (Barger, 1998z), but the Internet Archive has pages only for 2, 5 and 11 Dec 1998 (Romenesko, 1998b, 1998c, 1998d). It is strongly presumed that, except for the list link to *Robot Wisdom*, *Obscure Store* did not link into this network. Obscure Store's inlink count is 67.

The Obvious (degree centrality: 10) Michael Sippey started the web zine *Stating the Obvious* in 1995. In May 1997, Sippey added a new feature to his site, the Obvious Filter, which he nested one directory into his site. The Obvious Filter adopted the news page model, a fact that Dave Winer immediately recognised and celebrated in a brief note (Winer, 1997bh). The Obvious Filter ran until mid-September 1997 and appears to be fully preserved by the Internet Archive in these instalments: 28 – 31 May 1997 (Sippey, 1997c), 1 – 13 Jun 1997 (Sippey, 1997e), 16 – 30 Jun 1997 (Sippey, 1997f), 1 – 15 Jul 1997 (Sippey, 1997h), 16 – 31 Jul 1997 (Sippey, 1997i), 1 – 15 Aug 1997 (Sippey, 1997j), 15 – 31 Aug 1997 (Sippey, 1997k), 2 – 15 Sep 1997 (Sippey, 1997l), 16 Sep – 13 Oct 1997 (Sippey, 1997m). Probably in response to a chapter draft I posted to the web (Ammann, 2010b), Sippey chose to reinstate the archives from the Internet Archive on his site (Sippey, 1997n).

In mid-October, Sippey chose to shut down his site for a while (Anuff, 1997; Hudson, 1997) and relaunched in late December (Sippey, 1997p), offering a new implementation of the 'Filter' as a weekly feature under the name 'Filtered for Purity.' The archives of that feature run until late April 1998 (Sippey, 1998d). In another redesign of the site in early May, Sippey promoted the 'Filtered for Purity' feature to the front page and restored it to its original daily publication schedule (Merholz, 1998), which allowed him to drive, according to one testimony, a 'huge amount' (Eisenberg, 1998) of traffic. The 'Filtered for Purity' feature remained on *Stating the Obvious* until the end of the year but fell victim to Sippey's new-year resolution for 1999, in which he forswore 'the self-induced stress of producing daily content, even if that content wasn't really content at all, but merely meta-content – links to and smartass commentary on other people's content' (Sippey, 1999). The Internet Archive has preserved a sampling of Filtered for Purity in its waning days (Sippey, 1998f), but its contents from May to late October 1998 are unaccounted for. As the extant Filter material has an overall outlink count of only 4, the missing months are unlikely to contain a larger number of outlinks to the rest of the network. *The Obvious'* inlink count is 13.

55 The neologism 'blogrolling' was first proposed by Doc Searls (2000), but originally referred to any sort of 'logrolling' conducted in blog postings. It took until April 2002 for the term *blogroll* in its current sense to take hold, popularised by the startup Blogrolling.com, a service that facilitated the creation and maintenance of 'blogrolls for friends, enemies and even in-laws' (DeFillippo, 2002).

(1998a) in its final version of February 1998, Michal Wallace's list (1998v) of December 1998 and Cameron Barrett's list (1999c) of January 1999.⁵⁶ The high degree of overlap between these lists suggests a strong genealogical continuity from Gulker's NewsPage network to the earliest weblog network (see Table 1).

Starting from these three lists as seeds, the archives of all the sites referenced were searched, adding other sites thus found if there was a minimal amount of similarity and cross-linking with the other sites in the network, and removing sites if there was no such cross-linking. Following this process iteratively, the network was delimited through the application of two criteria: a site had to display a basic family resemblance with the other sites in the network, and a site had to have an eventual degree centrality of 2 or greater, meaning that a node, to be considered part of the network, needed to have two or more edges attached to it. The first criterion of family resemblance prioritises formal characteristics such as reverse-chronological sorting of entries consisting primarily of annotated links. The criterion is intended to allow some leeway for variation in site design, to eliminate false positives and to allow for sites unmentioned on any of the seed lists.⁵⁷ The second criterion, the degree centrality threshold of 2, is a safeguard against the need to account for an extensive penumbra beyond the network's periphery. This criterion eliminates the news pages in Gulker's list that chose not to link to their fellow NewsPage users or were ignored by them for failing to post links that matched their interests. The threshold also counteracts Barger's tendency to endorse and credit sites that were highly obscure and did not get referenced by other members of the network, even if

⁵⁶ In some of the literature on early weblogs, Barrett's list of January 1999 is discussed as a founding document of the 'weblog community' (see 2.2). None of that literature ever managed to produce the actual list, however. Having found it in an unexpected wrinkle of the Internet Archive, I noticed its high degree of overlap both with Wallace's earlier list and Gulker's original compilation, neither of which had previously been identified and discussed as descriptions of the weblog network. Wallace's list of late 1998 is the obvious model of Barrett's, as Barrett discusses Wallace as the authority of weblogging he deferred to (1999b). The bonafides of Gulker's list comes from its being discussed by Barger as a compilation of 'first generation' (Barger, 1998ab) weblogs.

No single one of these lists on its own offers a reliable delimitation of the network, as each is skewed by its own bias. Gulker's list of the 'NewsPage Network' is limited to users of Winer's NewsPage software. As such, it includes sites whose creators did not share any affinity with, or interest in, other news pages. Usage of Winer's NewsPage software as the sole criterion of inclusion makes Gulker's list too inclusive. By contrast, Wallace's and Barrett's respective lists offer two virtually identical views of an evolved network some 10 to 12 months later, but either of these views is only a statement of arbitrary personal preference; Wallace's and Barrett's respective lists are too exclusive.

Jesse James Garrett's *Ye olde skool* list on his 'Page of only weblogs' (1999a) has been a standby in the discourse on early weblogs ever since Rebecca Blood mentioned it in her first essay on the history of weblogs (2000b). Dennis Jerz has called it 'canonical' (2007), and it forms the basis of press reports that put the number of weblogs in 1998 at twenty-three ('Weblogs rack up a decade of posts,' 2007). Garrett's list is left out of this study, however. Having been compiled between April (Merholz, 1999c) and October 1999 (Garrett, 1999d), the list is not contemporaneous with the reported period. Moreover, it contains only one site that is not featured in at least one of the three seed lists: the *LTSeek* news page, which ran from March 1998 (Rakestraw, 2001) to January 2002 (Rakestraw, 2002) and which served as a current awareness resource on educational matters. However, there do not appear to be any links between *LTSeek* and any of the sites in the weblog network, so its degree centrality of zero disqualifies the site from inclusion. Garrett's list, therefore, does not add anything new to the earlier lists.

⁵⁷ The criterion of family resemblance also applies within sites that were included in the network. It bears remembering that the earliest weblogs operated under a much narrower definition of the form than is generally accepted today: they held the provision and brief annotation of links to be the defining feature, indeed the primary purpose, of a weblog (Blood, 2000b). Yet webloggers of the period often maintained essay pages that were separate from their weblogs, e.g. Dave Winer's *DaveNet*, (Winer, 2004a) Steve Bogart's *Scribbles* (Bogart, 1998j) or Cameron Barrett's *Rants* (Barrett, 2001). In keeping with the contemporaneous definition of what a weblog was, a network site's non-weblog parts were excluded from the data set.

Barger explicitly called them ‘weblogs’ in some cases. Thus, a site was excluded from the data set if it did not link or credit back and was not linked or credited by other network members.

The links in the data set are of three types: endorsement, list and link attribution. An endorsement⁵⁸ is a link in the body of a weblog post that points to another weblog. Granular addressability of individual posts, known as permalinks, did not come to be implemented until the year 2000 (Coates, 2003), so endorsement links in this early weblog network were necessarily links to a weblog as such rather than to anything in particular that had been posted to it. In the data set, only links to the weblog are included, not to any other parts of a site.

A list link is part of a compilation of other weblogs, known as ‘blogroll’ since 2001. List links are situated outside the stream of weblog postings, often but not necessarily in a sidebar. In the data set, they include the links in Chris Gulker’s ‘Newspage Network’ list of October 1997 as well as more recent lists, such as the one placed at the top of John Wilson’s Untitled Weblog (Wilson, 1998) or at the bottom of Steve Bogart’s News, Pointers & Commentary (Bogart, 1998h), or indeed on a separate ‘sources page.’ (Barger, 1999j) as in Barger’s Robot Wisdom Weblog.⁵⁹

A link attribution is a credit for a ‘borrowed’ link to its source, often another weblog. Such attribution need not involve an HTML anchor tag. Barger’s original style of link attributions, for instance, did not offer a direct hyperlink to the source, but used a non-hyperlinked citation key referencing a ‘sources page’. This style was adopted and used throughout 1998 by some weblogs. In May 1998 Raphael Carter introduced the more familiar credit link style that uses a direct hyperlink to the source site (Carter, 1998a), often introduced with the preposition ‘via’.⁶⁰ In the data set, both of these attribution styles are treated as equivalent despite the fact that Barger’s attributions were not links in a narrow, technical definition of the term. It bears pointing out that link attributions are innately reciprocal: they are a commendatory acknowledgement of a fellow weblogger from whose site a link was taken.

9.3 Static measures

The network of early weblogs yields a number of static measures that shed light on the community formation process. For one thing, the network satisfies the criterion that a ‘dense subgraph is a signature of a blog community’ (Kumar et al., 2003): according to the bowtie model of the web (Broder et al., 2000), it has a strongly connected component⁶¹ of 28 out of 37 nodes, equalling 76 percent of the network, with an ‘out’ component of 8 nodes, accounting for 22 percent. These numbers unequivocally contradict the claim that in early 1999 there was ‘no strongly connected com-

58 The term ‘endorsement’ is suggested by Kleinberg (1999, p. 617 passim).

59 Barger’s list is not preserved in a copy of 1998, the earliest extant version dating from April 1999. In the data set, a new list link is *inferred* to have been added to the *Robot Wisdom Weblog* sources page whenever Barger credited a weblog for the first time.

60 In the data set, credit links with a direct hyperlink are marked with an asterisk. Link attributions, although by far the most numerous type throughout the data, are under-reported, as multiple credits per day, especially on *Robot Wisdom*, were counted as a single credit only.

61 The size of the strongly connected component and the normalised degree centrality measures were calculated in the Pajek network analysis application (Batagelj & Mrvar, 2008). All other measures were calculated using the grep utility (Josey, Cragun, Stoughton, Brown, & Hughes, 2004).

ponent of more than a few nodes' (Kumar et al., 2003).

	Barger	Winer	Barrett	Gulker	Wallace	Bogart	Affleck
Indegree centrality	0.39	0.50	0.22	0.14	0.11	0.11	0.08
Outdegree centrality	0.56	0.31	0.42	0.25	0.39	0.31	0.06
Degree centrality	0.47	0.40	0.32	0.19	0.25	0.21	0.07
Peer discoveries	10	6	3	6	0	0	0
Reciprocal dyads	12	6	5	4	4	3	2
Outlinks	307	12	36	18	65	44	4
Link credits	267	0	8	2	30	13	0

Table 2: Network measures of some key actors (centralities normalised)

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Degree centralities offer further insights. Dave Winer's indegree centrality is the highest in the graph. Jorn Barger has the highest overall degree centrality in the graph, however, with Winer coming second. Barger also managed to form twelve reciprocal dyads within the graph, which is twice as many as the second-ranked Winer (see Table 2); thus, Barger and Winer are indubitably the two most central actors in the network, but Barger's reciprocity is twice as high as Winer's.



Figure 1: peer discovery graph

Reciprocal dyads can usefully be related in this graph to the ad-hoc measure of peer discovery count, the number of previously undiscovered new network peers a weblogger managed to introduce to the network by linking to them before another established peer in the network did. Winer linked to newly established news pages as he became aware of them, simply by way of identifying users of his software, while Gulker maintained a metaphorical ‘radar’ (1998a) looking out for new additions to this network, and Barger continued Winer and Gulker’s practice, highlighting new weblogs among his ‘discoveries’ (Barger, 1997ap, 1998f) whenever he found a new one that met his criteria for inclusion (see Table 2). Barger has the highest peer discovery count in the graph, followed

by Winer and Gulker (see Table 2). Gulker's high count of peer discoveries contrasts with his comparatively low count of reciprocal dyads; this contrast is a measure of how little social engagement his 'Newspage Network' of late 1997 and early 1998 managed to sustain.

Conversely, the fact that Barger has the largest number of reciprocal dyads, the highest overall centrality degree and highest peer discovery count underscores the most striking of the network's quantifiable characteristics, the great disparity in outlink count between Barger and any of the other actors. Barger's outlink count, by far the highest throughout the graph, exceeds the outlinks of the second-ranked in this measure, Michal Wallace of *Manifestation.com*, by a factor of more than three. Barger's outlinks also account for nearly half the links in the network, Wallace's for less than 10% (see Table 2).

Winer's outlinks, by contrast, amount to less than 2% of the graph's total outlinks. Winer was the beneficiary of large quantities of inlinks but, unlike Barger, did not offer a corresponding number of outlinks, which suggests that Winer's participatory involvement with the emerging network was comparatively low. Of Barger's copious outlinks, 87% were of the reciprocal credit link type. Offering these to new entrants from his central and highly reciprocated position in the network amounted to 'accreditation' (Benkler, 2006, p. 79) of new actors emerging on the network's periphery, and to 'recognition and legitimation of relations' (Lin, 2001, p. 137). Through his abundant outlinking, Barger was actively promoting the growth of the network.⁶²

The network of early weblogs was an exchange network of link foragers in which URLs of note were traded. Links to new peers in the network were a tradeable commodity in this exchange network. The ad-hoc network measure of the *peer discovery score* (see Table 2) accounts for the number of such discoveries made by each actor. Barger has the highest score (10), followed by Winer (6) and Gulker (6). With Jorn Barger's *Robot Wisdom Weblog*, Dave Winer's *Scripting News* and Chris Gulker's *News Page* at the centre, the graph in Figure 1 visualises the discourse network under the aspect of who first introduced whom to the rest of the network.

9.4 Longitudinal analysis

To account fully for the dynamics of community formation, it is necessary to examine the data diachronically and focus on the link types of endorsement, link attribution and list.

⁶² One possible formal account of Barger's prodigious outlink count may lay in the realisation that it made him the single most proficient contributor to the network's overall social capital. While social capital has long been 'a contentious and slippery term' (D. Williams, 2006, p. 594), it has been described both as an individual asset derived from a network and a shared asset inherent in the network itself. If the latter view is taken of social capital 'as a public good that is socially generated, maintained, and exchanged within emergent communities of practice' (Wasko & Faraj, 2000, p. 156) in order to 'create resources that are owned by no one but used by all members of a social system' (Mathwick, Wiertz, & de Ruyter, 2008, p. 834), Barger's outlinks can be accounted for in network-theoretical terms as contributions to the network's density and centralisation, increasing the overall strength of the network and reducing its structural holes, thereby increasing the social capital that is embedded in it (Borgatti, Jones, & Everett, 1998, p. 32). An economic model for self-interested outlinking has been presented by Mayzlin and Yoganarasimhan (2010), making no reference to the literature on social capital, but clearly getting at a deeply compatible idea.

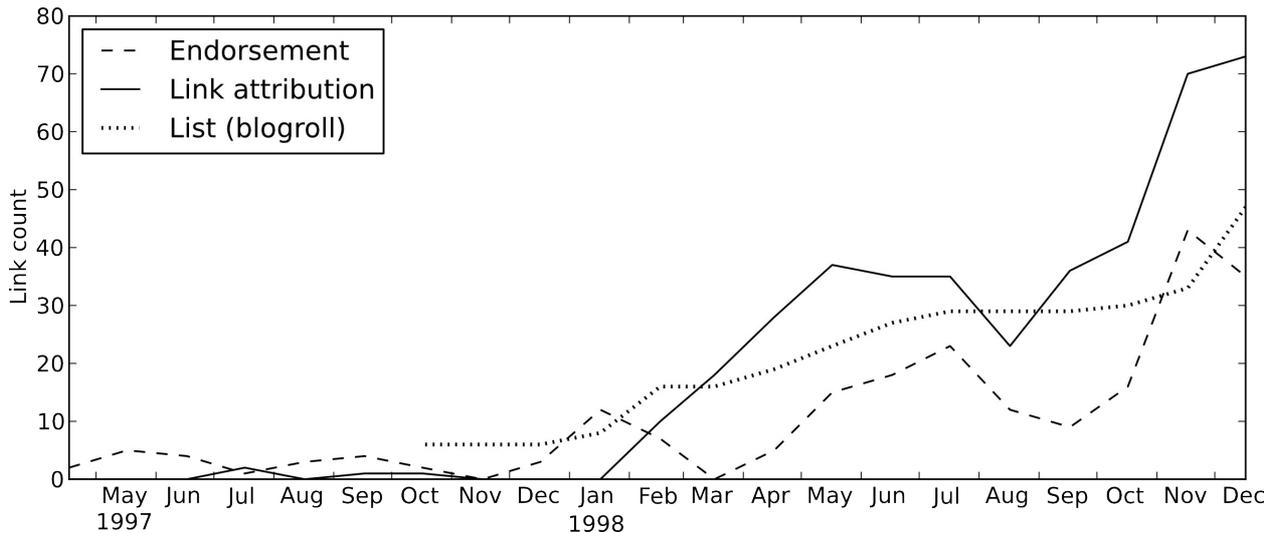


Figure 2. Endorsements, link attributions and list links per month, 1997 – 1998

A time series plotted of the three link types shows sporadic links of all three types in 1997 (Figure 2). Endorsement links are the oldest type, with links recommending other news pages emerging in the first half of 1997. A few link attributions crop up in 1997 as well, and then, from October 1997 onwards, there are list links, represented by the dotted line, starting with Gulker’s original NewsPage Network (Gulker, 1997e) list. While endorsement links temporarily peaked in early 1998, attribution links began to increase dramatically a short while later, followed by a renewed and sustained increase in both endorsement links and list links. Link attributions got numerous before endorsement links got numerous, and for most of the year 1998, link attributions were the most numerous link type, accounting altogether for 61% of the edges in the graph.

As network activity suddenly proliferated in early 1998, Gulker’s dormant NewsPage Network sprung to life. The link type that increased sooner, climbed higher, and outnumbered the other link types for the remainder of the year is the attribution link. Innately reciprocal, attribution links increased earlier than other link types, and remained the most numerous link type throughout most of the year. This strongly suggests that the appearance attribution links precipitated the emergence of ‘routinized social relations’ (Lin, 2001, p. 136), thereby marking the emergence of the discourse network as a self-aware collectivity.

This hypothesis is best checked against the timeline of the relevant links and contextualised within known events. The earliest massed link attributions were introduced and championed by Jorn Barger (11.4.3). Adoption spread from there. In late July 1998, Barger maintained that ‘crediting links borrowed from other weblogs is good etiquette’ (Barger, 1998aa) and Michal Wallace praised link crediting as ‘cross-pollination’ (1998j) between weblogs; by that time, link crediting had been adopted by 11 peers in the network. By the end of the year 1998, it had been adopted by 18 out of the 28 peers in the network’s strongly connected component, which amounts to an adoption rate of 64%. Thus, the norm that webloggers should ‘make an effort to acknowledge sources’ (Krahn, 1999a) was firmly established at the outset of 1999, and when Barrett suggested in January 1999

that links that had already been shared on several other weblogs should be excepted from the norm (Barrett, 1999b), he underscored the sense of an established practice.

Bogart originally adopted link attribution from Barger out of consideration for his peers and from a desire to share links⁶³ in a way that respected the contributions of others: he was unwilling to forgo the privilege of sharing links that had already featured on other weblogs, yet wished to avoid giving umbrage by taking possession of such links inappropriately, so he concluded that link attributions were ‘the best choice as far as balancing my peace of mind with not wanting to be limited in what I could write about’ (Bogart, 2010). As discovering links of interest required an effort that should not go unrewarded, credit links answered the need to reward proficiency in discovering noteworthy links, the skill that the network valued most in its peers. The direct reciprocity of link attribution thus appeared as a facilitator of exchange relations within the emerging network.

Barger for his part intended link sharing to ‘make the web as a whole more transparent, via a sort of ‘mesh network,’ where each weblog amplifies just those signals (or links) its author likes best’ (Barger, 2007g). He advised that webloggers ‘ought to give enough credit that readers can check out that source for themselves’ (1999t) because he understood that the direct reciprocity of link attribution was a facilitator of exchange relations: ‘We vacuum the Net for stories that the major outlets haven’t noticed yet, and pass along our sources so we can all get more and more efficient at this vacuuming’ (1998x). As an attributed link amounted to a ‘vote of confidence’ (Barger, 1999b) in the source being credited, the norm of reciprocity facilitated exchange relations through the establishment of mutual trust.

The connection between link attribution and network formation was most succinctly stated by Brad Graham of the *BradLands* weblog, however, who noted: ‘by crediting a weblog where a borrowed link was originally found, we introduce a means of scalability to our expanding community’ (2000). In Graham’s analysis, link attribution had one simple purpose: ‘we’re recruiting’ (2000). The direct reciprocity inherent in link attribution would therefore ‘knit together a new social Web’ (S. Rosenberg, 2009a, p. 83), driving network formation and growth.

9.5 Discussion

The analysis of the link data strongly calls into question both founding narratives (see 2.2, 2.3). The discovery of a strongly connected component in the network of 1998 all but disproves the Garrett-Blood narrative according to which the network coalesced only in 1999 (Blood, 2000b, 2002b). While Winer’s indegree centrality readily supports the generalisation that the network of weblogs coalesced around the NewsPage model and the example that Winer set in *Scripting News*, Winer’s repeated contention of having ‘bootstrapped blogging’ (see 2.3) is not borne out by the data. It was Chris Gulker and Jorn Barger who articulated the need for such sites to be organised to allow for resource discovery as part of an exchange network, and it was Barger and Steve Bogart who instig-

⁶³ The neologistic usage of *sharing* as ‘the constitutive activity of Web 2.0’ (John, 2012, p. 1) did not become widespread until 2005 (John, 2012, p. 8), but the term *sharing* is clearly apposite here as it identifies the direct precursor of the very same activity.

ated and forged this network into a collectivity by introducing and establishing link attribution as a form of direct reciprocity, a shared norm that triggered the routinisation of the network's social relations in early 1998.

10 Large dynamic sites with lots of authors:

Dave Winer's collaborative content management programme (1996 – 2000)

UserLand's software product Frontier, which Dave Winer considered to be 'the primary result of my life as a software developer' (1995aj), consisted of several parts: a scripting language, a script editor, an object database, and a runtime environment. Initially conceived as a system-level scripting environment for the Macintosh platform (E. Dyson, 1991), Winer stated a new strategic direction for his product in May 1996, which would govern its development for the next four years and repurposed it towards its primary use as a content management system. Early in this development cycle, Winer made the NewsPage suite available, which formed the basis on which the weblog community emerged (see 11) even as the basic premise of the development cycle, centralisation, ran counter to the distributed, decentralised nature of the early weblog community.

10.1 24 Hours in Cyberspace

The American photographer Rick Smolan, widely known as the originator of the 'A Day in the Life' franchise of coffee-table books, created 'the world's biggest website and the most elaborate journalistic experiment in history' (Halfhill, 1996) by taking the concept of his publishing franchise to the internet. In *The 24 Hours in Cyberspace*, a one-day web publishing event held on 8 February 1996, Smolan tasked some 1,000 photographers, including dozens of leading photo journalists, to 'capture the human face of the online revolution' (Smolan, 1996b). Smolan sent contributors on assignments across the globe and let them submit their work electronically to 'Mission Control' (Smolan, 1996b), a highly centralised ad-hoc facility in San Francisco, where he oversaw the editing of the material that came in and had it published to the project website with a near-instant turnover.

Smolan's 'real-time event' (Smolan, 1996a), several months in the making, was large by any reckoning. A sponsoring consortium that included companies such as Adobe, Kodak and Sun Microsystems covered expenditures in excess of \$5 million (Plotnikoff, 1996). The professional photographers were joined by 'several hundred more amateur shutterbugs and another 2,500 students from 118 schools' (Chin, 1996), and the project was held together by a 'team of 80 editors, designers and programmers from the world's top newspapers and magazines' (Smolan, 1996b) who collaborated on this publishing project in a fashion that resembled a 'full-scale military operation' (Plotnikoff, 1996).

An ambitious startup company named NetObjects provided the publishing infrastructure of Smolan's project. Founded in November 1995 (NetObjects, 1996a) and flush with several million dollars' worth of venture capital funding (NetObjects, 1996b), NetObjects contributed a customised prototype of its software that was still half a year from public release (Jones, 1996b). The system, which allowed Smolan's global network of contributors to submit text and images through web forms, ran on a Unix operating system, relied on an object database and used a templating system

for fast and easy page generation that obviated the need for the site's editorial staff to have any coding skills (Somogyi, 1996).

Smolan's one-day event in celebration of the internet coincided with the date, 8 February 1996, on which President Bill Clinton signed the recently passed Telecommunications Reform Bill, and which saw widespread protests against some of the law's provisions. Section 502 of the law, also known as the Communications Decency Act, made it an offence to distribute 'indecent' materials on the public Internet.⁶⁴ The protests that followed the passage of the law were led by two citizens' groups. The Electronic Frontier Foundation launched the Blue Ribbon Campaign, which asked website maintainers to display a blue ribbon graphic on their pages to protest against the bill and show support for free speech. Another group, the Voters' Telecommunications Watch, initiated a protest that asked website maintainers to express their mourning over the loss of freedom by setting the background of their pages to black for forty-eight hours, starting with President Clinton's signing of the bill on 8 February (Martyn Williams, 1996).

Smolan chose not to cover the protests as part of his *24 Hours in Cyberspace* project, an omission that earned him harsh criticism from free speech activists. Howard Rheingold thundered that Smolan had just abrogated the right ever to call himself a journalist again (1996). Dave Winer, who had been calling Smolan a 'friend since 1983' (1996l) was equally appalled and pronounced their friendship to be 'in jeopardy' (1996o) as a consequence of Smolan's omission. Convinced that Smolan had 'sold out' (1996m), Winer branded *24 Hours in Cyberspace* a 'vestige of an old way of doing business' (1996m) and denounced it as a 'huge blast of cyberspace puffery' (1996q) for its failure to take a political stand.

Winer not only took exception to Smolan's failure to cover the protests in *24 Hours in Cyberspace*, he also detected an attempt by the mainstream media at 'transferring the power structures in their world to the web world' (1996q). Smolan's project ran counter to Winer's publicly stated ideal of a web that was 'two-way and unedited' (Stahlman, 1996), as Winer rejected any attempt to 'control communication' (1997m) and 'snuff out individuality' (1997m). Processes such as 'editorial control' (Winer, 1996ah) and 'editorial policies, control of opinion, the sanitizing of people' (Winer, 1996au) were anathema to him, as he saw the 'two-way medium' (Winer, 1996t) of the web as the 'editorless writing medium, the one where the writer can own the printing press' (Winer, 1999i). Winer aimed for writers to have 'control of the copy' (Winer, 1996ba) and for everyone to have 'their own website, edited by them, saying what they have to say' (Winer, 1996au).

Consequently, it was against government interference and against the perceived mainstream media incursion onto the web that Winer vowed to 'organize free speech on the Internet' (1996t). From his vantage point as a columnist at *HotWired* magazine, he decided to launch a protest event that followed the spirit of the earlier protests and emulated Smolan's event in both conception and name. Winer's *24 Hours of Democracy* was an 'investment in democracy on the Internet' (Winer, 1996q) and its focus on free speech and personal expression sought to celebrate those aspects of the new

⁶⁴ The Communications Decency Act was challenged as an unconstitutional curtailment of First Amendment rights and was eventually overturned by the the Supreme Court in the summer of next year (Greenhouse, 1997).

medium that Smolan's event had failed to honour.

10.2 24 Hours of Democracy

Winer had been vocally opposed to the Communications Decency Act for the twelve months that preceded its passage (Winer, 1995p, 1995x, 1995ae, 1995am, 1995ap), and he condemned the legislation as soon as it passed Congress as part of the Telecommunications Reform Bill in early February 1996 (Winer, 1996i, 1996j). Having closely observed the online protests (Winer, 1996k, 1996n) and having assessed their impact (Winer, 1996p), Winer announced his own protest event on 12 February 1996, the *24 Hours of Democracy*, in which he asked internet users to post essays on liberty and democracy to the web (Winer, 1996q, 1996r).

In this online protest, Winer staked out for himself the role of 'Chief Sysop and Editorial Director' (1996s) and not only named his project after Smolan's operation, nor only attempted to set right its wrongs, he also emulated its ambition: as Smolan had proclaimed *24 Hours in Cyberspace* to be the 'world's fair for the information age' (Smolan, 1996b), Winer wanted *24 Hours of Democracy* to be the 'World's Fair for the web' (Winer, 1996ab). Winer's event boasted sponsorship by America Online and HotWired, received an endorsement from Apple (Montgomery, 1996) and counted Microsoft chairman Bill Gates amongst its contributors (Gates, 1996). Regardless, it was an impromptu shoestring operation that was conceived, planned and completed in less than a fortnight and stood in stark contrast to Smolan's polished production values and tightly controlled project management. Especially, it failed to match its high degree of centralisation. Winer's project relied on third parties to provide 'page storage for writers who don't have their own websites' (Winer, 1996u) and it enlisted the *pro bono* services of anyone who could help 'users to get a single page up' (Winer, 1996q). Unlike the project it emulated, *24 Hours in Democracy* was highly distributed as a consequence.

Winer's protest was hailed as the 'first-ever Internet many-to-many event' (Stahlman, 1996), and Winer was quick to point to his project's decentralised structure as an exemplary use of the technology: 'by design it's a very distributed Internet sort of thing' (1996q). This design was a matter of necessity rather than choice, however. At the time of the protest, UserLand was preparing a web building tool named Clay Basket for its 1.0 release (Winer, 1995bb), a desktop application that was initially conceived as a bookmark manager and had web building capabilities added later (Engst, 1996). Winer had been using Clay Basket to run his own site for half a year (Winer, 1995at) and was deploying it for *24 Hours in Democracy* as well (Winer, 1996s). He was aware that his infrastructure was not exactly a 'world-class server system' (Winer, 1996d) and that it was not suited to the task of processing submissions from a large numbers of contributors. Consequently, he 'hit a brick wall' (Winer, 1997a) as Clay Basket 'couldn't handle' (Winer, 1997a) a degree of centralisation that was even remotely like Smolan's. At the outset of organising his protest, Winer had speculated that he 'may have an easy way for people who don't have sites to get their essays posted to the web' (Winer, 1996q), but he never managed to deliver on this tentative assurance. The limitations of Winer's software simply prevented him from matching the power of the publishing infrastructure

Smolan had brought to bear on his project and forced him to embrace decentralisation as the only viable option.

The widely distributed nature of Winer's event called for content aggregation strategies that would bring the effort together (Winer, 1996y). This was provided in a straightforward, continuously updated index that listed all contributions as they became known, a compilation whose final tally stood at 1,078 essays (Winer, 1996b). As part of the project, Winer also put weblog-like structures in place, such as the project's news page that he has since repeatedly identified as his first weblog (Winer cited in Festa, 2003; Winer, 1999v, 2001q, 2007f). This news page provided links to updates and announcements mostly on internal matters, such as new additions to the project site. Separately, Winer also compiled aggregations of the distributed essays in four separate 'tours' (Winer, 1996v, 1996w, 1996x, 1996z). Each of these tours was an annotated list of selected links to essays that were part of the protest, 'like a page of pointers to cool websites, but with a realtime difference' (Winer, 1996aa). While the essay list aimed for completeness and the news page reported on new developments within the project, the purpose of the tours was salience generation among the essays submitted, as Winer would 'choose the most compelling ones or the most interesting ones' (Winer, 1996q) and 'only pointed to sites that I thought were remarkable in some way' (1996aa). The tours were also intended as models for others to follow, and there were at least eight people who emulated the model and posted their own paths of recommended reading through the body of submitted essays (Winer, 1996y). Thus, in a highly distributed event, the task of winnowing for quality was decentralised too.

10.3 Redefining Frontier

One contemporaneous observer, deeply in awe at Smolan's 'ultimate website' (Halfhill, 1996), predicted that much of the future's new web technology would 'trace its ancestry back to 24 Hours in Cyberspace' (Halfhill, 1996). Winer, too, appreciated the technological merits and sophistication of Smolan's 'nicely done site' (Winer, 1996m) and commended it as a 'first step to gather a massive amount of new content' (1996l). Smolan's feat, moreover, occasioned Winer to rethink the strategic direction of his company.

The failure of *24 Hours of Democracy* to match the publishing capability that Smolan's team had demonstrated in the *24 Hours in Cyberspace* project made for an 'epiphany' (Winer, 1997a) that lit all of Winer's 'lightbulbs' (Winer, 1996ak) and caused him to take a 'major turn' (Winer, 1997bx) in his software development. Winer realised that Frontier already had the necessary components of a publishing system that supported a division of labour between system administrators, designers and content producers. Having 'figured it out' (Winer, 1997a) in March 1996, he hinted at a new system that would provide a 'rational way to do a high-flow website' (Winer, 1996ad). The model he acknowledged was the custom-built content management system that was in use at *HotWired*. Winer decided to emulate *HotWired*'s system and 'do the same thing they were doing' (Winer, 1997a). Having thus 'discovered a killer app for Frontier' (Winer, 1998w), Winer 'changed directions and headed into a new area, publishing systems for the web' (Winer, 1997v). He was

busy ‘doing the new framework’ (Winer, 1997a) until mid-May.

With the release on 15 May 1996 of Frontier 4.0 in its new incarnation as a content management system (Winer, 1996ai), Winer also announced a new mission statement for his company. In Frontier’s initial use as a system-level scripting environment for Apple’s Macintosh, the software had been engaged for years in a losing battle with Apple’s competing product, Applescript (Winer, 1997a). Now that Winer had re-invented his flagship product as a collaborative web content management system, he tried to enter and shape the emerging market in web authoring for ‘large sites that are dynamic with lots of authors’ (Winer, 1996ak). Winer promoted UserLand’s new mission with zest and enthusiasm: ‘Our vision, Large Dynamic Sites with Lots of Authors, is incorporated in everything we do. It’s the first paragraph of our business plan, and the last paragraph, and every one in between’ (1996bb).⁶⁵

10.4 DaveNet and Frontier News

With the release of Frontier 4.0 in May 1996, Winer also decided to become ‘totally independent’ (Winer, 1996ai) of *HotWired*: he resigned as a columnist, relocated his web pages off the *HotWired* domain and implemented *Scripting.com* in Frontier (Winer, 1996al) to showcase his software’s newly acquired web building capabilities. In an inconspicuous corner of the new site, he started an unassuming feature named *Frontier News* (Winer, 1996a), a list of annotated hyperlinks presented reverse-chronologically in daily, date-stamped batches, which referenced the occasional news-worthy item from all over the Web, but mostly linked to new materials on his own site. On *Frontier News*, Winer linked to anything he deemed relevant to Frontier development: release announcements of his own software, release announcements by developers building on Frontier, impressive new sites built in Frontier, general industry news, and, of course, new instalments of *DaveNet*, which was now archived on *Scripting.com* too (Winer, 1996al), and which, consisting of more than a hundred essays to date, amounted to Winer’s first implementation of a ‘large dynamic website’ (Winer, 1996am).

As Winer was running his own web server now rather than relying on *HotWired*’s hosting service, he became an avid student of his access logs (Winer, 1996am). By December 1996 he was well aware that *Frontier News* was a resounding success and had, in fact, become the most popular destination on his site (Winer, 1997i), followed in second place by the awkwardly conventional home page which consisted merely of a welcome message and a table of contents (Winer, 1996ay). This home page was an embarrassment to him: he never visited it himself, and he did not know

65 The depth of Winer’s commitment to the centralising design of Frontier’s web framework was evident in his willingness to abandon further development of Clay Basket and ignore its users’ protestations of betrayal that resulted from the decision. By the time Clay Basket had failed to match Smolan’s effort and had led Winer to consider the software a ‘dead-end’ (Winer, 2000n), it had already become a ‘platform’ (Winer, 1995ba) with a ‘public mail list and lots of users’ (Winer, 2001p); its highly active user community was ‘flaming out’ (Winer, 2007l) as a result of the discontinuation and Winer would have been ‘roasting material’ (Winer, 1996ag) in an ‘outpouring of rage’ (Winer, 1996bc) had he chosen to meet his users’ anger over the discontinuation of the product. He ‘declined to participate’ (Winer, 1996ag) in any discussion of the subject, chose to ‘look away’ (Winer, 1996bc) instead and pressed on in pursuit of his new direction.

what to do with it. Looking at the large amount of traffic it attracted despite its unappealing, static design and lack of content, he had an idea, however (Winer, 1997i): to make things ‘flow better’ (Winer, 1997k) he would promote the news page to the front and thereby adopt a site architecture that *HotWired* had pioneered a couple of months earlier.

10.5 A publishing revolution

In January 1997, Dave Winer released version 4.2 of his web publishing platform Frontier (Winer, 1997c). The software included a new feature named NewsPage (Winer, 1997h), which enabled editors without HTML skills to run a site’s home page as a reverse-chronologically ordered stream of annotated links, grouped by day, with a date-stamp serving as the heading for each day’s worth of postings. Winer had been editing such a page named Frontier News for months as a current awareness resource through which he linked to Frontier-related news and tidbits from across the Web. A few days after the Frontier 4.2 release, on 1 February 1997, Winer lifted the Frontier News page from its initial location in his site’s Frontier section to the *Scripting.com* front page (Winer, 1997k), renamed the page *Scripting News* and, in the process, brought his own site in line with Frontier’s newly-espoused default site model, which called for a website to be fronted by a news page.

Winer articulated a purely pragmatic rationale for his news page: Acknowledging that the feature emulated the respective designs of *HotWired*’s main page and Ric Ford’s *Macintouch.com*, a daily newsletter that focused on Apple-related news, he characterised the NewsPage model as an attempt to ‘package the idea’ (1997i) that had already been implemented successfully by these prototypes.

Winer knew from his server logs that the news page was the most popular part of his site and attracted many loyal repeat visitors (Winer, 1997i). Reflecting on this success, he found that ‘every platform should have a Ric Ford’ (1997i) and anticipated a wider adoption of the model among communities of interest beyond software: ‘There will be many other special interest sites whose purpose is to provide coverage to self-seeking and self-defining groups of people’ (1997y), but he did not entertain the idea that such usage would differ in any way from the centralising publishing model he had adopted as part of his commitment to the idea of collaborative web content management. Winer, in fact, strongly advised against seeing news pages as distinct entities separate from his publishing model: ‘News pages are fun, but I want to grow my news page to include more than one contributor and then more than one editor’ (1997ak).

As Frontier was ‘reaching maturity’ (Winer, 1997e) with the 4.2 release of January 1997, ‘Winer felt ‘ready to commercialize’ (Winer, 1997aj) Frontier’s collaborative web content management approach and deliver on the ‘promise of Large Dynamic Sites with Lots of Authors’ (Winer, 1997k). He now proclaimed the software to be an ‘end-user thing’ (1997i) that offered ‘turnkey site maintenance’ (1997ba) and supported ‘effortless and broadly accessible authoring’ (1997u).

In reaching this ‘milestone’ (Winer, 1997z), Winer declared that he was seizing an opportunity that had not presented itself ‘in several generations’ (1997s) and that would result in nothing short of a ‘publishing revolution’ (1997at). He wanted to be among the ‘new editorial organizations and software companies’ (Winer, 1997m) that would spearhead this revolution and empower users of his

software to ‘compete with local newspapers like the Mercury-News and national publications like Business Week’ (Winer, 1997s). The status quo, he contended, was ripe for the challenge:

They’re making it easy to compete. If you want to own the free version of Business Week, go for it. It’s wide open. Same with the San Jose Mercury and every other local paper that’s applying the print economic model to the web. (1997s)

Winer believed he could remake journalism. Noting that ‘inexpensive sites have free people and short lead-times’ (1997u) and that ‘free channels are beating out pay channels in lots of areas’ (1997u), he maintained that user-generated content would be a highly competitive and commercially viable entrant to the industry: what ‘amazon.com is doing to the book retail industry can be repeated in news’ (1997s). Winer ‘tried to convince many’ (Winer, 2007e) to support his publishing model and bankroll the revolution he foresaw. He was ‘waiting for someone with a checkbook’ (Winer, 1997bt) so that ‘rational business deals can be cut to leverage the talent and software’ (Winer, 1997bt). The investors who would ‘clamor to get some of the action’ (Winer, 1997be) never appeared, but Winer did manage to forge alliances with corporate partners that would ‘work together and make something happen’ (Winer, 1997br). These were Apple and Seybold Seminars, the latter being a now defunct trade show which was leading the publishing industry at the time.

10.6 Apple Inc.

Since it was the Macintosh that ‘made the desktop publishing revolution possible in the mid-late 80s’ (Winer, 1997au), and Apple’s platform dominated the market in publishing systems in the mid-nineties, Winer believed that the publishing revolution of the web, which was ‘even bigger than the one that happened the last time around’ (Winer, 1997at), would be waged from the Apple platform as well, despite the company’s faltering prospects and the widely shared expectation of its imminent demise.

In March 1997, Winer ran Apple’s News Room (Winer, 1997x) at the InternetWorld trade show in Los Angeles, where Apple gave him an opportunity to ‘create, in real-time, a dynamic site’ (Winer, 1997aa) that would ‘cover the news and culture’ (Winer, 1997ad) at the show. Located at Apple’s booth, the News Room was staffed by Winer and a handful of technicians and editors, and put Winer’s vision of ‘large dynamic sites with lots of authors’ (Winer, 1997z) to ‘a real-world field test’ (Winer, 1997ad) in which Winer deployed his software to ‘coordinate dozens of reporters here at InternetWorld, managing a large dynamic site with lots of information about the show’ (Winer, 1997ac).

As Winer would ‘update the home page in real time’ (Gulker, 1997b) whenever he spotted a relevant article anywhere on the Web and whenever a new piece was posted on his own site by its staff writers and volunteer contributors, the Apple News Room site implemented the NewsPage architecture in a ‘dynamic site that changes every hour’ (Winer, 1997ae). The site aspired to be a ‘valuable source of news, information and perspectives’ (Winer, 1997ae) and would compel users to ‘come back again and again’ (Winer, 1997aa).

Having linked to nearly eighty stories over the course of four days (Winer, 1997x), just over half

of them published on the site itself, the News Room won plaudits: it ‘had a visceral appeal, it was up to date, and had immediacy and directness’ (Suh, 1997). Winer shared the enthusiasm and asserted that the completion had ‘the feel of a college graduation’ (1997ag) because the undertaking had afforded such rich opportunities to study ‘real-time web writing’ (Winer, 1997ah) and, obviously, to ‘learn about dynamic sites with lots of authors’ (Winer, 1997ad).

Winer invited comparison of this ‘experiment in web-based journalism’ (Winer, 1997ae) to his *24 Hours of Democracy* project of the previous year, but also repeatedly referred to it as a ‘moon mission’ (Winer, 1997ab, 1997ah), a metaphor that echoes Smolan’s ‘Mission Control’ (Smolan, 1996b) headquarters in San Francisco in the previous year. In fact, Winer’s exuberance relating to the News Room did not primarily flow from its presumed success as a journalistic effort but from the fact that it marked a technological ‘milestone’ (Winer, 1997z). Winer did not have the capability to gather the *24 Hours of Democracy* event into a single website in February 1996, but he could centralise the operations of Apple’s News Room in March 1997 just like Smolan had centralised them in February 1996. Winer’s content management software was now ‘ready for heavy use’ (Gulker, 1997b).

After years of a very rocky relationship with Apple (see 4.6.1), Winer publicly renounced the enmity of the past and embraced the platform vendor in high hopes of a lasting collaboration, expecting Apple to make a much greater commitment than just asking him to cover the trade show (Winer, 1997v). Once Apple had ‘thrust out its hand with ceremony and a big smile’ (Winer, 1997u) in commissioning Winer to run the News Room, Winer expressed confidence that he had a ‘common strategy’ (1997v) with Apple that would be ‘built around our software’ (1997v). Winer’s conviction of being ‘solidly in the web publishing market, with Apple’s support’ (1997v) turned out to be overly optimistic, however. Winer was ‘struggling to get Apple to help us build a market’ (1998y), and the hope of improved relations with Apple unravelled as its ill-fated chief executive of the time, Gil Amelio, announced in March that he would lay off 4,100 workers (Swartz, 1997), as a consequence of which Winer’s ‘new friends [at Apple] were gone’ (Winer, 1997bq). Amelio himself resigned on 9 July (Kehoe, 1997), and by the time that Steve Jobs was confirmed as interim chief executive in September (Denton, 1997), Winer’s great hope to ‘work together and make something happen’ (Winer, 1997br) was reduced to expecting an opportunity to ‘market together’ (Winer, 1997bu), yet his plea to ‘find a way to both win’ (Winer, 1997bu) went unheard.

10.7 Seybold Seminars

Of much greater consequence than Winer’s rapprochement with Apple was his collaboration with Seybold Seminars, an influential and highly regarded business-to-business intelligence company serving the print and publishing industries. The company, whose name was ‘synonymous with credibility’ (Winer, 1998l), traded in ‘big publishing conferences and expensive newsletters’ (Winer, 1997bl) for ‘people and companies who invest big bucks in content’ (Winer, 1998m). In 1997, the company was preoccupied with the question of ‘how the print industry moves onto the web’ (Winer, 1997at) while maintaining its axiomatic premise that ‘the Internet is a publishing medium in the

same way that paper is a publishing medium' (P. Dyson, 1996). The company was known for its optimistic outlook and its belief that 'readers will be willing to use (and buy) media-rich electronic publications' (P. Dyson, 1998). Contrary to widespread perception, the company was also sanguine in its prediction that it was possible to 'make money by publishing on the Net' (P. Dyson, 1996). Some of Seybold Seminars' clients – many of whom were print publishers ambitious to make the transition to the internet – were less confident about their commercial prospects and told 'nervous jokes about not making money on the web' (Winer, 1997av). Seybold's New York show in April 1997 was attended by 'leaders of the print publishing industry' (Winer, 1997av) who were 'understandably scared' (Winer, 1997av), as business that used to be exclusively print-based was 'rapidly turning electronic' (Winer, 1997av).

True to their client base, Seybold Seminars were looking at the web as a new market for print businesses to enter, an outlook that motivated their interest in Frontier. One leading Seybold analyst noted that a 'mass market for content management software is coming into existence' (P. Dyson, 1997b), and attested that Frontier was worthy of 'serious attention from serious Web publishers' (P. Dyson, 1997a) because Winer's software was 'evolving into a Web publishing product for automating complex workflows' (P. Dyson, 1997a). Seybold Seminars, as a consequence, awarded Winer a Seybold Fellowship – an honorary position with an advisory capacity – for his 'pioneering work in web-based publishing systems' ("The Seybold Institute," 1997) and, more specifically, for his leadership in 'automating editorial and production processes' (Winer, 1997bf). The reasons stated for Winer's appointment reflected Seybold Seminars' overriding concern with the transfer of established processes from print to the web. High up on the list of these processes was editorial workflow.

Winer believed that in his advisory capacity he would be 'sending messages to the publishing world' (Winer, 1997an), as he had 'something to say to the publishing world' (Winer, 1997an). However, the relationship was reciprocal, and Seybold Seminars had much to say to Winer as well. Craig Cline, the company's 'vice president of content development and editorial director' ("About Us," 1997), whom Winer came to consider a 'friend and coach' (Winer, 1997at), all but reshaped Winer's outlook in Seybold's image. Winer took it on the authority of the 'folks at Seybold Seminars' (Winer, 1997n) that the web was a publishing market whose technology was going to 'follow the flow of print publishing systems' (Winer, 1997n). The assumption that 'publishing systems are replaced by web publishing systems' (Winer, 1997f) also implied that the editorial processes of the print world would be replicated on the Web:⁶⁶ 'as the print publishing industry is transitioning to the

66 Despite Winer's affirmations to the contrary (see 2.2), editorial workflow was a major focus of Frontier development starting from the earliest collaboration between Winer and Seybold Seminars, regardless of Winer's earlier insistence that writers 'want control of the copy on the pages they're responsible for' (Winer, 1996ba), and contrary to his denouncement of the very concept later in his career. In February 1997, Winer announced that programming functions were now 'provided for custom editorial workflow' (1997r), meaning that the basic functionality was now ready for content submissions to 'flow from writer to editor to web page' (Simmons, 1997b). In late April 1997, Winer implemented access permissions (Winer, 1997ax) and version control (Winer, 1997ay) as 'foundations for the upcoming Frontier-based editorial system' (Winer, 1997bb). In May he introduced scriptability across a TCP/IP network (Neuburg, 1998) as 'another piece of the foundation for the upcoming Frontier-based editorial workflow system' (Winer, 1997bc). Development slowed at this point.

Winer was looking at the Quark Publishing System as a 'prototype for a web publishing system implemented in

web, the writers of the web are learning about journalism and editorial systems' (Winer, 1997av). Thus, as Winer came to 'do new software that fits [Cline's] vision' (Winer, 1997at), he began to 'sing a similar tune about where websites are headed' (Winer, 1997at): Winer's 'bigtime editorial software' (Winer, 1997z) aspired to rank among 'publishing systems for the web like the ones we developed for the print world in the early 90s' (Winer, 1997z).

Winer even allowed the Seybold perspective to define the market for his software: he now wanted to make a 'cross-platform web publishing system that's attractive to the Seybold crowd, large site publishers with lots of authors, with editorial workflow needs' (Winer, 1997be). Having sought to align his software 'with the interests of people who run publishing operations' (Winer, 1997bu), he contended, fully in accord with the Seyboldian view, that 'serious web presences, our market' (1997bs), require a 'powerful framework for editorial workflow, easily customized to fit the needs of editorial organizations' (1997bs). As 'every organization with a website is a magazine' (Winer, 1997e), there was indeed, as Seybold Seminars predicted, going to be a large market in software that supported editorial workflow.

In collaboration with Cline, Winer created a prototype website for Seybold Seminars (Winer & Simmons, 1997; Winer, 1997as) that was to embody their consensus on how to build a website and that would provide 'timely news and commentary' (Winer, 1997as) to Seybold Seminars' customers. Determined not to 'play with theories' (Winer, 1997at) because their shared belief in the conversion of the print model to the web predicted that there were 'no theories needed' (Winer, 1997av), they eschewed experimentation with any of the unproven 'push' protocols that were crowding onto the market. Instead, they opted for a conventional architecture that was bidding fair to become Frontier's default configuration: 'an integrated system with editors submitting pieces via email and an editor in chief who owns the front page' (Winer, 1997at). For reasons never publicly stated, the site did not go into production. However, the degree to which Seybold's conservative approach determined Winer's thinking is directly reflected both in Winer's efforts to make editorial workflow a core part of Frontier and in his development direction of UserLand's flagship site, *Scripting.com*.

Frontier' (Winer, 1997bg) and pointed out that his company had 'extended our website management software to support workflow' (1997bs). He also announced that workflow was one of the 'four main new feature areas' (1997bs) in the upcoming 5.0 release of the software. However, he later cited performance issues as a reason for postponing the effort to 'make our editorial workflow software work cross-platform' (1997bu).

Noting that all his competitors were 'moving this way' (1998f), Winer highlighted the 'workflow framework and connections to other apps' (Winer, 1998c) as central to his project and re-affirmed his intention to 'make workflow happen' (1998h): it was an 'important direction' (1998h). He hailed 'great workflow systems' (1998m) as 'the new thing' (1998b) and was 'actively updating Frontier and the website framework and workflow facilities' (Winer, 1998q). In March 1998, a few weeks prior to the Frontier 5.1 release, the first for-pay release of the software since 1995, Winer extolled Frontier as the 'perfect workflow platform' (1998n) and elevated the software's editorial capabilities to his companies core purpose: 'workflow is what we do' (1998n). All in all: Winer intended Frontier to take on the leading names in the lucrative market for content management systems and 'compete with high-end Web development environments' (Winer, cited in: Morgenstern, 1998).

As late as 2000, Winer still called Frontier 'the best web workflow environment' (2000d) and introduced another editorial workflow feature that provided a 'SlashDot-mode for Manila weblogs, individually editable objects by multiple editors on a home page' (Winer, 2000s), an addition that allowed managing editors to 'choose who can create News Items and who can approve them for posting on the home page' (Winer & Simmons, 2000).

10.8 Scripting.com as model site

With the release of Frontier 4.2 in January 1997, *Scripting.com* became the ‘model site’ (Winer, 1997v) that would demonstrate the *large dynamic sites with lots of authors* idea that Winer had adopted as the strategic development direction of his company. As such, it was modeled on *HotWired*, which in May 1996 had premièred a new site architecture which negotiated the contrasting demands of having a clear, hierarchical structure to the overall site with the need for having a dynamic, rapidly changing front page that provided immediate access to the freshest materials on the site.⁶⁷ Regardless of the outwardly directed linking of *Scripting News*, which increased to just above half of the links offered at the time the news page was introduced (see 5.7.6), its allegiance was to the magazine publishing model. This allegiance was to a tried and true model which by this point had reached a sufficient degree of maturity for Winer to dismiss the need for any further experimentation: there were ‘no theories needed’ (Winer, 1997av).

If the *Apple News Room* was an improved, centralised re-instantiation of *24 Hours of Democracy* as an event, the aborted Seybold Seminars site was an attempt to turn the dynamics of the event into a sustainable source of ‘timely news and commentary’ (Winer, 1997as) under a conventional publishing model with editorial workflow. The same attempt met with a degree of success only in *Scripting.com* as it became the ‘model site’ (Winer, 1997v) that not only instantiated Winer’s ambition to ‘automatically manage large dynamic sites with lots of authors’ (Winer, 1997v) but also embodied UserLand’s new Seyboldian aspiration of becoming an ‘editorial service company’ (Winer, 1998ad) that needed to ‘work out copy editing issues’ (Winer, 1997ak) in order to ‘grow to be a larger entity by covering more ground and incorporating the energies of more people’

67 In May 1996, the interface group at *HotWired* undertook a fresh attempt to ‘balance form and function in this limited and evolving medium’ (Veen, 1997, p. 14) in a redesign of their web magazine. They needed to ‘cast off models ingrained in us from our print, broadcast, and software development backgrounds’ (Veen, 1997, p. 14) and decided to abandon the hierarchically structured section menus that were used on previous iterations of their website’s front page. Deciding to ‘forget the tree’ (Veen, 1997, p. 96), they would rewrite the front page five times a week in a ‘shift from subject-based to time-based divisions’ (Veen, 1997, p. 97). Their newly adopted site interface had thus become ‘a window moving through time’ (Veen, 1997, p. 97).

HotWired’s redesign of May 1996 aimed to showcase ‘what we – and the Web – were capable of’ (Veen, 1997, p. 21). Now that *HotWired*’s front page would ‘work in the dimension of time’ (Veen, 1997, p. 97) and took the form of ‘a ‘river of text’ that snaked down the page’ (Veen, 1997, p. 83), the new site’s front page ‘consisted largely of a series of text blurbs and images that encapsulated the day’s offerings’ (Veen, 1997, p. 23) and highlighted the most interesting new content on the site daily, regardless of where it fit into the abstraction hierarchy of *HotWired*’s sections. This time-based interface created not just a sense of the present as defined by a 24-hour cycle in which fresh additions to the site were news, it also created a sense of immediacy in navigating the site: readers could now ‘simply get right into the content’ (Veen, 1997, p. 88) instead of needing to traverse the site’s directory structure. Readers could now use the front page as ‘a place to start experiencing [the] site’s content immediately’ (Veen, 1997).

For all the focus on the front page and its evolution away from a static index, and for all the rhetoric against hierarchy, the site architecture that *HotWired* implemented in May 1996 amounted to an integrated site model that featured both, hierarchical structure and an editorial selection on the front page: the ‘treelike structure was still there’ (Veen, 1997, p. 97) in the way the articles were organised and archived. There was no sudden rupture with hierarchy as an organising principle: ‘we needed both internal site structure and daily fluidity. We needed to convey both the ephemeral (new features) and the permanent (site organization) on *HotWired*. While our readers traveled in time, we had to orient them in the space of the site as well’ (Veen, 1997, p. 99). Even though the new interface ‘deemphasised the conceptual structure’ (Veen, 1997, p. 97), it didn’t remove it. *HotWired*’s efforts to ‘balance a space-time continuum’ (Veen, 1997, p. 99) had merely acquired a ‘daily emphasis’ (Veen, 1997, p. 23). All told, *HotWired* had reached a balance in which its offerings were still poured into a hierarchical structure, but the new index up front that was rewritten every workday, prioritised interestingness and timeliness over hierarchical structure.

(Winer, 1997ak).

Over a few months on either side of *Frontier News*' elevation to *Scripting News* in February 1997, the number of internal links carried by Winer's news page increased in absolute terms by roughly a factor of three (see 5.1.6). This increase was not owing to any sudden rise in *Frontier News*' customary fare of software releases and documentation announcements. Instead, the *Scripting News* launch was accompanied by the introduction of a new feature named 'Special Stories': these were articles that Winer gathered from a variety of sources, many of them from e-mail correspondence, sometimes re-running material that had appeared elsewhere, sometimes posting press releases straight from his in-box. Running such Special Stories on *Scripting.com* added to the volume he was looking for and allowed him to link to these pieces from his home page. *Scripting.com*, thus bulked up, was becoming a proof of concept that sought to put the mainstream media on notice that they would have to 'compete with writers who are willing to do it for free on the web' (Winer, 1997u).

Somewhat fittingly, the essay that launched and defined the Special Stories feature came from Rick Smolan.⁶⁸ To mark the occasion of the *Scripting News* launch in February 1997, Winer not only re-created a permanent archival instance of the *24 Hours of Democracy* event site on *Scripting.com*, he also ostentatiously made up with Smolan and announced that they were 'friends again' (1997m). Smolan for his part contributed a photo essay to *Scripting.com* that contained a belated recognition of the online protests against the Communications Decency Act and a denunciation of the legislation as a threat to the 'very freedoms the net has come to represent' (Smolan, 1997). With the publication of Smolan's photo essay, Winer declared that it was UserLand's mission to 'facilitate free unedited (or lightly edited) speech' (1997m), staking his claim as a publisher with a phrase that uneasily yoked together his opposition to editing with his newly found Seyboldian respect for editorial workflow.

The new *Scripting News* home page, to the extent that it pointed inward rather than outward, was in fact a deliberate exercise of editorial privilege over content supplied free of charge and published on *Scripting.com*:

You also want to turn readers with interesting ideas who express them well into writers. I think this is the key to a good site – it's a talent searching system. When someone who has ideas shows up, you want to incorporate their stuff into your flow. (Winer, 1997av)

In order to expand, to have more 'interesting stuff' (Winer, 1997ap) and to 'carry independent voices' (Winer, 1997s), Winer's site had turned to *user-generated content*. In doing so, *Scripting News* became the 'umbrella for all our editorial stuff' (Winer, 1997aq). Winer noted that 'DaveNet definitely fits under that umbrella' (1997aq), but now that *Frontier*'s web publishing facilities had undergone further refinement and allowed Winer to 'go multi-user' (Winer, 1997ap), he began to in-

68 From the publication of Smolan's photo essay in early February 1997 until November that year, Winer ran 153 'Special Stories' (Winer, 1997l) on *Scripting.com*, which he gathered into an automatically updated index page starting from 24 June 1997 (Winer, 1997bn). He replaced this index in December 1997 when he created monthly archives for his Special Stories, a practice that continued until June of next year (Winer, 1997cb, 1998g, 1998j, 1998o, 1998r, 1998v, 1998z).

clude ‘lots of other voices too’ (Winer, 1997aq) and furnished some of his employees and collaborators with sites of their own that were patterned after *DaveNet* and worked like *DaveNet* – writing spaces in which authors would write up their ‘thoughts on an unscheduled basis, hopefully once or more per week’ (Frankel, 1997b). In opening the site to a ‘dozen regular contributors’ (Winer, 1997aq) with posting rights,⁶⁹ he assured them that there were no assignments or deadlines and encouraged them to ‘wander where your interests take you’ (1997al). Winer did, however, exhort them to ‘provide authoritative information on subjects that they’re expert in’ (1997al), and presented this ‘exploration in content’ (1997am) as a mutually beneficial arrangement between the authors and UserLand: ‘You gain exposure, we gain new content’ (1997am). Winer intended the additional articles to drive the site’s growth, so there would be ‘even more interesting stuff’ (Winer, 1997ap) that he could reference from *Scripting News*, more content that would bulk up his site, more content that could begin to compete with the mainstream media as they made their transition to the web.

The multi-user effort is crucial to an understanding of Winer’s intentions for the new site architecture he introduced in February 1997 and the NewsPage software that controlled its front page: *Scripting News* was inseparably wedded to *Scripting.com*, which was a ‘special kind of website, one that’s centered around a News page’ (Winer, 1997h) and that would ‘carry independent voices’ (Winer, 1997s) as an exemplary implementation of Winer’s ‘standard schpiel about large dynamic sites with lots of authors’ (Winer, 1997av). Modeled on *HotWired* as a large dynamic site with lots of authors, *Scripting.com* was aiming to make itself into the kind of Seyboldian news organisation that employed a site model typical for publications experimenting with the transition from print to the web: *Scripting.com* ran on ‘an integrated system with editors submitting pieces’ (Winer, 1997at) and featured a front page that Winer likened not just to ‘the front page of a newspaper’ (1997i) but, in fact, to ‘the home pages of all the big news websites’ (1997bz). Winer knew from his access logs that the news page was his ‘crown jewel’ (Winer, 1997bj), and with nearly half of his daily links still pointing into his site rather than out onto the Web, he acted as a conventional ‘editor in chief who owns the front page’ (Winer, 1997at)

Winer hailed the introduction of his News Page as a ‘new groove’ (1997i) in January 1997, but by the time he revised its interface in April to scroll more smoothly (see 5.1.6), he viewed it as *old*, as an instance of an established user interface, namely that of the newspaper: he recommended the news page specifically as a tried and true, *established* technology that was superior to the new, unproven push medium (see 12.2.1).

Far from representing the ‘editorless writing medium’ (Winer, 1999i), in his ownership of the ‘*Scripting.com* news page Winer claimed for himself the editorial position of a ‘flow-crafter’ (1997m) who would generate salience and allocate attention. Winer likened the position to ‘design-

69 The actual number of authors was lower by half. According to the automated index, they included Doug Baron (1997), Wesley Felter (1997), Barry Frankel (1997a), Chris Gulker (1997a), Preston Holmes (1997), Brent Simmons (1997a) and Dave Winer (1997b). Baron and Simmons were among Winer’s three core employees at the time (Winer, 1997bw),

When setting up employees and collaborators with sub-sites of their own, Winer acted on the advice he had earlier given to Microsoft when suggesting that they should have a website for every employee (Winer, 1996ac), a piece of advice he had also given Apple, suggesting that they furnish ‘every employee with their own website, edited by them, saying what they have to say’ (Winer, 1996au).

ing the user experience of a software product' (1997m), and, incidentally, it was the position he had already carved out for himself through *DaveNet's* network topography (see 4.2) in which he acted as 'benevolent editor with wide reaching powers' (Scott Wiener, cited in: Winer, 1994g). In this editorial capacity, Winer could allocate attention to the newest 'unedited' articles on his site if he so chose, but his stated commitment to his authors was only that he 'may build flow' (1997am), meaning that he would link to any new piece from the front page if, at his sole discretion, he deemed it to be of sufficient interest to his site's readership. Winer did not share this privilege with others. He celebrated the editorial hyperlink as 'the ultimate salute, the highest form of respect' (1997m), but every writer whom Winer signed up as a contributor to *Scripting.com* as a large dynamic site with lots of authors was a web worker who contributed free labour without being a privileged 'flow-crafter' in their own right, who was not given an opportunity to 'build flow' themselves.

After *24 Hours of Democracy* had failed to match the technological sophistication of Smolan's *24 Hours in Cyberspace*, Winer had no intention of building on the distributed nature of his protest event, or even to build on the collaborative content aggregation strategies he used for it. The re-dedication of Frontier as a content management system (Winer, 1996ak, 1996ba), inspired by Smolan's powerful prototype, was specifically designed to overcome the distributed nature of Winer's protest event against the Communications Decency Act and put a centralised structure in place instead. So once Winer had developed this structure and was hopeful of its commercial appeal to 'editorial organizations', he had little incentive to promote one single part of it, the news page, as a free-standing effort, least of all as a 'growing network of freelance editors' (Barger, 1998ab) of the kind Barger had in mind when pursuing his weblog commons (see 9.4). In fact, Winer explicitly warned against any view of news pages as free-standing efforts. He conceded that 'news pages are fun' (1997ak) but qualified the admission right away, stating that 'growth is the goal' (1997ak), thus reiterating the point that *Scripting.com* was a 'model site' for *large dynamic sites with lots of authors* and that, by extension, the *Scripting News* page was an integral part of that publishing model.

10.9 Focus on web services

In early 1997, Winer was euphoric in anticipation of imminent success, but the realities he had to face over the next few months were sobering. Falling in line with the Seyboldian view of things afforded him only an ancillary position 'inbetween the technology leaders and the content leaders' (Winer, 1997at), and ultimately it denied him an opportunity to 'fit in, with power and respect' (Winer, 1997be). Having substantial development resources allocated to porting Frontier to the Windows platform, an effort which took a year and a half from its conception in August 1996 (Winer, 1996at) to its realisation in January 1998 (Userland, 1998a), Winer's energies as a publisher began to flag, as neither the minimal association with Apple nor the much deeper involvement with Seybold Seminars brought him any closer to the success he had sought bringing about a 'publishing revolution' (Winer, 1997at).

Late in 1997, Winer found a new focus. He embraced XML as '*the* file format for the rest of my career' (1998k) as he realised that he could use the markup language to create a crucial piece of in-

frastructure for what would come to be known as web services (Winer, 1997by, 1999d): he was going to define a format for remote procedure calls (RPC) via the hypertext transfer protocol (HTTP) (Winer, 1998i). It had turned out, much to Winer's own surprise, that he would not need to compete with a powerful vendor: In November 1997, Winer got persuaded that Microsoft would 'take a back seat to defining the formats and support it with their software' (Winer, 1999d), so he switched his attention from web publishing to web services, sensing he 'wouldn't get another chance' (Winer, 1999d) in his career to define a cross-platform, inter-application transport for the internet.⁷⁰ Thus, he 'played the technology game' (Winer, 1998ab) again, which he found a much more congenial occupation than being stuck 'inbetween the technology leaders and the content leaders' (Winer, 1997at). Above all, it allowed Winer to think of himself as a technology leader again: 'I'm a systems guy. I love scalable content, but I live for plumbing' (1998m).

10.10 Manila and *Edit This Page*

Winer's collaboration with Microsoft came to fruition before long, and UserLand co-sponsored the submission of a web services standard, the Simple Object Access Protocol (SOAP), in May 2000 (Winer, 2000ah). Meanwhile, Frontier development had continued apace, resulting in the Frontier 5.0 version released for both Macintosh and Windows in February 1998 (Userland, 1998a) and the transition to a for-pay licensing scheme with Frontier 5.1 in June 1998 (Userland, 1998b).

With the Frontier 6.0 release, in April 1999, Winer declared himself to be 'at a resting point' (1999h) because most of 'the technical goals we set out to achieve in the spring of 1996 are now achieved' (1999h). However, the promise of his collaborative web content management programme (Winer, 1996ak, 1996ba) would be completely fulfilled only with the Frontier 6.2 release of November 1999, which contained the Manila package, whose signature addition was browser-based editing: 'an Internet application that allows groups of writers, designers and graphics people to manage a full-featured high performance website thru an easy-to-use web browser interface' (Winer, 1999at).

Winer had high hopes for this release. He asserted that neither of the two most popular text editors for Unix, Emacs and Vi, were going to be 'the standard writing tools on the Internet' (1999z) and that Microsoft's Office 2000 product was 'inelegant and far too complex to be the standard' (1999z), so he predicted with some confidence that Manila would be the 'word processor for the Internet' (1999z). Expecting finally to 'rewrite the rules of the industry' (Winer, 1999j), Winer's rhetoric returned to the trope that the 'revolution is happening' (1999k): Manila's browser-based editing served 'the power of the individual' (Winer, 1999u) as it unlocked 'the power of web content management' (Winer, 1999as) for non-technical users. It would not only be the 'biggest change in functionality in Frontier's 11-year history' (Winer, 1999as), but by 'serving and empowering users'

⁷⁰ Winer's collaboration with Microsoft resulted in a milestone standard for web services, SOAP ("Simple Object Access Protocol (SOAP) 1.1," 2000). One of the very first signs of Winer's new interest was the introduction of an XML version of *Scripting News* in December (Winer, 1997bz). A prototype of what came to be known as RSS, this version of *Scripting News* was supported by Frontier's web framework that earlier in the year had specifically been readied to support any new 'push' format that should come along (Winer, 1997at).

(Winer, 1999u), Manila would now, finally, spark the ‘revolution in web writing’ (Winer, 1999aw).

Winer expected, especially, that his centralising development programme would be vindicated in a Manila implementation of large disruptive impact. His ambition was still to become ‘the manager and promoter of a distributed site with thousands of writers and millions of readers’ (Winer, 1999j) so he could do ‘to the power structure of the writing industry what Amazon did to the book reselling industry’ (Winer, 1999i). At first, Winer pursued this ambition through the idea of converting the *Userland.com* site into a magazine, and he was about to make arrangements for editorialists who would enjoy ‘editorial integrity’ (Winer, 2000x) while generating a revenue stream from advertising. The seeming fulfilment of Winer’s ambition came from an unexpected place, however: Winer got to run a large dynamic site with lots of authors almost by accident, when a promotional giveaway turned out to be wildly popular shortly after the Manila launch. His *EditThisPage.com*, a ‘growing community of Manila sites’ (Winer, 1999bf), started out as a small, limited-term promotional gift of free accounts and then mushroomed almost overnight into a large-scale operation of hosted weblogs.

Winer launched *EditThisPage.com* while trying to ‘give Manila a shot at defining web content management’ (Winer, 1999aw). The project was initially limited ‘to 250 sites’ (Winer, 1999aw) in an experiment to see ‘if our software could handle the load’ (Winer, 1999bf). To get it started, Winer sent out an e-mail in early December 1999 (1999av) to all registered *UserLand.com* members and invited them to a ‘60-day free trial’ (1999aw). Within days, the offer attracted 300 users (Winer, 1999aw). Winer then ‘removed the UserLand.Com membership requirement for 60-day free trial sites’ (Winer, 1999i)] and opened *Editthispage.com* to all comers for the ‘indefinite future’ (Winer, 1999be). In addition, Winer announced that he was ‘removing the 60-day limit’ (1999be), a decision which further increased the user tally to 736 (Winer, 1999bf) within a day.

In response to the quick uptake, Winer adopted a strategy of growing the service without pausing to work out a revenue model for it. He had consulted with ‘people who have launched some of the most successful Dot-Coms’ (Winer, 1999bg) and was heeding their advice that ‘limiting access to your service or product’ (Winer, 1999bg) was an impediment to success. He shortly found himself intoxicated with the rapid growth of *Edit this Page* and announced his intention to go into ‘blast-it-out mode’ (1999bg) to fan the flames of adoption, promising that he would be ‘pouring gasoline on the fire for quite some time to come’ (1999bg). Hoping to create ‘a million Manila sites by the end of 2000’ (1999bg), he reported to be ‘hosting approximately 20,000 sites like mine’ (2001f) by mid-February 2001.

Winer believed that his hosting numbers, which he proudly and frequently cited in the months after the launch,⁷¹ offered an objective measure of user empowerment. He deduced from the sheer

71 *Editthispage.com* consisted of ‘1074 sites’ (Winer, 1999bh) on 26 December 1999. By 3 January 2000, Winer was ‘serving 1500 sites’ (Winer, 2000a), by 11 January 2000 he was ‘hosting 1685 sites’ (Winer, 2000c), and by 18 February he was ‘hosting over 2700 new sites’ (Winer, 2000j). On 28 February, *Editthispage.com* had reached ‘a total of 2999 sites’ (Winer, 2000m), and on 9 March, when there there were ‘3246 EditThisPage sites’ (Cheney, 2000), Winer boasted of ‘over 3000 new sites’ (2000o). By 30 March, *EditThisPage.com* was ‘almost as big as Scripting News’ (Winer, 2000y). In mid-March, Winer opened the ‘Weblogs.Com server for free Manila site hosting’ (Winer, 2000p), (Winer, 2000q), and reported ‘93 sites’ (2000z) on 1 April. On 24 April, Winer claimed to host ‘thousands of free sites, mostly run by professionals, people who know a lot and want to share it’ (2000ag). On 11 July, Winer

numbers that ‘the real revolution is happening’ (Winer, 2000aj) and that he had managed to ‘open the medium for thoughtful expression by huge numbers of people’ (Winer, 2000aj). While the launch of Manila in November 1999 marked the completion of a product development cycle that had started with the strategic directions formulated in May 1996 (1996ak), the success of EditThis-Page, as quantified in user adoption, lay in having brought ‘a *group-mind*’ (Winer, 2000k) into existence, which Winer described as ‘the kind of stuff Engelbart experimented with and Nelson wrote about’ (2000k). This success, Winer implied, would hasten ‘Engelbart’s unfinished revolution’ (Kim, 1998) towards a completion in the current cycle of revolutionary user empowerment.

10.11 Ask what you can do for the Internet

In January 2000, Winer adopted a line he had first suggested years earlier: ‘Ask not what the Internet can do for you, ask what you can do for the Internet’ (1995av, 1995ax). Originally, he had intended the line to summarise the strategy Apple and Netscape should adopt as enablers empowering independent developers. In early 2000, Winer concluded that his company ‘had grown enough’ (2000f) to warrant adopting the line for itself. Moreover, Winer now presented the line as his company’s ‘guideline for growth’ (2000f) and displayed it in the header of his site’s front page for nearly nine months before retiring it in mid-October (Winer, 2000av).

The line warrants some analysis in its new context of *Edit This Page*. It appeared on Winer’s site only a few days after *Time* magazine had proclaimed Amazon.com’s chief executive Jeff Bezos person of the year, calling him the ‘king of cybercommerce’ (Ramo, 1999). The magazine’s accolade was duly noted by Winer (1999bc, 1999bd), who was on the point of adopting Bezos’ strategic thinking in the expansion of *Edit This Page*. Bezos was one of the few successful practitioners of the *Get Big Fast* strategy, which was espoused by many businesses starting up during the internet boom of the late nineties. In this strategy, businesses adopted a ‘grow-at-any-cost, without-any-revenue, claim-as-much-market-real-estate-before-anyone-moves-in approach to business’ (Reid, 1999, p. xxxvii). Internet ventures would typically make large investments far in advance of earning revenue in hopes that economies of scale would yield vast returns in the future. For this reason they pursued a ‘relentless focus on doing whatever it took to get to scale, understanding that turning profitable would not be easy but would have to follow that’ (Hanauer, cited in: Frey & Cook, 2004). Internet companies were ‘tossing aside just about every experience-honed tenet of business’ (Reid, 1999, p. xxxvii) in order to build ‘dominant market share’ (Krantz, 1999) above all else.

The initial limited free trial offer of *Editthispage.com* was only intended to ‘feed word of mouth’ (Winer, 1999aw). But Winer’s new ‘guideline for growth’ (Winer, 2000f) was to ‘always do things that just do one thing, grow the Internet’ (Winer, 2000i). Winer’s attempt to ‘climb onto the hyper-growth track’ (Winer, 1999bg) was an attempt to achieve the ‘hyper-growth’ (Reid, 1999, p. xxxvii) typically sought by businesses of the day’s ‘new economy’. Much of the advice Winer had received from ‘people who have launched some of the most successful Dot-Coms’ (Winer, 1999bg) plainly involved the *Get Big Fast* strategy. Winer now lived by that strategy, expecting his company to get

boasted of hosting ‘over 6000 Scripting News-type sites’ (2000an).

listed on the stock exchange ‘before the year is out’ (2000g), and looking forward to ‘many more millions of dollars to add to my bank account’ (2000g). He was happy, even, to promote the *Get Big Fast* strategy and pass it along as good advice: ‘In this weird environment, being profitable is a strike against you. You’re not Getting It, the investors say. Now is land-grab time. If you’re pausing to earn a profit, you’re not playing the game they want to play’ (Winer, 2000b). Winer’s *Ask not* line was, in actual fact, *Get Big Fast* dressed up as civic-minded idealism.

As the free weblogs Winer offered on *Edit This Page* and *Weblogs.com* were a *Get Big Fast* stratagem with the intention to monetize later, Winer considered them a dependably profitable investment ‘unless there is an Internet bubble that bursts before you get the money’ (Winer, 2000i). He believed that there was ‘no such bubble’ (2000i).

10.12 Blogger, Decentralisation, and the end of the dotcom economy

There was a bubble, however, and it began to deflate rapidly in April 2000 (Cassidy, 2003, p. 282 – 297). The severity of the crisis was not apparent immediately, as the Nasdaq’s peak in April and its subsequent steady slide, considered the chief indicator that the boom had ended (Cassidy, 2003, p. 291 – 297), did not instantly reveal itself to mark the end of an era: ‘no one could be sure if it was a blip or a trend’ (Winer, 2001a). In July 2000, Winer was still enthusiastic about the growth prospects of his business, hailing the prospect of 100,000 new websites to be created using his software as an ‘unbelievable challenge to think in those kinds of numbers’ (2000ao). By September, however, Winer had to concede that ‘the blush is off the rose’ (2000at) and he began to denounce *Get Big Fast* as an attempt at ‘making money off hype balloons’ (2000at), a strategy that had ‘had to collapse’ (Winer, 2000at).

Winer by then understood that ‘the ‘business models’ of the dot-com euphoria are kaput’ (Winer, 2000ba) and that the ‘end of the Dot-com model’ (Winer, 2001a) had arrived: it wasn’t possible any longer to ‘build value by attracting lots of users and monetizing them later’ (Winer, 2001a). He still engaged in denial for a while, claiming that he had ‘skipped the dot-com mania’ (Winer, cited in: Useem, 2000) and that he had all along taken a principled stand against ‘the dot-com lunacy’ (Winer, 2000aw), but he realised that the end of the dotcom era also spelled the end of *large dynamic sites with lots of authors* as implemented in *Edit This Page*. He was ‘left holding a bag of servers and services designed in the Dot-com period’ (Winer, 2001a), running ‘free servers for thousands of people’ (Winer, 2001a) with no hope of managing to defray his operating costs and recuperate his investment.

However, Winer still remained upbeat about eventual success in some future cycle of the user revolution he believed in: he needed to ‘get over our latest attempt to centralize’ (Winer, 2000au), after which he expected to be ‘back on course, supporting the route-around that will create a new competitive environment for delivery of news, information, opinion and art’ (Winer, 2000au). Because there was no more ‘money to pay for centralized services’ (Winer, 2001h), users came to understand that the ‘centralized model’ (Winer, 2001a) had been a symptom of ‘Dotcom Disease’ (Winer, 2001b), and they were looking for ways to ‘replace the centralized browser-based services

they've come to rely on' (Winer, 2001i). In response, Winer was 'moving to decentralized systems' (Winer, 2001h). Adopting a 'desktop website' (Winer, 2001a) model, believing 'more of the Web of 2001 will reside on your hard drive, using the CPU cycles of your machine, not on a machine purchased by investors' (Winer, 2001a). He was 'moving most of the work to the edges, our servers only make introductions, they're not doing the heavy lifting they're asked to do in the Dot-com model' (Winer, 2001a). This new approach resulted in a new product named Radio UserLand,⁷² which went on to become one of the main contenders in the market for weblogging software over the next few years (Allen, 2002; Hiler, 2002; Cadenhead, 2003).

Winer's exuberance of early 2000 gave way to sobriety much like his exuberance of early 1997 did. The contributory factors were not merely adverse conditions, however. For all the pride that Winer had taken in his hosting numbers, and for all the self-assured prognostications he had been making to the effect that he would dominate this market, Winer was losing out to his competitors, especially 'Pyra, who makes Blogger, which competes head-on with Manila' (Winer, 2000ar). Blogger's staggering growth figures for October (E. Williams, 2000c), at the latest, began to indicate that Blogger rather than Manila was emerging as 'by far the most popular weblog publishing tool available' (Kahney, 2001). Winer recognised this, doffed his hat to the start-up, and counted himself among the 'little-guys' (2000ax) by comparison.

10.13 Discussion

In the period from 1996 to 2000, inspired by the web infrastructure of Rick Smolan's 24 Hours in Cyberspace project, Winer pursued the strategic direction of collaborative web content management and went through two separate periods in which he believed that a resounding success of this strategy was imminent. In 1997, believing what 'amazon.com is doing to the book retail industry can be repeated in news' (Winer, 1997s), he aimed to 'compete with local newspapers like the Mercury-News and national publications like Business Week' (Winer, 1997s). In 2000, believing he could do 'to the power structure of the writing industry what Amazon did to the book reselling industry' (Winer, 1999i), he chose to adopt Amazon's *Get Big Fast* strategy but was defeated in the purpose of expanding his user base above all other considerations by the collapse of the dotcom economy: in the end, by relying on a centralising content management approach Winer went 'through two boom cycles and never participated in the bonanza' (Winer, 2007d).

Winer had failed to attain the second resounding commercial success he so intently wished for as

⁷² Radio UserLand was a piece of single-user application software that re-implemented Frontier under Winer's new 'desktop website' publishing model in which 'the data is stored on your computers, and only renderings are stored on ours' (Winer, 2001e). Its main components were a weblogging client and an RSS feed reader (Cadenhead, 2003, p. 1).

Radio was first released on 29 July 2000 as a free public beta Radio UserLand 7.0b1/Win (Winer, 2000aq). The software was launched on 9 March 2001 as UserLand Radio (Userland, 2001) and on 11 January 2002, in synch with Frontier version numbering, as Radio 8.0 (Winer, 2002a).

Winer underwent major heart surgery in mid June (Winer, 2002c, 2002d) and stepped down as UserLand CEO right after for health reasons, choosing no longer to 'compete with the great companies in the blogging space' (Winer, 2004b). With his departure, software development at UserLand began to stall (Stafford-Fraser, 2004). Radio's final release was version 8.2 of September 2005 (Userland, 2005), by which time the software had largely 'fallen by the wayside' (S. Rosenberg, 2008). Winer has confirmed that it is no longer actively developed (2007k).

Pyra's competing Blogger.com service turned out to be much more popular than any of Winer's offerings. In 1996, driven by his ambition to create another 'end-user product [which] will be as timely as MORE, and as uncontested in the marketplace' (Winer, 1988), Winer took the inspiration for his collaborative content management strategy from the 'full-scale military operation' (Plotnikoff, 1996) that Smolan had mounted to co-ordinate a 'team of 80 editors, designers and programmers from the world's top newspapers and magazines' (Smolan, 1996b). For all his huge ambition and years of effort poured into the attempt of making the web a writing environment that would run along the lines of Smolan's content management prototype, Winer was beaten in 2000 to the market dominance he sought by the impecunious but scrappy Pyra. This competitor was a company no larger than UserLand but much nimbler as it never burdened its Blogger product with the ambition of providing enterprise-grade content management: Pyra captured most of Winer's market without bringing a scripting language, script editor, object database, and runtime environment of its own to the table.

Blogger's launch in August 1999 (E. Williams, 1999), however, depended on the pre-existence of a distributed discourse network. This network owed both its inspiration and its existence to Winer's example, even if it was a distributed network whose topology ran counter to the centralising idea of Winer's collaborative web content management strategy. For this discourse network to emerge in 1998, it needed to reinterpret and transform Winer's work in a number of ways that Winer had not foreseen. In fact, Winer's *large dynamic sites with lots of authors*, the development direction he pursued between 1996 and 2000, was antithetical to the emergence of the distributed network of weblogs that did emerge in 1998.

11 Michael Sippey, Chris Gulker and Jorn Barger: Reinterpreting Frontier's site model

When Dave Winer noted that ‘news pages are fun’ (1997ak), he meant to warn against that fun: He wanted news pages to be conceived as part of Frontier’s default site model which embodied his programme of collaborative content management (see 10.3., 10.8). However, not everybody shared Winer’s view of the news page. Some Frontier users adopted it experimentally while others implemented its design outside of Frontier. Some adopted it with the intention of reinterpreting it within a different context. This chapter tracks the reinterpretations which transformed Winer’s news page into the weblog.

11.1 Early Adopters

Winer’s NewsPage concept found devotees among a number of ‘first-generation descendants’ (Barger, 1998aa), both among those Frontier users who treated it as a dynamic access structure to the most recent articles published on a given site and those who followed Winer’s example of linking widely across the web. It also inspired alternative and complementary instantiations of its basic design within Frontier itself, such as NewsCenter (Suh, 1999), which supported multiple news pages per site, and the Ocha News Room module (Bateman, 1999), which offered a number of interface and usability improvements.

The NewsPage feature also gave rise to implementations in scripting environments other than Frontier and in unscripted HTML. The first of those, Michael Sippey’s widely read *Obvious Filter*, was a daily supplement to the weekly essays on the author’s personal site and ran from the end of May (Sippey, 1997c) to mid-September 1997 (Sippey, 1997l). The Filter replicated the news page model in hand-coded HTML, as Sippey ‘didn’t have tools to automatically archive those links’ (Sippey, 2007). Similarly, Cameron Barrett’s *CamWorld* started in June 1997 (Barrett, 1997) and, while its first post contained an endorsement link to *Scripting News* (Barrett, 1997) and the project was ‘openly modelled after Scripting News’ (Barrett, 1999b), it was managed without any automation for the first few years of its existence.

Harold Check (né Stusnick) launched a news page called *Offhand Remarks* in September 1997 and paid his debt of recognition straight away: ‘While we hope to be original in our outlook, we aren’t original in concept. That honor goes to Michael Sippey of the always thought-provoking Obvious Filter and Dave Winer of Scripting News’ (Stusnick, 1997). Unlike either of his exemplars, Check implemented his news page in the Perl scripting language (Check, 2007). These NewsPage derivatives brought their editors’ own interests and sensibilities to the site model but did not transform the news page in terms of interface design, structural characteristics, or networking practices.

Early adopters of the NewsPage model tended to lack any great enthusiasm for their news pages, and they were unsure if the pages had much value or potential to hold the readers’ attention. Daniel Berlinger, for instance, an avid essayist who had been posting his commentary pieces to his website for a while, launched a news page despite his misgivings about a form that seemed too immediate to

suit his temperament as a writer. He regarded his ‘new (and experimental) news page’ (Berlinger, 1997) with a good deal of scepticism: ‘I say experimental because I’m not a big journal sort of person. I like things to wash over me a bit before committing them to the world at large’ (1997). Steve Bogart, another early adopter of Winer’s software, was equally uncertain of his news page’s purpose and described it as experimental too: ‘Picking out the one or two stories that I think deserve attention on any given day and highlighting them may be a valuable function for me to perform, or it may just be an exercise in whistling in the dark. We’ll see as time passes’ (Bogart, 1997c). To Bogart, then, any utility or benefit accruing from the project was a fortuitous outcome rather than a goal he deliberately planned for. Similarly, the editor of *Bump*, Robert Occhialini, would not make any exuberant predictions when setting up his news page:

My mission statement with this site is to give the surfer something that I have found in my surfing that is worth exploring. I will try and update the site every day if possible. For the first couple of weeks, I will spotlight a different site that I have an affinity for and want you all to see. Assuming that there are any of you to see it. (Occhialini, 1997)

Thus, confidence in any superior merits of the news page model was not a trait widely shared among the original News Page maintainers; none of them expressed any great sense of its urgency, importance, or even originality.

11.2 Michael Sippey and *Stating the Obvious*

Michael Sippey had the furthest reach and the highest visibility among the early adopters of the news page model.⁷³ While the different implementations of his news page drew the most plaudits of anyone of the early adopters, Sippey added little formal innovation to the design he adopted from Winer.

11.2.1 A network of web zines

A graduate student at the Haas School of Business at UC Berkeley in San Francisco, Sippey described himself as ‘still a frustrated English major with the writing bug’ (1996a). To indulge his

⁷³ Sippey was the most visible among the early adopters of the NewsPage model. His zine had already won the prestigious *Cool Site of the Day* award (‘Cool Site,’ 1996), had been runner-up for the Cool site of the Year award (Sippey, 1996h), and got favourable reviews in various web publications (Albano, 1996; Gniady, 1996a; Hudson, 1997; Nyveen, 1996; ‘Y-Life,’ 1996).

His *Filter* won him plaudits from his zine network: David Hudson of *Rewired* believed the links were selected and presented ‘so tastefully it makes your teeth hurt’ (1997), while Joey Anuff of *Suck* found the *Filter* ‘incredibly adroit’ (Anuff, 1997).

Sippey was getting similar responses from the emerging weblog network: His links were ‘always thought-provoking’ (Stusnick, 1997) as well as ‘smart, timely, and concise’ (Garrett, 1999e) and ‘coool’ (Winer, 1997bh). Sippey’s *Filter* has variously been described as a ‘weblog predecessor’ (Bausch, Haughey, & Hourihan, 2002), as an ‘early weblog’ (Barrett, 1999b), as ‘one of the first ‘real’ Weblogs’ (Auburn, 1999) whose ‘model was adopted by countless others’ (Auburn, 1999). Some webloggers have suggested that Sippey’s *Filter* ‘may have been the first weblog’ (Cadenhead, 1999b) as it ‘demonstrated the concept as a distinct web publishing form’ (Cadenhead, 2002), or that it ‘started it all’ (Dash, 2007).

The actors in the original weblog network (see 9.2) who adopted their news page after Sippey’s example included Check (né Stusnick) of *Offhand Remarks*, who credited both Winer and Sippey for being ‘original in concept’ (Stusnick, 1997); Peter Merholz of *Peterme*, who was ‘inspired’ (Merholz, 1998) by Sippey’s *Filter*, and Jesse James Garrett of *Infosift*, who called it the ‘inspiration’ (1999b) and ‘primary influence’ (1999e) of his weblog.

writing passion and ‘as a way to think critically about business models because I can’t really think about a topic until I write about it’ (Sippey, cited in: Bunn, 1998), he launched *Stating the Obvious* in August 1995, a personal homepage. He ran short pieces of ‘weekly commentary on web technology, business and culture’ (Sippey, 1996b) which were ‘lively, engaging and admirably objective’ (Nyveen, 1996) and offered ‘sane, well-reasoned Web wonderings’ (“Y-Life,” 1996) with an ‘opinion about nearly everything on the Net and links to back it up’ (Gniady, 1996a).

Sippey’s site belonged to the then-flourishing *zine* genre, an idiosyncratic and eclectic form of personal publishing that favoured a ‘person’s continuing compendium of humor, insight, literature or wicked prose’ (Michalski, 1995, p. 2) and celebrated as its most important aspect the ‘preeminence of a person’s voice or approach’ (Michalski, 1995, p. 3).

Sippey also was among the ‘legion of colleagues’ (S. Rosenberg, 1997b) who were inspired by *Suck*,⁷⁴ a daily zine which had been surreptitiously launched from within HotWired by Carl Steadman and Joey Anuff, and got acquired by their employer within three months of its launch in 1995 (Quittner, 1996; Sharkey, 2005). Believed by some to be ‘the first great website’ (Sharkey, 2005), *Suck* was ‘widely considered *the* e-zine’ (Hantschel, 1996). Sippey called himself a ‘devoted fan’ (1995c) and admired Steadman for being ‘before his time’ (Sippey, 2007). Sippey also contributed four pseudonymous essays to *Suck* (Sippey, 1996a) and co-founded *Suck Harder*, a web zine made up of pieces that had been submitted to *Suck* but were rejected by its editors (Sippey, 1996c).

Stating the Obvious was part of a zine network loosely clustered around *Suck*. Sippey, finding himself ‘just far enough outside the endlessly nattering community of self-involved Web navel gazers’ (“Y-Life,” 1996) did not disclaim the association and helpfully drew up a network graph of his peers which evokes a tapestry of interwoven zines held together by the bonds of collaboration and mutual esteem:

⁷⁴ *Suck*, which was ‘one of the more successful sites on the World Wide Web’ (Quittner, 1996), launched in August 1995. The site pioneered the daily publication schedule on the web (Sharkey, 2005) by posting a biting satirical, highly hyperlinked column to its front page every weekday morning, and thereby ‘taught the nascent Web industry a lesson in the values of simplicity and immediacy’ (S. Rosenberg, 1997b). The site was a widely imitated model for other zines (Veen, 1997, p. 95) who ‘all owe their architecture to *Suck*’ (S. Rosenberg, 1997b).

Suck set a tone that was hip, sarcastic, and opinionated. It led a scene of young critics and satirists who were highly aware of cyber-utopianism and its revolutionary pronouncement, yet made a point of resisting it. *Suck*’s studied attitude of blasé sophistication was ‘full of its own sense of coolness’ (Gniady, 1996b) and too jaded to express any enthusiasm for utopian ideals. Instead, it debunked such ideals in the act of indulging a ‘self-reflexive cynicism’ (S. Johnson, 1995) and habitual ‘self-flagellation’ (S. Rosenberg, 1997b), ostentatiously parading the claim of its base motives in stating it was out to ‘systematically harvest anything of value in this world for the sake of money, power and/or ego-fulfillment’ (*Suck* manifesto, cited in: Sharkey, 2005).

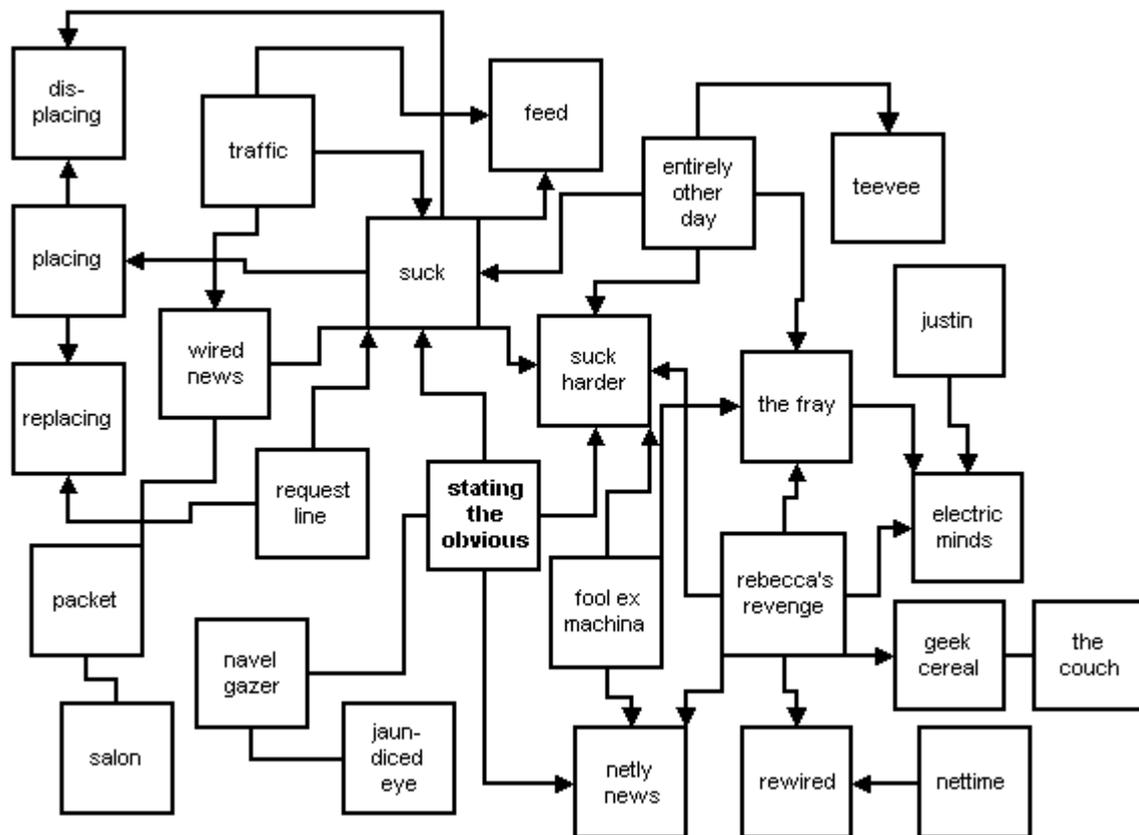


Figure 1: Sippey's network of zines (Sippey, 1997a)

11.2.2 Filtering the web

In May 1997, Sippey launched the *Obvious Filter*, a new feature on his site that complemented his essays yet departed both from their weekly publication schedule and, altogether, from the essay format that was favoured throughout his zine network. Nested one directory into his site, the *Obvious Filter* offered a 'selection of four or five highlights on the Web for the day' (Hudson, 1997). While the site's main page continued to be dedicated to weekly essays, the *Obvious Filter* sported a reverse-chronological listing of topical links embedded in sparse prose, had daily entries with the date-stamp serving as the sole heading under which a varying number of paragraphs were added, all knit to the pattern described in the project's tagline: 'A sentence, a link, and sometimes a quote' (1997c). The *Obvious Filter* was a news page, and even if it was not maintained in Frontier, Winer immediately acknowledged and praised it as such (Winer, 1997bh).

The *Obvious Filter* ran for six months (see 9.2). It came to an end in October when Sippey temporarily shut down *Stating the Obvious* to reconsider and rebuild the site (Anuff, 1997; Hudson, 1997). He launched a redesign of his site in late December (Sippey, 1997p), now offering an implementation of the Filter as a weekly publication under the name 'Filtered for Purity' which contained a round-up of interesting links for the week, running until late April 1998.⁷⁵

In another redesign of the site in early May, Sippey promoted the Filtered for Purity feature to the front page and restored it to its original daily publication schedule (Merholz, 1998), which en-

⁷⁵ The 'Filtered for Purity' posts are collected via an archival index page on *Stating the Obvious* (Sippey, 1998d).

abled him to drive a ‘huge amount’ (Eisenberg, 1998) of traffic. These ‘links to and smartass commentary on other people’s content’ (Sippey, 1999) remained a daily feature on *Stating the Obvious* until the end of the year but fell victim to Sippey’s new-year resolutions for 1999, in which he forswore ‘the self-induced stress of producing daily content, even if that content wasn’t really content at all, but merely meta-content’ (Sippey, 1999). The *Internet Archive* has preserved a sampling of the Filtered for Purity links in their waning days (Sippey, 1998f) but the Filter’s contents from May to late October 1998 are presently unaccounted for.

Sippey did not transform Winer’s news page concept in any demonstrable sense. The redesign of May 1998 (Merholz, 1998) was an approximation to Winer’s publishing model in that Sippey put the news page up front, as ‘essentially a link blog on the front page of the site’ (Sippey, 2007). Sippey did introduce ‘a distinct editorial voice’ (Hudson, 1997) to the emerging genre and provided ‘something genuinely lacking from more conspicuous, more mainline, traditional media sources’ (Anuff, 1997). Sippey’s news page was also de-coupled from software distribution so it could not be interpreted as ‘daily product support and development updates’ (Bernstein, 1998a), but the same is true of other early adopters.

11.2.3 Reinterpreting the NewsPage

Sippey was an early follower of Winer’s. He would not build his site *The Obvious* in Frontier, however, as he was ‘not interested in using a dying platform’ (Sippey, 1996f), a reference to the fact that Frontier ran only on Macintosh computers at the time, and that Apple was widely expected to go out of business soon. Sippey wanted ‘to code manually, but automate site production without having to learn Perl’ (Sippey, 1996f), so he ‘didn’t have tools to automatically archive’ (Sippey, 2007) his site, and would ‘code manually’ (Sippey, 1996f) instead, creating his site ‘with a couple of hours of free time and a text editor’ (Sippey, 1996e). Yet Sippey professed to ‘read Dave Winer’s DaveNet pieces regularly’ (1995a) and recommended them as ‘required reading’ (1995b), especially as they had alerted him to the ‘possibilities of fully scripted web publishing and (more importantly) connecting with people’ (Sippey, 1995d).

However, Sippey was no cyber-utopian. While in his first-ever post to *Stating the Obvious* he reiterated ‘things that Nicholas Negroponte and Dave Winer had recently said’ (Sippey, 2000b), and while he admitted that the first few years of *Wired* magazine had a ‘big impact’ (2007) on him, even citing them as inspirations for his online writing (2007), he scorned the ‘attempt by baby-boomers to return to their golden sixties’ (1996d) and advised a ‘healthy dose of skepticism’ (1998e) towards cyber-utopian views. Sippey described his own network of web zines as ‘self-absorbed’ (1997a) rather than revolutionary and was quick to point out that the web was ‘not the disintermediating medium everyone thought it would be’ (1996h). Unlike Winer and Barger, who adhered to cyber-utopian orthodoxy, Sippey never parted with his ironic scepticism and his critical distance towards the rhetoric of liberation and empowerment.

The greatest difference between Sippey’s publishing ideal and Winer’s lay in Sippey’s treatment of networking. Sippey had been a ‘Well lurker’ (Sippey, 2007) who was ‘fascinated by the social

dynamics and the community that was being built there' (Sippey, 2007), yet as member of his zine network he was part of a culture which had moved on from The WELL's pretension of being 'accessible to anyone with a modem' (Hafner, 1997). In this culture Howard Rheingold's 'invitation-only Web-based community called Brainstorms' (Wylie, 1999) was considered exemplary, and 'retreating into the online equivalent of gated communities' (Wylie, 1999) was the norm. As part of his *Obvious* franchise, then, Sippey maintained a mailing list frequented by 'two dozen 20- and 30-something Web workers, many already the leaders in their fields' (Wylie, 1999), who used the forum to share 'observations about the wide world of Web technology and culture' (Harmon, 1998). Sippey made no bones about calling this mailing list 'a club, a clique, a cabal' (Sippey, cited in: Wylie, 1999), as the list was invitation only and allowed only a chosen few to 'escape the chatter' (Wylie, 1999) of the open Internet, and he rejected 'many requests from both strangers and acquaintances to join' (Wylie, 1999). While Winer's treatment of his new spage, especially in its community-building aspect, had always been relentlessly about 'growth' (Winer, 1997ak), Sippey's less idealistic perspective on the vaunted promise of personal publishing made him favour more exclusive arrangements.

11.3 Chris Gulker and the NewsPage Network

Chris Gulker (1951 – 2010) was Dave Winer's mentor in 1994 and taught Winer at the time that Frontier could be used to automate web publishing (see 4.1). Gulker played a crucial role one more time in 1997, after Frontier had acquired a stable publishing model in its 4.2 release of January 1997. Gulker had a network builder's professional focus on networks, and when he brought this focus to bear on Winer's software in 1997, he instantly saw the potential for news pages to be nodes in a news page network rather than part of Winer's default site model.

11.3.1 Newsroom as network

Gulker started his career in journalism as a photographer at the *Los Angeles Herald-Examiner* in 1978, rising to prominence as a nationally assigned photo journalist before the newspaper ceased publication in 1989 (Davison, 2010). He subsequently joined the *San Francisco Examiner*, where he served as photo editor and oversaw the newspaper's transition to digital photography (Berton, 2010). At the *Examiner* he also designed and implemented a Mac-based production system that allowed the newspaper to switch from black and white to colour printing and to perform colour separations in the newsroom ("Making waves," 1991).

Promoted to director of development in 1992 (Pegoraro, 1994), Gulker led the way from conventional mainframe computing to a workflow system of his own design based on a network of Mac workstations. This system, which he dubbed a 'virtual newsroom', handled the entire pre-press operations of a newspaper that 'used the 'Net throughout the process from story and photo solicitation to delivery' ("SF papers finally hit the online trail," 1994)⁷⁶. Gulker's workflow system was demon-

⁷⁶ Gulker's system provided the publishing infrastructure for *The Gate*, the website jointly operated by the *San Francisco Examiner* and the *San Francisco Chronicle* (Berton, 2010), which made its precipitous debut on 3 November 1994 (Bank, 1994) as part of the San Francisco newspaper strike (Bialik, 2004) and was officially launched on 5

strated at both Seybold events of 1994, at the time the leading conference and trade show in publishing technology (“Seybold San Francisco ’94,’ 1994, ‘SF papers finally hit the online trail,’ 1994).

In redesigning the *Examiner*’s production workflow, Gulker found himself at the forefront of a ‘switch from software development to software integration in the editorial system market’ (Tribute, 1995). This switch involved a shift in focus ‘from basic software development to database and scripting issues’ (Tribute, 1995), involving the integration of heterogeneous networks. Scripted in UserLand Frontier (Gulker, 2002a) and connected via ISDN lines (Tanzillo, 1995), Gulker’s virtual newsroom meshed together writers, editors, image banks and the *Examiner*’s pre-press facility, processing ‘information and images from vast worldwide networks’ (“The virtual newsroom,’ 1994).⁷⁷

Gulker avidly studied the ‘complexities of building the plumbing upon which the Information Age will depend’ (Gulker, 1999a), and concluded from the experience of designing and implementing the *Examiner*’s virtual newsroom that ‘simple production systems, based on free or inexpensive tools, were a better match for the needs of modern media companies than the traditional big, ‘complete’ production systems’ (Gulker, 2002a). As a frequent speaker at industry gatherings, Gulker kept spreading this message, promoting newsrooms that were set up as low-cost, platform-agnostic intranets for their ‘easy start-up and information-sharing value’ (J. Rosenberg, 1998).

Gulker left the *Examiner* in February 1995 and assumed a management position at Apple, where he headed strategic relations at the company’s Design and Publishing Markets group (George, 1997). While working at Apple, he came to collaborate with Dave Winer again in March 1997 as part of the InternetWorld trade show in Los Angeles, for which Winer had been commissioned to build and run Apple’s website that would report on the industry event in real time. Winer’s News Room team was located at Apple’s booth and delivered ‘a constantly updating site for 3 days with very little technical infrastructure’ (Gulker, 1997b), aiming to highlight the ‘achievements of the Macintosh net developer community’ (Winer, 1997aa) and soliciting contributions from conference-goers to achieve this aim (Winer, 1997ad). When evaluating the success of the operation, Gulker found that Winer’s software was ‘ready for heavy use’ (Gulker, 1997b), as it managed to control a networked newsroom that processed the equivalent of ‘the daily local content of a small-to-medium-sized newspaper’ (Gulker, 1997b). Gulker called Winer’s operation a ‘virtual newsroom’ (1997b) and thus implicitly staked a claim for his prior art that determined Frontier’s development direction as a publishing system (see 4.1), but the term also acknowledged that Winer’s software had reached a level of maturity that allowed it to support a news organisation nearly out of the box.

April 1995 (“Chronicle, *Examiner* open,’ 1995).

⁷⁷ As the market in editorial systems for newspapers was becoming ‘almost one of standard, off-the-shelf products’ (Tribute, 1995), Gulker was amongst the earliest to draw a significant portion of the paper’s content directly from the network of Macintosh workstations at the *Examiner*, but he still needed to rely on a legacy Tandem mainframe SII system (Gulker, 2002b) for about half of the content. He integrated the desktop publishing applications Quark Xpress, Adobe Photoshop, Illustrator, Freehand into the workflow using the scripting languages AppleScript and Frontier’s UserTalk. The *Electric Examiner* was hosted on Sun SPARC servers (Gulker, 1995b).

11.3.2 Gulker's News Page and The NewsPage Network

Gulker launched his personal website *Gulker.com* in early 1995 (Wright, 1995) and, shortly after his involvement with the Apple newsroom, added a stream of 'daily ramblings and links' (Gulker, 1997h) in May 1997 (Gulker, 1997c), using Winer's software. The launch of Gulker's news page became a defining moment of mutual awareness between Frontier-style news pages. Andy Affleck (né Williams) had just started his own news page and the two of them came to trade reciprocal links with each other and with Winer: Gulker first placed a complimentary link to *Scripting News* in the first post to his news page (Gulker, 1997c). In response, Winer linked to Affleck and Gulker's respective sites (Winer, 1997az), and Affleck linked to Gulker the same day, endorsing it as 'another News Page' (A. J. Williams, 1997). This in turn prompted Gulker to link back to Affleck, stating: 'News Pages proliferate [...] and cross refer!' (1997c). This comment of Gulker's described a particular moment in which two particular news pages sprang up and linked to each other, but it also expressed an aspiration: Gulker had high expectations for the publishing format of the news page and *wanted* such pages to link to each other. He monitored his metaphorical 'gulker.com radar' (Gulker, 1998a) for other news pages to appear, and in the summer months of 1997 he did something unprecedented: in two separate instances he re-posted links from a fellow news page maintainer, crediting them, in a gesture of appreciation, with the phrase 'from Phil Suh's News Page' (1997d, 1997e), thereby introducing an innovation that would soon come to play a crucial role: link attribution (see 9.4).

In October 1997 Gulker acted on the idea of cross-referring between News Pages and set up a new feature on *Gulker.com*, adding a persistent list in his left sidebar that featured twelve news pages under the heading 'The NewsPage Network' (Gulker, 1997l).

The network that Gulker's list identified did not support any routinised interaction between its members, however, and there was very little reciprocated recognition as expressed in linking patterns (see 9.4). Gulker's NewsPage Network was a network almost in name only, and its existence was largely notional, an inert testament to Gulker's re-conceptualisation of Frontier's NewsPage as, potentially, a discrete network of distributed nodes separate from Winer's *large dynamic site with lots of authors* programme. Winer for his part was not paying much sustained attention to the 'first-generation descendants' (Barger, 1998ab) of *Scripting News* and may have been oblivious to most of them. When he came across a news page, he intermittently endorsed it by linking to it,⁷⁸ but the list of his regularly frequented websites that he posted in January 1998 did not include a single member of the NewsPage Network (Winer, 1998e). Similarly, Andy Affleck's 'hit list' (1998) of favourite links in his site's sidebar only included *Scripting News* from among the members of Gulker's Network, and Steve Bogart's 'Links Page' (1998b) showed no awareness of a NewsPage category either: it even listed *Scripting News* amongst other Mac news sources, and it classified

⁷⁸ Winer intermittently linked to news pages as they came online, yet most members of Gulker's NewsPage Network were never mentioned on *Scripting.com*. News Pages that Winer linked to in 1997 included *China Informed* (Winer, 1997j) *Chris Gulker's News Page* (Winer, 1997az), *Andy J. Williams* (Winer, 1997az), and *The Obvious Filter* (Winer, 1997bh). In 1998 they included *Robot Wisdom Weblog* (Winer, 1998d), *Andy Edmonds* (Winer, 1998aa), *Digital Prairie* (Winer, 1998aa), and *Tomalak's Realm* (Winer, 1998af).

Gulker.com amongst regular news sites (Bogart, 1998i). Peter Prodoehl of *Rasterweb.net* felt no need to put up a list of fellow practitioners until well into 1999 (Prodoehl, 1999b), and Robert Occhialini of *Bump.net* carried a section named ‘Sites Worth a Look (Most of these are maintained by people I know)’ (1998) on his links page: four out of the seven sites he listed there were members of the NewsPage Network, but he made no effort to distinguish them from the other three that were not. Several years into his news page project, Daniel Berlinger (2000) for his part had yet to put up any sort of links to kindred sites. All in all, the sites that Gulker identified as a network in October 1997 shared a publishing tool and a publishing model but no sense of any cohesion amongst each other. Their status as a network was little more than aspirational.

This aspiration was almost uniquely Gulker’s, who hinted at a grand purpose of such a network when he asserted that his news page was an ‘experiment in the possibilities offered by the rise of a global network’ (1997m). News pages, Gulker believed, were going to help bring about ‘a new, and possibly much greater ‘age of letters’, not unlike the one that arose when the first reliable postal services allowed correspondents to share ideas though separated by large distances’ (Gulker, 1997m).

11.3.3 Networks and cyber-utopianism

Gulker enthusiastically quoted (1997n) the assertion by Michael Dertouzos, then Director of the M.I.T. Laboratory for Computer Science, that ‘the information age we are now creating will be based on computers and the networks that interconnect them’ (1991, p. 30). Gulker also had a network builder’s practical appreciation of the ‘brilliant technical ability and a determination to create a soundly engineered global network’ (Gulker, 1997k) that manifested itself in the work of an internet pioneer such as Jon Postel. But Gulker, a humanist with a degree in comparative literature, considered networks to be a cultural phenomenon much more than a technological one. He noted that ‘networks existed before the Internet: the Net merely took the idea to the highest logical plateau’ (Gulker, 1997j). He was optimistic: the internet, ‘far from driving people into increasing isolation, actually works to bring us together’ (Gulker, 1997j). Extrapolating from his experience of internet users as ‘enthusiasts who use the Net to find like-minded folk with whom to trade ideas’ (Gulker, 1995a), he was confident predicting a ‘new age of letters driven by the rise of a global network’ (Gulker, 1997m).

Gulker’s *News Page*, a stream of ‘pointers to interesting ideas and authors’ (Gulker, 1997m), was a successor to a static link page he had started in 1995 but soon abandoned, and it aimed to offer links to ‘well-reasoned and interesting ideas’ (Gulker, 1997m). Being an ‘experiment in the possibilities offered by the rise of a global network’ (Gulker, 1997h), it embodied an opportunity for a new form of editing that Dertouzos had predicted:

Printed newspapers are unlikely to disappear because they are so convenient and inexpensive. But the information marketplace will also be an abundant source of timely information – including text advertisements, music and video – contributed by anyone and perused freely by anyone else. These mountains of information will, in turn, create opportunities for a breed of electronic publishers and entrepreneurs who will sift for diamonds, which they can then edit

and publish electronically. Thus, even though publishers may not print their works on paper, the substance of gathering and reporting information will not change. (Dertouzos, 1991, p. 36) Gulker understood this prediction to mean that the networks of journalistic professionals would be complemented by those of amateurs, giving rise to a shared environment in which the news professionals and the amateurs collaborate: ‘The real paradigm shift isn’t going to be when we move to computers; it’s when our readers move to computers. And the real paradigm shift is going to be when . . . our network and theirs now touch, and our screen and theirs now touch’ (Gulker, cited in: Webb, 1995).

Gulker was a great believer in the revolutionary power of networks. He asserted that the emergence of reliable postal services in the early modern period, which allowed thinkers and scientists to trade ideas across large distances, marked the ‘last time a new network revolutionized the globe’ (1997n). He believed early postal networks to be paradigmatic for the internet, as his infatuation with ‘16th Century network hackers’ (Gulker, 2003a) stemmed from the perception that their contemporary heirs were about to effect a comparable transformation. This idea was not entirely original. Gulker’s prediction of ‘a new age of letters driven by the rise of a global network’ (1997g) descends from a strain of similar pronouncements made by cyber-utopians such as Ted Nelson, who predicted that personal computing would bring about a ‘new Renaissance of ideas and generalist understanding’ (Nelson, 1990, p. 4) and inspire a ‘rebirth of literacy’ (Nelson, 1987, p. 1/4). Nelson’s view implied a teleology of media improvement in which personal computing would provide a ‘cure for television stupor’ (Nelson, 1990, p. 4). Stewart Brand’s view that personal computing would bring about a ‘Personal Renaissance’ (1987, p. 252) was similarly based on a critique of the consumerist culture of television, and Louis Rossetto, the co-founder and chief editor of *HotWired*, proclaimed his web zine to be the ‘digital successor to TV’ (Rossetto, 1994b), boasting of a ‘Second Renaissance’ (“HotWired FAQ,’ 1994) that would ‘help define the future of that medium before it ends up like television’ (“HotWired FAQ,’ 1994).

For all the *kulturkritik* to which cyber-utopian invocations of a second renaissance were prone, Gulker did not subscribe to Nelson’s programme of ‘re-awakening primary literacy as a mass phenomenon’ (Moulthrop, 1991), simply because he cheerfully denied the premise that any crisis of literacy was at hand. In fact, Gulker celebrated the literacy levels in a post-industrial country such as Great Britain, and identified this literacy as the basis of greater future value creation enabled through the internet, as the ‘world’s transition from an industrial economy to one based on information should greatly favor those nations with a literate and well-educated populace’ (Gulker, 1997n).

More broadly, Gulker did not subscribe to Nelson’s ‘unabashedly millenarian vision of technological renaissance in which the system shall set us free’ (Moulthrop, 1991). Gulker certainly counted himself among the ‘people who did the actual work that resulted in the greatest legal creation of wealth in history’ (Gulker, 2002c) – referring to the computer industry – and thus aligned himself with Stewart Brand’s praise of hackers as the present day’s ‘most interesting and effective body of intellectuals’ (cited in: Levy, 2001, p. 431). Gulker also knew of the quasi-mystical importance that Brand and the ‘hacker ethic’ accorded to tools – but our ‘hewing and honing software the way our

ancestors once hacked and polished stone' (Gulker, 1999a) was no great act of liberation or transcendence in Gulker's view – it was a means to the end of 'doing better than some of our peers' (Gulker, 1999a). To Gulker, who was a great believer in 'the dignity of labor' (Gulker, 1994a), the internet industry was just another expression of that dignity rather than the embodiment of some manifest revolutionary destiny.

Gulker did not foresee an immediate impact of the global network that fired his imagination: he was happy to compare bloggers to the scholars and scientists of the early modern period and state that they both ushered in something that was new and vital. He refused to speculate, however, on what it would be this time: 'One can only wonder what the results of the new network will be' (Gulker, 2003b). Gulker's cyber-utopianism, far from Winer's exuberance, was tempered both by a network builder's sense of realism and a humanist's capacity for critical detachment; as such, it was indistinguishable from a fairly unremarkable scientific optimism.

Gulker, in pronouncing the aspiration that news pages should 'proliferate [...] and cross refer!' (1997c) was the first to spot the networking potential in Winer's data structure of the news page. Gulker did so from a great belief in the revolutionary potential of networks, and, in a sense his conferral of the networking idea on Winer's work may have been the most natural expression of his belief that Winer's software was truly remarkable. Gulker, holding down a full-time management position at Apple, never managed to put the necessary hours into convening and cultivating the NewsPage network he foresaw, but by foreseeing it, he re-framed Winer's work in a different context. It was for Jorn Barger to bring the network alive.

11.4 Jorn Barger: social resource discovery and the weblog community

Barger began to study hypertext with his first efforts at web authoring in early 1995 (Barger, 1995d). Looking for expert guidance, he joined the *alt.hypertext* newsgroup, where he soon came to take an adversarial, antagonistic stance towards the members of the group, voicing strident opposition to experts in the field, claiming that 'the worst hypertext design on the WWW is in the style manuals of the academic hypertext gurus' (1995ak). In his view, academic hypertext experts were 'either ignoring the web or leading it astray' (Bernstein, 1996). He believed that the experts were obscurantists, were contemptuous of the web, and were irrelevant to its further development. He alleged, especially, that they were indifferent and irresponsible towards the practical issues of hypertext design for the web and asserted that 'the academics who claim to have expertise on these matters are not helping out in the least' (1996g). For these reasons, Barger decided to trust his own experiments, believing that the web's 'explosion of spontaneous creativity is (finally!) making it possible to formulate some real theory about what works and what doesn't' (Barger, 1995l).

11.4.1 The rule set and social discovery

When surveying his efforts in 1997, he found that most of his web hypertext experiments tried to solve either of these two problems:

1. how to draw online readers into difficult texts

2. how to flesh out hotlists of weblinks into readable prose (1997v)

From this set of preoccupations, Barger came to study news page design, which he considered a hypertext model of great potential. In a post of September 1997 to *alt.hypertext* entitled ‘An Emerging Paradigm for Web Hypertext?’, he observed the following:

Trying to catch up with the world of Macintoshes lately, I was struck by the identical hypertext design for two sites – www.macinsider.com and www.macintouch.com. I think it’s a perfectly serviceable way to offer a lot of links in readable form (but is there any way to improve on it?).

Basically, it’s a newsletter design with lots of short paragraphs summarizing mac news, with a few words highlighted in each paragraph to represent the links to offsite resources.

I’d like to think that in a year or four the whole idea of hotlists will be extinct, replaced by something like this. (1997ac)

Barger then did set about trying to improve on the design of these sites and formulate a rule set that would govern ideal implementations.

Barger studied Winer’s Frontier software and *Scripting News*, finding Winer’s news page design to be ‘the ideal prototype for Internet info exchange’ (1997al), declaring it to be ‘a vastly better solution than 99.9% of all of all the webzines’ (1998d). When launching *Robot Wisdom Weblog* in December 1997, Barger built on the example set by *Scripting News* and enjoined his readers to visit the site ‘every day or so for new discoveries’ (1997ap) as he promised to offer ‘daily commentary on new discoveries all around the web’ (1998f). In a first attempt at formalising the rules that should govern news pages, Barger made two suggestions that corresponded to the two problems he had identified in his hypertext experiments:

1. The anchor text has to include enough info for the reader to decide whether to follow it. In most hotlists I’ve seen, this is a big problem, because only a few words are used, and they’ll often make a fascinating site sound dull.
2. Reading a hotlist can mean a huge cognitive burden if different items appeal to different sorts of interest, because the brain has to ‘refocus’ between each one. Continuous prose gives the author a chance to smooth these. (1997ae)

Having launched his new site, *Robot Wisdom Weblog*, in December 1997, he proceeded to post a refined rule set in February 1998, naming six criteria that an ideal implementation would need to fulfil:

1. There’s a single URL that stays current, with options for ‘scrolling back’ in time.
2. There’s enough description for people to decide what they want to read. (Three words of abstract link text is not enough!!!)
3. Minimal graphics. Heavy graphics do *not* raise readership. (I try to include a nice small image from time to time, just as an added channel of communication.)
4. Anthologise *other* sites’ text. Why are there so few examples of this approach??? No zine is an island.
5. Daily updates. People can make a habit of visiting every time they’re on line.

6. A single ‘editor’. You may not agree with my taste on everything, but you can grow to know my biases. (1998d)

A few months later, in July 1998, Barger published a similar list of ‘design suggestions’ (Barger, 1998ab), which increased the number of criteria from six to nine:

- Continual updates make more sense than periodic publication.
- The main page adds new links at the top
- Archives can maintain this format, broken into reasonable-sized chunks
- (Sorting archives by category is another option)
- Link-text should be a summary (not a teaser/pun)
- Pullquotes can be very effective
- When linking to a multipage or heavy-bandwidth article, include a warning
- Simply showing the URL is a convenient way of giving a lot of info about the source, date, etc
- Crediting links borrowed from other weblogs is good etiquette (1998ab)

The term *suggestions* belied the nature of the list, however. Barger thought of his rule set as ‘urgently important for all web authors’ (1998e), especially since no site other than *Robot Wisdom Weblog* matched ‘more than three’ (1998e) of his criteria. While the earlier instances of the rule set – the initial two-point list (1997ae) and the elaborated six-point list (1998d) – were contributions made in the fleeting medium of newsgroup postings, the nine-point list is part of a published web page on *Robot Wisdom*. Its permanence lent it much greater weight: it was a programmatic statement.

The core of Barger’s rule set is readily apparent from its one-line summary: ‘If I were to boil my message down to one point, it would be that web magazines ought to be completely unconcerned about *hosting* content’ (1998e). Barger’s insistence that there was ‘a role for magazines beyond hosting original content, which is to offer a running daily commentary on new discoveries all around the web’ (1998f) reveals a strong impetus to ‘improve’ (1997ac) on Winer’s work, which was not to be found in anything either Sippey or Gulker had envisaged. Whereas Sippey had largely remained within the parameters of those Frontier users who implemented their news page as it came out of the box, and while Gulker had speculated about the possibility that networked news pages *might* be re-conceived within the context of news networks, as distinct from Winer’s collaborative content management programme, Barger now proclaimed that it *needed* to be prised apart from Winer’s programme of collaborative web content management.

Barger saw the justification of re-conceiving news pages as weblogs, as a new web genre independent of Winer’s programme, in the need to network, a conclusion he had arrived at independently from Gulker. He did not state the need for a ‘growing network of freelance editors’ (1998ab) working within the weblog genre in his rule set, but he offered various predictions and descriptions instead. When, with the launch of his weblog in December 1997, he began to propagate the weblog model and recommended that ‘all enthusiastic surfers take a shot at maintaining such a weblog’

(1997ap), he recommended that ‘anybody can start one of these... and everyone should’ (1998f).

Barger had a commons-based peer production (Benkler, 2002, 2006) effort in mind: he intended to start an exchange network for link discoveries that would render the web’s over-abundance of poorly organised text navigable through the collaborative efforts of this ‘network of freelance editors’ (Barger, 1998ab). Convinced that the media were venal and dishonest, Barger noted that ‘any website’s own index of its content is the last place you want to have to look for good reading: it will necessarily promote its worst pieces indistinguishably from its best’ (1998ab). He envisaged a network that would be ‘authentic’ (1997am), with the individual weblogger’s authentic self knowledge (see 7.1) driving an alternative to the corrupt process of salience generation that governed the media. Barger advocated ‘linking to the best articles from every possible source, accompanied by honest summaries’ (1998ab) as an editorial strategy which would create new efficiencies if practised by a network of sites, as Barger explained while launching his weblog in December 1997: ‘I suspect that in a year there’ll be hundreds of people maintaining pages like this, and that this will allow good URLs to spread much more quickly’ (1997ap).

Barger’s ‘new network of web-surfers’ (1998m) would be mutually facilitating in their editorial work and amplify link discoveries through reposts: as each of the editors would ‘re-filter’ (1998e) the work of a dozen of their peers, new URLs would ‘propagate thousands of times more efficiently’ (1998e). This practice, Barger claimed, would irreversibly shift ‘the seat of power from well-financed publishers to essentially unfinanced editors’ (1998ab). Barger intended weblogs as a discourse network engaged in social resource discovery. If the overall network of weblogs promoted ‘topically related and interest-based clusters to form a peer-reviewed system of filtering, accreditation, and salience generation’ (Benkler, 2006, p. 252), that’s what Barger had in mind. He was also seeking to supplant what Benkler would call the market-based attention economy of the mass media.

Barger was explicit in the reinterpretation he sought to effect: he noted that *Scripting News* was the ‘granddaddy of these sites’ (Barger, 1998ab), that Frontier was the ‘favored utility’ (Barger, 1998ab), and that Winer’s news page concept ‘formalised many characteristics’ (Barger, 1999t) of such sites. However, he chose not to follow Winer in the attempt to compete with the mainstream media by generating and publishing alternative content; he placed his hopes instead on weblogs as a network of editors that would sift the Web for quality, engaging in resource discovery as a peer production effort.

11.4.2 Cyber-utopianism

Barger chose a more archaic metaphor for his belief in the weblog community than Gulker for his belief in the news page network. Where Gulker invoked the postal services of the early modern period as a point of comparison, Barger chose to invoke an earlier pre-industrial period when ‘people used to send messages from hilltop to hilltop, over long distances, by building signal-fires’ (1998m). The greater antiquity of the analogy corresponded to a much more radical utopian vision (see 8.1).

Barger had a much greater faith in the merits of the weblog model than either Gulker or any of the other news page maintainers ever had in the news page. Unlike earlier news page maintainers, Barger was supremely confident of the potential in weblogs. He deemed his rule set ‘urgently important for all web authors’ (1998f) and wanted it to be observed, thinking of it as the substantial contribution to the ‘real theory about what works and what doesn’t’ (1995l) which he was trying to discover and promote. He considered his rules to be incontestable, authoritative, and, ultimately, binding⁷⁹ because he was convinced that the weblog model would ‘become the dominant one for web publishing’ (1998d) and that, eventually, it would ‘transform the world’ (1999aa).

The motto above Barger’s programmatic rule set states: ‘First, let’s kill all the Sunday morning panel-pundits’ (1998ab). This is a reworking of a line delivered by a follower of Jack Cade’s rebellion in Shakespeare’s *Henry the Sixth*: ‘The first thing we do, let’s kill all the lawyers’ (2 Henry VI, iv.2.70). Barger’s reworking of the Shakespeare line invites no ironic reading at all: his invocation of a quasi-communitarian peasants’ revolt of the 15th century serves as a straightforward call for the removal of the enablers and gatekeepers of a deeply despised status quo: weblogs in Barger’s view were a peasants’ revolt that was going to do away with the communications regime that the establishment’s media personalities stood for.

Thus, Barger’s views differed from Gulker’s in their radicalism. To Gulker, the ‘renaissance’ to be brought about by pervasive networking lay in the somewhat distant future and was unknown if surely beneficial in its outcome; to Barger, the revolution was close at hand and would empower the network of those who adhered to his rule set. In this, Barger’s view was identical to Ted Nelson’s utopian aspiration of redefining power throughout the cultural sphere:

Xanadu would remove economic and social gatekeeping functions from the current owners of the means of text production (editors, publishers, managers of conglomerates). It would transfer control of cultural work to a broadly conceived population of culture workers: writers, artists, critics, ‘independent scholars,’ autodidacts, ‘generalists,’ fans, punks, cranks, hacks, hackers, and other non- or quasi-professionals. (Moulthrop, 1991)

Barger believed that weblogging as social discovery would have the same effect. As the network ‘instantaneously, irreversibly transfers the seat of power from well-financed publishers to essentially unfinanced editors’ (1998ab), Barger expected the impact to be immediate: when the first few web zines began to voice skepticism towards weblogs (Brown, 1999; Harpold, 1999; Knauss, 1999; Marsh, 1999), Barger cited their critique as evidence of a ‘panicked establishment/elite’ (1999t).

As an alternative, collaborative interface to the web, designed to overcome the informational inefficiencies caused by the media’s lack of trustworthiness, weblogs would sweep the established or-

⁷⁹ Barger responded with incredulity and disparagement when hypertext scholar Mark Bernstein expressed reservations about his six-point analysis (Bernstein, 1998b). He also placed two sites on a ‘Weblog Dishonor Roll’ (Barger, 1998aj) for running afoul of the rule that credit should be given for borrowed links, then branded one of the two sites, the *Arts & Letters Daily*, a ‘plagiarist’ (Barger, 1999j) for continued non-compliance with that rule (see 11.2). Eventually, he even managed to antagonize a good number of his fellow webloggers by posting an annotated list of weblogs in which he critiqued their site design and declared that most of them fell short of his standards (Barger, 1999s).

der from power: ‘As the weblog movement matures, our sites will wrest editorial authority [from] the few editors of today and divide it among the many’ (Graham, 1999c). Such a dislocation of authority is not only substantially a restatement of Nelson’s hope that the ‘shifting networks of consensus and textual demand (or desire) in Xanadu would be constructed by users and for users’ (Moulthrop, 1991). With Barger, it carried the same anti-establishmentarian animus.

11.4.3 Introducing link attribution

It was with great elation that, in early January 1998, within three weeks of *Robot Wisdom Weblog’s* debut, Barger discovered Gulker’s news page and, with it, the NewsPage Network. He promptly reported the find in his weblog, exulting: ‘Yay! A whole list of *other weblogs*’ (1998a). Gulker in turn became aware of *Robot Wisdom Weblog* and added it as ‘another News Page’ (Gulker, 1998a) to his list, soon to be followed by Steve Bogart’s *News, Pointers & Commentary*, and Robert Occhialini’s *Bump* (Gulker, 1998a), thus bringing the Network list up to its final tally of fifteen news pages.

Barger returned from his initial exploration of Gulker’s NewsPage Network with a handful of ‘cribbed links’ (Barger, 1998b) that he posted to *Robot Wisdom* without attribution. A few weeks after becoming aware of the NewsPage Network, Barger noticed Gulker’s discovery of Steve Bogart’s news page (Gulker, 1998a), and he endorsed Bogart’s site instantly, on 13 Feb 1998, as ‘another fine weblog’ (Barger, 1998j), while crediting Gulker for the find. Bogart responded the same day and linked back to both sites with a thank-you note (Bogart, 1998c). A few days later, on 16 February, Barger re-posted a link from another member of the NewsPage Network, Daniel Berlinger. This time, he not only credited his source, he introduced an entire scheme that was designed to credit all his link sources, using citation keys in square brackets that referenced a separate ‘sources page’ (Barger, 1998j). Gulker had introduced the innovation of giving credit for borrowed links in two isolated cases in the summer of 1997 (1997d, 1997e), but when Barger re-introduced the practice in February 1998, he made it a systematic and meticulously observed part of his posting regimen.

Contemplating the ‘new network of web-surfers who maintain newspapers’ (Barger, 1998m) in February 1998, Barger claimed that its members were engaged in ‘scanning each others’ pages to pick up hot tips (http’s!) that we can then pass quickly along’ (Barger, 1998m). This suggestion of not just a shared purpose, but also a shared identity amongst a peer group of information scavengers is notable for the first use of the personal pronoun *we* in reference to Gulker’s network, yet Barger’s description of such collaboration sustained by the network does not reflect the reality of the time. It is true that Barger was systematically exploring Gulker’s list of news pages looking for links to re-post, but there was no shared and routinised practice of doing so among the other members of the network. The idea that a peer group would monitor each other’s weblogs and repost what they, individually, considered to be the best links was only the idea of a practice that Barger wanted the network to sustain. In this limited sense, Barger’s pronouncement was an echo of Gulker’s ‘proliferate [...] and cross refer’ (Gulker, 1997c) comment of May 1997. The idea was aspirational.

When, in the first half of 1998, Barger described himself as ‘a leader among the growing network of weblogs and news-pages’ (1998x), this self-proclaimed leadership rested on the prolific ex-

ample he was setting with *Robot Wisdom Weblog*, as well as on his advocacy of the new form of web authoring, especially his attempt to define the rule set that weblogs should adhere to. These rules changed somewhat from their first announcement on usenet in January 1998 as a six-point programme (1998d) to their first appearance on the web in late July 1998 as a nine-point set of ‘design suggestions’ (1998aa). The nine-point list included a new rule which states that ‘crediting links borrowed from other weblogs is good etiquette’ (1998aa).

Barger never elaborated in any detail on the ‘good etiquette’ (1998aa) of link attribution, except for remarking that link attribution was ‘publicity’ (1999b), that it amounted to a ‘vote of confidence’ (1999b) in the source being attributed, and that webloggers ‘ought to give enough credit that readers can check out that source for themselves’ (1999t).

Link credits were going to heighten the power of the commons: ‘We vacuum the Net for stories that the major outlets haven’t noticed yet, and pass along our sources so we can all get more and more efficient at this vacuuming’ (Barger, 1998x). Barger thus attempted to ‘make the web as a whole more transparent, via a sort of ‘mesh network,’ where each weblog amplifies just those signals (or links) its author likes best’ (Barger, 2007g).

11.4.4 Link attribution and Steve Bogart

Barger’s link attribution scheme formalised the propagation of links from one weblog to another, but after its introduction in February 1998, it took weeks before the practice was first adopted. Steve Bogart, one of the very first news page maintainers, who had long viewed his news page as ‘a useful filter for the vast amount of news and information on the Web’ (Bogart, 1997c), adopted Barger’s link attribution on 24 April 1998, promising that whenever he was going to borrow a link from another weblog, he would ‘credit it’ (Bogart, 1998e). Bogart adopted the practice because it allowed him to ‘navigate between the extremes’ (Bogart, 2010) of either forgoing the right to post a link because it had been previously posted on another weblog, or risking the displeasure of the original finder by propagating the link without credit. Bogart and Barger thus became the first two webloggers to trade links and acknowledge their borrowings reciprocally.

The dynamic of Bogart’s adoption of link crediting was social. By introducing the expedient of link attribution and establishing it through their example, Barger and Bogart managed to institute a cultural norm in their peer network, which amounted to the strongest redefinition of the news page model to date. Winer’s treatment of the *Scripting News* news page under the *large dynamic site with lots of authors* remained committed to the *DaveNet* approach, which staked out for himself the position of a single ‘benevolent editor with wide reaching powers’ (Scott Weiner, cited in: Winer, 1994g) and remained a solitary ‘flow-crafter’ (Winer, 1997m) who would ‘distribute flow thru other sites inside and outside of your firewall’ (Winer, 1997ba). By contrast, Barger and Bogart’s introduction of the link attribution rule, borrowed from Gulker, defined the emerging discourse network as a social formation. The ‘merry band of linkers’ (Bogart, 1998f) that Bogart treated as ‘sources for links’ (Bogart, 1998h) now observed an open, commons-based community model.

11.4.5 First adopters and first meme

In May 1998, sites sprang up that were named *weblogs* after Barger's example. Raphael Carter, for instance, reported to Barger: 'I've also taken your suggestion and started my own surfing discoveries page, the Honeyguide Web Log' (Carter, 1998b), and presently Joe Wilson set up his own site, placing it 'in the tradition of Jorn Barger and the Honeyguide Weblog' (Wilson, 1998). New sites that adopted the name *weblog* in 1998 include *Pigs & Fishes Weblog* (Grumer, 1998) and *Honeyguide Weblog* (Carter, 1998b) in May, *The Untitled Weblog* (Wilson, 1998) and *Whump Web Log* (Humphries, 1998a) in June, as well as *Windowseat Weblog* (Krahn, 2005) in November. In December, Steve Bogart also relaunched his former news page under the name 'log' (Bogart, 1998l) at his newly registered *NowThis.com* domain.

The term *weblog* caught on even among those who did not name their site after it. Michal Wallace of *Manifestation.com* used it generically, as applying to a site model rather than just Barger's instantiation of that model, in July 1998, when he indicated he was experimenting with his own implementation (Wallace, 1998i).

Around mid June 1998, when Barger touted the 'informal network of Frontier newspapers/weblogs' (1998w) as a 'great step forward' (1998w) towards the fulfilment of his aims, the first sizeable meme was just about to propagate its way through the emerging discourse network: the announcement of the *Open Directory Project*, an effort to improve on Yahoo's web directory by using volunteer editors. The news entered the network via *Slashdot* (Malda, 1997), and within a week it got propagated by *Unnamed Weblog* (Wilson, 1998), *Pigs and Fishes Weblog* (Grumer, 1998), *Whump Weblog* (Humphries, 1998a), *Honeyguide Weblog* (Carter, 1998c), and *Manifestation* (Wallace, 1998h). In observation of Barger's link crediting rule, *Manifestation* attributed the link to *Honeyguide*, where it had already been credited to *Unnamed Weblog*, thus illustrating the propagation mechanism that Barger had been advocating.⁸⁰ Right after this flurry of reposts, although presumably without any direct connection to it, Barger claimed pre-eminence among this peer group as 'a leader among the growing network of weblogs and news-pages' (1998x) and hailed the credited propagation of reposted links as a crucial function of the network: 'we vacuum the Net for stories that the major outlets haven't noticed yet, and pass along our sources so we can all get more and more efficient at this vacuuming' (1998x). By this time, Barger's description of the process was no longer merely aspirational: here was a social discovery network that was engaged in filtering the web as commons-based peer production.

11.4.6 Raising the weblog community

As a great believer in 'utopian ideals of group process' (Barger, 1993t), Barger had started online groups that 'were freely, anarchically open to all, and [he had] spent many patient hours trying to

⁸⁰ Brad Graham, who linked to the Open Directory Project a month after the initial flurry of reposts (Graham, 1997), drew an explicit parallel between the directory and weblogs a year later, calling weblogs 'a more widely distributed version of what the Open Directory and other collaborative web directories have promised but only minimally delivered' (Graham, 1999c). Notably, the directory's slogan, 'humans do it better' ('About,' 1999; Morrow, 1998) corresponded to the major theme of the emerging discourse network of weblog in its response to personalised news (see News personalisation).

build a communal consciousness within those groups' (Barger, 1993t). Barger's advocacy of the weblog model, which in 1998 he was promoting as a 'fulltime weblogger' (Barger, 1999ad), eventually came to fruition.

In the summer of 1998, Barger spotted 'a need for a weblog/newspage maintainers mailinglist or chat forum' (Barger, 1998ac) and, acting upon that perception, set up a discussion group to which he persistently referred with the possessive pronoun in the plural: it was 'our new DejaNews forum' (1998z) or, alternatively, 'our weblogs Deja group' (1998ae) and 'our weblogs group' (1998af). Despite the invocation of commonality in Barger's choice of pronouns, he had to concede in early 1999 that 'all attempts to create a forum for webloggers have fizzled' (1999g).

People were getting behind Barger's weblogging programme even without such a forum, however. Michal Wallace was an early believer in 'cross-pollination' (Wallace, 1998j) between weblogs. Although his commitment to the term *weblog* was weak, and he was happy to use 'presurfing' (Wallace, 1998o) and 'microportal' (Wallace, 1998r) as viable alternatives, he expressed a strong sense of commonality with his fellow webloggers and discussed the complementary nature of their separate areas of specialisation as an opportunity for wider recognition of their shared form:

Each of the current presurfers have their own interests, and they capitalize on them and share those interests. That's why I don't think Jorn and I are competing. Or Bill at whump.com or Raphael at Honeyguide. Or the folks at memepool. Heck. 99% of the web doesn't even know we're here yet. (Wallace, 1998p)

Wallace's site soon sported a persistent list, exactly like Gulker's NewsPage network list, in the left sidebar of his front page, detailing his affinity with a roster of more than a dozen 'presurfers' (Wallace, 1998v). In November 1998 Raphael Carter of *Honeyguide Weblog* launched the 'Web_Log' category in the *Open Directory Project* (DMOZ.org) and announced an inclusive editorial policy that promised a comprehensive listing: 'Any other Webloggers reading this should make sure they're included and check out their descriptions' (Carter, 1998e). Bill Humphries of *Whump* hailed the launch of this directory as the emergence of weblogging as a 'movement' (Humphries, 1998b). In December 1998, buoyed by these events, Barger copied the prediction he had made in February of a link-sharing 'network of web-surfers who maintain newspaperes' (1998m) and pasted it to his weblog (1998al), thereby tacitly claiming vindication. Within days, Bogart confirmed and celebrated this sense of vindication by reposting the full quotation to his own weblog, too (1998a).

Shortly after, Barger renewed the recommendation he had made a year earlier, suggesting that everyone should start a weblog of their own; he also coined the term 'weblog community' (Barger, 1999d) and explained that membership in this community automatically extended to anyone who started a weblog (Barger, 1999d). In the absence of a forum that would operate as a conventional virtual community, he advised it might be best to 'just to converse within the logs themselves, even though this is not so interesting to non-loggers' (Barger, 1999g). Soon after, Wallace re-asserted the validity of Barger's peer process of link attribution, stating that a 'group of us have found each other, and use each other as sources' (1999c); he hoped, even, that this group 'could very well blossom into an industry' (1999c). Barger called the weblog community a 'rapidly growing group' (1999i) in

March 1999, when Laurel Krahn of *Windowseat Weblog*⁸¹ cheerfully described the community as a group who liked to link to each other and exchange email (Krahn, 1999c). The weblog community had emerged as ‘a small town sharing gossip and news, recreation and sport, laughter and tears’ (Graham, 1999c), and it was ready to live up to its purpose as ‘a more widely distributed version of what the Open Directory and other collaborative web directories have promised but only minimally delivered’ (Graham, 1999c). The discourse network of the weblog had emerged as a ‘movement’ (Graham, 1999c; Humphries, 1998b) that looked to him as the ‘leader’ (Barger, 1998x) he had set himself up to be. He was getting credited for having ‘started the trend’ (Wallace, 1999), for having ‘more or less created weblogging and then defined it by his excellent example’ (Graham, 1999a), and he was named with Winer as ‘the two that kind of started it all’ (Krahn, 1999c). In March 1999, he got nominated in CNET’s 1998 Web Innovator Awards for having ‘inspired the Web Log community’ (Gatlin, 1999). Winer’s news page model had come some way.

11.5 Discussion

Winer’s NewsPage design, implemented in *Scripting News* from February 1997 and available as a ready-made feature in his Frontier platform, was conceived as an integral and inseparable part of the *large dynamic sites with lots of authors* development direction which Winer pursued from 1996 to 2000. While a number of people adopted their own news pages and experimented with them in various ways, it took Chris Gulker to re-conceive news pages as nodes in a news page network, and it took Jorn Barger to act on the potential of such a network and to expend the effort to bring it about.

While Winer and Barger shared the same counter-cultural background, shared the anti-establishment sentiment and, above all, strongly believed in the grand narrative of user empowerment at the heart of the cyber-utopian creed (see 8.1), there was, however, a great difference between Barger’s and Winer’s respective interpretations of that creed: To Winer, the revolutionary act of empowerment lay in enabling the individual to participate in the web as an author. Barger, by contrast, aimed to wrest control from the established media order using social resource discovery. Barger was looking to redefine the process of editorial selection as a commons-based peer production of relevance.

Barger brought such a commons into existence through the community model he established along with his rule set, especially the innovation of link crediting. If Winer’s news page design rested on the stable and balanced magazine publishing model that had been worked out at *HotWired*, Barger’s intervention of prising the news page apart from that model and networking it under a new rule set destabilised that publishing model, setting in motion a train of genre formation that would keep rolling until it arrived at a new equilibrium in early 2000.

81 Krahn’s essay in which she attempts to define weblogs (1998a) does not mention any social aspects yet, let alone a community.

12 News Personalisation and its discontents: Michal Wallace and Denis Dutton

The reinterpretation of Frontier's news page feature into the beginnings of a separate text genre of social discovery, effected by Chris Gulker and Jorn Barger (see 11.3., 11.4), took place within a larger context in which the aspirations of news personalisation, a scheme deeply rooted in the cyber-utopianism of the nineteen-eighties (Turner, 2006, p. 106), were re-framed as part of personal publishing. During the web's early years, news personalisation was being advanced in a number of consecutive waves that went under the names of *intelligent agents*, *push media* and *personalised portals*. Members of the emerging discourse network of the weblog responded to all of them in their several ways, adopting an ever more critical stance towards the claims put forward by advocates of personalisation and, eventually, proposing weblogs as an alternative: the task which news personalisation had set itself of 'Humanizing the Global Computer' (Maes, 1997), needed to be done by humans.

12.1 Intelligent Agents

News personalisation found one of its earliest and most vocal proponents in Nicholas Negroponte, the founder of the MIT Media Lab, who defined it as 'a mix of centralized and decentralized information, manipulated and filtered by a retinue of electronic agents' (Negroponte, 1991, p. 81). Negroponte understood such agents to be autonomous software applications that would roam the internet on behalf of a human user for whom they would act as 'digital butlers' (Negroponte, 1994a), diligently culling articles of interest from various available news sources and send them to their retainers in a stream of individually targeted and personally tailored updates.

12.1.1 Media Lab

Negroponte made the concept of news personalisation one of the Media Lab's signature proposals.⁸² He started advocating the idea in the early days of personal computing (Jensen, 1984) and touted personalised news as a 'way of dealing with an exploding mass of information' (Nanni, 1985). At the Media Lab, personalisation was treated as the necessary and unavoidable form that news was going to take in the digital age:

In the end, modern telecommunications will lead us inevitably to the smallest news product imaginable: the personalised newspaper, or Daily Me, whose content has been tailored to meet an individual's needs and interest. Computerized 'butlers' or 'agents' will act on your behalf, culling articles of interest from traditional and non-traditional news sources, before sending them down the wire to your home. (Bender, 1994)

⁸² The MIT Media Lab, a research and development facility with close ties to industry and a focus on inter-disciplinary work and the human-computer interface, was originally conceived by Negroponte in 1979 and opened in 1985 after a period of fund-raising amongst corporate sponsors (Negroponte, 1996). The institution enjoyed a great deal of publicity and in the mid-nineties counted as 'the most celebrated research institute in the country, at least as measured by inches of newsprint or minutes of air time' (Hapgood, 1995).

Negroponete, ‘the most interviewed media technologist on Earth – a professor with a PR department’ (Metcalf, 1993), managed to elicit a keen interest in news personalisation both from corporate audiences and the general public. He first persuaded corporate investors of his belief in the computer as a ‘personalized, customized data-retrieval and organizing device’ (Schrage, 1985) when he was raising funds for the privately sponsored Media Lab and informed them in 1986 that ‘the binding principle at the Media Lab, the primary theme, is personalization’ (cited in: Brand, 1987, p. 150). This suggestion proved persuasive again in 1993 amongst a group of seventeen newspaper and information companies, whom he managed to assemble in an industry consortium named *News in the Future*. Specifically set up to ‘investigate ways to personalize electronic newspapers’ (Markoff, 1993), the consortium pledged \$2 million in annual support to the Media Lab’s research and development, amounting to ‘one of the largest, most ambitious and most cooperative efforts aimed at reinventing newspapers for the computer age’ (Garneau, 1993).

Negroponete also enjoyed great success disseminating his idea to the public at large. As the ‘first investor’ (Armstrong, 1994) in *Wired*, his support was crucial in launching the lifestyle magazine that would be regarded as the ‘Rolling Stone of the digital revolution’ (Gilbert, 1994), ‘the monthly bible of the ‘virtual class’’ (Barbrook & Cameron, 1995), and the ‘bully pulpit for corporate futurists’ (Dery, 1995). For six years Negroponete contributed a column to the magazine in which he evoked a ‘future where technology never fails, corporations are always benign, and there’s a high-tech magic bullet for every social malady’ (Dery, 1999). He wrote in his column of a need for ‘personalization of content’ (Negroponete, 1993) and asserted that consumers yearned for a ‘heavy dose of personalized news’ (Negroponete, 1994a) in an environment of ever-increasing bandwidth:

What I really need is intelligence in the network and in my receiver to filter and extract relevant information from a body of information that is orders of magnitude larger than anything I can digest. To achieve this we use a technique known as ‘interface agents.’ Imagine a future where your interface agent can read every newspaper and catch every broadcast on the planet, and then, from this, construct a personalized summary. (Negroponete, 1994a)

Personalisation, as Negroponete explained in another *Wired* column, served a crisply defined purpose: ‘my goal is to have ‘nothing, nowhere, never’ unless it is timely, important, amusing, relevant, or capable of engaging my imagination’ (Negroponete, 1994b). Negroponete re-worked his *Wired* pieces into *Being Digital*, a popular monograph that made the bestseller lists and was translated into thirty languages (Astor, 1997). In the book’s section on ‘personal filters’ (1995, pp. 152–154) Negroponete defines the ‘Daily Me’ (1995, p. 153) and the ‘Daily Us’ (1995, p. 154) as the opposite extremes on a continuum of news personalisation, conceived as a central part of an amenable, machine-regulated lifestyle in which the degree of personalisation automatically decreases and increases with the ebb and flow of work-related claims on the individual’s attention.

From the beginning, Negroponete conceived of news personalisation as driven by commercial interests, as personalised news held out the promise to advertisers of reaching the ‘few who have a likely interest’ (Negroponete, 1991, p. 81). The vision of ‘initiating, maintaining, and improving dialogues with individual consumers, abandoning the old-fashioned advertising monologues of mass

media' (Schrage, 1994) rested on the idea of tailoring a stream of news to the needs of the individual and adding narrowly targeted advertising – a model that was one of the big business aspirations from the web's early years, if not the 'decade's Main Project' (Bayers, 1998).

Negroponete's vision of agent-based personalisation attracted much favourable attention (Tomkins, 1995), and, although mocked as 'hype' (Leonard, 1996), seemed vindicated by the success of Firefly (Maes, 1997), a recommender system initially developed at the Media Lab, which would send a tailored stream of music recommendations to subscribers and was received with enthusiasm.⁸³ By 1995, Negroponete's idea of personalisation appeared vindicated by widespread popular support.

12.1.2 Chris Gulker

From among the emerging discourse network of the weblog, it was Chris Gulker who was most deeply invested in the idea of news personalisation and intelligent agents. He called his virtual newsroom, the production system he designed and implemented for the *Examiner* (see 4.1, 11.3.1), a 'prototype agent newspaper that gathers and digitizes information and images from vast worldwide networks' ("The virtual newsroom," 1994), and predicted that news personalisation would 'individualize information as never before' (cited in: Webb, 1995).

Gulker was a follower of Negroponete's, whom he credited with 'one of the most coherent visions of what the future of our wired planet may be' (Gulker, 1997i). He was especially taken by Negroponete's assertion that personalised advertising would be a dependable source of revenue for news organisations, so that, in conjunction with massively lowered distribution costs thanks to online delivery, Gulker strongly supported the idea of providing the news free of charge (Gulker, 1994b).

Citing the work of the MIT Media Lab as an inspiration, Gulker dedicated himself to the 'exploration of agent programs at a hobby level' (Gulker, 1997f). He meant to get *Gulker.com*'s 'next-generation agents up and running, including personal agents' (Gulker, 1997o) that would allow him to 'play with delivering intriguing new services on the Web' (Gulker, 1997o). As late as October 1998, he would announce: 'our new agent program isn't quite ready, but we're getting there' (Gulker, 1998b).

From the beginning, Gulker intended humans and machines to complement each other in the job of filtering the news. His virtual newsroom at the *Examiner* was designed so that human and machine editors could 'process a flood of information gathered via the Internet into finished print-ready pages and other products' ("The virtual newsroom," 1994). Similarly, the 'agents' he came to run on *Gulker.com* after his exit from the newspaper business in 1995 were meant to 'plug holes – days when the humans can't get some hot scoops together – with some hopefully interesting links'

83 *Suck* was impressed by Firefly: 'What makes us go all ga-ga with admiration is the elegance with which they've set up a commercial venture on the web that caters perfectly to the interests of both advertisers *and* users' (Anuff, 1995). *Business Week* found that Firefly got very close to marketing's 'Holy Grail' (Judge, 1996), and the *New York Times* explained in a feature on Firefly: 'Artificial intelligence has always had a certain cachet, and these days software agents are the sexiest form of A.I.' (Lyons, 1997). Firefly conferred celebrity status on the Media Lab's associate professor Pattie Maes, who now ranked among 'Newsweek's 100 most important people to watch, the World Economic Forum's 100 people to listen to, People's 50 most beautiful people, and the Association for Computing Machinery's 15 most perspicacious visionaries' (Holloway, 1997).

(Gulker, 1998b). The symbiotic relationship between agent-enabled personalisation and human editing that Gulker foresaw amounted to a rather heterodox interpretation of Negroponte's assertion that personalisation would not be an all-or-nothing proposition (Negroponte, 1995, p. 154). But Gulker never doubted that news personalisation in the form of intelligent agents was among the 'complexities of building the plumbing upon which the Information Age will depend' (Gulker, 1999a).

12.2 Push Media

The concept of news personalisation resulted in a few implementations of prototype systems (Turpeinen, 2000, pp. 14 – 19) as well as commercial services in the early nineties (Lasica, 2002a, 2002b), which, however, largely remained prototypes or catered to the lucrative high-end market in tailored business information (A. R. Johnson, 1999). Personalised news became highly publicised phenomenon again in 1997 under the name of *push media*, which generated a new 'wave of excitement' (Berghel, 1998). In March of that year, push vendors converged on the Internet World trade show in Los Angeles to present their various implementations of the concept (Winer, 1997af). *Business Week* (Wildstrom, 1997) and *Wired* both ran a cover story on the technology, and the latter declared that 'push' was about to render the web obsolete (Kelly & Wolf, 1997). Push, celebrated in 1997 as a 'technology of the year' (Zakon, 2006), was believed to 'blow away the Web' (Paul, 1998a).

The term *push media* covered a wide range of technologically heterogeneous services that would offer personalised 'channels' (Wildstrom, 1997) and provided 'personalized experiences not bound by a page' (Kelly & Wolf, 1997). The technologies being proposed offered a variant of general-interest filtered news that relied on proprietary client-side software which communicated via the internet's communication protocols but emulated a broadcast model in which the page metaphor of content presentation gave way to 'channels' (Gerwig, 1997). Push media was epitomised by Pointcast, a free-of-charge service that was marketed as an alternative to browsing the web and that streamed news from a range of user-selected channels that activated whenever a workstation ran idle, displaying the updates in lieu of a screensaver.

12.2.1 Winer, Bogart, Sippey, Barger

The news page maintainers of 1997 responded in various ways to push media. Winer had not shared Gulker's early preoccupation with news personalisation and only became familiar with the concept of software agents while implementing his website during the winter holidays of 1994, at which point he announced his puzzlement with the concept (Winer, 1995a, 1995c). Consequently, news personalisation was no ingredient of Winer's collaborative web content management programme, and the apparent validation in early 1997 of Winer's programme by Seybold Seminars, who sought to support Winer's programme as a commercially workable approach to content distribution (see 10.7), allowed Winer to remain relatively unperturbed by the emerging push trend.

Winer still needed to pay attention out of business considerations. Having made a significant development investment in his content management software, he found this investment imperilled by

predictions that push posed a threat to the future viability and continued popularity of the web. As a consequence, Winer was anxious to learn if the web was ‘still the way of the world’ (Winer, 1998m). He was initially ‘confused and fascinated by Push’ (Winer, 1997q), yet also suspicious of the new technology because push services were ‘just shoveling print reporting thru their channels’ (Winer, 1997s). He studied the coverage in the early months of the year (Winer, 1997s, 1997t, 1997u, 1997v, 1997af, 1997at, 1997av) and eventually concluded that push was ‘a solution to a problem no one has’ (1997bd), that ‘the web looks just right’ (1997av) without it: ‘For now, and for the foreseeable future, web browsers are the way to go’ (1997av).

Winer hedged this bet, however: ‘The web works now but we wonder about the future’ (Winer, 1997at). He believed that UserLand was too small to thrive in the emerging push market and could not hope to compete with a product of its own against the likes of Microsoft, so he declared he would ‘head for the hills’ (1997af) and ‘hide out in a niche’ (1997af). That niche, announced with some gravity as UserLand’s ‘place in the new order of things’ (Winer, 1997at), turned out to be ‘in-between the technology leaders and the content leaders’ (Winer, 1997at). If Winer was not going to compete in the push market with a technology of his own, he decided his software’s competitive advantage was a commitment to ‘support any new protocol that comes along’ (Winer, 1997at), thus keeping the path open for any alternative content distribution technologies. To demonstrate that his software was capable of serialising its databased content, Winer adopted Microsoft’s Channel Definition Format (Khare & Rifkin, 1997, p. 84) to convert *DaveNet* into a ‘push’ channel (Winer, 1997ar).

In addition to the safeguard of promising to support any of the coming channel formats, Winer’s response to the push challenge was to stick with the web and, especially, to promote his news page model as an alternative to push: ‘putting interesting stuff on your home page as often as you can’ (Winer, 1997av) was the way forward, especially since the strategy had just proven itself in the implementation of Apple’s virtual newsroom at Internet World and he could not hope to succeed fighting the ‘silly battles’ (1997af) of defining a push technology standard.

When, in early May, Steve Bogart set up his own news page in Frontier (Bogart, 1997b) and named it ‘News, Pointers & Commentary’ (1997a), he echoed Winer’s sentiment. He promised to highlight the ‘one or two stories that I think deserve attention on any given day’ (1997c) and publicised his news page as a ‘useful filter for the vast amount of news and information on the Web’ (1997c). This made him the first news page maintainer to apply the language of news personalisation to the news page, introducing the ‘filter’ metaphor that would dominate the discourse on weblogs some two years later. The metaphor did not proclaim Winer’s defensive assertion of the news page’s superiority over push media, but it claimed equivalence between the ‘channels’ of push media and the reverse-chronologically ordered stream of updates that were characteristic of Winer’s news page model.

A few weeks later in May 1997, Michael Sippey decided to borrow Bogart’s metaphor when adding a news page feature to his site, the *Obvious Filter* (see 11.2.2). Sippey announced his new project on a distinctly Winerian note: making an ironic announcement of his news page as an in-

stance of ‘pushnetcasting technology’ (Sippey, 1997d), he not only satirised the highly publicised push media but implicitly supported Winer’s assertion that ‘the web looks just right’ (Winer, 1997av) without it, and that the news page design was a perfectly adequate alternative to the unproven new technology. Winer noted that the Obvious Filter was not built using Frontier, but he recognised the pattern and hailed it as a ‘news page’ (Winer, 1997bh) all the same.

Sippey was keenly interested in the questions surrounding news personalisation from a commercial perspective. A student of business administration who started *Stating the Obvious* as ‘a way to think critically about business models’ (Sippey, cited in: Bunn, 1998), he used his zine to provide commentary which ranged ‘from the nuts and bolts of the technology to the potential of this or that business model’ (Hudson, 1997). As an avid reader of *Wired* (Sippey, 2007), he was aware that the magazine’s co-founder and editor in chief believed that ‘the future lies in mass customization and one-to-one marketing’ (Rossetto, 1994b). As an observer of online publishing, Sippey was also well aware that the narrowly targeted marketing promised by personalisation was one of the big business aspirations of the web, if not the ‘decade’s Main Project’ (Bayers, 1998).⁸⁴

Sippey found Negroponte’s advocacy of aggregated and personalised business highly suited to e-commerce retailers that sell a ‘particular lifestyle, defined as a mix of products and services’ (Sippey, 1998b). Evaluating the economics of this proposition, Sippey observed that the established e-commerce retailers would find it necessary to ‘enable niche sellers rather than try to attack each microsegment of buyers with a customized shopping experience’ (Sippey, 1998b). This, even at the time, was a matter of simple observation rather than prognostication, especially with respect to the third-party referral schemes that online booksellers were operating.⁸⁵

Sippey followed Negroponte in making the totalising assumption that the logic of personalisation would become the single defining factor of the culture at large and predicted that the creators of mass culture, such as newspaper editors, television programmers and fashion designers, would be put out of business by ‘consumers who demand products that are made-to-order, whether those products are comprised of bits or atoms’ (Sippey, 1998c).

Much of Sippey’s commentary on personalisation was less than sanguine, however. He cast doubt on the assurance that personalised news need not be ‘a full swing away from common knowledge’ (Negroponte, 1991) and evoked scenarios in which such a full swing had occurred or was about to take hold. Sippey’s pseudonymously published the satirical interior monologue ‘Find Your Own Road’ (Freeman, 1996), which features a monologist who is a dedicated user of personalised media and who, holed up in his fortified compound, revels in his ever deepening isolation from

84 Under the title *One to One Future*, Sippey ran a series of four short articles on *Stating the Obvious* between December 1997 and March 1998, in which he discussed various aspects of pervasive personalisation (1997q, 1998a, 1998b, 1998c). He speculated on the possibility that marketers might collect and analyse people’s online postings in order to ‘start using your language and vocabulary patterns to sell products back to you in highly-personalized email messages’ (Sippey, 1997q). He further contemplated a world of pervasive biometric marketing in which grocery stores would not only market individual food items to individual consumers at personalized discount prices but in which health insurance premiums are calculated and adjusted in real time in accordance with the nutritional hazards of a consumer’s recent food purchases (Sippey, 1998a).

85 Amazon.com started its Associates programme in July 1996 and was locked with Barnes & Noble in a ‘fight for sales through third-party deals’ (Moran, 1997) by 1997.

mainstream society and, in fact, from anyone who does not share his solipsist viewpoint: he has withdrawn to his 'own fruitopia' (Freeman, 1996), conducting 'experiments in filtering information, personalizing content, and tweaking [his] signal-to-noise ratio' (Freeman, 1996). As a consequence, he ranks among the 'masters of viewpoint inbreeding' (Freeman, 1996) who 'no longer have a need for the shared experience' (Freeman, 1996).

Sippey, moreover, had little enthusiasm for the various recommender services springing up at the time, especially those that used collaborative filtering as a personalisation mechanism. Affinicast, a recommender service for websites which classified and matched its users via their 'psychographic profile' (Herhold, 1997), was too restrictive to find Sippey's approval because it limited his participation and did not allow him to 'rate websites for my psychographic neighbors in real time' (Sippey, 1996g). Other affinity sites such as PlanetAll and Firefly he found lacking on privacy grounds and because they engendered a 'dangerously false sense of community' (Sippey, 1996i).

Sippey did not find recommendation by collaborative filtering especially useful even on its own terms. In June 1997 he judged that the recommender site Firefly was a 'godsend' (1997g) to marketers but not so much to users. Judging from Firefly's inability to inspire large numbers of loyal users to check the service daily for freshly filtered lists of music and movies, he concluded, in a nearly verbatim echo of Winer's judgement on push media, that that Firefly was 'solving a problem that people don't have' (1997g).

When *Wired* decided to endorse push media in their issue of March 1997, Sippey was appalled. *Wired*'s celebration of 'a world of nichecasting – thousands of mini-networks, ranging from micro-TV stations to totally customized personal programming' (Kelly & Wolf, 1997), appeared 'very, very dangerous' to Sippey (1997b) – as the media needed to 'expose us to things we haven't heard before' (1997b) or else trap its users in their respective niche interests.

Sippey viewed personalisation as a potential threat and examined the technology as a cultural factor rather than a narrowly technological one, so he took a position that differed from Winer's indifference to such concerns and from Gulker's sunny optimism. However, none of Sippey's writings on personalised news and commerce amount to a rigorous examination of its subject matter. For the most part, Sippey avoided close analysis, cultivated a light touch and settled for evoking satirically heightened, vaguely dystopian scenarios. Overall, Sippey kept focused on the question of feasible business models even while contemplating the potentially disturbing realities of personalised networks. Sippey's writings on the matter evoke a sense of fascinated unease with an emerging technology, an unease that sometimes bordered on anxiety but that was grounded by a focus on business opportunities. Where Sippey did offer analysis of personalisation, he tended towards a negative characterisation of the technology.

Sippey had a considerable satirical bent and delighted in parody and makeovers of established media forms. He ran a *Suck* parody on *The Obvious* in 1996 that published submissions rejected by the *Suck* editors (Sippey, 1996c). *Retro Push*, the mailing list through which he syndicated his weekly column starting in January 1997 was slyly named 'an experiment in trailing edge push media' (Sippey, 1997o) and, true to the broadcast model he parodied in this instance, the list posts he

prefixed and signed off with a station ident that branded the communication as ‘retro-push, the email channel of stating the obvious’ (Sippey, 2000a).

However, Sippey never explicitly advocated the position of supplanting or supplementing machine filtering with human filtering (E. Dyson, 1994; Michalski, 1995). He left it to journalists to tease out the message insinuated in his naming choice of *Obvious Filter*, and to retrofit this meaning to *Scripting News*: a columnist at *InfoWorld*, enthusiastic about both *Scripting News* and the the *Obvious Filter*, concluded that news personalisation could not compete against human editing because there was ‘some flesh-based filtering happening on the Web now that’s beaten software agents to the punch’ (Brookshaw, Hammond, & Talley, 1997). Sippeys and Winer’s respective news pages had, according to this writer, ‘the heart that algorithms and Boolean logic don’t’ (Brookshaw et al., 1997). Therefore ‘the coolest filtering is personality-driven’ (Brookshaw et al., 1997).

There was one observer, Jorn Barger, who, working on his own, came to the same conclusion a few months later. Shortly after launching his own news page, while trying to establish a coherent account of ‘weblogs’ as a new genre that would improve on Winerian news pages, he noted: ‘once there’s a few dozen such sites, they’ll be able to cover the watching-for-new-content-on-occasional-sites function, making push solutions irrelevant’ (Barger, 1998g).

12.3 Portals

Push media turned out to be a short-lived phenomenon. It soon fell out of favour due to its high bandwidth consumption and overly intrusive advertising (Himmelstein & Siklos, 1999). As users still ‘hungered for news and information tailored to their individual needs’ (Lasica, 2001), it quickly found a successor. In 1998, readers of the technology press were asked to move on from push and consider *portals* as ‘this year’s buzzword’ (Basch, 1998). The portal market came to be dominated by big companies once the push media starts-ups had disappeared.

12.3.1 Search engines as networks

While some of the first providers of filtered business news managed to enter the consumer market in filtered news, as did Individual Inc. with its NewsPage product (Wildstrom, 1995), the first tailored news service from a major corporation started in December 1995 as part of the Microsoft Network: being ‘the first large-scale effort to provide a range of free, customizable news and features ordinarily supplied by newspapers and magazines’ (Fasoldt, 1995), it offered a relatively simple feature for users to customize the kind of information they received. In January 1996, this effort was followed by Excite, who created *Personal Excite*, which in turn was followed in June by *My Yahoo* (Marriott, 1998). Yahoo’s entry marked an expansion trend in which search engines no longer viewed themselves as search providers, but began, according to Yahoo’s director of marketing, to ‘feel a lot more like media companies’ (as cited in Cleland, 1996). Big media themselves got involved in 1997 when CNN (Turpeinen, 2000, pp. 14 – 19) launched its own filtered news service,⁸⁶ suggesting that filtered news had broadened from a high-end niche to a mass market.

86 A useful historical overview of filters geared towards general news has been provided by J.D. Lasica (2002b). For

By early 1998, the leading search sites of the day, such as Yahoo, Excite and Lycos, fearing that they would lose their status as the web's central hubs and become mere commodities, were eagerly redefining themselves as networks that, by analogy with television, would act as channels that carried programming, information, and news to subscribers (Green, Himelstein, & Judge, 1998). Once web portals with personalised home-pages had 'replaced 'push' technology as the preferred content delivery mechanism' (Foong, 1999), they, again, were touted to rank among the 'technologies of the year' (Zakon, 2006).

The portals intended to bring order to the web, whose loose organisation and overwhelming variety, according to one advocate, had left consumers 'adrift and frustrated' (Kelly Clark, 1998). This advocate predicted that there were going to be a 'handful of sites that serve the same purpose as today's major TV networks' (Kelly Clark, 1998). He also presented such consolidation of web portals as an inevitability: by 2000, there would be 'five top Internet portals firmly established in consumers' minds, just as the major television broadcast networks are today' (Kelly Clark, 1998).

As membership in such a select group was seen to be the stakes, the portals were in fierce competition to add new products and services, ranging from free stock quotes, local TV listings, weather and e-mail to chat and other features. As soon as one of them added a new feature, the others scrambled to match it. In April 1998, Excite, one of the main contenders among the competing portals, elevated its MyExcite news personalisation feature to the home page, thus 'making personalization what the service is about' (Macavinta, 1998), a move that was matched by the other portals that equally chose to unveil 'more customization features' (Romenesko, 1998a). Their struggle for market share that was being waged through implementation of personalisation features (Romenesko, 1998a) in an attempt to 'bulk up with extra features and make a grab for subscribers' (Green et al., 1998).

Personalised news had now consolidated into a segmented market ranging from a high end of expensive subscription services in the initial business news segment to a low end of free services offered by the likes of Yahoo, Excite, Infoseek, Netscape and Lycos (Curle, 1998; A. R. Johnson, 1999). Free personalised news had played a major part in the search industry's re-positioning of its services from search engines to web portals: the transformation, complete by early 1998, implemented an advert-supported service model (Negroponte, 1991, p. 81) that allowed the portals to gather demographic user data via their personalised news offerings and then generate revenue from those data through targeted advertising (Manber, Patel, & Robison, 2000; V. Miller, 2000).

12.3.2 News personalisation and its discontents

The working implementations of personalised news failed to be a huge popular success. They soon found its harshest critics in the users who measured the reality of these systems against their vaunted promise. While MIT professor Walter Bender still liked to evoke the *promise* of filtered news and posed hypotheticals such as, 'Wouldn't it be helpful if someone would weed through this for you? Wouldn't it be useful if someone or something could understand what news you wanted

an inclusive list of available services in 1998 see Curle (1998).

and deliver it to you in a neat electronic package – something called *The Daily Me?*’ (as cited in Rozansky, 1996) – users had actually got to test and evaluate the news filters that had been implemented and found them wanting. One reviewer writing for the *Washington Post* was underwhelmed and concluded that, ‘intelligent software agents need several more semesters of higher education before I’ll let them think for me’ (Margot Williams, 1996); others were less charitable and called intelligent agents ‘dumb as bricks’ (Knauss, 1997), claiming that they ‘offer little actual relief from the tedious drudgery that is getting along in the postdiluvian world’ (Knauss, 1997). Most damning was the perception that the filters failed to work as advertised. Speaking of push media, one reviewer criticised that ‘their customization and profiling capabilities – if they exist at all – are primitive in the extreme. As such, they don’t even go halfway to solving the information overload that they claim as their *raison d’être*’ (Poynder, 1997). Another reviewer found customised business news to run counter to their stated purpose: ‘they weren’t just one new source, but a pointer to many others, thereby increasing, not decreasing, my sense of information overload’ (“Do filters really solve information overload?,” 1997). This reviewer concluded that the culture was ‘moving from information overload to filter overload’ (ibid.). News personalisation had come to be perceived as part of the problem rather than part of the solution.

By the time personalisation had become a defining feature of the portals, it was widely felt to lag far behind its promise. The information environment of the web had become ‘full of intelligent agents and software filters and push media and infobots’ (S. Rosenberg, 1997a) and had, as a consequence, devolved into ‘a more perfect couch-potato experience’ (Bayers, 1998). Each of the portals had a ‘set of so-called ‘content partners’ that constitute the preferred source of information on that site’ (Paul, 1998b), yet they were ‘hard to tell one from another’ (Paul, 1998b) and seemed to pander to a lowest common denominator, providing ‘sanitized, corporate presentations of middle-of-the-road information’ (Paul, 1998b). Having become an ubiquitous commodity through the portals, news personalisation had also become generic, randomly interchangeable and boring.

Few people were happy with the portals’ personalised offerings. One analyst called them ‘almost laughably inadequate for most serious applications’ (Curle, 1998), another described them as ‘dull and uninteresting’ (Turpeinen, 2000, p. 14) and one study found them to be focused on narrowing information quantity but, to their detriment, largely unconcerned about information quality (Ho & Tang, 2001).

The perception that the big portals were too generic and only pandered to the lowest common denominator resulted almost instantly in a call for more focused services to be provided instead: such ‘vertical portals’ (Perkins, 1998), also known as ‘niche portals’ (Bayne, 1998), ‘specialty portals’ (Green, 1998) and ‘mini-portals’ (Gillmor, 1998) were demanded in response to the perception that ‘users want more carefully shaped and edited onramps to the web’ (“You Don’t Yahoo?,” 1998), as it was ‘better to be a focused site than a bland portal’ (Nielsen, 1999). The portals, it was felt, needed to specialise and cover fewer things more competently rather than attempt to be everything unto everyone.

12.4 Michal Wallace: Humanising the web

Peter Merholz, maintainer of the *Peterme.com* weblog, was outspoken in airing his grievance about the ‘Roach Motel model’ (1999a) of personalisation and offered a blistering critique in January 1999:

Harkening back to the classic ‘electronic newspaper’ conceit dreamed up at the beginning of the network revolution, a centerpiece of any portal worth half its market cap is news personalization (you can usually recognize it by the annoying prefix ‘my’). You provide some demographic data and check some preference boxes, they serve up your customized set of linked headlines.

In an effort to achieve what pundits and analysts call ‘stickiness,’ the links are nearly always limited to the news [that] portals can co-brand or host on their servers, which typically means bland reporting from Reuters. By confining you within their castle walls and placating you with whatever content gruel they’ve managed to hoard, they baldly flout this technology called the ‘web,’ which is explicitly designed to leverage the power of interconnectedness. (Merholz, 1999a)

This critique might have been followed up organically with a ringing endorsement of weblogs as an alternative practice that overcame the shortcomings of the personalised news offered by the portals of the day. Merholz did not take this step, however. Without mentioning weblogs, he posted this piece one day before Cam Barrett’s highly visible embrace of the term *weblog* in the ‘Anatomy of a weblog’ (Barrett, 1999b). By contrast, the largely forgotten early blogger⁸⁷ who inspired Barrett to write this piece, Michal Wallace, had been promoting weblogs as an alternative to news personalisation for months.

Wallace admired Barger’s work. If the launch of *Robot Wisdom Weblog* in December 1997 was well received among the news page maintainers of the day, it was something much more to him. Dave Winer hailed Barger’s weblog as a ‘page that alleviates boredom’ (1998d), Chris Gulker welcomed it as an addition to his NewsPage network page (Gulker, 1998a), Steve Bogart marvelled at the sheer scope and abundance of the fresh links that Barger’s site provided each and every day (Bogart, 1998d). To Wallace, Barger’s weblog came as a revelation. Wallace already thought of Barger as a ‘constant inspiration’ (Wallace, 1999k), and he had been ‘drawn to robot wisdom long before Jorn had a weblog, simply because of all the cool things he writes’ (Wallace, 1999l). Wallace’s revelation concerned the importance of links leading out of a site rather than into it: ‘The point isn’t to keep someone on your site as long as possible. That’s a short-sighted commercialist viewpoint. The point is to make it easy to learn. Easy to think’ (Wallace, 1998c). Wallace saw cognitive and educational benefits in Barger’s weblog model that he found sorely lacking elsewhere.

Wallace not only framed this revelation as a critique of the commercial web. In the coming months, he became the blogger with the second most numerous outlinks to other weblogs after Bar-

⁸⁷ Michal Wallace is absent from the historiography of weblogs despite the fact that his commentaries on the emerging practice in 1998 and early 1999 rank among the most perspicacious. His commentaries also contain the earliest discussion on record of weblogs as journalism (Wallace, 1999c). His commentaries are also absent from the only existing anthology of early writings on weblogs (Blood, 2002d).

ger (see 9.3), and as a frequent commentator on the emerging practice of weblogging he continued to frame his aspirations in the terms of the same critique. In doing so, Wallace initiated and shaped a discourse on weblogs that articulated the ambition to create a more human, personally engaged alternative to news personalisation. Wallace's observations amounted to an attempt to reinterpret personalisation within the realm of personal publishing, replacing its algorithmic principles of selection and salience generation with a peer production approach (Benkler, 2002, 2006) based on voluntary, trust-based association of self-selecting actors engaged social discovery.

By January 1998, Wallace had dropped out of his second college year. He had moved from his native Texas to Atlanta, Georgia, and worked for a software company; he had also posted fifteen issues of his web zine *Hacking the Buddha* (1998u), which consisted of loosely structured, conversationally informal essays on his preoccupations. Having quit his job in favour of a career as a web developer, he now cast a fresh eye over his website and decided that it lacked 'a personality' (1998b).

Looking for something that would lend appeal to his site, he thought of the 'countless notes in countless notebooks piled up all over my floor' (1998b) and reasoned that he could tap the seemingly inexhaustible flow of his ideas and turn his habit of jotting down notes into a regular feature of his site, churning out 'short rants, ideas, links, notes, and other tidbits that take up only a sentence or two' (1998q). He intended such a 'suggestion box for the universe' (1998n) to evolve into a knowledge base that could be annotated and extended by a user community and that would be held together and made navigable by a custom-built search engine. The project would not only make his site more appealing and personable; it had, Wallace believed, the potential to 'humanize the web' (1998b). Wallace chose to discuss his ambition of humanising the Web in sharp contrast to news personalisation.

Wallace was highly critical of the inanity and lack of human touch he found to be characteristic of news personalisation. He responded to the existing critique of personalised portals when suggesting weblogs as an alternative. In November 1998, he described weblogs as *microportals*, defining them as 'indy sites that change all the time. Usually they're run by one person, or a small group. Most of them belong to *presurfers*, or people who find links and share the best with others' (1998r). With the coinage of the term *microportal*, Wallace extended the earlier line of critique in which it was claimed that portals needed to become 'vertical portals' (Perkins, 1998), or 'niche portals' (Bayne, 1998), or any other from a number of similar compound coinages which urged portals to overcome their lack of focus. As, according to Wallace, 'each of the current presurfers have their own interests, and they capitalize on them and share those interests' (1998p), weblogs distinguished themselves by 'having a focus' (1998p), thereby excelling in the area where the portals were deemed wanting.

More importantly, Wallace found personalised news repulsive. He thought of it as 'far too impersonal and static' (1998e) and bristled at a personalised web that 'learns to present us with a constant stream of the familiar' (1998g). He advocated a 'living web' (1998e) instead. A regular reader of *Robot Wisdom*, he noted that Barger's weblog allowed him to enjoy a personal affinity with its edit-

or: Barger's site had a 'personality' (1998e) that the typical 'faceless newsfeed' (1998e) sorely lacked. This level of personal involvement, Wallace observed, was a quality that the portals, whatever the sophistication of their personalising algorithms, 'simply can't match' (1998e). He quarrelled with the accepted semantics of the term *personalisation* and offered an alternative: 'Personalizing a site doesn't mean adding a few cookies to your code' (1998e), and, crucially: 'Personalized news isn't about going to Excite and getting stories that match your keyword. It's about going to a person you trust' (1998p). For personalisation to work, it needed to be personal. It required an act of voluntary engagement with a trusted human editor.

Bringing his own site in line with this ideal of a 'living web' proved to be a struggle, however. Soon after Wallace started posting the short-form fragments of his 'suggestion box for the universe' (1998n), he became engrossed by the educational and cognitive benefits he ascribed to Barger's weblog model (1998c). Adding the first outlink to his stream of short pieces in early April (1998d), he adopted Barger's practice of giving credit for borrowed links on 20 June (1998h). From now onward, Wallace was 'playing with weblog-idea log integration' (1998i), which amounted to a balancing act between his own short-form note-taking and Barger's weblog model, an ambivalence that beset Wallace throughout the rest of the year and made it impossible for him to commit fully to Barger's programme. Even in November 1998, he referred to his site as a 'web/rant log' (1998s) and considered to 'separate big stuff from little' (1998t), adopting a division of the two 'similar to Dave Winer's system' (1998t), which maintained a functional differentiation between Winer's *DaveNet* and *Scripting News* (see 5.2).

However much Wallace's ideal of the living web was opposed to the commercial web of news personalisation, he anticipated that a personal web could be commercially viable as well. His conviction that Barger's model could somehow be made serviceable to turn a profit stemmed from the prediction, offered by the novelist William Gibson in an interview a while ago, that the web would soon support people 'who make a living pre-surfing' (Gibson, 1996). Wallace recalled the prediction (1998f) and jotted down a few preliminary notes towards a 'presurfing business model' (1998o) in which he explored sources, marketing and revenue for weblogs to become profitable businesses. He was confident that one could 'collect and compile other people's ideas' (1998p) and thereby practice 'presurfing as a profession' (1998p). Wallace expected that 'pre-surfing would have a business model' (1998t) and that it would in fact 'blossom into an industry' (1999c). Consequently, he predicted that blogging was to become 'the next major form of journalism' (1999a) at a time when the first press article on weblogs had yet to be written.

Wallace found the idea of the weblog's bright future somewhat daunting, leaving him to 'wonder if we're ready' (1999a). He was determined to do his part, however, and inventoried his view of the 'living web' in late 1998, adding a list of 'Other Presurfers' (1998w) to the top of his site's left sidebar, a list that looked back for inspiration to Gulker's 'Newspage network' (1998a) list, last updated in February 1998, as much as it anticipated Cam Barrett's nearly identical list (Barrett, 1999c) of early 1999 that became a rallying point of the weblog scene throughout the rest of the year (see 13.1). Wallace's list expressed his confidence in the growth potential inherent in the network he

identified in the list: he reckoned that ‘99% of the web doesn’t even know we’re here yet’ (1998p), so the list was an attempt to ‘let people know what we’re doing and build an audience’ (1999c). More importantly, perhaps, Wallace also intended the list to proclaim that a ‘group of us have found each other, and use each other as sources’ (1999c), which was an endorsement of Barger’s link attribution scheme. Wallace’s list of ‘Other Presurfers’ was a marked advance on Gulker’s Newspaper network list, which, however much Gulker would have liked it to be otherwise, merely identified users of a certain software product. Wallace’s ‘Other Presurfers’ list, by contrast, articulated a network of trust amongst people engaged in the peer production of relevance from among the web’s bewildering wealth of poorly organised materials.

Wallace, despite his disenchantment with the web as an information environment dominated by algorithmic selection, was developing his own bots, such as a chat bot for which he had high ambitions (1998a). In early 1999, having already ‘made several bots at work’ (1999b), Wallace first mulled the idea of creating a bot that would collect financial information and trade stocks online as a ‘traderBot’ (1999b). It would ‘make money by outsmarting (or outreaching) other traders’ (2001). He initially spent some time ‘kicking around ideas’ (1999f) towards this project, reached a set of fundamental design specifications (2000b) and drew up detailed plans (2000c). However, he never managed to develop the bot beyond ‘simple test cases’ (2002b), and eventually conceded that its successful implementation was a ‘long, long way away’ (2003).

Wallace did, however, manage to implement a web spider that monitored weblogs for updates. Having, in 1998, contemplated the usefulness of an automated link monitoring service, a ‘page-watching launchpad’ (Wallace, 1998k) as he observed Barger using a commercial link monitoring service (1998l, 1998r), Wallace initially hesitated to write such a piece of software himself: ‘why reinvent the wheel unless I can make it better?’ (1998l). Still, in February 1999 he announced his service that would ‘watch links for people’ (1999b). The purpose was to ‘monitor sites for changes’ (1999d), and to let users know when those sites have updated. The spider went out every hour and checked whether the pages had been updated. From the 300 links Wallace was monitoring, he singled out a list of 30 weblogs in July (1999e), and in October he decided to drop the remaining links: ‘now the bot only looks at weblogs’ (1999g). A comparatively simple script, Linkwatcher retrieved a copy of known weblogs about once an hour, compared the page against the previous retrieved version, and thereby determined whether a weblog had updated (1999j). The service went online on the Linkwatcher.com domain in mid-October (1999h).

Unlike Wallace’s chat bot and stock trader agent, Linkwatcher became moderately successful. The number of blogs monitored by the service rose from 30 in July 1999 (1999e), to ‘around 80 or so’ (1999i) in November 1999, to ‘400 or so’ (2000a) in late 2000. Linkwatcher did not manage to prevail, however, against its competition when Dave Winer decided to build an ‘application that works like LinkWatcher’ (Winer, 1999am). Originally named ‘Weblog Monitor’ (Winer, 1999ap), Winer’s service updated at faster intervals than Linkwatcher and had more resources devoted to its development, operation and maintenance. In January 2000 Weblog Monitor moved to Weblogs.com

(Winer, 2000e) and enjoyed massive growth.⁸⁸ Wallace added the last new blog to Linkwatcher on 3 January 2001 (Wallace, 2007), and ceded the blog monitoring territory after that.

Out of the Linkwatcher project Wallace founded a company. To help cover the cost of running Linkwatcher, he came up with web and email hosting plans that he could offer his fellow bloggers, thus creating a business that became his main occupation in 2000 (Wallace, 2002a) and provided him with a dependable income (Wallace, 2006) for years after.

While Linkwatcher proved to be an economically sustainable effort only indirectly, through the hosting business that Wallace built on its modest success, its status as the first of a series of blog monitoring services bears witness to the emergence of blogging as an effort aiming to reinterpret personalised news as a new form that was human-edited and based on trust. News personalisation, propagated in glowing terms as the future of news from the mid-eighties onward, had, in the eyes of the early bloggers, lost its credibility through the consecutive failures of intelligent agents, push media and personalised portals to live up to their billing. Wallace's view of the 'living web' entailed the replacing of algorithmic relevance generation through a human network of trust, first articulated in his 'Other Presurfers' list, and eventually, in Linkwatcher, which integrated this network of trust through a scripted polling mechanism that recalled the aspirations of news personalisation as originally formulated by Negroponte but, crucially, substituted human editorial intelligence for the artificial variety.

12.5 Denis Dutton

Wallace expressed a critical view of news personalisation that constructed the weblog genre in a way that was intimately attuned to the open community model Barger had formulated for weblogs. Others articulated similar positions from different perspectives. Denis Dutton, the founder and chief editor of *Arts & Letters Daily*, asserted that his site was 'basically a portal site' (cited in: Mirapaul, 1998), yet specified that it was intended for 'educated adults, the people who make a difference to the intellectual, economic and political life of the world' (cited in: Mirapaul, 1998). As he aimed to cater to the 'most literate, educated audience you'll find on the Web' (Dutton, cited in: Richardson, 1999), he wanted his site to be 'the one place people would like to look at every day, just to see what was new in the world of the arts or ideas' (Dutton, cited in: Richardson, 1999). He explicitly played on the term *portal* in calling the site an 'intellectual porthole for people who read and who are interested in books and ideas' (cited in: Mills, 1999).

Dutton thus framed his aspirations in a direct critique of news personalisation. Denouncing personalisation as 'a marketing idea, that we are nothing but a bundle of predetermined tastes and that when we are selling to you we will cater to your tastes' (cited in: Richardson, 1999), he critiqued news personalisation as a threat to serendipity: 'None of us knows ultimately what we'll be interested in, that's why we rely on good editors to find articles on topics we never thought we would be

⁸⁸ Winer converted his monitoring service to a ping architecture in October 2001 to cope with the increase in traffic (Winer, 2001o) and in early October 2005 sold the ping server (R. Miller, 2005) in a deal reported to be worth millions of dollars (Naraine, 2005).

interested in' (cited in: Richardson, 1999), on which he rested a ringing endorsement for editorial selection based on human judgement: 'The Internet means we need gatekeepers more than ever before, we need selection and filtering' (cited in: Richardson, 1999).

Denis Dutton (1944 – 2010) was a professor of the Philosophy of Art at the University of Canterbury in Christchurch, New Zealand.⁸⁹ His fame as one of the 'most influential media personalities in the world' (Lev Grossman, 2004) and as New Zealand's 'foremost media don' (Hubbard, 2009) rests on *Arts & Letters Daily*, which, for almost a decade and a half, has been highlighting arts and humanities articles from across the anglophone web.

Dutton launched his site in September 1998 (Dorothy, 1998) and was soon counted among the 'competitors in the web-log business' (Kane, 1999); his site was rated 'one of the earliest and most popular weblogs' ("Literary Weblogs," 2002), and has been praised as 'no conventional weblog' (Cohen, 2005). While *Time* has reported favourably on 'the blog Arts & Letters Daily' (Lev Grossman, 2004), Dutton opposed such identification, claiming that his site was 'not actually a proper blog' ("Accolades," 2004). He first rejected the weblog label in February 1999, after Barger and his closest peers had acknowledged him as one of their own. The incident makes for a case study of the reach of Barger's weblog programme and its open community model.

Dutton launched the *Arts & Letters Daily* to serve a purpose that was identical to the purpose the emerging network of bloggers was committed to. Dutton preferred *mining* to Bogart's *filtering* as the guiding metaphor of his site, as he promised to 'pan and sift from among the most intellectually stimulating sites on the Internet, updating daily' (Dutton, 1999c) – the intention, however, was the same. When Dutton started his project to 'find the best writing available on the web' (Dutton cited in: "Accolades," 2004), it had already been some time since Barger had advertised his weblog project as an attempt to 'discover *all* the best reading on the Web' (1998n). Barger's boast, 'I edit the Net' (1998x), found a remarkable counterpart in Dutton's statement that 'we rely on good editors to find articles on topics we never thought we would be interested in' (cited in: Richardson, 1999).

However, the agreement on the purpose did not entail an agreement on the means.

Shortly after the launch of *Arts & Letters Daily* on 28 September 1998 (Dorothy, 1998), Barger discovered Dutton's site. Crediting *Progressive Review* for the find, he exulted over a 'rich academic weblog' (1998ag), thus claiming Dutton's site for his weblog programme and making it one of his 'major sources of links' (Barger, 1998am). Barger's peers shared the enthusiasm: Raphael Carter of *Honeyguide Weblog*, crediting Barger for the discovery, commended the new site as an 'outstanding new Web log' (1998d), and Michal Wallace of *Manifestation*, equally crediting Barger for the discovery, praised the high quality of *Arts & Letters Daily*'s links and noted in passing that it had an 'interesting look as far as meta-journals/weblogs go' (1998m). Laurel Krahn of *Windowseat Weblog* also credited a link from Dutton's site (1998b). By the end of the year, Barger, Wallace, Carter and Krahn had borrowed more than a dozen links from Dutton's site (Ammann, 2009c), all of them

89 Dutton was the author of a book in the theory of aesthetics, *The Art Instinct* (2010). He served as editor of the scholarly journal *Philosophy and Literature* since its founding in 1977 (Dutton, 1999b) and attracted some attention through the journal's Bad Writing Contest, in which, between 1995 and 1998, he purported to act as arbiter of clarity in academic writing (Dutton, 1998).

painstakingly credited to their origin on Dutton's site, as the norm of link attribution demanded.

Despite the enthusiastic reception that *Arts & Letters Daily* found among Barger and his peers, relations between Barger and Dutton were strained almost instantly by Dutton's refusal to accede to the link attribution norm. Barger found that the *Arts & Letters Daily* had taken links from *Robot Wisdom Weblog* without crediting the source of these links. Wanting Dutton to play by the rules, Barger protested against *Arts & Letters Daily*'s violation of the link attribution norm, at first in a private message to Dutton on 19 October 1998 (Barger, 1999b) and then in a post on *Robot Wisdom* a week later, accusing Dutton of 'borrowing links, and not even acknowledging requests for shared credit' (1998aj).

The matter came to a head on 26 January 1999, the day Barrett discussed and affirmed link attribution as an established norm in his 'Anatomy of a Weblog' (1999b). Barger seized the occasion to highlight Dutton's failure to honour this norm, denouncing him as a plagiarist and declaring a boycott of his site because 'Dutton acknowledges he's been taking freely from my links for months, but has somehow never found the time to give me the slightest public mention' (1999b). To back up his case, Barger made an economic argument for link attribution, calculating from the going rate per page-view for banner ads that Dutton's refusal to attribute *Robot Wisdom Weblog* as a source had already cost him '\$2000 worth of foregone publicity' (1999a).

Dutton responded to Barger's request by posting a brief article to *Arts & Letters Daily* which listed 'a few of the most interesting weblogs' (1999a). These were, apparently in order of perceived interestingness: Jim Romanesko's *Obscure Store*, Jorn Barger's *Robot Wisdom*, Dave Winer's *Scripting News*, Raphael Carter's *Honeyguide* and Laurel Krahn's *Window Seat*. Krahn, who supported the link attribution norm and believed that 'folks should at least make an effort to acknowledge sources' (Krahn, 1999a), was pleased with the article, noting: 'they've got a page devoted to weblogs, now. Pretty minimal, but still it's nice of them' (Krahn, 1999b). Unlike Krahn, Barger refused to be placated by Dutton's offering. He stopped borrowing any further links from Dutton's site, enjoined others to 'boycott this plagiarist' (1999j), and, declaring himself happy to be found 'worth stealing from' (1999b), renounced seeking the 'approval of such people' (1999b).

Barger's repudiation of *Arts & Letters Daily* was mirrored by Dutton's rejection of the idea that his site was a weblog at all. Dutton's article on weblogs offered a brief definition of the genre, followed immediately by a denial of its applicability to *Arts & Letters Daily*:

Weblogs are among the more engaging epiphenomena of the Internet. Combining aspects of Victorian commonplace books, scrapbooks, and diaries, they are personal records of favorite sites and websurfing experiences. Weblogs are published by individuals or collectives in the form of updated Web pages. *Arts & Letters Daily* has been called a weblog, but true weblogs are far more personal and idiosyncratic in their choice of links and commentary. They tend to be directed toward a small and familiar audience of like-minded souls. (Dutton, 1999a)

The three dimensions along which Dutton claimed his site to differ from weblogs – personal focus, idiosyncrasy, and audience size – reward some scrutiny. In a more recent attempt to distinguish the *Arts & Letters Daily* from weblogs, Dutton characterised his site as a 'directed reading list with atti-

tude' ("Accolades," 2004), thereby dropping the dimension of audience size, legitimising the dimension of idiosyncrasy as *attitude*, and offering the *directed reading list*, an attribute of his work in higher education, as a signifier of a professionalism elevated above the provision of mere 'personal records' (Dutton, 1999a). With the least convincing criterion of audience size dropped and the criterion of idiosyncrasy happily embraced, it turned out that the criterion of professionalism accounted for Dutton's refusal to be associated with the amateurs of the emerging weblog community.⁹⁰

Dutton's preference for the professional over the amateur is highlighted by his willingness to include a link to his favourite weblog, James Romenesko's *Obscure Store*, in the *Recommended* section of *Arts & Letters Daily's* sidebar (Dutton, 1999c), but drawing the line at any further endorsements of any other site on his list of weblogs.

Romenesko, a working journalist initially running his weblog as an avocational side project, was considered 'absolutely the best' (Wang, 1999) at his chosen pursuit of web scavenging and took pride in having a 'certain talent [for] finding the most interesting links out there' (Romenesko cited in: Poniewozik, 1999). Celebrated as a 'gatekeeper for gatekeepers' (Wang, 1999) and a 'cloistered digital monk, rising at 5 a.m. every day to begin doggedly posting tidbits' (Raines, 2008), he declared himself 'mostly interested in finding and linking to pieces that people probably wouldn't find on their own' (Romenesko, 2005), implying that, rather than propagate and cite the links of others, he would present his links as exclusive firsts in a display of confident workmanship. Accordingly, he was credited for doing a 'masterful job of compiling links' (Battey, 1999), which resulted in a site that was 'carefully crafted' (Battey, 1999). The pursuit of this ruggedly self-reliant editorial regimen, of purveying only links 'that people wouldn't find on their own' (Romenesko in: Benning, 2000), incidentally, would also make him the first person to attain a salaried position as a full-time blogger, in which capacity he worked for the Poynter Institute from September 1999 (Benning, 2000) to November 2011 (Peters, 2011).

Barger approved of Romenesko's *Obscure Store* as a 'professional-looking weblog-like page' (Barger, 1998z) and in late 1998 made it the most frequent source of attributed links 'by a mile' (Barger, 1998am). Romenesko for his part appreciated *Robot Wisdom* and kept a link to Barger's site in his sidebar (Romenesko, 1998c), but Romenesko's self-reliant editorial practice was incompatible with Barger's idea of social discovery as commons-based peer production. Romenesko, the 'lone Web maven' (Robertson, 2000), preferred to ply his craft on his own and took pride in 'staying a one-person operation' (Romenesko, cited in: Wang, 1999). He was, and needed to remain, a 'one-man show' (Romenesko, cited in: Raines, 2008).

Dutton for his part cultivated a professional image of self-reliant editorial probity that was above propagating second-hand links. Describing his site confidently as 'the only game in town' (Dutton, cited in: Cohen, 2005), Dutton would frame the uniqueness of his site exactly in the self-reliant, unpremediated originality of its editorial process: 'Good material is scattered so widely over the Inter-

⁹⁰ The *Wall Street Journal* has presented Dutton as a towering, peerless Maecenas figure: Dutton was 'one of the most prominent patrons of the arts of the 21st century' (Sacks, 2011) who would bestow large amounts of web traffic to struggling highbrow magazines.

net that people need a single, central site from which they can access newspapers, magazines and provocative, thoughtful readings' (Dutton cited in: "Accolades," 2004). The exclusiveness to which Dutton's site aspired came with the implicit guarantee that its links, which were 'hard to locate' (Dorothy, 1998) and required an 'arduous' (Dutton, 1999c) effort to gather, came only from first sources.

The peculiar quality of Dutton's site as an autonomous 'mechanism for finding [good reading] and bringing it to the attention of people who are too busy to do the kind of intensive browsing serious web-reading requires' (Naughton, 2000) is most readily apparent in the twin aspects of its internal division of labour and its implied readership. When launching *Arts & Letters Daily*, Dutton set up shop with a Managing Editor and two Contributing Editors (Dorothy, 1998), who were 'paid for the work' (Wycherley, 2001). Dutton relied on his employees to supply a daily shortlist of links; he would then pick three of the links, write the teaser paragraphs and put them online ("Accolades," 2004). Intended as 'a thinking person's guide' (Cohen, 2005), the site served 'the interests and needs of people involved in academic pursuits' (Dorothy, 1998). Dutton's audience were 'readers with an intellectual bent' ("Accolades," 2004) who made up the 'large group of internet users who are turned off by the frenetic 'hot picks' and 'cool links' of the brain-dead surfing community' (Naughton, 2000). The *Arts & Letters Daily* bore more than a passing resemblance to a conventional newsroom serving a conventional readership.

Both the site's internal division of labour and its implied audience make for a stark contrast with the commons-based peer production model propagated by Barger. Far from speaking to peers engaged in the collaborative process of filtering the web, Dutton conceived of his readers as an audience. Accordingly, Dutton liked to portray his pursuit of selecting intellectually challenging articles as a 'very traditional business' (cited in: Sawhill, 2000) in which he saw 'no way to mass-produce good editorial work' (cited in: Sawhill, 2000) and for which Romenesko, the 'online pioneer with old-fashioned newspaper values' (Raines, 2008), served as a perfectly plausible model.

Dutton agreed with some ideas of the emerging weblog network: he rejected the suggestion that he should charge for access to his site, claiming that such a charge would be 'against the spirit of the site' (cited in: Mills, 1999). He also expected other people to take up the format, but objected to having it copied outright: he believed that 'other specialised portholes will develop for other interests' (cited in: Mills, 1999) but he also sent a *cease and desist* note to a close imitator, wishing to 'protect our format and approach to the fullest extent possible' (Dutton, cited in: Mills, 1999).

Dutton's article on weblogs (1999a) fails to mention the link attribution issue that occasioned it. The omission not only reflects on Dutton's unwillingness to concede that his editorial team was not always working from first sources, it embodies Dutton's refusal to honour the norm of link attribution that Barger and Bogart had established as a shared norm of the emerging discourse network (see 9.4). Dutton's commitment to a conventional ideal of editorial professionalism made any association with the commons-based peer production approach of the 'merry band of linkers' (Bogart, 1998f) an impossibility. The fact that Barger's repeated request for link attribution occasioned Dutton to dissociate himself from the emerging discourse network, damning weblogs with the faint

praise of ranking them among the ‘more engaging epiphenomena of the Internet’ (1999a), highlights the potency of link attribution as the early weblog network’s principal expedient of network cultivation. It created the very affiliations that Dutton was trying to keep from tarnishing his professionally self-reliant editorial stance.

12.6 Discussion

Ever since its inception, news personalisation has lived with the suggestion that humans might do a better job at what it proposed to do. Howard Rheingold, when praising the spirit of mutual help and information sharing he had learned to appreciate as a WELL member, noted early on: ‘we don’t have software agents (because they don’t exist yet), but we do have informal social contracts that allow us to act as software agents for one another’ (1987). When news personalisation became ever more widely available during the early days of the web, the people engaged in forming the emerging text genre of the weblog responded to all of the different forms such personalisation took, suggesting greater human involvement: Chris Gulker proposed to blend MIT Media Lab’s intelligent agents with human editing, Dave Winer proposed to supplant push media with a human-edited stream as a defensive stop-gap measure.

Michal Wallace and Denis Dutton were both highly critical of news personalisation and defined their respective projects in relation to Barger’s rule set. Both of them were opposed to personalised portals from a deep sense of their insufficiency and from an ambition to create a more human, more intelligent alternative. Wallace and Dutton had opposing perspectives on how to achieve this, however: while Wallace, despite the reservations, enthusiastically subscribed to Barger’s ideas, Dutton’s rejected them and forbade even the hint of any association. Wallace and Dutton’s separate ways of humanising the portal were paradigmatic: Wallace supported a ‘movement’ (Humphries, 1998b) whereas Dutton was editing a publication that catered for a particular audience.

13 Cam Barrett and Dan Gillmor

The year 1999 marked the onset of a dispute among practitioners of ‘whether a weblog is purely a daily(ish) list of links to other places or whether it should or could include personal information along the lines of usually more lengthy journals found online’ (Gyford, 2000, p. 81). Conventionally, this dispute, and the actual shift in practice that it reflected, has been discussed in terms of a new breed of automated publishing tools, including Blogger.com, which was established in August 1999 (E. Williams, 1999; S. Rosenberg, 2009a, p. 102), leading ever larger numbers of webloggers to abandon the ‘focus on the web-at-large in favor of a sort of short-form journal’ (Blood, 2000b). The automated services have been named as the root cause for the tendency, starting in the second half of 1999, of weblogs becoming ‘less about creating links and references to sites and sources, and increasingly about [the] bloggers’ own comments and personal interests’ (Blood, 2004, p. 53).

However, this account is both reductive and misleading. While weblog adoption grew dramatically in 1999, several consecutive reinterpretations of Barger’s rule set and weblog programme also took place during that year, affecting the genre in a manner that assimilated it to the conventions of the web zine. The first and most significant modification of Barger’s orthodoxy was undertaken by Cam Barrett, who, like Denis Dutton (see 12.5), preferred to see weblogs as publications with a responsive audience rather than, like Barger and Wallace, as a movement congregating on an open commons. The shift away from Barger’s orthodoxy of social resource discovery, as evidenced in Dan Gillmor’s initially controversial *eJournal*, followed directly from Barrett’s reinterpretation of that community model.

13.1 Cam Barrett

In November 1998, more or less simultaneously with the launch of Raphael Carter’s *Open Directory* page on weblogs (Carter, 1998e), the old guard of news page maintainers started to adopt the term *weblog* for their sites. Newly launched weblogs had been adopting Barger’s rule set and programme since May 1998 (see 11.4.5). The first among the old guard of Frontier-style news page maintainers to make the transition was Steve Bogart, who had already been the first to adopt Barger’s link attributions in April 1998 (see 9.4, 11.4.4). In November 1998, while temporarily shutting down his site, moving it off university servers and setting up the *NowThis.com* domain name for it, Bogart had already accepted the term *weblog* for his *News, Pointers & Commentary* feature: ‘I plan to return to the wide wired world of web writing (though perhaps not doing a ‘web log’ per se)’ (1998k). Despite this disclaimer, the new site he launched in December featured a ‘log’ (Bogart, 1998l). Bogart chose neither to document nor discuss the process in public, and the transition went largely unnoticed.

Cam Barrett of *CamWorld*, by contrast, did document the process of switching his allegiance to the term *weblog* in his essay ‘Anatomy of a weblog’ (1999b) of 26 January 1999. Barrett had launched *CamWorld* in June 1997 as a straightforward implementation of Frontier’s default site

model (see 11.1), and he had since risen to be the third most central actor in the network after Bar-ger and Winer (see 9.3), so Barrett's move in the wake of Bogart's move was high profile and brought along some of his old-guard peers.⁹¹ Barrett's discussion of his move also altered the concept of what a weblog was considered to be.

13.1.1 CamWorld and the Anatomy of a Weblog

In adopting the term *weblog* for his *CamWorld* site, Barrett responded directly to Michal Wallace's 'Notes for a microportal taxonomy' (1998r) (see 12.4), asking himself in November 1998: 'Is Cam-world a 'microportal?'' (1998h). Wallace replied: "Yep" (Barrett, 1999b). Barrett then 'stood back a few steps and realized that yeah, Camworld is a weblog or a *microportal*' (Barrett, 1999b). In January 1999, Barrett marked his adoption of the term *weblog* in two separate but closely connected ways: he posted an essay titled 'Anatomy of a Weblog' (1999b) and added a persistent list of 'Web-Logs' (1999c) to the top of *CamWorld*'s right sidebar.

Barrett's WebLogs list contained twenty weblogs when it was first posted, as well as a link to Raphael Carter's *Open Directory Project* page on weblogs (1998e). The list appeared only a few days after Barrett had posted a shortlist of his four favourite weblogs⁹², yet ultimately it derived from Wallace's 'Other Presurfers' (1998v) of late 1998, with which it was nearly identical, and which in turn had a high degree of resemblance in design and overlap in content with Gulker's much earlier NewsPage Network list as last updated in February 1998 (Gulker, 1998a). The Cam-World list contained only the weblogs Barrett considered to be of 'high enough quality' (1999i), yet as it grew and expanded into 'the massive CamWorld sidebar' (Garrett, 1999e), it became reputed as the era's 'canonical catalog of weblogs' (S. Rosenberg, 2009a, p. 211), and for a while made *CamWorld* the 'most-popular referrer among weblogs' (Gunderloy, 1999b).

The 'Anatomy of a weblog' (1999b), the essay that accompanied the introduction of the list, is the record of Barrett's examination, triggered by Wallace's post, of whether he should accept the re-classification of *CamWorld* as a weblog. The essay conducts this examination by comparing the site against a list of 'aspects commonly associated with weblogs' (1999b) and answers the question in the affirmative: it was a weblog because it fulfilled all of these generally accepted criteria:

⁹¹ Peter Merholz of *Peterme* adopted a sidebar similar to *CamWorld*'s almost instantaneously after Barrett posted his, and in March famously parsed the word 'weblog' as 'wee blog' (Graham, 1999b), giving rise to the truncated form *blog* (Winer, 1999y). Pete Prodoehl of *Rasterweb* and Robert Occhialini of *Bump* both acknowledged the new name in mid-February 1999 (Occhialini, 1999a; Prodoehl, 1999a). Jesse James Garrett of *Infosift* adopted the phrase 'Weblog Nation' as the title of his blogroll in April 1999 (Merholz, 1999c). In late May 1999, it was only in response to Katz and Rosenberg's respective articles (Katz, 1999; S. Rosenberg, 1999), both of which identified *Scripting News* as a weblog, that Winer used the term 'weblog' for the first time as a description of his news page, noting proudly: 'In April 1997 I started one of the first weblogs, *Scripting News*' (Winer, 1999m). *Gulker.com* did not get included in the CamWorld blogroll, neither in the first instance of the listing (Barrett, 1999e) nor in the eventual 140-item-strong one (Barrett, 1999j). He did get recognised by *Bump.net* on 2 August 1999, however, as 'another early Weblog' (Occhialini, 1999b) and got commended for having 'maintained an early list of what he then called News Pages because of our use of Frontier's NewsPage suite' (Occhialini, 1999b). Gulker adopted the term weblog in November 1999: 'you're reading one, in case you haven't heard the term "Weblog" before' (Gulker, 1999b). Sippey, who had closed his *Filter* in December 1998 (Sippey, 1999), made his weblog public in January 2002, after having maintained it secretly for a while. (Dash, 2002).

⁹² Barrett's shortlist of recommended weblogs contained: Lawrence Lee's *Tomalaks Realm*, Jesse Garrett's *Infosift*, Dan Lyke's *Flutterby* and Wes Felter's *Hack the Planet* (1999a).

It's updated regularly [daily]. It's got a nice, clean easy-to-use design and user interface. It doesn't patronize to the end user, dumbing things down too much. It has a theme [Random Thoughts + Web Design + New Media]. It has a way for the users to interact with each other [a mailing list]. It even has somewhat of a community, maintained by repeat visitors and list members who contribute many of the links often found in Camworld.

Most weblog owners are aware of each other and make it a point to credit the source of a particularly amusing or useful link. I often find it's not even necessary to credit a popular link, especially if I see it turn up on other weblogs and web sites. It's also not necessary to credit a link to a news article from a major news source, as most weblog owners use many of the same news sources for their usual links. (Barrett, 1999b)

In the essay, Barrett claims he did not know what the origin of the term *weblog* was, so he could not 'properly credit' (Barrett, 1999b) the criteria. The very notion that a weblog should conform to a set of stated criteria, however, was Barger's in the first instance, as nobody else had set out yet to define such a set of criteria. An examination of the passage also reveals that most of Barrett's aspects do in fact turn out to be Barger's rules loosely paraphrased: even if Barrett quibbles with the link attribution rule, he does affirm its validity.

13.1.2 CamWorld and community

Barrett's essay suggests two criteria, however, that do not have a precedent in Barger's rule set: the criterion of refusing to simplify technical matters, and the community criterion. The refusal to simplify technical matters had long been a legitimisation which Dave Winer cited for running *DaveNet* as an effort to counteract or forestall the simplifications and distortions of which he felt the press were guilty in covering the software industry (see 4.4.2). The inclusion of this idea in Barrett's criteria amounts to an implicit acknowledgement of Winer's contribution to the lineage of the weblog.

Barrett's community criterion, by contrast, is an entirely novel claim in the discourse on weblogs, and its origin is more complex but also more illuminating. On the face of it, the criterion that a community which congregates around a single website should be a defining feature of a weblog runs diametrically counter to Barger's programme of the weblog community as an inclusive distributed peer network whose sole and constitutive criterion of admission was the running of a weblog (Barger, 1999d). Yet it was this very idea that journalist Jon Katz chose to borrow from Barrett in one of the first notable articles on weblogs of May 1999, in which he Katz celebrated weblogs as a 'non-hostile evolution of the electric community' (1999), noting:

Exclusive discussion groups – those that limit membership and topics – are like private clubs in that they offer membership by invitation or even fees. In these smaller e-communities, people can speak more freely, perhaps say things they wouldn't say in public. (Katz, 1999)

Katz believed that the WELL had been an exemplary case of such community because it provided 'strong, experienced moderators with authority who discourage eruptions of hostility' (Katz, 1999), and he asserted that weblogs would now be a new embodiment of the same principle. Katz' view of weblogs, defined in terms of an exclusive community ideal as 'interesting stories for pre-selected

communities' (Katz, 1999), did not reflect Barger's peer-produced weblog commons at all, but referred to moderated forums that were attached to some web zines, such as *CamWorld's* mailing list that Barrett had identified as a weblog criterion in his 'Anatomy'. Weblogs, according to Katz, were 'among the first e-communities to successfully overcome online hostility and abuse' (1999) because, being 'limited in membership' (1999), their maintainers were selective in whom they admitted to their mailing list.

In his treatment of weblogs as *exclusive* community, so obviously at odds with Barger's inclusive community model, Katz had unwittingly highlighted a crucial issue about Barrett's reinterpretation of Barger's rule set: some of the early adopters of the news page model who were now switching their allegiance to Barger's term *weblog* did not subscribe to the commons-based peer production agenda and its open community model at all. Katz' article, sourced mainly from Barrett's essay, cited expert opinions from Barrett's close peers Jesse James Garrett of *Infosift* and Peter Merholz of *Peterme*, neither of whom challenged or countered Katz' construal of the weblog community. Garrett's comment even seemed to support it: 'a quality weblog is distinguished by the voice of its editor, and that editor's connection with his or her audience' (Garrett, cited in: Katz, 1999). The mention of an audience rather than a peer group asserts the validity of the conventional web zine model in which authors 'find an audience for their work' (Michalski, 1995, p. 11).

While Barrett's mailing list was not nearly as exclusive as Katz' piece suggests – it was not invitation only – it did impose restrictions on membership and struck a mildly intimidating pose in its declaration that it was 'NOT for newbies' (Barrett, 1998a) and 'not a place to ask dumb questions' (Barrett, 1998a). The sense, however, of seasoned digital artisans congregating exclusively amongst themselves in a 'private club' (Katz, 1999), was the same that animated Sippey's community model as 'a clique, a cabal' (Sippey, cited in: Wylie, 1999), of which both Barrett and Garret⁹³ were well aware. Barger's 'utopian ideals of group process' (Barger, 1993t), which strongly favoured groups that were 'freely, anarchically open to all' (Barger, 1993t), were not a programme that either Sippey or Barrett would commit to. Barrett's community criterion envisaged weblogs as separate publications with interactive audiences rather than a movement congregating on an open commons. In this, he was much closer to Dutton than to Wallace (see 12).

13.1.3 Portals and Personalisation

Barrett continued the early discourse on weblogs as a makeover of news personalisation. When he reported having maintained a posting routine for more than a year, during which time he had spent 'one to three hours every night surfing the web, reading everything I came across, judging the quality of the writing and information' (1999g), he chose to frame this effort in the language of news personalisation:

The Internet is about personalized and customized communication. weblogs have established a small island of rationality and stability among the sea of information that the Internet has

93 In 1998, Jesse Garrett adopted his news page on *JJG.net* in emulation of the *Obvious Filter*, calling Sippey his 'inspiration' (1999b) and 'primary influence' (1999e). *Stating the Obvious* was a site that Barrett had 'been reading for a long time' (Barrett, 1998e).

thrown at everyone. Those of us who are honing our skills at filtering this information are creating the best weblogs. The better the signal-to-noise ratio, the better your site will be. (1999g)

The tone of this passage is descriptive and somewhat advisory rather than aspirational: it is not a manifesto demanding that weblogs should remake personalisation – it asserts that they have been doing the work of personalisation for some time.

Barrett, specifically, echoed the discourse on personalised portals that Wallace and Dutton had started in 1998 (see 12.4, 12.5). In his advocacy of the ‘microportal’ (1999b), Barrett called for ‘more specialized weblogs’ (1999g) to emerge that would focus on more narrowly defined subjects: ‘These are called niche market portals, and every one of them (and thousands of other niche markets) could be a potential source of quality information for someone’ (Barrett, 1999g). In this, there was a difference to Barrett’s discussion of news personalisation that set it apart from both Dutton’s and Wallace’s: Both Dutton and Wallace were fiercely critical of news personalisation as a form of publishing that had failed to deliver on its promise. Barrett had no such criticism: there is nothing in his writing that would dispel the impression that he discussed weblogs as a form of news personalisation only to give weblogs the prestige that came from being part of a major industry trend.

13.1.4 No cyber-utopian

Barrett’s lack of critical attitude towards conventional strains of news personalisation accorded well with his lack of cyber-utopian aspirations. He described himself as ‘a new media professional’ (1999h) with a ‘need to achieve’ (1999h) and sought a career that would allow him to leave his ‘mark on the world’ (1999h). He saw himself as an educator who came ‘from a long line of teachers’ (1998d) yet spoke the language of business fluently. He was ‘fully employed’ (Barrett, 1999b) and observed that ‘most weblog editors/owners work full-time in the Internet industry’ (1999b). He viewed Jakob Nielsen and Donald Norman as ‘heroes’ (1998g), he consumed and recommended marketing literature (1998f), and in 1996 came to favour *Fast Company* over *Wired* as his ‘magazine of choice’ (1999d). Barrett’s switch from the ‘Rolling Stone of the digital revolution’ (Gilbert, 1994) to the ‘ego-stroker for “cool” “young” “professionals” who seek confirmation’ (Merholz, 1999b) speaks to his aspirations: he wanted to reach ‘the top of a company’ (1999h) rather than use his internet-related skills to overthrow or remake the established business order. Eager for his ‘years of industry experience to be recognized’ (Barrett, 1999h), he wanted the established business order to accept his skills as proper professional competencies.

Barrett also predicted that an ‘interesting application of the weblog model would be within corporate intranets’ (Barrett, 1999g), thus both echoing Gulker’s enthusiasm for intranets and anticipating ‘knowledge management weblogs’ (Robb, 2001) and ‘enterprise blogging’ (Callaghan, 2002), but running counter to Barger’s community ideal of being ‘freely, anarchically open to all’ (Barger, 1993t), and discarding any notion of a ‘community of non-corporate truth-tellers’ (Barger, 1999ab).

Moreover, Barrett had personal reasons for wishing to avoid even the appearance of holding any unconventional views. In 1997, he had lost his job as a new media instructor when two of his train-

ees took exception to the sex and violence depicted in the short pieces of narrative fiction he had posted to his website (Barrett, 1998b; Dedman, 1998). As a consequence, he became very apprehensive of being viewed as ‘some weird Internet guy’ (Barrett, 1998c) or being saddled with the stereotype of internet workers as ‘losers, weirdos, and crazies’ (Barrett, 1998c). Barrett was ‘no radical’ (Barrett, 1999f) and had no commitment to cyber-utopian ideals, neither Barger’s millenarian form of such a commitment, nor even Gulker’s broadly conceived cultural reawakening.⁹⁴

13.1.5 Barrett and identity production

After Barrett had selectively reinterpreted Barger’s community model and inflected its programmatic aspects towards the conventional web zine community model in his ‘Anatomy’ (1999b) of January 1999, he further re-conceptualised Barger’s programme within a zine framework in his follow-up essay ‘More about weblogs’ (1999g) of May 1999. Barrett continued to support Barger’s programme of ‘honing our skills at filtering’ (Barrett, 1999g), and continued to assert that weblogs are ‘designed for an audience’ (Barrett, 1999g) and have ‘their own established audiences who expect certain things from each owner’ (Barrett, 1999g), stressing the zine’s conventional division between author and audience rather than the informational benefits of a peer network engaged in social resource discovery. Beyond this, however, Barrett explicitly committed the weblog to the zine’s conventional communicative purpose of identity production as an end in itself. His description of a weblog as ‘an interactive extension of who you are’ (Barrett, 1999g) played on Marshal McLuhan’s anthropomorphic concept of media as an ‘extension of our bodies and senses’ (2003, p. 337). Barrett’s play on McLuhan inverted the apperceptive flow of sensory data and redefined the weblog as a projective flow whose purpose lies in the conveyance of identity, devoid of the potential that Barger ascribed to the workings of authentic selfhood towards a revolutionary, cyber-utopian outcome. Barrett did not believe that ‘the elite could be overthrown in a matter of hours’ (Barger, 1997w) if people would only express their self knowledge (see 7.1): *CamWorld* was ‘about me’ (Barrett, 1999g) in a way that pointedly negated the aspiration of Barger’s cyber-utopian narrative. *CamWorld*’s purpose lay in ‘educating those who have come to know me about what I feel is important in the increasingly complex world we live in, both online and off’ (Barrett, 1999g). In Barrett’s view, then, the status quo was merely ‘complex’ (1999g) rather than dystopian, and the purpose of the weblog did not lay in overturning the status quo but improving the audience’s understanding of the author’s particular response to its twists and turns.

Barrett felt little allegiance to the Bargerian orthodoxy he had paraphrased in his ‘Anatomy’

94 Barrett’s closest peers were no radicals either, nor did they profess any faith in any revolution. Wes Felter of *Hack the Planet* did write a manifesto about his intention to ‘hack the planet’ (Felter, 1998); the phrase leans heavily on the rhetoric of cyber-utopianism and Felter imbues it with a strong sense of urgency, yet it doesn’t express anything beyond a heart-felt desire to improve software engineering. Lawrence Lee of *Tomalak’s Realm* identified his philosophy as ‘adaptive pragmatism’ (Lee, 1998b), and Jesse James Garret of *Infosift* and Peter Merholz of *Peterme*, respectively, shared the preference for adapting rather than overturning, as they soon went into business together and named their user experience company *Adaptive Path*. They observed as their company’s basic tenet ‘that organizations needed to better understand their customers in order to better serve them’ (Merholz, 2011) and that ‘bringing a user experience mindset to organizations has the potential to make them more engaged with their customers’ (Garrett, 2011). There is no revolutionary intent to be found in these aspirations either.

(1999b). Having maintained his news page for a year and a half before he selectively re-framed and reinterpreted Barger's weblog programme in January 1999, he considered himself 'overworked' (1999g), and was already 'burnt out' (1999g) on having 'spent one to three hours every night surfing the web, reading everything I came across, judging the quality of the writing and information, and determining whether or not my readers would be interested in the same things I was' (1999g). *CamWorld*, as a consequence, was in an 'anemic state' (1999g) by May 1999, and Barrett intended to remedy the condition by writing 'more commentary, more essays, and focus less trying to serve up as many quality links as I could manage' (Barrett, 1999g). He discussed his wish to write 'more personal essays' (1999g) and 'more professional essays' (1999g) rather than engage in the 'gratuitous linking' (1999g) in terms of maintaining his weblog. In so doing he negated the core principle of Barger's social resource discovery programme, namely that weblogs, 'ought to be completely unconcerned about hosting content' (Barger, 1998e). Obviating this distinction, Barrett all but extended the meaning of the term *weblog* to cover both parts of the publishing model Winer had introduced with Frontier 4.2 as the two complementary parts of his content management programme: the news page and the essays. Barrett not only favoured identity production as the ulterior exigence of the weblog over its quasi-revolutionary social discovery aspects, he also extended the term weblog to include the conventional vehicle of such identity production as cultivated in the web zine tradition: the opinion piece. Thus, it was Barrett who started to conflate the definition of the weblog with the practices from which Barger had initially tried to distinguish it.

13.1.6 Leadership and the Eaton Portal

Barrett managed to rally a large number of newcomers to the weblog genre through his 'Anatomy' (1999b), and through his list of weblogs, which was 'growing quickly, as people who maintained sites that updated frequently, with links ordered in reverse, found it and emailed Barrett, asking to be added' (S. Rosenberg, 2009a, p. 86). With the growing perception that Barrett had started the 'movement' (Blood, 2000a, 2000b, 2002b, p. 7) and had launched its 'bandwagon' (Blood, 2000b, 2002a, 2002b, p. 5), his efforts were seen as 'giving weblogs a sense of community' (Bernstein, 2009).

Barrett was an unlikely champion, however. Being committed to the conventional zine's definition of community, it dawned on him only after the 'Anatomy' (1999b) that the phrase 'weblog community' (Barger, 1999d) referred to a movement rather than the mailing list of a single publication. Consequently, he denounced the 'explosion of growth in the weblog community' (Barrett, 1999g), and vented: 'I detest this growth, as it makes my efforts with *CamWorld* even harder' (1999g). Even as circumstances had conspired to make Barrett the champion of the rapidly growing weblog network in early 1999, he showed remarkably little zest for acting as its leader. Barrett did not want to lead a movement.

Part of the vacuum that Barrett was disinclined to fill was occupied in short order by Brig Eaton. Barrett stopped making any further additions after his weblog list had reached 140 items by July (Barrett, 1999j). Brig Eaton, a graphic designer with a weblog and a web journal, was frustrated

with Barrett's list of weblogs, which 'wasn't up-to-date' (Eaton, 1999a). As Barrett 'wasn't updating it fast enough' (Eaton, 1999d), she decided to compile her own list, the *Eaton Portal*. Eaton was 'very conscientious about posting links to any new weblog that is brought to her attention' (Blood, 1999) and her list soon became 'the most complete' (Winer, 1999ab). Even so, she strongly disliked the task of judging 'whether something is a weblog or not' (Eaton, 1999d), as she believed that there was 'no wrong way to keep a weblog' (Eaton, 2000a). Wanting to be 'not exclusionist' (Eaton, 1999b), she determined that 'the one consistent thing between weblogs is a time-based organization' (Eaton, 2000a) and that the one single defining feature of a weblog was its being 'organized chronologically and has regular updates' (Eaton, 2000c). With Eaton, Barger's rule set had lost any relevance: 'anyone who wants any weblog listed should just ask' (Eaton, 1999b). Eaton's 'inclusive definition prevailed' (Blood, 2000b) and eventually 'won the day' (Blood, 2002b, p. 5) over the old-school webloggers who still adhered to Barger's rule set.

13.1.7 Discussion

Eaton's 'reluctance to judge the appropriateness of anyone's effort' (Blood, 2002b, p. 148 – 49) was a factor in the fading attraction of Barger's social discovery programme, even as her inclusiveness prevented the weblog community from fracturing: Her 'decision to allow individuals to identify their sites as weblogs, rather than excluding those who did not meet her criteria, prevented the community from resolving into opposing camps built around link-driven filters and short-form diaries' (Blood, 2002b, p. 151).

However, with Barrett unwilling to take the leadership of what was turning out to be a movement after all, Eaton was the heir and custodian of Barrett's reinterpretation of Barger's rule set: Eaton's definitional inclusiveness was a direct consequence of Barrett's exclusive community criterion. Had Barrett adopted Barger's programme of commons-based social discovery along with his rule set, rather than selectively reinterpreting the rule set and repackaging it as some vague consensual agreement, and had he supported the rules to the extent of crediting them to their source, Eaton might never have had to deal with the definitional question. Had Barrett thrown the weight of his network centrality behind Barger for having 'started the trend' (Wallace, 1999c), the definitional question would have been settled before it ever got mooted.

As it was, the discourse network that had sprung up around the concept of the weblog was a house divided ever since 26 January 1999, when Barger allowed himself to fly into an angry passion and fulminate against Dutton for his alleged plagiarism (see 12.5) rather than display the leadership of building bridges towards Barrett, whose 'Anatomy' (1999b), published the same day, he did not even mention on *Robot Wisdom Weblog*. The 'weblog community' was divided because Barrett did not fully support Barger's programme, did not want to have its leadership thrown upon him, and preferred the established comradeship of the zine model of personal publishing.

13.2 Dan Gillmor

While many adopted the weblog genre following Barrett in his selective, unattributed reinterpreta-

tion of Barger's rule set and weblog programme, some went further than Barrett did. Further modifications amplified the tendencies Barrett had worked towards and strengthened the generic conventions of the zine tradition that now went under the name *weblog*.

13.2.1 Dan Gillmor and Winer: 'experiment with ways to work in this evolving medium'

Dan Gillmor,⁹⁵ a senior technology editorialist at the *San Jose Mercury News*, Silicon Valley's daily newspaper, published a column on 24 May 1999 in which he expressed admiration for *Slashdot* and reflected that the community site's inclusion of user contributions and discussion could be a model for the future of journalism. He considered *Slashdot* an 'archetype of the Internet-led communication revolution' (1999a) and expressed his conviction that some of its mechanisms would prove vital for the future of journalism. Gillmor also admired the 'elegant simplicity' (2004a, p. 15) of the *Cluetrain Manifesto*'s first thesis, 'markets are conversations' (R. Levine, Locke, Searls, & Weinberger, 1999), of which *Slashdot*'s commenting feature seemed to be an exemplary instance. The site would therefore be 'one of our instructors' (Gillmor, 1999a), as in the future, 'Web-enhanced journalism will include a conversation' (Gillmor, 1999a).

In the same column, Gillmor also announced that he intended to start a weblog soon. He made it clear from the outset that he did not think the established rules of the genre were binding: 'I'm planning to create my own version of a Weblog' (1999a). Gillmor announced that he would conduct an 'experiment with ways to work in this evolving medium' (1999c); he would 'play around with the format' (1999c) in order to 'find a way to meld what I do in the newspaper and what webloggers have been doing so brilliantly online' (1999f). At the same time, Gillmor was intrigued by Winer's promise of 'Web content creation from a Web-based perspective' (Gillmor, 1999b), which, he reckoned, would inevitably become 'vital' (1999b).

Gillmor launched his *eJournal* on 25 October 1999 (Gillmor, 1999d)⁹⁶ and accompanied his new project with a statement of intent that made little reference to the established genre conventions of the weblog, stressing instead the project's contributory role towards his newspaper column: the conversations it engendered would benefit his regular journalistic output. The assurance that his 'eventual column on the topic will be much better if I hear from smart people like you before I write it' (1999c) sprang from his belief, acquired in years of working Silicon Valley's technology beat, that 'my readers know more than I do' (2004b). Accordingly, he defined *eJournal* as 'a continuing diary of what looks interesting to me' (1999e), and posted 'short essays – columnettes?' (Gillmor, 1999e) from which he would assemble his regular weekly columns. These columns would 'reprint some of

95 Gillmor is a leading proponent of citizen journalism and has written two books on the subject: *We the Media* (2004a) and *Mediactive* (Gillmor, 2010a). A liberal commentator on issues surrounding the technology industry, his contribution as an early mover in political blogging has been recognised by Scott Rosenberg (2009a, p. 134 – 135).

96 Gillmor's *eJournal* ran until December 2004. For the whole duration of its five-year run, the site was maintained by Gillmor's employer, who chose to delete the 'entire archive of blog postings' (Gillmor, 2010b) when Gillmor left the *San Jose Mercury News* in early 2005. The archive had been presumed lost for years, as no trace was found in the Internet Archive (S. Rosenberg, 2009a, p. 135). However, in the course of researching this thesis, I managed to locate substantial portions in the Internet Archive and linked to them from my site (Ammann, 2009b; S. Rosenberg, 2009d). Gillmor was delighted with the discovery and asked an expert to recover the data and reinstate it on Bayosphere.com (Gillmor, 2009; Kaminski, 2009). He recounted the episode as a cautionary tale about backups in his book *Mediactive* (Gillmor, 2010b).

the material that appeared first on the Net' (Gillmor, 1999e), after feedback from his readers to the weblog materials would have helped improve them.

13.2.2 Dan Gillmor's *eJournal* and its merits as a weblog

Gillmor's new site 'made waves in the insular realm of weblogs and the tech journalists who followed them' (S. Rosenberg, 2009a, p. 134). The magazine *Infoworld*, for instance, claimed that weblogs 'gained some legitimacy' (Battey, 1999) from Gillmor's adoption. Some in the discourse network, however, doubted if Gillmor's undertaking had any legitimacy to begin with and subjected his *eJournal* to a blistering critique: Gillmor was 'doing exactly what he does in the newspaper – writing interesting commentary and news reports based entirely on his own work, and it's almost always self-contained – no external hyperlinks leading out of his paper's site' (Cadenhead, 1999a). Gillmor's *eJournal*, therefore, seemed inadmissible as a proper weblog: 'if one of the goals of *eJournal* is to see how journalism can be practiced in weblogging, Gillmor needs more weblogging in his journal' (Cadenhead, 1999a).

This critique found some resonance. One blogger complained: 'Gillmor's got a nice little journal there, but since online journals are so 1995 he wanted to use a more hip term' (Lyke, 1999). Another commentator belaboured the point: 'has Gillmor ever actually looked at a 'blog? He's not even close' (Anderson, 1999b). To many practitioners of the genre, Gillmor's experiments placed his *eJournal* squarely outside the definition of a weblog.

Gillmor did not care for either side of the argument over legitimacy. He asserted that his site 'didn't give legitimacy to the art of weblogs' (cited in: Winer, 1999y) because 'weblogs were legitimate long before I ever started one' (Gillmor, 1999f), but he also rejected the idea that his site would have to 'conform to some kind of blog-schema that everyone accepts as The Correct Way of Doing Weblogs' (Gillmor, 1999f). In the end, he chose to ignore the criticism, and stuck with his 'own version of a Weblog' (Gillmor, 1999a) as a means to field-test the materials of his columns and to tap the feedback of his readers as a valuable resource.

13.2.3 Winer's support

In his adoption of the weblog form, Gillmor received substantial support from Dave Winer, who had 'made the invitation' (Winer, 1999y) to create Gillmor's site in the first place. Winer made this invitation when visiting the *San Jose Mercury News*' offices (Winer, 1999l) 'to demonstrate Manila' (Gillmor, 1999b) on 24 May 1999. Gillmor announced the same day that he intended to create his 'own version of a Weblog' (1999b), and the same day Winer also posted the *DaveNet* piece which advertised the upcoming Manila release and its browser-based editing feature, which was designed to simplify the web for 'people who love to write for the public' (Winer, 1999k). By the time Gillmor's site launched in October, Winer had invested six months' worth of development effort deploying and customising a pre-release version of Manila to run on the *Mercury News*' servers.

Winer's response to the launch of Gillmor's *eJournal* was ecstatic, as he saw it as a triumph for web writing: Gillmor was 'writing stuff live on the web, he's going to take reader comments, respond, point to things, and then take stuff he writes on the web and flow it back to print' (Winer,

1999y). This, Winer believed, heralded a momentous change: ‘Print assumes its proper role, as the medium for finished writing. Writing that evolves, changes, can only be on electronic media’ (Winer, 1999y).

Winer contradicted Gillmor’s assertion that his *eJournal* ‘didn’t give legitimacy to the art of weblogs’ (Gillmor, cited in: Winer, 1999y), insisting that ‘the question is resolved’ (Winer, 1999y) and that ‘our theory is correct’ (Winer, 1999ae). However, the theory that Winer considered validated was not the weblog as understood by those who objected that Gillmor’s site failed to honour the established rules. Winer noted:

Dan is a writer, not a web developer. He writes his own website. His technical people work with us, but Dan owns the site. That was the goal. It’s working. A dynamic site with all the fixins, and you don’t need a degree in rocket science to keep it going. This is a barrier-break. A goal achieved. (1999y)

The sense of vindication that Winer celebrated in Gillmor’s site launch unambiguously related to the strategic direction of collaborative web content management he had formulated in 1996 (see 10.3). Gillmor’s use of his site as a ‘word processor for the Internet’ (Winer, 1999z) meant that Winer’s long-term development goal of a ‘writer’s tool designed for web writing’ (Winer, 1996ba) was now ready for the consumer market. The fact that *eJournal* was billed as a weblog was an accident of circumstances that Winer embraced out of sheer opportunism: ‘I don’t care if a weblog is seen as a small kind of online journal, or if an online journal is seen as a more personal kind of weblog. But the weblog term has gotten some good ink in the last few months, and it’s likely to get more, so that’s probably the “sticky” term’ (Winer, 1999ah). So, when Winer claimed that Gillmor’s *eJournal* brought weblogs to the ‘cusp of acceptance’ (Winer, 1999ae), he treated the term *weblog* as a conveniently fashionable stand-in for his own work in web writing tools, as shorthand for the collaborative web content management he had been pursuing since 1996. For this reason, Winer declared the question of whether Gillmor’s *eJournal* actually *was* a weblog to be either irrelevant, equivalent to the question of ‘how many angels can dance on the head of a pin’ (Winer, 1999ao), or he recommended that the difference be dropped for public relations: ‘the press has a limited ability to understand subtle differences, and if the idea of [whatever you call them] is to catch on and gain the kind of traction that we (I assume) think they deserve, simplicity in the message is essential’ (Winer, 1999ah). If, therefore, Gillmor’s appearance on the scene amounted to ‘media cooption’ (Lyke, 1999) of the weblog, then it was Winer who had instigated, facilitated and promoted that cooption. There was a symmetry to these events: Just as Barger had reinterpreted Winer’s news page concept by splitting it off from Frontier’s intended use of collaborative web content management and charging it with the idea of a weblog commons (see 11.4), Winer was now in the process of reinterpreting the term *weblog* for his own work.

13.3 Discussion

The characteristic signature of Barrett’s reinterpretation of the weblog lay in affirming Barger’s rule set while refusing to attribute it to Barger. It also lay in discarding Barger’s weblog programme of

social resource discovery and in substituting its commons-based peer production approach with the conventional author-and-audience community model of the web zine genre that *CamWorld* had been a part of since its launch in 1997. Barrett also supported the zine's communicative purpose of identity production as the weblog's ulterior communicative purpose and initiated a development in which the conventional vehicle of such identity production, the essay, began to fall under the definition of a weblog.

Barrett advocated Barger's rule set in a mostly straightforward if unacknowledged manner, yet divorced it from its strategic agenda. His refusal to present his essay as a response to Wallace's recent posts on weblogs (1998p, 1998r) and his failure to credit the 'aspects commonly associated with weblogs' (Barrett, 1999b) to Barger's rule set (1998ab) had the effect of allowing some of Barrett's close peers to invest his 'Anatomy' (1999b) and the accompanying 'original list' (Blood, 2000b) with the cachet of foundational artefacts (2.2) whose appearance allegedly heralded the emergence of the weblog community out of virtually thin air.⁹⁷

Barrett has thus been described as the blogger who 'got the whole 'movement' started' (Blood, 2000a). More accurately, however, Barrett's signature contribution lay in appropriating the 'movement' (Humphries, 1998b) that Barger and Wallace intended to raise and reinterpreting the weblog as a publication instead whose ideal of community and whose communicative purpose of identity production were both aligned with the web zine genre that *CamWorld* belonged to. While paraphrasing Barger's rule set, Barrett reinterpreted the concept of the weblog as an instance of the very web zine genre against which Barger had tried to establish it. Eaton's dilemma of how to define the weblog, and her refusal to do so, was a very direct consequence of Barrett's highly ambiguous reinterpretation.

The respective reinterpretation of Barger's weblog programme by Gillmor – as instigated and implemented by Winer, were both dependent on Barrett's prior redefinition of Barger's weblog criteria. It was Barrett who advocated the site-centric community model of the web zine as a precedent that was applicable to the weblog. It was also Barrett who first propagated the web zine's communicative purpose of identity production to be applicable to weblogs (1999g).

Gillmor's focus on the community aspect of the weblog in his attempt to 'hear from smart people' (Gillmor, 1999c) about the materials he was about to commit to his weekly column was not informed by Barger's concept of the 'weblog community' (Barger, 1999d) as a commons-based peer network, but by Barrett's reinterpretation of that concept in which the individual site continued to be the locus of community (1999b), an idea that was propagated by Jon Katz in a widely read Slashdot article (1999).

As a consequence, Barger's weblog programme of social resource discovery was in trouble be-

⁹⁷ Despite Barrett's lack of endorsement, the strategic aim of Barger's programme had not gone from the weblog community altogether. It lived on among those of the old school who believed that the 'weblog movement will begin to realize its true power, a more widely distributed version of what the Open Directory and other collaborative web directories have promised but only minimally delivered' (Graham, 1999c). It persisted among those who foresaw 'hundreds of individuals, sorting through the Internet, pointing to the links that they find interesting' (Graham, 1999c), who would, as the whole point of the undertaking, 'wrest editorial authority [from] the few editors of today and divide it among the many' (Graham, 1999c). This awareness of Barger's weblog programme remained a minority position, however, not least because of Barrett's refusal to endorse it.

fore the widespread adoption of automated weblog platforms became a factor. The assertion that ‘the tsunami of new weblogs created in the wake of Pitas and Blogger crushed the movement before it could reach critical mass’ (Blood, 2000b) does not hold up to inspection: It was Barrett, the ostensible champion of the movement, who never supported the movement in the first place. If the ‘original Weblog community’ (Blood, 2004, p. 54) ever was a ‘cohesive unit’ (Blood, 2002, p. 101) in possession of a set of stable ‘primary values’ (Blood, 2002, p. 154), it was before Barrett, in January 1999, started to blend these ‘values’ with the generic norms of the zine against which Bar-ger had formulated them.

14 Derek Powazek, Permalinks and Denouement

The rules that Gillmor was breaking in his *eJournal* (see 13.2) were not considered unconditionally binding even among the seasoned bloggers in late 1999, one of whom described his own site as ‘about 75% weblog and 25% journal’ (Hartung, 1999), and another had already identified a new form of weblogs that were ‘more than a list of links’ (Humphries, 1999) as a problem in need of a solution when it came to rendering them in XML. However, an explicit, articulate and widely discussed challenge to the validity of the rules was not articulated until early 2000, when Derek Powazek raised the issue.

The explicit challenge to Barger’s social discovery agenda that was articulated in early 2000 roughly coincided with Barger’s retreat from the discourse network he had established, and with the introduction of the permalink, the structural feature that validated the blog post as a cultural artefact with innate rather than merely referential value. The confluence of these events marked the end of a gestation period in which the weblog as a genre emerged from an initial re-framing and appropriation of Winer’s news page model to the context of social resource discovery, to the eventual validation of the reverse-chronologically ordered stream of updates as a vehicle of conventional identity production.

14.1 Derek Powazek and Ben Brown

Derek Powazek was a noted web designer and zine editor of the nineties (Netslaves, 2000).⁹⁸ His website *The Fray*, was hailed for achieving a ‘visual and narrative coherency that most online ‘zines miss’ (O’Hanlon, 1997), for being ‘one of the best designed and best written personal storytelling websites’ (Don, 1998) and for representing the ‘heart and soul of the emerging digital nation’ (Katz, 1996) because its contributors and readers were ‘expressing themselves in a way that has never been possible before – and saying more in a handful of messages than all the commentators, pundits, politicians, and pollsters did’ (Katz, 1996).

14.1.1 Web zines and identity production

Powazek considered web zines to be ‘the lifeblood of the Net’ (Powazek, cited in: Gornstein, 1998) and strove to elevate their communicative purpose of identity production to an art form, especially in personal story telling. He intended *The Fray* to be ‘a place for people who believe the web is about personal expression and a new kind of art’ (Powazek, 1996), claiming that the site existed for the ‘same reason people paint or sing or dance’ (Powazek, cited in: Hilvert, 1997). Its purpose, as it aimed to ‘promote the art of personal storytelling and to create a place where real people tell real stories’ (Trehan, 2003), lay in ‘personal expression [and] the search for commonality’ (Powazek,

⁹⁸ Powazek is the author of *Design for Community* (2002), a monograph on the building and running of online communities. After college Powazek got a job at *HotWired* and went on to work for Howard Rheingold’s virtual community *Electric Minds*. His personal story-telling zine *The Fray* appeared on Michael Sippey’s network diagram of zines connected to *Stating the Obvious* (Sippey, 1997a) (see 11.2.1).

cited in: Hilvert, 1997). Powazek's work, while much more visually oriented than Winer's, was driven by the same commitment to 'real stuff' (Winer, 1995o) as *DaveNet* was.

14.1.2 Essay and panel

When weblogs first came to his attention, Powazek viewed them as 'link lists with a snarky comments' (Powazek, 1999). In agreement with a sceptical view of weblogs taken by leading web zine authors (Harpold, 1999; Brown, 1999; Marsh, 1999; Knauss, 1999), he believed that the emerging new genre ran counter to the identity production ethos of the personal publishing scene he had been part of: He 'just couldn't see a revolution in personal expression and community in the robotic scrolling headlines of Robot Wisdom' (Powazek, 2000a).

In February 2000, Powazek openly challenged the established rules and asserted that identity production was as valid a purpose of weblogs as social discovery: 'Sure, they're full of links. They're also full of lives' (2000a). He reminded himself that he 'hated the fact that the essence of weblogging at that time, and perhaps still today, was the off-site link, a witty quip, a link away, updated as much as possible' (2000a). He also reminded himself that the web was the locus of identity production, 'the mother lode of personal expression' (2000a). Powazek claimed that 'over the last year, weblogging really matured as a genre' (2000a), and, having since started a weblog himself, he could now 'love weblogs because they're yet another way for people to express themselves online' (2000a). Powazek described the maturing he had observed in weblogs as a waning of the 'fundamentalist definition, where a weblog is external links and commentary' (2000b). This, in his view, set the stage in the year 2000 for the 'rebirth of a very old web idea, repackaged in some new technology, and unleashed as the weblog' (Powazek, 2002, p. 263). Powazek thus reframed the definition of the weblog wholly within identity production and the conventional mode of personal narrative he favoured. He offered a new definition of the weblog accordingly, calling it 'a place where you put your voice online, updated frequently' (2000b). In this renewed reinterpretation, 'weblogs became the new homepages' (Powazek, 2002, p. 265), as they now addressed the 'important need for self-expression' (Powazek, 2002, p. 265) that the older genre of the personal homepage was ceding to them.⁹⁹

On 14 March 2000, at the South by Southwest (SXSW) conference in Austin, Texas, Powazek moderated a panel on weblogs that he had proposed (Powazek, 2003). The panelists of this 'first unofficial weblog summit' (Barrett, 2000) included noted practitioners of the form: Meg Hourihan, the co-founder of *Blogger.com*; Jason Kottke, the maintainer of the popular *Kottke.net weblog*; and Matt Haughey, the founder of *Metafilter.com, a discussion site*. Their praise of weblogs highlighted 'their 'efficiency', or the appeal of a short-form, low-investment Web content format' (Champeon, 2000). The discussion went along the lines laid down in the comments of Powazek's earlier piece on weblogs (2000a), as 'the biggest controversy seemed to be a rift between bloggers and those who

⁹⁹ Powazek's appropriation of the weblog to the communicative purpose of identity production – as "a place where you put your voice online, updated frequently" (Powazek, 2000b) – became more widely current through Winer's rephrasing in which he identified "the unedited voice of a single person" (Winer, 2003d) as the defining criterion of a weblog, a point he reiterated frequently (Winer, 2003f, 2003g, 2005c, 2008a, 2008c).

consider themselves online diarists' (Bedell, 2000).

14.1.3 Ben Brown and the long post

The panel featured a dramatic intervention by a member of the audience: Ben Brown, a programmer, writer and web zine author and editor who had gained some notoriety in May 1999 for penning one of the most dismissive anti-weblog screeds (Brown, 1999). He stood up and launched into a 'tear soaked and impassioned speech about the internet and its power to turn everyone into an interactive artist' (Brown, 2007). He pleaded with the audience 'to stop killing the Web, to write and design full speed ahead, to pour their hearts into it the way he does' (Champeon, 2000).

In his speech, Brown advocated the case of the web zine as identity production, which he defended as an ideal that was both beautiful and revolutionary: 'a few years ago, people were talking about this internet revolution thing, people were saying that it was so amazing that anyone could go out and publish their own manifestos, their own magazines, people could connect on whole new levels' (Brown, 2000). You needed to 'put yourself out there' (2000) and 'write your entire life out online' (2000). The people who were publishing web zines were 'writing these 3000 word essays together, putting them all up online, making some noise' (2000). Like Powazek, therefore, Brown viewed identity production as the core of his artistic endeavour: 'This is what I was looking for in highschool, this is what I was looking for in college – I've got this group of friends who are actively following their dreams, creating their art, changing the world' (2000). Zine maintainers, according to Brown, were 'rockstars' (2000).

Brown accused weblogs of betraying the ideal that underpinned web zines: 'these people are destroying my dream! Everything I've been working towards for the last five years, it's all being flushed down the toilet' (Brown, 2000). He refused to believe that the weblog as social discovery could be 'the revolution, the way that independent personal content is going' (2000) because 'these little snippets, these little blurbs' (2000) – typically consisting of 'a link to a wired news article and a snarky comment' (2000) – amounted to little more than 'patter for a radio ad' (2000). A blog post, while easy and convenient to make, did not rank as an expressive contribution and depleted the creativity that needed to go into 'putting yourself up for people to read, saying the things you need to say, not being afraid to go all out and sacrifice some time and energy for something bigger and better' (2000).

While making his speech, Brown 'practically had a nervous breakdown' (Champeon, 2000), and panel attendants 'patted his back as he talked, trying to keep him from breaking into tears' (Bedell, 2000). Yet he was sufficiently alert to his surroundings to notice that Powazek, the panel moderator, was smiling at him. He concluded that 'Derek's nice and he's good' (Brown, 2000), but he was oblivious of the fact that Powazek's essay of the previous month (2000a) had articulated a view of weblogs in which the genre served the very communicative purpose Brown now accused them of betraying. Brown expected the bloggers in attendance to respond with hostility to his speech, yet they turned out to be courteous and eager to help him overcome his emotional crisis, thanking him 'for saying all that stuff' (Brown, 2000). Brown made friends with the webbloggers, realising that

‘these people are just doing the same things I’m doing’ (Brown, 2000). Shortly after the panel, several people started long-form weblogs and linked to Brown as ‘their inspiration’ (Brown, 2000). In the view of some, Brown had just emerged as the ‘new patron saint for the Web’ (Champeon, 2000).

SXSW panelist Haughey had been in agreement with Powazek’s essay (2000a) all along. In its comment thread, he had already expressed his agreement: ‘I’d say the definition of a weblog is evolving, what was once just a list of links is now a window into a person’s life. The line between a diary, a journal, and a weblog is blurring by the day and there’s nothing wrong with that’ (Haughey, 2000a). Moreover, he was ‘seeing a shift away from a ‘links and little, if any, commentary’ format on most weblogs’ (Haughey, 2000c) and cited Brown as the catalyst for his own departure from the old rules. Crediting Brown as his inspiration, Haughey hoped ‘more weblog authors give the long format a try, and my sincere hope is that there’s a place for both the short format and the long format on weblog sites’ (2000d).

14.2 Permalinks

One web developer who attended Powazek’s SXSW 2000 weblog panel was puzzled by the lack of attention that was directed to the most obvious shortcoming that weblogs suffered from, once the intrinsic value of a weblog post as self-sufficient identity production was accepted: ‘if you want to find something again that you think you may have seen on thisblog.com or thatblog.net, how do you find it?’ (Champeon, 2000). This shortcoming was not being discussed at the panel, but its solution of granular addressability, which came to be known as *permalinks*, was beginning to get implemented at the same time, with two of the panelists, Matt Haughey, taking an early lead in the process.

14.2.1 Blogger.com and UserLand implementations

Starting in March 2000, Pyra Labs, the company developing the weblogging service Blogger.com, began to introduce permalinks: automatically generated anchors that allowed individual blog posts to be linked to. The process started on 5 March, when Jason Kottke, the boyfriend (Mead, 2000) and future husband (Mead, 2006) of Pyra co-founder Meg Hourihan, manually added anchor tags to a few of his most recent weblog postings and placed a little icon next to every heading, thus referencing the ‘permanent URL’ (Kottke, 2000) of the corresponding post. Matt Haughey, who was on the verge of being hired as a designer and developer by Pyra, demonstrated the possibility of creating permalinks with Blogger’s existing templating capabilities the next day, citing a user request for Kottke-style permalinks by fellow weblogger Caroline van Oosten de Boer of *Prolific.org* (Haughey, 2000b). Pyra employee Paul Bausch then set to work, simplifying and refining Blogger’s templating, and on 27 March officially announced support for ‘permanent links’ (Bausch, 2000a). Blogger.com principals Meg Hourihan and Evan Williams implemented the new feature for their sites on 28 March (Hourihan, 2000) and, respectively, 8 May (E. Williams, 2000a). On 16 June, Bausch published two tutorials on implementing ‘permanent links’ (Bausch, 2000c, 2000d).

UserLand introduced a roughly equivalent feature at almost the same time as Blogger did, in late March 2000, when Winer announced an equivalent ‘newsArchiveLink’ feature and implemented it

both on *ScriptingNews.com* and *EditThisPage.com* (Winer, 2000t). Based on a macro supplied by a Frontier user on 18 March (J. Levine, 2000), UserLand's approach provided a persistent link to a day's worth of postings rather than an arbitrary item of text but served the same purpose of granular addressability. Two days later, Winer added text anchors to arbitrary headings within a day's worth of posting on *Scripting News* (Winer, 2000al), supporting highly granular addressability.

14.2.2 Prior art: Earlier implementations

There is a widely accepted view that Haughey and Bausch's work marked the 'birth of the permalink' (van Oosten de Boer, n.d.), that permalinks originated from *Blogger.com* (Blood, 2004; Coates, 2003) and that Bausch deserves to be called the 'father of permalinks' (Dash, 2003; Trott, 2003). However, this view is considerably overstated. Bausch rejected the 'father of permalinks' title but did not question the presumption that permalinks had in fact emerged at Blogger: unwilling to credit a single person for the Blogger feature, he insisted that 'it was the atmosphere of openness and continual brainstorming between ourselves and our users that led to the ideas' (Bausch, cited in: Trott, 2003). Accordingly, Blogger's official account of the feature's origin claimed it to be a user request: 'You asked for it! (and we listened.)' ("Permanent Links," 2000)

Even this statement protests too much, however, not just because UserLand was working on a comparable feature simultaneously, but because the idea of permalinks did not originate between Blogger and its users. Forerunners of the permalink included the granular addressability implemented on *Slashdot.org*, which was 'doing permalinks several years before Blogger was invented' (Bevin, 2003), as well as early experiments in 1998 by hand-coders such as Cam Barrett and Peter Merholz, with Barrett 'using anchors for each day's posts' (Barrett, 2003) and, respectively, Merholz posting his essays to the *Peterme.com* front page while 'dutifully includ[ing] a link to the permanent residence' (Lee, 1998a).

Aside from these forerunners, scripted permalinks on weblogs sprang up months before Blogger began to include them in its templating system. In early January 2000, David Chess of *DavidChess.com* wondered how best to integrate 'a permanent URL for a given day's entry' (Chess, 2000), pointing out that he had 'seen various approaches taken in various [web]logs' (Chess, 2000). In reply to the question, John Mulligan noted that on his of *Metajohn.com* weblog, 'every article is tagged with a unique id number' (Mulligan, 2000a). Mulligan's visually unobtrusive design choice of rendering the permalink as plus sign after every entry, first documented in early February (Mulligan, 2000b), provided the model on which Blogger's default implementation came to be based.¹⁰⁰

While Mulligan's self-built content management was written in the PHP scripting language using a MySQL database (Mulligan, 2000a), Mike Gunderloy's¹⁰¹ weblog on *Larkfarm.com* featured per-

¹⁰⁰Mulligan-style permalinks featured in the Blogger.com weblog ("Blogger," 2000) as well as the personal weblog of Pyra's web designer (Powazek, 2000c), and in slightly modified form in Pyra's programmer (Bausch, 2000b) and Blogger co-founder Ev Williams' weblog, introduced on 8 May (E. Williams, 2000a). They were beginning to get retired only in October 2000, when Williams announced he was introducing the new convention of using the post's timestamp as anchor text for the permalink (E. Williams, 2000b).

¹⁰¹Mike Gunderloy was the editor and publisher of *Factsheet Five* (Gunderloy, 1999a), a celebrated catalogue and compendium on underground magazines in the nineteen-eighties (Friedman, 1997). His monograph *The World of Zines* (Gunderloy, 1992) offers a history of the genre and discusses four hundred of the most compelling exemplars.

entry permanent URLs coded in the ASP scripting language as early as November 1999 (Gunderloy, 2000a).¹⁰² Gunderloy's implementation of permalinks in turn was preceded by one feature of Gillmor's *eJournal* that failed to attract any discussion at the time, namely that Gillmor's 'columnettes' (Gillmor, 1999e) emulated the front page of a weblog in that items were pushed down page as new material was added at the top, but each post also came with a permanent archival address.¹⁰³ The earliest implementation of permalinks may have been Steve Bogart's, who, on 8 February 1999, introduced an automated linear previous/next navigation connecting his blog posts, scripted in Frontier. Between then and August 1999, he also added a 'permanent home' (Bogart, 1999a, 1999b) link to a post's home page instance.

14.3 Barger and Winer

Jorn Barger and Dave Winer were the two most central actors in the early discourse network of the weblog (see 9.2). While both of them were cyber-utopians in earnest pursuit of a revolutionary agenda (see 8.1), their respective agendas were incompatible. Barger's weblog programme even amounted to the first strong appropriation of Winer's collaborative content management programme (see 11.4), which itself triggered several consecutive appropriations as discussed above. Conversely, the appropriation of the *term* weblog that Winer engaged in when propagating Gillmor's *eJournal* (see 11.3) was part of a longer episode lasting from July 1999 to April 2000, in which the relations between the two main actors of the early weblog network took a turn for the worse and then disintegrated altogether. Barger's weblog programme all but collapsed in the process. The following five acts attempt to capture the drama that played out between Winer and Barger during the 1997 to 2000 period.

14.3.1 Exposition: A perfectly serviceable way to offer a lot of links

In September 1997, Barger began to study websites that offered reverse-chronologically sorted and annotated links. He thought of their design as an 'emerging paradigm for web hypertext' (Barger, 1997ac), and it was their 'perfectly serviceable way to offer a lot of links in readable form' (Barger, 1997ac) upon which he modelled *Robot Wisdom Weblog*, launched in December. Around the time of the launch, Barger noted that Winer's *Scripting News* had been his 'favorite webpage, for a couple

¹⁰² Gunderloy has not preserved archives of his early weblog postings. The earliest copy of his weblog extant in the Internet Archive dates to June 2000 (Gunderloy, 2000c). In this earliest available instance, the query string structure in the permalink URLs is identical to the structure present in the permalink for November 1999 that Gunderloy posted in January (Gunderloy, 2000a), suggesting that no major redesign has taken place between November 1999 and June 2000 and that, therefore, the extant page should be a fair approximation of what the looked like when Gunderloy first introduced his permalinks.

¹⁰³ In fact, this dual structure, implemented using a beta release of Manila in October 1999, was a re-implementation of Winer's threaded discussion board (see 4.2) he had written in 1982 and which 'allowed multiple users to link messages to a tree structure' (Winer, 1988) while also featuring an alternative view that allowed the user to 'visit the messages in chronologic order' (Winer, 1988).

Despite the hand-coded forerunners of permalinks in the work of Barrett, Merholz and Kottke, the early scripted implementations in Mulligan, Gunderloy and Gillmor's *eJournal*, as well as Winer's prior art in in the LBBS system, indicate that the weblog's dual orientation towards the immediate moment, as represented by its stream of updates, and towards archival versions of the posts, as typically represented in some sort of hierarchical archival regimen, is at heart a database interface with complementary views of the database's contents.

of months now' (Barger, 1997a). Barger thus started out as 'a big Dave-Winer booster, admiring Frontier and Scripting News and promoting them enthusiastically' (Barger, 1999). In January 1998, Winer for his part endorsed *Robot Wisdom Weblog* as 'a page that alleviates boredom' (1998d), but his enthusiasm turned out to be more muted than Barger's. *Scripting News's* editorial purview remained largely within the software industry and the internet, while *Robot Wisdom Weblog*, performing its 'pithy and intelligent skate between the citadels of art and science' (Orlowski, 2002), offered links that went 'way further afield' (Bogart, 1998d) than any other weblog's. Winer, not especially intrigued by Barger's omnivorous tastes, chose to read *Robot Wisdom* primarily by way of understanding what Barger's aims were: he had 'been trying to figure that out' (Winer, 2000r) but 'didn't get it' (Winer, 2000r). Winer remained puzzled by Barger: here was a man whose weblog had attracted a dedicated following yet who remained a deep mystery. When Winer joined Barger's *Weblogs* mailing list expecting to 'rub elbows with the literary lions of the late-late 20th century' (Winer, 1999y), the hyperbolic and oddly inaccurate phrase was indicative of that puzzlement.

Their relations first took a turn for the worse in April 1998, when Barger contacted Winer about improvements that would bring *Scripting News* in line with the rules of art Barger had worked out for weblogs. Suggesting that Winer 'provide more anchor text [...] and that he limit his main news-page to the last three days, so it loaded faster' (Barger, 1998q), he received a curt dismissal in response (Barger, 1998q). As a consequence, Barger 'started re-evaluating everything' (Barger, 1999), lowering his opinion of Winer yet still regularly referring to *Scripting News*, mostly in link attributions. Winer made no more mentions of *Robot Wisdom Weblog* throughout 1998.

14.3.2 Rising action: Winer's self-discovery as weblog champion

By January 1999, Winer had provided a number of links to individual news pages in his writings on the web, but he never mentioned any news pages forming a network, let alone a community. Neither had he used the generic term 'weblog' even once. This was largely due to Winer's pursuit of his centralising publishing model (see 10.3) which did not anticipate a distributed network of news pages. Winer's inattention to the 'growing network of weblogs and news-pages' (Barger, 1998x) also stemmed from his much bigger aspirations. With the commercial cross-platform release of Frontier 5.1 in June 1998, and with the web services technology he was co-developing with Microsoft, Winer intended to break 'into the competitive arena of high-end Web development' (Morgenstern, 1998), thus going up against the leaders in the market for content management systems, such as Vignette, a much larger company than UserLand which commanded a market capitalisation of several billion dollars (Ante, 2000). Barger's diminutive 'merry band of linkers' (Bogart, 1998f) barely amounted to a blip on Winer's radar.

Winer started to engage seriously with the weblog network in early 1999, first using the term 'weblogs' (1999e) in February 1999 and registering the weblogs.com domain name in March ('Weblogs.com,' 1999) as part of his drive to use emerging XML standards such as RSS and XML-RPC to create a shared infrastructure to the distributed weblogs. With his NewsSearch project, Winer aimed to provide a 'new search engine that uses the brains and judgement of people doing

weblogs to decide what gets indexed' (Winer, 1999f), whereas the My.UserLand syndication service tried to match Netscape's My.Netscape syndication service (Hammersley, 2005, pp. 6 – 7) but promised to eschew Netscape's limitations on permissible speech (Winer, 1999g).

There is no evidence of Winer considering himself to be part of the weblog community in early 1999, however. In fact, he discovered his weblog advocacy only between 24 and 28 May, after the technology journalists Dan Gillmor (1999a), Jon Katz (1999) and Scott Rosenberg (1999) had publicly validated – and in Rosenberg's case, *defended* – the concept of weblogs in press articles of theirs. On 24 May 1999, the day Winer visited the *San Jose Mercury* offices 'to demonstrate Manila' (Gillmor, 1999b), Winer posted 'Edit this page', a *DaveNet* piece that 'defined Manila' (Winer, 1999y) and presented his blueprint for shaping and capturing the market in web writing tools (Winer, 1999k), to be realised with the Manila release of November 1999 (Userland, 1999) (see 10.10). A manifesto of sorts, as well as the pitch of the demo he gave the same day at the *San Jose Mercury* offices, the 'Edit this page' essay did not mention the term *weblog*, and instead referred to its predecessor, the *news page*, despite the fact that the weblog network had long ceased to be in any doubt regarding the name of the form.¹⁰⁴ Winer's manifesto, in the absence of any reference to either weblogs or the weblog community, promoted the *news page* concept as an implementation of Jakob Nielsen's 'vertical portal vision' (Winer, 1999k).¹⁰⁵

Also on 24 May, technology journalist John Katz had a broadly sympathetic piece about weblogs published on *Slashdot* (Katz, 1999). The very same day Gillmor posted a glowing review of *Slashdot*, in which he claimed that weblogs were 'becoming increasingly popular, and for good reason' (Gillmor, 1999a), adding that he was 'planning to create my own version of a Weblog soon' (Gillmor, 1999a). He did not mention Manila in this column nor allude to the fact that Winer had 'been working with Dan on this project since May 24' (Winer, 1999y).¹⁰⁶ A few days later, on 28 May 1999, Scott Rosenberg made a strong case for weblogs in *Salon.com* (S. Rosenberg, 1999), defending the genre against its detractors in the working press. It was only in response to Katz and Rosenberg's respective articles, both of which identified *Scripting News* as a weblog, that Winer for the first time used the term 'weblog' as description of his news page, noting: 'In April 1997 I started one of the first weblogs, *Scripting News*' (1999m). This, however, did not amount to a ringing endorsement, as Winer equally dismissed weblogs as a passing phenomenon, predicting that they would 'enjoy their day in the sun, which looks like what's happening now, but even weblogs will disappear, will go the way of the portal' (Winer, 1999m).

More important than either Katz or Rosenberg for Winer's embrace of the weblog may have been Gillmor's decision to allow Winer to custom-build a site for him running on a beta version of Manila. As a respectable journalist working for a newspaper that had risen to national prominence

104 One member of the earliest weblog network happened to make the point the very same day: 'It's done, people. We (the people doing the weblogging) call them weblogs' (Anderson, 1999a).

105 The 'vertical portal' was by no means Nielsen's idea – it was one of the many phrases being discussed almost as soon as the big search sites began to redefine themselves as 'portals' in 1998, which occasioned many observers to call for smaller 'niche' portals as a more compelling alternative (see 12.3.2). Dan Gillmor, incidentally, wrote his own piece on the need of 'portals' to be more 'vertical' (1998).

106 In a column of 7 June, Gillmor previewed Manila, extolling its 'enormous potential' (Gillmor, 1999b), but did not mention the collaboration with Winer on what was to be Gillmor's *eJournal*.

thanks to its close-up coverage of a Silicon Valley's most recent boom cycle, Gillmor's embrace of the genre made it safe for Winer to embrace it too, and it offered an opportunity to portray himself as their champion, very much like the reference to the noted interface theorist Jakob Nielsen had allowed Winer to portray himself as the champion of the unsung 'news page' only a few days earlier. Winer had been working with weblogs as an interesting use case for the XML technology he had been working on, but it took some good press in late May 1999, and the willingness of an established, accredited journalist to start a weblog, before Winer ever wanted to present himself as a weblogger.

14.3.3 Climax: Barger and Winer fall out

In early 1999, despite his reservations stemming from the rejection of his suggestions in April 1998, Barger co-operated in Winer's NewsSearch and My.UserLand projects, which attempted to create search and, respectively, syndication interfaces to weblogs using XML. Barger participated in the discussions of the search engine and predicted that it 'should be a great success' (1999h). However, he was highly critical of the My.UserLand web syndication service, whose 'unusably short headlines' (Barger, 1999e) he considered a flaw that rendered it useless to him.

Winer and Barger fell out over the issue. On Winer's UserLand mailing list, Barger wanted to start a 'dialog about the problems with My.Userland's interface, which nobody I know finds usable' (1999l). Winer refused to take the criticism and asserted that Barger was disrespecting his 'abilities as a software designer' (Winer, 1999r). A telephone conversation between the two only exacerbated the situation, leading Winer to ban Barger from further participation in the UserLand mailing list (Winer, 1999r; Barger, 2000c).

The unresolved conflict impelled Barger to withdraw his support of Winer's products and to set up a discussion forum about weblogs independent of UserLand's mailing list. At the time of this crisis in July 1999, Barger had been thinking of himself as 'a leader among the growing network of weblogs' (Barger, 1998x) for more than a year, although none of his early 'attempts to create a forum for webloggers' (Barger, 1999g) had been successful. Shortly before falling out with Winer, Barger had been planning to set up a blogging course for beginners, as part of which he considered offering a 'group session on using Frontier' (Barger, 1999m). This 'group clinic for new webloggers' (Barger, 1999n) was going to be an assisted tutorial on how to use Winer's Frontier software as a blogging tool. Barger dropped this plan right after his altercation with Winer, however. In its stead, on 25 July 1999, he launched a usenet group for weblogs (Barger, 1999o). Finding its web interface poorly designed, he suspended the forum within days and re-launched it as a mailing list on 4 August (Barger, 1999q). This mailing list then blossomed into a forum frequented by dozens of webloggers, including many of the most seasoned practitioners of the craft.

Judging from his extensive usenet experience, Barger believed that the provision of a Frequently Asked Questions (FAQ) document would serve as a powerful boost to community formation (Barger, 1997y). Accordingly, he proceeded to compose his 'FAQ: Weblog Resources' (1999t), often re-

ferred to as the 'Weblog FAQ', posting it in September 1999 as a complement to his mailing list.¹⁰⁷ In this 'very informative & thorough' (Eaton, 1999c) compendium, Barger offered a definition of weblogs, along with a brief historical overview and links to additional resources. He mentioned *Scripting News* and gave Winer his due for having 'formalised many characteristics in 1997 by building them into the Frontier scripting environment' (1999t), but he pointedly refused to provide a link either to *Scripting News* or Frontier. Barger felt obliged to mention Winer, *Scripting News* and Frontier to keep the historical record accurate, but having decided to 'stop recommending Frontier to new loggers' (Barger, 1999l) as a direct consequence of his rift with Winer, he withheld any link to reinforce the point that he no longer endorsed any of Winer's products.

14.3.4 Falling action: Winer joins the weblog community

In the run-up to the Manila release, Winer noted with ample justification that weblogs had 'gotten some good ink in the last few months' (1999ah).¹⁰⁸ He was eager to capitalise on the acclamation, as he intended Manila to 'make a big splash (I hope!) in the weblog world' (Winer, 1999ac).

In October 1999 Winer noted Barger's 'Weblog Resources FAQ' (1999t) and joined Barger's *Weblogs* mailing list (Winer, 1999v). Upon joining the forum, Winer immediately pointed out his prior art in the field of weblogging: 'first was the News page for 24 Hours of Democracy, February 1996' (1999v). However, Winer felt that attitudes towards him were 'in some way dismissive' (Winer, 1999x). He believed that the webloggers were insufficiently appreciative of the contributions he had made, except for Wes Felter of *Hack the Planet*, who also happened to be a UserLand employee and 'one of the few people in the weblog world who points to my site with respect' (1999x). Despite the perceived lack of welcome, Winer wished 'to be part of this ring of weblogs' (Winer, 1999x).

Thus, Winer began to lavish praise on Barger as the first among the 'Gods of Weblogs' (1999az), and, calling him 'the best' (1999af), lauded his 'active and penetrating mind' (Winer, 2000ab). He also predicted a bright future to the leading webloggers of the day:

Popular weblogs such as The Obscure Store, Tomalak, Hack The Planet, CamWorld, and Robot Wisdom, are growing. I think, if the editors of these sites want to, they can become part of well-financed organizations.

I could see Jorn Barger editing the home page of a big newspaper someday, probably not too far down the road. It pays to be nice to these people, not just because their power is sure to grow, but because they're doing excellent work, and they're supporting the web, and that's something I can support. (Winer, 1999ae)

In trying to 'be nice' (1999ae) to Barger, Winer was hoping to initiate a collaboration in which, once

¹⁰⁷ A precursor of Barger's Weblog FAQ dates from January 1999 and appears to contain the first recorded use of the phrase 'weblog community' (1999d).

¹⁰⁸ After the initial flurry of coverage in May 1999, weblogging continued to get favourable press. The *New York Times* ran an article-length review of one weblog, Heather Anne Halpert's *YellowLemon*, announcing solemnly that it seemed to 'fulfill the original promise of hypertext more completely than most others on the Web' (Hafner, 1999). Another article in the paper of record claimed that weblogs were 'catching on with a discerning crowd' (Wang, 1999). After the weblog had been variously described in the press as a 'new type of medium' (Klimko, 1999), a 'burgeoning genre of online communication' (Battay, 1999) and the 'most promising new genre' (Keller, 1999).

they had reconciled their differences, they could ‘work cooperatively’ (Winer, 2000ab) and eventually ‘really soar’ (Winer, 2000ab). Consequently, he issued a ‘plea for friendship’ (1999ab) with Barger and suggested that they ‘be pals’ (1999ac).¹⁰⁹

Winer also praised Barger’s ‘Weblog FAQ’ (1999t) as a ‘great job’ (1999af) but was deeply irritated by the fact that the document ‘mentions Frontier and Scripting News, but doesn’t point to either’ (Winer, 1999ag). Resentful of the fact that ‘people don’t point to my site’ (1999x), he asked Barger to ‘point to UserLand sites on his WebLog FAQ’ (1999ad) because *Robot Wisdom*’s readers ‘deserve to know about Scripting News’ (2000ac). None of Winer’s calls to ‘point to each other’ (1999ab) went heard, however, as Barger chose to ignore them all.

Winer’s frustration over the missing endorsement link from Barger was heightened by Barger’s punctilious insistence on the table manners of link attribution as ‘good etiquette’ (Barger, 1998aa), which he had reaffirmed in his ‘Weblog FAQ’ (1999t). Winer, having been an outsider to the culture, discovered the widespread practice of link attribution only in early November (Winer, 1999aq). Trying it out for himself as a nod to Barger, he added two link attributions to a day’s postings (1999aj), yet lost his patience shortly after and came out emphatically against the practice, claiming that ‘no one owns a link’ (1999aq) and that ‘this kind of back-slapping is wasteful for the readers’ (1999aq). Winer, who had already denounced Barger’s leadership ideal as that of a ‘stinkin fascist dictator’ (1999ai), all but accused Barger of bullying: ‘Jorn’s barking about giving credit for links has scared anyone off from linking to anything he’s already linked to’ (1999bb). Hinting broadly that a ‘nice way to show appreciation is to link to the site in another section’ (1999aq), Winer maintained that endorsement links were preferable to credit links.

Shortly after the Manila release of November 1999, Winer complained that a fair portion of the press coverage that weblogs managed to attract was wholly derived from Barger’s FAQ and that, as a consequence of the missing endorsement link, the extent, depth and overall importance of his contribution was getting under-reported. Winer therefore held Barger’s ‘Weblog FAQ’ responsible for any ‘stupid weblog article’ (Winer, 1999ay) that appeared in the press and failed to be sufficiently appreciative of Winer’s contribution. Venting this frustration, he referred to ‘Jorn Barger’s xenophobic FAQ’ (1999ay). The adjective is telling: coming from one born-and-bred American and denouncing the work of another born-and-bred American, it says that Winer felt Barger’s non-endorsement, coming from the perceived leader of the weblog community, to brand him as an outsider to a collectivity he wanted to be part of, which was detrimental to his acceptance as a member of that collectivity, which in turn was damaging to the recognition of his work in the wider world. Winer thus saw Barger’s deliberately withheld links as a spiteful act designed exclude an outsider from full participation in the weblog community.

¹⁰⁹ Replicating his attempt to ‘be friends’ (2000ac) with Barger, Winer also made a public offer of ‘friendship’ (Winer, 2000af) to Brian Behlendorf, the chief developer of the Apache web server and a leader of the open source movement, when Winer had come to conclude that the combination of Apache with his own software would ‘spark a revolution’ (Winer, 2000ag). However, Behlendorf instantly rebuffed the offer on philosophical grounds (Behlendorf, 2000). The parallel suggests that Winer was seeking strategic alliances for his Frontier software, and that he regarded Barger as a leader of the same calibre as Behlendorf. It remains unclear, however, what kind of collaboration Winer foresaw with Barger. It bears pointing out that Winer initiated a working relationship with Gillmor in a very similar fashion.

In the face of Barger's missing endorsement, Winer eventually decided to create an alternative weblog FAQ to complement UserLand's new software and services. Three weeks prior to the Manila release, Winer announced that it would have been desirable to endorse Barger's FAQ 'as a fixture' (1999ak), but due to the problematic nature of that document, he was creating an alternative 'site with resources for people doing weblogs' (1999ak). On 28 December 1999 Winer thus published his own 'Weblog FAQ' (1999bj) under the title 'What Are Weblogs?' (1999bi), in which *Scripting News* was the first link to appear.

Winer's increasingly confrontational stance towards Barger was not limited to the FAQ, however. Winer also began to frame the issue of historical precedence as a challenge to Barger's authority, pointing out that he had run his weblog 'since 1997' (1999y) and insisting that it was not 'subject to debate which weblog was first' (2000aa). Winer also linked the question of historical precedence with the issue of popularity. With the advent of blog ranking sites in late 1999, Winer asked his readers to link to *Scripting News* to support his quest 'to be number one' (Winer, 1999ar) on one blog ranking site and voiced the suspicion that Barger might be illicitly promoting his own weblog on another (Winer, 1999ba). Winer shortly retracted the aspersion with an apology (Winer, 1999az), yet the incident highlights the extent to which Winer saw himself in open confrontation and competition with Barger now.

14.3.5 Dénouement: Barger withdraws

Barger did not take up the challenge. Ever since Winer's refusal in July 1999 to engage in a 'dialog about the problems with My.Userland's interface' (Barger, 1999l), Barger had refused to respond to any of Winer's advances, regardless of their substance. Winer appeared oblivious to the cause of Barger's intransigence, leaving him to 'wonder why' (1999ac) and to denounce the situation as 'the stupidest Cold War' (2000aa) he had ever known. In April 2000 Barger finally broke his silence towards Winer and demanded an apology for getting banned from the UserLand forum in July 1999, which was unacceptable 'as a way to deal with one of your users' (Barger, 2000d). In reply, Winer facetiously declined to offer any apology (2000ad) yet reiterated his request that Barger bury his grudge and 'point to Scripting News from your Weblog FAQ page' (Winer, 2000aa). At this point, Barger turned to the rest of the community, apparently looking for sympathy as he detailed the indignities the world repeatedly subject him to, especially its persistent attempts to 'squelch' (Barger, 2000e) him. But he almost immediately thought better of it and chose, on 12 April 2000, to shut down the forum without any warning (Barger, 2000f).

On 13 April 2000, the day after Barger shut down the Weblogs eGroup, Winer set up the Weblog2 eGroup as a replacement (Gardner, 2000). The new forum was one of 'three open lists for 'bloggers (weblogs2, weblogs_reborn, and weblogs-social, all on egroups)' (Lyke, 2000) that sprang up as potential successors to Barger's forum. One of them even kept going until February 2008 (Gardner, 2008), but none of them truly ever managed to recapture the legitimacy of the original list.

The subscribers to the original list were left to make sense of the unexpected termination of their

forum, and to explain ‘the Jorn-Dave rat-tat-tat that concluded the other list’ (Hartung, 2000). One opinion held that Barger had overreached in a manner typical of ‘self-appointed leaders’ (Gunderloy, 2000b). The prevailing sense, however, was bewilderment: Barger had ‘closed the list and no one really knows why’ (Kendall Clark, 2000).

The weblog network was not the same again. After the Weblogs eGroup’s closure, one former list member lamented ‘the loss of the small close-knit weblog community’ (Eaton, 2000b) as none of the group’s successors managed to re-capture the spirit of Barger’s forum and fill the void that its disappearance had left behind: ‘the original sense of connection of coming together with people who know what you do, understand it, and do it themselves is gone’ (Eaton, 2000b). Others took the occasion of the meltdown to state their opposition to Barger’s ‘normative notions of weblogging’ (Gunderloy, 2000b) and, indeed, to claim that Barger’s definition of the weblog ‘disagrees with almost everyone else’s’ (Smith, 2000). These comments highlighted the fact that several consecutive reinterpretations – not least the one that manifested itself so dramatically at the SXSW interactive festival only the previous month – had left Barger’s weblogging programme isolated as a minority position.

As Barger withdrew from the community, he reduced his weblog’s rate of updates and pondered timelines and hierarchical taxonomies as alternative structures for link sharing (Barger, 2003a). He felt that the new breed of weblogs dedicated to identity production had a ‘strong flavor of self-absorbed narcissism’ (Barger, 2000h) and chose to stay ‘blissfully ignorant’ (Barger, 2001a) of their further development.

Some two years after shutting down the forum, Barger looked back at the incident and denounced Winer’s refusal to apologise as ‘infinitely amoral’ (2002b). Eventually he insisted that *Robot Wisdom* was ‘still the only proper weblog’ (Barger, 2007e), thereby disowning even the original weblog community he had conceived, started and raised. In another ten-point list compiled on the occasion of *Robot Wisdom Weblog*’s tenth anniversary, he re-affirmed the unreconstructed orthodoxy of his rule set: he claimed that ‘a true weblog is a log of all the URLs you want to save or share’ (Barger, 2007g) and elevated the observance of this principle to a matter of moral probity: ‘you can certainly include links to your original thoughts, posted elsewhere ... but if you have more original posts than links, you probably need to learn some humility’ (Barger, 2007g).

14.4 Discussion

Powazek’s essay of January (2000a) and the SXSW panel he moderated in March proclaimed the view, shown by the incident of Ben Brown’s intervention to be widely held, that weblogs were becoming ‘the new homepages’ (Powazek, 2002, p. 265) in that their exigence was no longer considered to be social resource discovery but conventional identity production. If Gillmor, while running a ‘continuing diary of what looks interesting to me’ (1999e) was unconcerned about the provision of links (see 13.2), Powazek was openly hostile to Barger’s rule set: Denouncing it as ‘fundamentalist’ (2000b), he welcomed its decline. Ultimately, Powazek’s appropriation of the weblog as ‘a place where you put your voice online, updated frequently’ (Powazek, 2000b) explicitly

stated the undercurrent of pure identity production which had been present all along in Barrett's intention of 'educating those who have come to know me about what I feel is important' (1999g). The victory that Powazek celebrated over Barger's rule set depended on the fact that Barrett had never fully embraced it and had chosen to alloy it with ingredients of the web zine genre (see 13.1).

The permalink emerged from the weblog's redefined exigence as championed by Powazek. Introduced by scripters such as Gunderloy and Mulligan and popularised by the Pyra developers, the permalink enfranchised the blog post as a first-class citizen in the republic of identity production.

The introduction of the permalink in early 2000 concluded a process of genre formation that had been afoot since 1997: it introduced a new equilibrium to a publishing structure that had been destabilised by Barger's original act of appropriation. The 'curiously effective mix' (Bernstein, 1998a) of Winer's default site model, in which the news page had acted as an access structure to the writing space of a *large dynamic site with lots of authors*, had now been transformed into a writing space in its own right in which writing appeared both as a stream of posts and as archival instances of these posts. The permalink, by rendering a post addressable, confirmed the reverse-chronological structure's new status as a writing space by dignifying the items in the stream as objects that deserved such addressability, dedicated to the communicative purpose of identity production as reclaimed by the zine editors. The emergence of the permalink concluded the process of genre formation,¹¹⁰ having involved several layers of appropriation being superposed on Winer's news page design, sealing the practice of blogging in its eventual form. It marked the end of the genre's formative years that were dominated by Barger's rule set and weblog programme.

Coincidentally, the point at which the permalink brought a new equilibrium to the weblog and redefined it as a writing space turned out to be the point at which Barger and Winer parted ways, as Barger withdrew from the network he had conceived, started and nurtured. Barger's conflict with Winer bore a marked similarity to his conflict with Dutton (see 12.5.3), as both disagreements involved the social dynamics of linking. The relations between Dutton and Barger soured over the credit links Dutton refused to offer, as Barger rejected Dutton's credit link as an insufficient substitute. Barger's conflict with Winer turned on the endorsement Barger refused to proffer. If the former conflict came down to a disagreement about the nature and process of editing, the latter amounted to a clash of two personalities, each with a strong investment in an agenda that was incompatible with the agenda of the other.

Winer and Barger never fought over the actual substance of their disagreement: Barger never defended the definition of the term *weblog* against Winer's appropriation of its meaning as a synonym for his content management programme. Winer aspired to 'provide software to people who do weblogs' (Winer, 1999ae) for the reason that 'blogs have been getting lots of press' (Winer, 1999y). In

¹¹⁰ The innovation of the permalink, the provision of persistent per-item addressability in a stream of blog posts, has repeatedly been discussed in terms of its new affordances. It was first highlighted by Paul Bausch, Matt Haughey and Meg Hourihan in their discussion of the "post paradigm" (2002, p. 91) that allowed writers to 'participate in distributed conversations across weblogs' (Hourihan, 2002). Following these authors, David Galbraith praised permalinks as a 'key to the semantic web' (2002), and Tom Coates hailed the permalink as 'the device that turned weblogs from an ease-of-publishing phenomenon into a conversational mess of overlapping communities' (2003). Similarly, Rebecca Blood claimed that they 'elevated Weblog commentary to a legitimate form of discourse' (2004, p. 55).

doing so, Winer rejected Barger's rule set and weblog programme: he 'co-opted' (Barger, 2009b) the term *weblog*, yet Barger did not fight. Instead, he 'retreated to joyce [sic!] studies and the history of ideas' (Barger, 2006c). Throughout his travails as an online activist, Barger had been looking for or build the forum that, according to his narrative of exclusion (7.2) he was denied at ILS. He had managed to build such a forum in the Weblogs mailing list when Winer entered the forum with a claim to leadership. After the heated altercation with Winer in April, Barger briefly considered discussing his narrative of exclusion with the group (2000e). Instead, he shut down the forum and eventually refashioned the narrative in his anti-Jewish polemic (see 7.4).

The rift between Barger and Winer was one reason why the discourse network of the weblog was never a 'cohesive unit' (Blood, 2002b, p. 101), nor did it ever adhere to a set of stable 'primary values' (Blood, 2002, p. 154). The network was born out of a definitional crisis from the début of *Robot Wisdom Weblog*. This crisis originated in Barger's appropriative attempt to prise the news page feature loose from the *large dynamic site with lots of authors* model that defined Winer's collaborative web content management programme (see 10.3) and Frontier's default site model (10.8) of which the news page was a constitutive element. Barger's idea that 'web magazines ought to be completely unconcerned about *hosting* content' (Barger, 1998e) aimed to reinterpret Winer's news page concept, to turn it into a stand-alone publication that was governed by a programme of social resource discovery and a distributed community model of commons-based peer production. Barger managed to realise his ambition to some extent: in 1998, he convened a following, the primal discourse network of the weblog, in which his social resource discovery programme was largely observed (11.4.6). Throughout 1999, the consecutive appropriations of Barger's weblog model by leading figures such as Barrett and Winer, reinforced by Powazek's challenge of early 2000, the definition of the weblog came to be assimilated to the generic conventions of the zine.

In April 2000 Winer followed the lead of Powazek and his friends when he conflated *DaveNet* and *Scripting News* (see 5.3) and, working amidst a 'churning pot of weblogs' (Winer, 2000ag), vowed to funnel all his writing 'into one flow' (Winer, 2000ag), thereby dedicating *Scripting News* unambiguously to the identity production which *DaveNet* had been dedicated to for years.

15 Conclusion

None of the three early retrospective self-reported accounts of the weblog's emergence offer a reliable history of the genre; neither Jorn Barger's list of successive sites, nor Rebecca Blood's narrative of spontaneous community formation and disintegration at the hands of automated platforms, nor Dave Winer's claim of having 'bootstrapped blogging' all on his own (see 2). The various subsequent histories have mixed and matched various aspects taken from these accounts, yet they have failed to question the assumptions they are based upon. Neither did any of the subsequent histories pause to note that the various self-reported accounts do not add up to the linear, internally self-consistent narrative which the derivative histories purport to be.

This thesis, by contrast, works from contemporaneous archival source material, and examines the weblog's process of genre formation as diffusion of innovation within a heterogeneous discourse network. It describes this process as a series of several consecutive and cumulative reinterpretations of the emerging genre's form and communicative purpose up until the year 2000, effected for the most part by the most central actors in the network.

15.1 A genealogy of the weblog

The genealogy presented in this thesis is not concerned with fitting its object of study into prefabricated structural categories such as *reproduced* versus *adapted* or *novel* as posited in conventional genre theory, nor in glorifying its alleged *novel* status as 'native' (see 3.2). Instead, it examines the archival record to seek out the specific continuities and discontinuities with earlier formations. Studying a discourse network (see 3.2), it seeks to understand the genre's emergence as a process in which its norms, including its community model, are negotiated between various and often conflicting actors and traditions within a heterogeneous network. Specifically, this thesis identifies a cycle of genre formation in which Jorn Barger initially sought to define the weblog and differentiate it against the prior genre of the web zine by radically reinterpreting Dave Winer's content management programme as a social resource discovery programme. Later in the same cycle, it is found, Cam Barrett initiated a series of subsequent reinterpretations of Barger's programme in which the emerging genre of the weblog was blended with generic norms pertaining to the zine genre.

15.1.1 Dave Winer and Jorn Barger

The genealogy of the weblog is dominated by the two most central actors in its network, Dave Winer of *Scripting News* and Jorn Barger of *Robot Wisdom Weblog*, two programmers who both were in their forties at the time they launched their respective websites in early 1995, who had followed vastly different career paths (see 4 and 6), yet who shared both a sense of the web's revolutionary promise and a commitment to the cyber-utopian ideals that had come to the fore in the previous decade (see 8).

15.1.2 Dave Winer

The genre formation process of the weblog played out against the backdrop of Winer's effort to create writing tools for the web. After a period of experimenting with desktop applications, this effort resulted in a collaborative content management programme (see 10) which Winer announced in April 1996, and which he pursued as his company's strategic direction until the collapse of the dot-com economy in 2000, when he was forced to re-evaluate its economics and adjust its reliance on centralised servers. For most of this period, Winer maintained two separate online publications: *DaveNet*, a series of editorialising essays he wrote and posted at irregular intervals, whose primary distribution was via e-mail, but whose web archives answered the definition of the web zine genre, especially in the genre's consensual purpose of identity production (see 4). *Scripting News*, initially consisting of annotated web links which were presented as daily, date-stamped batches in reverse-chronological order, descended from Winer's earliest changelogs – a programmer's development and maintenance record of a software project – and evolved towards its eventual communicative purpose of identity production only slowly and in a highly ambiguous fashion (see 5).

Both *DaveNet* and *Scripting News* were an integral part of *Scripting.com*, which served as the flagship implementation of Winer's content management programme, whose default site architecture Winer chose to model on *HotWired*, a successful web zine of the day, from February 1997.

Even as Winer sought to break into the lucrative high-end market in content management systems, the temporary availability of his software at no charge between 1995 and 1998 resulted in a seizable user base among students, hobbyists, and small-time developers. A number of these users implemented the default site of Winer's software as personal websites, retaining the division between an essays section such as *DaveNet* and a 'news page' such as *Scripting News* (see 11.1).

As these sites sprang up in 1997, their respective 'news pages' continued to be viewed as a feature of the overall site model, and nobody initially suggested, least of all Winer himself, that these news pages should form a network. Being firmly invested in the zine genre and his company's content management programme, there was nothing in Winer's work that would have anticipated the emergence of a distributed network of news pages.

15.1.3 Jorn Barger

Chris Gulker of *Gulker.com* first reinterpreted the news page of Winer's zine model as a potential node in a network of news pages and started to compile a list, the 'News Page network', in October 1997. Gulker's list expressed an idea but remained aspirational: it did not describe a network that was engaged in routinised interaction yet (see 11.3). It was Jorn Barger, while setting up *Robot Wisdom Weblog* in late 1997 and while lobbying for others to follow his example, who explicitly isolated the news page feature from Winer's content management programme and articulated a coherent programme in which the news page, newly dubbed *weblog*, would follow a rule set that he spelled out and that would support a distributed network dedicated to social resource discovery. The network would pursue a commons-based peer effort of 'filtering the web' and would cohere through the novel practice of crediting 'borrowed' links to where they were found on other weblogs (see

11.4). Barger, who was driven by a strong personal need of network cultivation relating to a heterodox AI research agenda he was pursuing outside of academic institutions (see 6), expended considerable effort on bringing this network into existence. He was assisted by early adopters: Steve Bogart of *Now This*, who was the first to adopt Barger's innovation of link attribution in April 1998 (see 11.4.4); Raphael Carter of *Honeyguide Weblog*, who was the first among a group of others to adopt Barger's rule set wholesale in May 1998 (see 11.4.5), and Michal Wallace of *Sabren*, who was the first to discuss and promote Barger's scheme on his own website for the remainder of the year, and whose enthusiasm eventually inspired Cam Barrett of *CamWorld*, a long-time news page maintainer, to adopt the term *weblog* and its associated rule set in January 1999 (see 12.4).

While Barger's adoption of Winer's news page and his redefinition of the news page as a 'weblog' involved only the few comparatively minor points of hypertext design that he summarised in his rule set, his overall re-conceptualisation of the reverse-chronologically ordered and date-stamped data structure as the central plank of a social resource discovery programme was a bold re-interpretation of Winer's content management programme.

15.1.4 Cam Barrett

Cam Barrett in his influential essay of January reinterpreted Barger's social discovery programme for his part, in a way that supported the rule set yet ignored its commons-based community model, as he preferred to abide by the site-centric community model of the zine genre. Barrett also failed to attribute the rule set to Barger, claiming ignorance of its provenance (see 13.1).

The effect of Barrett's reinterpretation, especially as amplified through Jon Katz' *Slashdot* article of May 1999, which construed the weblog's community model as a closed, exclusive, site-centric one in the tradition of the web zine, can be observed in the technology journalist Dan Gillmor's *eJournal* (see 13.2). Gillmor's weblog was not predicated on the idea of a link-sharing commons, but of enabling its readers to provide feedback on Gillmor's materials before he committed them to his weekly newspaper column.

If Barrett's reinterpretation of Barger's programme in January 1999 extended only to its community model, it also opened the door to further reinterpretation, such as challenges to its rule set. Thus, Winer dismissed the link attribution rule and implied that the whole rule set was irrelevant (see 14.3). In early 2000, the noted web designer Derek Powazek was the first to mount a widely discussed attack on the concept of social link discovery as such, and to assert that the weblog's communicative purpose was identical to the communicative purpose which the web zine genre had been serving all along: identity production. A weblog panel moderated by Powazek at the SXSW festival in March 2000 proved largely sympathetic to this view (see 14.1).

The interface feature of the *permalink* provides the archival instance of every blog post with a linkable identifier. Although permalinks had been implemented earlier, their widespread adoption was gathering pace right after Powazek's panel (see 14.2). Their adoption recognised and normalised the view of the blog post as 'content' in its own right, as having intrinsic value rather than merely referential value.

The introduction of the permalink brought a cycle of genre formation to its close which had started with Barger's reinterpretation of Winer's content management programme and the substitution of his social resource discovery programme in its place. If Barger's initial act constituted an attempt to differentiate the weblog against the prior web zine genre, subsequent reinterpretations of Barger's programme, starting with Barrett's appropriation of January 1999, partially reversed Barger's programme. Barrett's reinterpretation of Barger's social resource discovery programme was less radical by far than Barger's reinterpretation of Winer's content management programme: in effect, it merely challenged the community model of Barger's weblog programme while asserting the continued relevance of the site-centric community model of the zine genre. Regardless, Barrett's support of the weblog concept greatly contributed to the popularisation of Barger's programme, yet also started a process in which it was successively and cumulatively blended with various elements pertaining to the web zine genre. Barrett's admixture of the zine's site-centric and often 'closed' community model was the beginning of this reinterpretation: Powazek's eventual rejection of the social resource discovery programme in favour of identity production was its plausible continuation. Powazek's stance effectively announced that the essay space and the news page stream, which were strictly divided in Winer's implementation of his content management programme in 1997, were now merged into one: a writing space organised as a stream of updates, dedicated to the communicative purpose of identity production.

Winer's announcement to pour all of his *DaveNet* writing into *Scripting News* (see 5.3) ratified the weblog as a writing space dedicated to identity production and thereby betokened the closing of this cycle of genre formation. Barger's dramatic disavowal of the 'weblog community' in April 2000 (see 14.3) conveyed the same point with distinctly less enthusiasm for the outcome.

15.1.5 Discussion

Contrary to the descriptions of a homogeneous 'original' community that gathered around a 'native' emerging genre (see 2.2), the discourse network of the weblog was heterogeneous from its inception, spanning divergent conceptions of the generic rules under which it operated. Barger's reinterpretation of Winer's content management programme in early 1998 and Barrett's reinterpretation of Barger's social resource discovery programme in early 1999 each amounted to a crisis of the discourse network. Both of these crises were as divisive as they were defining, and both of them preceded the sole conventionally acknowledged crisis in the history of the early weblog, the emergence of Blogger and its allegedly disruptive effect (see 2.2). The genealogy presented in this thesis envisages the string of consecutive and cumulative reinterpretations of the discourse network's norms as constitutive of an intrinsically fraught and heterogeneous genre.

The emerging weblog reinterpreted the web's writing space from a reliance on the page as its primary structuring device to an acceptance of the stream of updates as its preferred structure, turning the web, in Tim Bray's pointed description, 'from a library into an event stream' (2005). This development may have been as fundamental a transformation in digital textuality as any that could be observed over the last two decades: Barger's social discovery programme and its notion of 'fil-

tering the web' may have receded into the background as only one of the genre's affordances, yet the turn from the page to the stream of updates may have been the lasting legacy of the developments described in this thesis.

15.2 Contribution, limitations and further research

This thesis in its present state bears the marks and bruises of the largely exploratory work that went into its making. In its lack of refinement and occasional crudeness it also testifies to the pressures of doing time-consuming archival work under strict deadlines.

Unexplored issues pertinent to the subject of this thesis include the web genres that preceded the emergence of the weblog, especially online journals and web zines (Blood, 2002, p. 40, 2004, p. 54), both of which promise rich pickings for further research. Even as the zine genre is recognised in this thesis as a crucial piece of background against which the weblog arose, the emergence of the online journal and its early interaction with the weblog is an area which could profitably be studied, not least for the gender aspects involved (cf. Siles, 2012).

The emergence of blog ranking services and of web syndication technology are issues closely related to the subject of this thesis, as are the evolution of blogging software, which, in addition to Blogger, include Greymatter and Movable Type, all of which would make suitable objects of further study.

In an area hitherto dominated by uncritical reception of retrospective self-reported accounts, it is hoped that this thesis might strengthen the case for sustained archival research and critical readings of 'the stories told in digital materials and among them most significantly archived Web materials' (Brügger & Finnemann, 2013, p. 79). As 'web history is still an emerging and unclearly defined field of study' (Brügger, 2010, p. 1), it is further hoped that this case study might help expedite the emergence and evolution of the field, and even contribute, somewhat, to its definition.

16 Appendices

Presented below are a few lists that complement the main part of the thesis: a timeline, a roundup of Jorn Barger's various presentations of his research agenda, and a note on my contributions to Wikipedia.

16.1 Thesis Timeline

Some of the key events discussed in this thesis are highlighted in the following list, presented in chronological order.

- 1988:** Dave Winer founds his second company, UserLand, to develop a scripting environment named Frontier (Swaine, 1991).
- Apr 1989:** UserLand releases its first product, an interprocess communications toolkit (E. Dyson, 1989).
- Sep 1989:** Barger is hired as a programmer at the Institute of Learning Sciences, an AI unit at Northwestern University, Chicago, (Barger, 1993h) after 'a series of jobs doing arcade [game] conversions for Apple, Atari, and Commodore micros' (Barger, 1996a).
- 31 Dec 1992:** Barger is dismissed from Northwestern (Barger, 1993ac).
- Dec 1993:** Dave Winer 'retired from the software business' (Winer, 1997bw), feeling defeated by Apple's introduction of AppleScript (Winer, 1999i).
- 24 May 1993:** Jorn Barger embraces Usenet as an alternative to academia, invoking the 'hacker ethic' (Barger, 1993n) as a model.
- Jul 1993 to Apr 1994:** Jorn Barger repeatedly posts his research project of a story element indexing scheme to *comp.ai* (Barger, 1993q, 1993v, 1994d) yet fails to generate any discussion.
- 20 Mar 1994:** Jorn Barger pleads with *comp.ai* to take an interest in his research (Barger, 1994b).
- 22 May 1994:** Jorn Barger posts a summary of his research hypothesis on James Joyce to *comp.ai* (Barger, 1994g) yet fails to attract any discussion.
- 27 Jun 1994:** Jorn Barger posts the 'Version 1' release of his AI manifesto (Barger, 1994j), to be followed by many reposts over the following years and a prolonged effort to build a following around his research agenda.
- Summer 1994:** Dave Winer returns to programming.
- Oct 1994:** Dave Winer takes up email automation as a new project and, under the name *DaveNet*, starts mass-mailing unsolicited, semi-regular opinion-pieces to his industry contacts (Winer, 1994a). Winer reinvents himself as an Internet personality with two rambunctious mailings, 'Bill Gates vs the Internet' (1994c) and 'Platform is Chinese Household' (1994h).
- Nov 1994:** During the San Francisco newspaper strike (Bialik, 2004), Winer helps the striking staff automate the production of their website (Winer, 1994i). Chris Gulker introduces Winer to the use of Frontier as a web publishing tool and inspires him to develop his own scripts (Winer, 1994j). Winer names web publishing as his new business focus (Winer, 1994k).
- 1 Jan 1995:** Winer introduces web archives for his *DaveNet* mailings (Winer, 1995a).

- 20 Jan 1995:** Chris Gulker sets up Gulker.com.
- Feb 1995:** Jorn Barger launches his website, offering materials on James Joyce and on hypertext, turns to the *alt.hypertext* newsgroup to discuss his ideas on hypertext (Barger, 1995d).
- 26 Apr 1995:** Dave Winer decides to ‘free Frontier from the constraints of the commercial world and make it available thru the Internet’ (Winer, 1995ai).
- 9 May 1995:** Dave Winer starts releasing Frontier free of charge (Winer, 1995aj).
- 25 May 1995:** Dave Winer signs on at *HotWired.com* as a ‘contributing editor’ (Winer, 1995al) and has his *DaveNet* columns carried by the web zine.
- 1 Aug 1995:** Michael Sippey launches *Stating the Obvious* as a weekly web zine.
- 8 Feb 1996:** Rick Smolan holds *24 Hours in Cyberspace*, a one-day publishing event running ‘the world’s biggest website and the most elaborate journalistic experiment in history’ (Halfhill, 1996).
- Feb 1996:** Dave Winer organises *24 Hours of Democracy*, a participatory online protest event against statutory restrictions on free speech. Due to the limitations of his web publishing tools, he ‘couldn’t handle’ (Winer, 1997a) a degree of centralisation even remotely like Smolan’s site.
- 15 May 1996:** Dave Winer repurposes Frontier as a content management system and defines its intended market as ‘large sites that are dynamic with lots of authors’ (Winer, 1996ak).
- 1 Jun 1996:** Dave Winer halts the redistribution of his *DaveNet* pieces by *HotWired* (Winer, 1996ai).
- 22 Jan 1997:** Dave Winer releases Frontier 4.2 (Winer, 1997c), featuring the NewsPage module (Winer, 1997h), which automates the creation of date-stamped, reverse-chronologically ordered posts with plenty of hyperlinks. ‘
- 1 Feb 1997:** Citing Macintouch.com and Hotwired.com as models (1997i), Dave Winer creates Scripting News using NewsPage: ‘The home page of www.scripting.com became the News page for the site’ (Winer, 1997k).
- 12 – 14 Mar 1997:** Dave Winer runs a successful news page for Apple at the Internet World trade show (Gulker, 1997b).
- 27 Mar 1997:** Dave Winer advises against separating news pages from Frontier’s default site model and affirms his intention to stick with a centralised web zine format (Winer, 1997ak).
- 1 May 1997:** Steve Bogart launches his Frontier site with a news page (Bogart, 1997a) and sets out to ‘filter’ the web (Bogart, 1997c). The site includes a ‘Scribbles’ section modelled on *DaveNet*.
- 5 May 1997:** Chris Gulker launches his news page and identifies the possibility of a News Page network: ‘News Pages proliferate [...] and cross refer!’ (Gulker, 1997c).
- 28 May 1997:** Michael Sippey adds ‘Obvious Filter’ (Sippey, 1997c) to *Stating the Obvious*, a feature patterned after Winer’s news page (Winer, 1997bh).
- 11 Jun 1997:** Cam Barrett launches his web site *CamWorld* with a news page modelled on *Scripting News* and a ‘Rants’ section modeled on *DaveNet* (Barrett, 1997).
- 11 Sep 1997:** Jorn Barger identifies Macintouch.com’s front page as an ‘emerging paradigm for web hypertext’ (Barger, 1997ac).
- Oct 1997:** Chris Gulker puts a list of ‘The News Page network’ in his site’s sidebar (Gulker, 1997l).
- 15 Dec 1997:** Jorn Barger praises *Scripting News* as the ‘ideal prototype for Internet info exchange’ (Barger, 1997al).

- 17 Dec 1997:** Using Frontier, Jorn Barger launches *Robot Wisdom Weblog*.
- 25 Dec 1997:** Jorn Barger recommends that all dedicated web users should maintain a weblog and predicts that within a year there will be ‘hundreds of people maintaining pages like this’ (Barger, 1997ap).
- 5 Jan 1998:** Jorn Barger discovers Gulker’s NewsPage network compilation, celebrates it as a ‘whole list of *other weblogs*’ (Barger, 1998b).
- 24 Jan 1998:** Jorn Barger presents a six-point ruleset for weblogs (Barger, 1998d).
- 24 Jan 1998:** Jorn Barger discusses the news page as separate from Frontier’s default site model and dedicates it to social resource discovery in proposing a network of webloggers who are ‘unconcerned about *hosting* content’ and ‘re-filter’ each others’ links (Barger, 1998e).
- Feb 1998:** Chris Gulker last updates his News Page list (Gulker, 1998a), bringing its final tally to 12 members.
- Feb 1998:** Jorn Barger explores Gulker’s network list and introduces link crediting to mark links gleaned from its member sites.
- 27 Feb 1998:** Jorn Barger hails a ‘new network of web-surfers who maintain newspages’ (Barger, 1998m).
- 24 Apr 1998:** Steve Bogart adopts link attributions from Barger (Bogart, 1998e).
- May 1998:** Weblogs patterned after Barger’s model begin to appear.
- 4 May 1998:** Steve Bogart identifies webloggers as ‘the merry band of linkers’ (Bogart, 1998g).
- 24 Jun 1998:** Dave Winer releases Frontier 5.1 in Windows and Mac versions, returning the software to a for-pay licensing scheme (Userland, 1998b).
- 25 Jun 1998:** Jorn Barger claims to be ‘a leader among the growing network of weblogs and news-pages’ (1998x).
- Jul 1998:** Jorn Barger posts a web page featuring an extended rule set for weblogs, including link attribution (Barger, 1998aa).
- Sep 1998:** Denis Dutton launches *Arts & Letters Daily* as a ‘portal site’ (Dutton cited in: Mirapaul, 1998) and has it celebrated as a ‘rich academic weblog’ (Barger, 1998ag).
- Nov 1998:** Raphael Carter launches the weblog directory on dmoz.org (Carter, 1998e).
- 11 Nov 1998:** Michal Wallace posts ‘Notes for a microportal taxonomy’ (Wallace, 1998r), the unattributed source and occasion of Cam Barrett’s ‘Anatomy’ (1999b).
- 22 Nov 1998:** Bill Humphries identifies weblogs as a ‘movement’ (Humphries, 1998b).
- Dec 1998:** Michal Wallace adds a list of ‘presurfers’ (Wallace, 1998v) to his sidebar which recalls Gulker’s list of the newspaper network and prefigures Cam Barrett’s of January 1999.
- 17 Jan 1999:** Jorn Barger coins the term *weblog community* and states that the running of a weblog confers membership (Barger, 1999d).
- 26 Jan 1999:** Cam Barrett publishes a widely read essay in which he accepts ‘weblog’ as the generic term for his news page and endorses Barger’s weblog rules as an established consensus, but without naming Barger as the source (1999b). He complements the essay with a list of weblogs in his sidebar (Barrett, 1999c) which becomes authoritative for a while.
- 26 Jan 1999:** Jorn Barger escalates a simmering conflict with Denis Dutton over link attributions (1999b).
- Feb 1999:** Denis Dutton rejects the term ‘weblog’ as a description of *Arts & Letters Daily* (Dutton, 1999a).
- 1 May 1999:** web zine author Leslie Harpold dismisses weblogs as a fad (Harpold, 1999).
- May 1999:** Technology journalists begin writ-

- ing about weblogs (Katz, 1999; S. Rosenberg, 1999).
- 24 May 1999:** Dan Gillmor discusses weblogs in his newspaper column and announces his intention of starting a weblog himself (Gillmor, 1999a).
- 24 May 1999:** Winer identifies browser-based editing as the defining feature of the next Frontier release (Winer, 1999l).
- 28 May 1999:** web zine author Ben Brown dismisses weblogs as ‘that much lint in all your navels’ (Brown, 1999).
- 9 Jun 1999:** Derek Powazek denounces weblogs as mere link lists with ‘snarky comments’ (Powazek, 1999).
- 24 Jul 1999:** Jorn Barger and Dave Winer fall out over Barger’s criticism of Winer’s design choices and Winer’s decision to ban Barger from the Frontier mailing list (Barger, 1999l; Winer, 1999r).
- 25 Jul 1999:** Jorn Barger launches a newsgroup for weblogs (Barger, 1999o).
- 4 Aug 1999:** Jorn Barger abandons the newly started newsgroup and uses a mailing list to relaunch the ‘weblogs community’ (Barger, 1999r).
- 23 Aug 1999:** Blogger.com launches (E. Williams, 1999).
- Sep 1999:** Jorn Barger posts an introduction to weblogs in FAQ form which gives credit to Winer but pointedly refuses to link to him (Barger, 1999t).
- 6 Oct 1999:** Dave Winer joins Barger’s *Weblogs* mailing list (Winer, 1999v).
- 23 Oct 1999:** Dave Winer expresses his wish ‘to be part of this ring of weblogs’ (Winer, 1999x).
- 25 Oct 1999:** Dan Gillmor launches his *eJournal* weblog, running on a pre-release version of Manila that Winer customised for him (Gillmor, 1999e).
- 11 Nov 1999:** Dan Gillmor’s weblog is criticised for failing to comply with the established rules that govern weblogs (Cadenhead, 1999a).
- Dec 1999:** Permalinks debut as a new feature (Chess, 2000).
- 1 Dec 1999:** Winer releases Frontier 6.1 (Winer, 1999au), including the Manila server which, thanks to its browser-based editing interface, he expects to become the ‘word processor for the Internet’ (1999z).
- 4 Dec 1999:** Dave Winer launches EditThisPage.com as a promotional give-away of free Manila accounts to a limited number of people for a limited period of time (Winer, 1999av).
- 22 Dec 1999:** Dave Winer decides to open *EditThisPage.com* to all comers for the ‘indefinite future’ (Winer, 1999be) and to prioritise growth over working out a sustainable business model (Winer, 1999bg).
- 4 Feb 2000:** At the World Economics Forum in Davos, Winer discusses *Edit This Page* as his flagship project, putting it forward as a model of how to make money on the internet (Winer, 2000i).
- 17 Feb 2000:** Derek Powazek challenges the conventional purpose of weblogs as social resource discovery and redefines it as identity production: weblogs were about ‘real people, putting their lives online’ (Powazek, 2000a).
- 14 Mar 2000:** Derek Powazek moderates the weblog panel at the SxSW Festival in Austin, Texas. The panel discusses Powazek’s critique that conventional weblogs have nothing to offer but ‘a snarky comment and a link’ (Champeon, 2000).
- 14 Mar 2000:** Ben Brown holds a passionate speech against weblogs at SxSW and is surprised to find most bloggers in agreement with his call for identity production rather than social resource discovery (Brown, 2000; Champeon, 2000).

12 Apr 2000: Barger closes the Weblogs mailing list after Winer refuses to acknowledge the grievances Barger had been nursing since their fallout in July of the previous year (Barger, 2000f). He withdraws from his project of the ‘weblog community’ and subsequently accuses the new breed of weblogs dedicated

to identity production of ‘self-absorbed narcissism’ (Barger, 2000h).

24 Apr 2000: Dave Winer announces his decision to funnel all his writing ‘into one flow’ (Winer, 2000ag), meaning that the discursive writing of *DaveNet* would now be part of *Scripting News*.

16.2 Barger’s Manifestos

Jorn Barger repeatedly posted statements to usenet and to the web in which he aimed to provide an overview of ‘the “big picture” as I see it’ (1995az). These statements, often purporting to be FAQs, presented his research agenda with a view to raising a ‘community of interest’ (Barger, 1994b) around this programme.

The ‘Short Course in AI’ (1994j) is the manifesto Barger circulated most widely, with known reposts counting in the dozens. The ‘New Game FAQ’ (1996al) was reposted at least a dozen times. There are less frequently reposted statements that work along the same lines yet do not claim FAQ status. This appendix provides a list of Barger’s manifestos on a best-effort basis as gleaned from Google’s usenet archives: no assurances are made about the completeness of the listings as Google’s usenet archives are incomplete and its search interface is broken in many ways.

16.2.1 A short course in AI (1994)

Barger posted ‘A short course in AI’ (1994j) from a sense of frustration with the academic response to his AI writings (see 6.5). In addition to reposting this manifesto to a number of usenet groups, Barger also distributed it via his FTP site, which he advertised in his signature file with every usenet post. Within months of its first appearance, he extended its distribution from comp.ai to other newsgroups, especially *rec.arts.books*, where, starting in September 1994, he would post it under the title ‘A.I. as if literature matters’ (1994v). He also reposted the same piece as the ‘Outsider’s guide to AI’ (1995bg) and prepared a web branch of the document to mark the launch of his *Robot Wisdom* site in February 1995, offering the ‘WWW-version’ (1995g) as a ‘hypertext tutorial’ (Barger, 1995d), which he kept updating until the final revision of August 1999 (1999p).

The following list of known instances is sorted in chronological order:

26 May 1994: ‘Comp.ai.imho FAQ (Version 0, seriously incomplete)’. *comp.ai* (1994i)

27 June 1994: ‘Comp.ai.imho FAQ (Version 1): A short course in AI, with net-pointers’. *comp.ai* (1994j)

1 Jul 1994: ‘Info on Doug Lenat’. *comp.ai* (1994k)

13 Jul 1994: ‘Comp.ai.imho FAQ (v1.1,

slightly expanded)’. *comp.ai* (1994l)

28 Jul 1994: ‘Comp.ai.imho FAQ (Version 1.1): A short course in AI, with net-pointers’. *comp.ai* (1994m)

3 Aug 1994: ‘What is Cyc?’. *rec.arts.books* (1994n)

13 Aug 1994: ‘1.3: Comp.ai.imho FAQ (Version 1.3)’. *comp.ai* (1994o)

- 28 Aug 1994:** 'Looking for info on 'PSYCH?'' . *comp.ai* (1994p)
- 6 Sep 1994:** 'Comp.ai.imho FAQ (Version 1.4)' . *comp.ai* (1994s)
- 7 Sep 1994:** 'A.I. as if literature mattered (long)' . *rec.arts.books* (1994t)
- 30 Sep 1994:** 'A.I. as if literature matters' *rec.arts.books* (1994v)
- 12 Oct 1994:** 'FAQ: comp.ai.imho FAQ (Was: easy reading ai)' . *comp.ai* (1994w)
- 22 Oct 1994:** 'Help: pointers: CYC' *comp.ai* (1994x)
- 18 Nov 1994:** 'The CYC Project!' *comp.ai* (1994y)
- 23 Jan 1995:** 'Enquiry about Cyc project' . *comp.ai* (1995b)
- 3 Feb 1995:** 'comp.ai.imho FAQ' . *comp.ai* (1995c) [no mention yet of Barger's website yet. By 23 February 1995, however, Barger's new website sported a version of the FAQ as an 'opinionated overview of AI' (1995e)]
- 27 Feb 1995:** 'Doug Lenat and CYC?' . *comp.ai* (1995g) [mentions the new 'WWW-version' on Barger's site]
- 6 Mar 1995:** 'A FAQ please' *comp.ai* (1995i) [mentions a 'more up-to-date version of this, with live links' on Barger's website.]
- 19 Mar 1995:** 'AI Beginner' . *comp.ai* (1995k)
- 11 Apr 1995:** 'Artificial Intelligence for The Organically Dim' *rec.arts.books* (1995p)
- 24 Apr 1995:** 'Research in artificial intelligence' *comp.ai* (1995s)
- 24 Apr 1995:** 'Who knows CYC?' *comp.ai.edu* (1995t)
- 16 May 1995:** 'Outsider's Guide to AI' . *comp.ai.games* (1995u)
- 17 June 1995:** 'The Only Overview of AI on the Internet' *comp.ai* (1995af)
- 29 June 1995:** 'Outsider's Guide to AI' *comp.ai* (1995ag)
- 19 July 1995:** 'Outsider's Guide to AI' *comp.ai* (1995aj)
- 27 Aug 1995:** 'AI needs Lit to make Agents Intelligent' . *rec.arts.books* (1995aq)
- 7 Sep 1995:** The Outsider's Guide to AI' . *comp.ai* (1995at)
- 26 Dec 1995:** 1.5 'Comp.ai.imho FAQ (Version 1.5)' . (1995bg)
- 8 Jan 1996:** 'Comp.ai.imho FAQ' . *comp.ai* (1996d)
- 8 Jan 1996:** 'Smart NPC's' . *comp.ai.games* (1996c)
- 20 Jan 1996:** 'FAQ-to-be? The alt.folklore.html FAQ' . *comp.infosystems.www.authoring.html* (1996e)
- 22 Jan 1996:** 'Comp.ai.imho FAQ' . *comp.ai* (1996f)
- 4 Mar 1996:** 'Catching up' . *comp.ai.games* (1996p)
- 20 Mar 1996:** 'HTML as a Cargo Cult' . *comp.infosystems.www.authoring.html* (1996q)
- 1 Apr 1996:** 'The Outsider's Guide to A.I.' *comp.ai* (1996t)
- 7 Jun 1996:** 'comp.ai.imho FAQ' . *comp.ai* (1996af)
- 29 Jul 1996:** 'Help with the statistical education of a layman' . *comp.ai* (1996ah)
- 17 Sep 1996:** 'A.I. and Literature, etc.' *rec.arts.books* (1996ai)
- 28 Dec 1996:** 'Tiring of Mentifex' . *comp.ai* (1996ao)
- 3 Jan 1997:** 'Derrida important to AI?' *rec.art.-books* (1997a)
- 13 Jan 1997:** 'Can anyone post the last version of the AI FAQ' . *comp.ai* (1997b)
- 4 Mar 1997:** 'Where do i start to learn about ai theories and programming' . *comp.ai* (1997d)
- 18 Mar 1997:** 'Information on a program called 'psyc?'' *comp.ai.nat-lang* (1997e)
- 22 April 1997:** 'Basic AI info on net, please' . *comp.ai.games* (1997g)
- 9 May 1997:** 'Does AI imply AL?' *comp.ai.alife* (1997h)
- 12 May 1997:** 'Introductory material' . *com-*

p.ai.nat-lang (1997i)

16 May 1997: ‘Is this an AI question?’ *comp.ai.-fuzzy* (1997k)

2 Sep 1997: ‘I’m a new undergraduate studying AI – can you help?!’ *comp.ai* (1997ab)

16.2.2 Wisdom FAQ (1994)

The *Wisdom FAQ* was an attempt of Barger’s aimed to create a working implementation of a ‘knowledgebase especially for interactive fiction’ (1994j). The project ran a mailing list.

8 Jan 1993: ‘IF theory article’. *rec.arts.int-fiction* (1993b)

26 Sep 1994: ‘The confabulating-arranger model of IF’. *Robot Wisdom* (1994u)

26 Oct 1995: ‘Wisdom-FAQ mailinglist FAQ (draft)’. *comp.ai.games* (1995ay)

15 Nov 1995: ‘Agents, music, the future of AI, etc etc etc.’ *comp.ai* (1995az)

16.2.3 20th Century Social Science: A complete Fiasco? (1995)

Barger’s ‘20th Century Social Science: A complete Fiasco?’ is a manifesto that removes his research agenda from the frame of reference of AI and reformulates it as an alternative to the social sciences, which he occasionally calls *human sciences* without apparently making a distinction.

30 May 1995: ‘20th Century Social Science: A Complete Fiasco? Part One: The Evolutionary Perspective’. *sci.bio.evolution* (1995x)

1 Jun 1995: ‘Twentieth Century Social Science: A Complete Fiasco?: Part Two: The Scientific Method, applied to the human sciences’. *comp.ai* (1995y)

9 Jun 1995: ‘20th C. Social Science: A Complete Fiasco? Part Three: To Inventory Human Behavior’. *rec.arts.books* (1995ab)

13 Jun 1995: ‘Twentieth Century Social Sci-

ence: A Complete Fiasco? Part four: ‘Lifestyles of the Social Scientist’’. *rec.arts.books* (1995ac)

19 Aug 1995: ‘Quantifying literary progress. *rec.arts.books*’. (1995al)

20 Aug 1995: ‘Twentieth Century Social Science: A Complete Fiasco?’ *Robot Wisdom* (1995am)

28 Aug 1994: ‘Anti-Academia: Theses ’95’. *rec.arts.books* (1995ar) [repost of the web page]

16.2.4 New Game FAQ (1996)

Barger’s New Game FAQ was a follow-up project to the Wisdom FAQ which tried to prove that James Joyce was ‘compiling a detailed scientific *inventory* of *human psychology*, based on literary and historical prototypes’ (1996al).

A publication timeline:

17 Oct 1996: ‘The New Game FAQ v0.9’. *bit.listserv.literary* (1996ak)

8 Nov 1996: ‘Approaching psychology thru literature: The New Game FAQ v1.0’. *com-*

p.ai.nat-lang (1996al)

8 Nov 1996: ‘The New Joyce – The New Wake – The New Game’. *bit.listserv.literary* (1996am)

19 Dec 1996: ‘Joyce biography?’ *rec.arts.books* (1996an)

5 Feb 1997: ‘The New Joyce, The New Wake, The New Game: The New Game FAQ v1.1’. *alt.fan.rawilson* (1997c)

2 Jun 1997: ‘New Joycean studies available on the Net: The New Game FAQ v1.2’ *bit.listserv.literary* (1997l)

2 Jun 1997: ‘James Joyce as cognitive scientist: New Game FAQ v1.2’. *comp.ai* (1997m)

28 Jun 1997: ‘New Game FAQ v1.2’. *rec.arts.-books* (1997p)

24 Aug 1997: ‘New Game FAQ v1.2’. *rec.arts.-books* (1997aa)

12 Mar 1998: ‘New Game FAQ v1.2’. *alt.books.-james-joyce* (1998o)

May 1998: ‘The New Game FAQ v1.3’. *Robot Wisdom* (1998u)

Sep 2000: ‘New Game v.1.4’. *Robot Wisdom* (2000k)

16.2.5 Miscellaneous

Barger reaffirmed the commitment to his research agenda in miscellaneous other summaries:

16 Apr 1996: ‘The human sciences without denial’. *rec.arts.books* (1995r)

11 Jul 1997: ‘An ontology for psychology’. *comp.ai.nat-lang* (1997q)

Feb 1998: ‘Solace: Theory’. *Robot Wisdom*. (1998h)

16 Mar 1998: ‘The craft of lit-psych’. *alt.books.-james-joyce* (1998p)

2 Apr 1998: ‘The riddles of Ulysses’. *alt.books.-james-joyce* (1998r)

11 Apr 1998: ‘The archetypes of Shem and Shaun’. *alt.books.james-joyce* (1998s)

16 Jun 1999: ‘Lakatos and the philosophy of science’. *alt.books.james-joyce*. (1999k)

26 Nov 2002: ‘XML, AI, Cyc, psych, and literature’. *alt.folklore.computers* (2002g)

28 Sep 2003: ‘A new methodology for the human sciences’. *comp.ai.alife* (2003d)

21 Jun 2004: ‘Theory: The Grand Metasynthesis’. *comp.ai.nat-lang* (2004b)

16.3 Wikipedia articles

In the course of preparing this thesis, I have created and contributed to a few Wikipedia articles pertaining to the subjects covered in the thesis.

The Wikipedia articles I created include: Cool Site of the Day,¹¹¹ Glenn Davis,¹¹² Chris Gulker,¹¹³ San Francisco newspaper strike of 1994,¹¹⁴ and Seybold Seminars.¹¹⁵

Wikipedia articles I substantially contributed to include: Arts & Letters Daily,¹¹⁶ Jorn Barger,¹¹⁷

¹¹¹<http://en.wikipedia.org/wiki/Cool_Site_of_the_Day>

¹¹²<http://en.wikipedia.org/wiki/Glenn_Davis_%28web_design%29>

¹¹³<http://en.wikipedia.org/wiki/Chris_Gulker>

¹¹⁴<http://en.wikipedia.org/wiki/San_Francisco_newspaper_strike_of_1994>

¹¹⁵<http://en.wikipedia.org/wiki/Seybold_Seminars>

¹¹⁶<http://en.wikipedia.org/wiki/Arts_%26_Letters_Daily>

¹¹⁷<http://en.wikipedia.org/wiki/Jorn_Barger>

Raphael Carter,¹¹⁸ Craig Cline,¹¹⁹ Denis Dutton,¹²⁰ Dan Gillmor,¹²¹ Tom Mandel,¹²² Jim Romenesko,¹²³ Roger Schank,¹²⁴ UserLand Software,¹²⁵ Vignette Corporation,¹²⁶ and Dave Winer.¹²⁷

In cases where the contents of any of these articles overlap with the thesis, it is generally fair to assume that I put the information into the Wikipedia article in the first place rather than copying it from there.

118<http://en.wikipedia.org/wiki/Raphael_Carter>

119<http://en.wikipedia.org/wiki/Craig_Cline>

120<http://en.wikipedia.org/wiki/Denis_Dutton>

121<http://en.wikipedia.org/wiki/Dan_Gillmor>

122<http://en.wikipedia.org/wiki/Tom_Mandel_%28futurist%29>

123<http://en.wikipedia.org/wiki/Jim_Romenesko>

124<http://en.wikipedia.org/wiki/Roger_Schank>

125<http://en.wikipedia.org/wiki/Userland_Software>

126<http://en.wikipedia.org/wiki/Vignette_Corporation>

127<http://en.wikipedia.org/wiki/Dave_Winer>

17 References

- About the Internet Archive. (n.d.). *Internet Archive*. Retrieved November 12, 2010, from <http://www.archive.org/about/about.php>
- About the Open Directory Project. (1999). *Open Directory Project*. Retrieved August 17, 2011, from <http://web.archive.org/web/19991111161035/http://207.200.73.135/about.html>
- About Us. (1997). *Seybold Seminars*. Retrieved May 23, 2010, from http://web.archive.org/web/19970801155434/http://www.seyboldseminars.com/News/about_us.html
- Accolades roll in for Dutton website. (2004). *Nzine*. Retrieved October 17, 2010, from http://www.nzine.co.nz/features/dutton_ald.html?Rcat=Culture&Tcat=Internet
- Achbar, M., & Wintonick, P. (1992). *Manufacturing Consent: Noam Chomsky and the Media*. Zeitgeist Films.
- Affleck, A. (1998, May 18). May 1998. *Ragged Castle*. Retrieved January 29, 2010, from <http://web.archive.org/web/19990225072013/www.raggedcastle.com/andyjw/news/index.html>
- Affleck, A. (2001). Older Archives. *Ragged Castle*. Retrieved February 17, 2010, from <http://www.raggedcastle.com/andyjw/archives/index.html>
- Affleck, A. (2009, July 4). On the History of Blogging. *Webcrumbs*. Retrieved October 25, 2010, from <http://andy-affleck.posterous.com/on-the-history-of-blogging>
- Agre, P. E. (1997). Toward a critical technical practice: Lessons learned in trying to reform AI. In G. C. Bowker, S. L. Star, W. Turner, L. Gasser, & G. Bowker (Eds.), *Social Science, Technical Systems, and Cooperative Work: Beyond the Great Divide* (p. 131 – 158). Mahwah, NJ: Lawrence Erlbaum.
- Akst, D. (1995, April 5). A WELLness community that's part net, part encounter group. *Los Angeles Times*. Los Angeles. Retrieved from http://articles.latimes.com/print/1995-04-05/business/fi-51082_1_encounter-group
- Albano, T. (1996, August 14). Site of the Day: Stating the Obvious. *PC Magazine Online*. Retrieved April 21, 2012, from <http://web.archive.org/web/19970415113957/http://www.pcmag.com/iu/web/sod/sd960814.htm>
- Allen, J. (2002, May 2). Right There on the Hard Drive: Radio. *Webmonkey*. Retrieved from http://web.archive.org/web/20021008230308/http://hotwired.lycos.com/webmonkey/02/18/index3a_page5.html?tw=authoring
- Ammann, R. (2009a). Jorn Barger, the NewsPage network and the emergence of the weblog community. In *Proceedings of the 20th ACM conference on hypertext and hypermedia*. Torino, Italy: ACM. Retrieved from <http://tawawa.org/ark/p/jorn-barger-community.html>
- Ammann, R. (2009b, July 25). Dan Gillmor's eJournal archives. *Tawawa*. Retrieved March 10, 2012, from <http://tawawa.org/ark/2009/7/25/gillmor-ejournal-archives.html>
- Ammann, R. (2009c, November 5). Blogosphere 1998: Data Set. *Tawawa*. Retrieved February 11, 2010, from <http://tawawa.org/ark/2009/11/5/blogosphere-1998-data.html>
- Ammann, R. (2010a, March 27). Scripting News: Launched on 1 February 1997. *Tawawa*. Retrieved from <http://tawawa.org/ark/2010/3/27/scripting-news-launched-1-feb-1997.html>
- Ammann, R. (2010b, June 21). Michael Sippey: Zines, News Pages and Weblogs. *Tawawa*. Retrieved April 21, 2012, from <http://tawawa.org/ark/2010/6/21/sippey-zines-news-pages-weblogs.html>
- Ammann, R. (2011). Reciprocity, social curation and the emergence of blogging: A study in community formation. In *Dynamics of Social Networks*. Presented at the 7th Conference on Applications of Social Network Analysis (ASNA 10), Zürich. Retrieved from <http://tawawa.org/ark/p/reciprocity-curation-blogging.html>
- Anderson, J. (1999a, May 24). Thoughts of a weblogger. *Slashdot*. Retrieved February 23, 2008, from <http://features.slashdot.org/comments.pl?sid=19408&cid=1881516>
- Anderson, J. (1999b, November 12). Is Gillmor's eJournal a weblog? Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/420>
- Ante, S. E. (2000, June 5). Making the Web Go: Sites hum with Vignette's software, which helps publish and manage Net content. *Business Week*. Retrieved July 9, 2011, from <http://www.businessweek.com/archives/2000/b3684031.arc.htm>
- Anuff, J. (1995, October 27). Rolling Stone, R.I.P. *Suck*. Retrieved from <http://www.suck.com/daily/95/10/27/daily.html>
- Anuff, J. (1997, October 22). Stating the Obvious. *Wired*. Retrieved from <http://www.wired.com/culture/lifestyle/news/1997/10/7858>
- Armstrong, D. (1994, February 21). The world just got hot-wired publishing. *Globe and Mail*.
- Astor, D. (1997, September 13). Cyber Expert Is Writing Column. *Editor & Publisher Magazine*, p. 37.
- Auburn, B. (1999, October 21). A penny for your 'pinion. *The Atlantic Online*. Retrieved from <http://www.theat->

- lantic.com/unbound/citation/wc991021.htm
- Baio, A. (2008, January 29). Personal Ads of the Digerati - Waxy.org. *Waxy*. Retrieved September 2, 2008, from http://waxy.org/2008/01/personal_ads_of/
- Balkin, J. M. (1998). *Cultural software: A theory of ideology*. New Haven: Yale University Press.
- Ballard, T., & Blaine, A. (2010). The changing face of current awareness reporting in law libraries. *New Library World*, 111(3/4), 104 – 112.
- Bank, D. (1994, November 4). 2 sides in S.F. strike take to Cyberspace. *San Jose Mercury News*, p. 1D. San Jose.
- Bar-Ilan, J. (2005). Information hub blogs. *Journal of Information Science*, 31(4), 297–307.
- Barbrook, R., & Cameron, A. (1995, August). The Californian Ideology. *Alamut*. Retrieved March 29, 2008, from http://www.alamut.com/subj/ideologies/pessimism/califIdeo_I.html
- Bardini, T. (2000). *Bootstrapping: Douglas Engelbart, Coevolution, and the Origins of Personal Computing* (1st ed.). Stanford, CA: Stanford University Press.
- Bardini, T., & Friedewald, M. (2002). Chronicle of the Death of a Laboratory: Douglas Engelbart and the Failure of the Knowledge Workshop. *History of Technology*, 23, 191 – 212.
- Bareiss, R., Ferguson, W., & Fano, A. (1991). The Story Archive: A memory for case-based tutoring. In *Proceedings of the 1991 DARPA Case-Based Reasoning Workshop* (p. 267 – 279). Presented at the DARPA Case-Based Reasoning Workshop, San Mateo, CA: Morgan Kaufman.
- Barger, J. (1989, December 8). Deeper Understanding tech notes. *Gaffaweb*. Retrieved from <http://gaffa.org/archives/1989-33/msg00004.html>
- Barger, J. (1990, May 10). Artificial Personality. *rec.games.programmer*. Retrieved from <http://groups.-google.co.uk/group/rec.games.programmer/msg/e31faf7b2d466350>
- Barger, J. (1991a, April 10). Methodology of search for AP. *rec.arts.int-fiction*. Retrieved November 8, 2011, from <http://groups.google.com/group/rec.arts.int-fiction/msg/dad37fec2f9ffad0>
- Barger, J. (1991b, May 31). Monthly post for rec.music.gaffa. *rec.music.gaffa*. Retrieved from <https://groups.-google.com/d/topic/rec.music.gaffa/EbHTC19AiY0/>
- Barger, J. (1991c, June 14). Start of a paper chase - tactling the Wake. *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/5073add2aff10086>
- Barger, J. (1991d, August 19). Finnegans Wake reading group forming. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/f7dc10535ac62a56>
- Barger, J. (1991e, August 30). Unofficial monthly post. *rec.arts.int-fiction*. Retrieved from <http://groups.google.-com/group/rec.arts.int-fiction/msg/8e6863cf4d633e3c>
- Barger, J. (1991f, December 25). New combinations for IF. *rec.arts.int-fiction*. Retrieved from <http://groups.-google.com/group/rec.arts.int-fiction/msg/fc53db0d3d8ad5eb>
- Barger, J. (1992a, April 13). What is Finnegans Wake? *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/6027033873c8da55>
- Barger, J. (1992b, September 21). Knock Knock Knock (Can I come in?). *ils.forum*. Retrieved from <http://groups.-google.com/group/comp.ai/msg/1349d1e99e3fb52e>
- Barger, J. (1993a). An Overview of “Fractal Thicket” Indexing. *Robot Wisdom*. Retrieved from <http://www.robotwisdom.com/ai/thicketfaq.html>
- Barger, J. (1993b, January 8). IF Theory Article. *rec.arts.int-fiction*. Retrieved February 1, 2010, from <http://groups.google.co.uk/group/rec.arts.int-fiction/msg/ccdc05be446b2ffb>
- Barger, J. (1993c, January 12). Inside Schank’s ILS (→ r.a.i-f). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/db504c652c64efef>
- Barger, J. (1993d, January 13). “Was: Barger@ILS” Ch 1 (CD &c). *rec.arts.int-fiction*. Retrieved from <http://groups.google.co.uk/group/rec.arts.int-fiction/msg/594e8efca8da278d>
- Barger, J. (1993e, January 16). “Was: barger@ils” Chapter 2 (Emotions). *rec.arts.int-fiction*. Retrieved from <http://groups.google.com/group/rec.arts.int-fiction/msg/0c9468e56b164720>
- Barger, J. (1993f, January 29). “Was: Barger@ILS” Chapter 4 (CBR). Retrieved from <http://groups.google.co.uk/group/rec.arts.int-fiction/msg/ae9c6394d7bb2822>
- Barger, J. (1993g, February 2). “Was: Barger@ILS” Chapter 6 (Ask Tom). *rec.arts.int-fiction*. Retrieved from <http://groups.google.com/group/rec.arts.int-fiction/msg/ac211884ad538010>
- Barger, J. (1993h, February 7). Inside Schank’s ILS, Chapters 1-6 (long). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/1c551e8d2c5fc123>
- Barger, J. (1993i, February 26). Eh, f*** Schank... let’s *calculate*! *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/b91221c3db0b5ed4>
- Barger, J. (1993j, February 27). Did I alone survive? *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/edb8ce2d04e5018a>
- Barger, J. (1993k, March 31). Accumulated various topics. *rec.arts.books*. Retrieved from <http://groups.google.->

- com/group/rec.arts.int-fiction/msg/09e09e838afc2619
- Barger, J. (1993l, April 8). Indexing vs Search. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/1a05fc680b0fea84>
- Barger, J. (1993m, April 14). Taking the bull by the horns... (;^). *comp.ai.nat-lang*. Retrieved from <http://groups.google.com/group/comp.ai.nat-lang/msg/0d9b0072677da7cb>
- Barger, J. (1993n, May 24). Who's munging the hacker ethic? *comp.ai*. Retrieved from <https://groups.google.com/forum/?hl=en&fromgroups=#!msg/comp.ai/oPLx6sOBedI/Zyvkycqb2-EJ>
- Barger, J. (1993o, May 25). A new paradigm for computer science? *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/a326b5e7ef502494>
- Barger, J. (1993p, June 29). Racter FAQ. *alt.folklore.computers*. Retrieved from <https://groups.google.com/d/msg/alt.folklore.computers/RTV5CUkJ8fs/YFniP1zuzdEJ>
- Barger, J. (1993q, July 2). Fractal thicket indexing overview. *comp.ai.nat-lang*. Retrieved from <http://groups.google.com/group/comp.ai.nat-lang/msg/be8664c546a30fc3>
- Barger, J. (1993r, August 18). RACTER. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/c25feec4840faf02>
- Barger, J. (1993s, August 24). Explaining Usenet to non-subscribers. *alt.culture.usenet*. Retrieved November 22, 2011, from <http://groups.google.com/group/alt.culture.usenet/msg/cc5e8dc0cfbde3b3>
- Barger, J. (1993t, August 29). Explaining Usenet to non-subscribers. *alt.culture.usenet*. Retrieved from <http://groups.google.co.uk/group/alt.culture.usenet/msg/238e0a3df974a00e>
- Barger, J. (1993u, September 1). James Joyce FAQ. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/d7d3de5eb712c18c>
- Barger, J. (1993v, September 14). Semantic defeatism. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/bf41c20d055bb6cf>
- Barger, J. (1993w, September 21). (Gulp!) Ascii-art faq, first draft. *alt.fan.warlord*. Retrieved from <https://groups.google.com/d/msg/alt.fan.warlord/156egQciBfQ/Piy34qOlgl4J>
- Barger, J. (1993x, September 27). James Joyce FAQ (monthly posting). *rec.arts.books*. Retrieved from <https://groups.google.com/forum/?hl=en&fromgroups=#!topic/rec.arts.books/LJDaO0YMK3c>
- Barger, J. (1993y, November 9). Conspiracy "meta-theory." *alt.illuminati*. Retrieved from <http://groups.google.com/group/alt.illuminati/msg/af65853ad133f693>
- Barger, J. (1993z, November 9). Wired surfs netnews... not! *alt.wired*. Retrieved from <http://groups.google.com/group/alt.wired/msg/13e186a0eddf408c>
- Barger, J. (1993aa, November 10). usenet/well/mindvox. *alt.wired*. Retrieved from <http://groups.google.com/group/alt.wired/msg/ed14c17f92c8fc3e>
- Barger, J. (1993ab, November 22). CyberSocialWork. *alt.culture.internet*. Retrieved from <http://groups.google.co.uk/group/alt.culture.internet/msg/2cdb4ac1378dbabd>
- Barger, J. (1993ac, November 27). Roger Schank: Threat or Menace? *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/5d364b5ca529bd0a>
- Barger, J. (1993ad, December 13). Tim Pierce: The Frequently Asked Questions. *alt.config*. Retrieved January 20, 2011, from <http://groups.google.com/group/alt.config/msg/5bef2f581be7b78b>
- Barger, J. (1993ae, December 18). Magic 001 "Remember yourself." *rec.music.gaffa*. Retrieved November 14, 2011, from http://groups.google.com/group/rec.music.gaffa/browse_frm/thread/ef88ee74716e338b/2506675b8536ea51
- Barger, J. (1993af, December 23). Magic 003: The Circle, the Star, and the Moon. *rec.music.gaffa*. Retrieved from <http://groups.google.com/group/rec.music.gaffa/msg/1f7a37d14d1d3abf>
- Barger, J. (1994a). A Preliminary Stratigraphy of "Scribbledehobble." In A. Treip (Ed.), *Finnegans Wake: Teems of times* (pp. 127–137). Amsterdam: Rodopi.
- Barger, J. (1994b, March 20). AI, Ethics, and the Schank Syndrome. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/df72a00a7b8919d4>
- Barger, J. (1994c, March 22). AI, Ethics, and the Schank Syndrome. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/700ccbef462535d4>
- Barger, J. (1994d, April 8). A more-technical look at fractal-thicket indexing. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/ba05275ce930ba93>
- Barger, J. (1994e, April 26). So much hate. *rec.music.gaffa*. Retrieved from <http://groups.google.co.uk/group/rec.music.gaffa/msg/098fd4785cb28160>
- Barger, J. (1994f, April 30). AI, Ethics, and Noam Chomsky. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/2582d0aa06663833>
- Barger, J. (1994g, May 22). The wildest hypothesis yet... *comp.ai*. Retrieved from

- <http://groups.google.co.uk/group/comp.ai/msg/67231022e53fcf13>
- Barger, J. (1994h, May 22). Long time, no culture? *alt.artcom*. Retrieved from <http://groups.google.com/group/alt.artcom/msg/ce17d9347096902f>
- Barger, J. (1994i, May 26). Comp.ai.imho FAQ (Was: The wildest hypothesis yet...). *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/40d29d62faa58ad8>
- Barger, J. (1994j, June 27). Comp.ai.imho FAQ (Version 1): A short course in AI, with net-pointers. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/29a3f90dff128b28>
- Barger, J. (1994k, July 1). Info on Doug Lenat. *comp.ai*. Retrieved September 19, 2011, from <http://groups.-google.com/group/comp.ai/msg/c2b70f90a6133ae9>
- Barger, J. (1994l, July 14). Comp.ai.imho FAQ (v1.1, slightly expanded). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/fefc809d90421c0f>
- Barger, J. (1994m, July 28). Comp.ai.imho FAQ (Version 1.1): A short course in AI, with net-pointers. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/8a948d814ada4414>
- Barger, J. (1994n, August 4). What is Cyc? *rec.arts.int-fiction*. Retrieved from <https://groups.google.com/group/rec.arts.int-fiction/msg/ca36890b80c44e18>
- Barger, J. (1994o, August 13). Comp.ai.imho FAQ (Was: CYC). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/9fa740ef89f7de6b>
- Barger, J. (1994p, August 28). Looking for info on "PSYCH?" *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/c2bc10cbfe5a92ed>
- Barger, J. (1994q, August 30). Thomas Pynchon FAQ (new). *rec.arts.books*. Retrieved from <https://groups.-google.com/d/msg/rec.arts.books/GX11bObbzNU/https://groups.google.com/d/msg/rec.arts.books/GX11bObbzNU/qU5JwAa8E9gJ>
- Barger, J. (1994r, September 4). My 50 favorite books and authors. *rec.arts.books*. Retrieved from <http://groups.-google.com/group/rec.arts.books/msg/89f6715bfa0c536e>
- Barger, J. (1994s, September 7). Comp.ai.imho FAQ (revised). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/c3de49a732e234ab>
- Barger, J. (1994t, September 7). A.I. as if literature mattered (long). *rec.arts.books*. Retrieved from <http://groups.-google.co.uk/group/rec.arts.books/msg/4b0cf3580158a836>
- Barger, J. (1994u, September 26). The confabulating-arranger model of IF. *Robot Wisdom*. Retrieved January 26, 2010, from <http://www.robotwisdom.com/ai/ifdesign.html>
- Barger, J. (1994v, September 30). A.I. as if literature matters. *rec.arts.books*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/rec.arts.books/msg/3bafde57b55720b1>
- Barger, J. (1994w, October 12). comp.ai.imho FAQ (Was: easy reading ai). *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/3400de213c3d5702>
- Barger, J. (1994x, October 22). Pointers: CYC. *comp.ai*. Retrieved January 25, 2010, from <http://groups.-google.co.uk/group/comp.ai/msg/e02e98d326825e2d>
- Barger, J. (1994y, November 18). The CYC-project! *comp.ai*. Retrieved January 25, 2010, from <http://groups.-google.co.uk/group/comp.ai/msg/a0186c28ff3ecc6c>
- Barger, J. (1995a). Bozo Wisdom: The bozos of Netnews. *Robot Wisdom*. Retrieved July 9, 2011, from <http://web.archive.org/web/19961224194330/www.mcs.net/~jorn/html/bozos.html>
- Barger, J. (1995b, January 23). Enquiry about Cyc Project. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/52215bb2a44996d6>
- Barger, J. (1995c, February 3). comp.ai.imho FAQ (Was: RFD: comp.ai.no_bozos). *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/4c60ae2b2ed8efff>
- Barger, J. (1995d, February 20). Educational hypertexts on the Web? *alt.hypertext*. Retrieved from <http://groups.-google.co.uk/group/alt.hypertext/msg/3ad0c35a2537d468>
- Barger, J. (1995e, February 23). Adaptive and/or scientific methods. *comp.theory.self-org-sys*. Retrieved from <https://groups.google.com/group/comp.theory.self-org-sys/msg/328aa7051701b130>
- Barger, J. (1995f, February 25). FAQ list for alt.hypertext. *alt.hypertext*. Retrieved from <http://groups.-google.co.uk/group/alt.hypertext/msg/06955417d85296b4>
- Barger, J. (1995g, February 27). Doug Lenat and CYC? *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/24ba66cfd6d6c99a>
- Barger, J. (1995h, March 2). Science on netnews. *soc.culture.scientists*. Retrieved from <http://groups.google.co.uk/group/soc.culture.scientists/msg/875aa7de00b3eb50>
- Barger, J. (1995i, March 6). A FAQ please? *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/b539e0cbd5a5fc00>
- Barger, J. (1995j, March 17). AI routines for RPG game? *comp.ai.games*. Retrieved from <http://groups.-google.co.uk/group/comp.ai.games/msg/31374dc58aec7a28>

- Barger, J. (1995k, March 19). AI beginner. *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/a270663731b688c6>
- Barger, J. (1995l, March 28). Hypertext Theory. *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/dda78ecce84b048d>
- Barger, J. (1995m, March 28). Electric vibes in the air. *alt.paranormal*. Retrieved November 6, 2011, from <http://groups.google.com/group/alt.paranormal/msg/a167037118b9e3ae>
- Barger, J. (1995n, April 1). Winning (in AI) through Intimidation. *alt.whistleblowing*. Retrieved from <http://groups.google.co.uk/group/alt.whistleblowing/msg/28733ce80e712bc4>
- Barger, J. (1995o, April 4). Artificial Intelligence. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/e21787ded311553a>
- Barger, J. (1995p, April 11). Artificial Intelligence for The Organically Dim. *rec.arts.books*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/rec.arts.books/msg/be0c4b476ff7801e>
- Barger, J. (1995q, April 12). Novel = Robot? (Was: Artificial Intelligence...). *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/e475a9a367b4f211>
- Barger, J. (1995r, April 16). The Human Sciences, without *denial*. *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/3c92d61df351f15e>
- Barger, J. (1995s, April 24). Research in artificial intelligence. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/41c7dc26f3e08dad>
- Barger, J. (1995t, April 24). Who knows CYC? *comp.ai.edu*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai.edu/msg/5376e5c3c7427720>
- Barger, J. (1995u, May 16). Outsider's Guide to AI. *comp.ai.games*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai.games/msg/1a36f9ecd2c09eb9>
- Barger, J. (1995v, May 27). The Naive Witness and the Human Sciences. *sci.cognitive*. Retrieved from <http://groups.google.co.uk/group/sci.cognitive/msg/9053db2b1ca692c0>
- Barger, J. (1995w, May 29). The Naive Witness and the Human Sciences. *sci.cognitive*. Retrieved from <http://groups.google.co.uk/group/sci.cognitive/msg/1e34a2bb2be9d462>
- Barger, J. (1995x, May 30). 20th Century Social Science: A Complete Fiasco? Part One: The Evolutionary Perspective. *sci.bio.evolution*. Retrieved from <http://groups.google.com/group/sci.bio.evolution/msg/a13ac3ba10c27220>
- Barger, J. (1995y, June 1). 20th C. Social Science: A Complete Fiasco? Part Two: The Scientific Method, applied to the human sciences. *sci.psychology*. Retrieved from <http://groups.google.co.uk/group/sci.psychology/msg/fd52b20cbc916f93>
- Barger, J. (1995z, June 6). 20th C. Social Science: A Complete Fiasco? *rec.arts.books*. Retrieved October 30, 2011, from <http://groups.google.com/group/rec.arts.books/msg/68ff22a90ae972b0>
- Barger, J. (1995aa, June 7). 20th C. Social Science: A Complete Fiasco? *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/7e137e8f0b42133f>
- Barger, J. (1995ab, June 9). 20th C. Social Science: A Complete Fiasco? Part Three: To Inventory Human Behavior. *rec.arts.books*. Retrieved October 23, 2011, from <http://groups.google.com/group/rec.arts.books/msg/e8d986175d3da19e>
- Barger, J. (1995ac, June 13). 20th C. Social Science: A Complete Fiasco? Part Four: "Lifestyles of the Human Scientists." *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/20f2abdcffb6c968>
- Barger, J. (1995ad, June 14). 20th C. Social Science: A Complete Fiasco??? *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/cabf7496e3958427>
- Barger, J. (1995ae, June 17). 20th C. Social Science: A Complete Fiasco? *rec.arts.books*. Retrieved November 5, 2011, from <http://groups.google.com/group/rec.arts.books/msg/ae560682e7b9b26a>
- Barger, J. (1995af, June 17). The Only Overview of AI on the Internet (Was: 20th C. Social... Fiasco?). *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/bd208205b53a3ddc>
- Barger, J. (1995ag, June 29). Outsider's Guide to AI (Was: Barger; was why Ginsberg grouses). *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/87984c9ca84b6df6>
- Barger, J. (1995ah, July 3). Reading Joyce's "Portrait" – would you? did you? *rec.arts.books*. Retrieved November 8, 2011, from <http://groups.google.com/group/rec.arts.books/msg/c9f9e061af9899ac>
- Barger, J. (1995ai, July 19). My .newsrsrc (and welcome to it!). *news.groups.reviews*. Retrieved from <http://groups.google.co.uk/group/news.groups.reviews/msg/463de90b723b4156>
- Barger, J. (1995aj, July 19). Outsider's Guide to AI. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/ad1cf6120603e255>
- Barger, J. (1995ak, August 3). Critique of Yale Style Manual. *Robot Wisdom*. Retrieved December 7, 2009, from <http://www.robotwisdom.com/web/kdown.html>

- Barger, J. (1995al, August 19). Quantifying literary progress. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/879f6310886abde5>
- Barger, J. (1995am, August 20). Twentieth Century Social Science: A Complete Fiasco? *Robot Wisdom*. Retrieved November 25, 2009, from <http://www.robotwisdom.com/issues/fiasco.html>
- Barger, J. (1995an, August 22). Quantifying literary progress. *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/9408343fa6e6c4d8>
- Barger, J. (1995ao, August 26). Theses '95. *rec.arts.books*. Retrieved November 8, 2011, from <http://groups.google.com/group/rec.arts.books/msg/6bb52240d5708317>
- Barger, J. (1995ap, August 26). Jorn: Stop cross-posting to comp.ai. *rec.arts.books*. Retrieved January 18, 2010, from <http://groups.google.co.uk/group/rec.arts.books/msg/a7918ac201fb4962>
- Barger, J. (1995aq, August 27). AI needs Lit to make Agents Intelligent (Was: Quantifying literary progress). *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/f14338444ac0b20f>
- Barger, J. (1995ar, August 28). Theses '95. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/6a6e06c15f727e25>
- Barger, J. (1995as, August 30). AI needs Lit to make Agents Intelligent. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/323fee9a112db4db>
- Barger, J. (1995at, September 7). The Outsider's Guide to AI. *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/d6b8d28553498697>
- Barger, J. (1995au, September 11). Status-roles on comp.ai (Was: DARPA: "universities in disarray"?). *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/5b642b344360a128>
- Barger, J. (1995av, September 15). The Outsider's Guide to AI. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/c41bfc9ed40b3872>
- Barger, J. (1995aw, September 15). The Outsider's Guide to AI. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/393c354882001530>
- Barger, J. (1995ax, September 18). Year-to-date on comp.ai. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/48f5e746f93365de>
- Barger, J. (1995ay, October 26). Wisdom-FAQ mailinglist FAQ (draft). *comp.ai.games*. Retrieved from <http://groups.google.com/group/comp.ai.games/msg/b34ad2d2b904baf9>
- Barger, J. (1995az, November 15). Agents, music, the future of AI, etc etc etc. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/758cefa702db0f54>
- Barger, J. (1995ba, November 29). PBS show on John's Killer. *rec.music.beatles*. Retrieved from <http://groups.google.co.uk/group/rec.music.beatles/msg/d7bce8cb82e12304>
- Barger, J. (1995bb, December 7). Evolution and ethics – new models? *sci.bio.evolution*. Retrieved November 15, 2011, from <http://groups.google.com/group/sci.bio.evolution/msg/e6d1fc4ed1dff49b>
- Barger, J. (1995bc, December 8). Rethinking McLuhan on media. *sci.cognitive*. Retrieved from <https://groups.google.com/group/sci.cognitive/msg/0379c2b3e2163c13>
- Barger, J. (1995bd, December 10). The Millennium Whole Earth Catalog. *rec.arts.books.reviews*. Retrieved from http://groups.google.com/group/rec.arts.books.reviews/browse_thread/thread/9f5d66270d20ba30/719de6285a1fe3d3
- Barger, J. (1995be, December 20). Joyce a pretentious git? *bit.listserv.literary*. Retrieved from <http://groups.google.com/group/bit.listserv.literary/msg/c5f3036f16c43603>
- Barger, J. (1995bf, December 22). Loebner Prize For Lunar Exploration! *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/342ae11295a0d96d>
- Barger, J. (1995bg, December 26). The Outsider's Guide to AI. *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/f0f3122e8a7599f7>
- Barger, J. (1996a). My Background in AI. *Robot Wisdom*. Retrieved November 25, 2007, from <http://www.robotwisdom.com/ai/jbai.html>
- Barger, J. (1996b, January 8). Point 5% thing - a scam? *comp.infosystems.www.authoring.html*. Retrieved from <http://groups.google.com/group/comp.infosystems.www.authoring.html/msg/f6874c70c69b55c6>
- Barger, J. (1996c, January 8). Smart NPC's. *comp.ai.games*. Retrieved from <http://groups.google.co.uk/group/comp.ai.games/msg/18617966bdef7dd7>
- Barger, J. (1996d, January 8). Comp.ai.imho FAQ. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/3b23024e403b3fa8>
- Barger, J. (1996e, January 20). FAQ-to-be? The alt.folklore.html FAQ. *comp.infosystems.www.authoring.html*. Retrieved January 19, 2010, from <http://groups.google.co.uk/group/comp.infosystems.www.authoring.html/msg/1d38bd2fe490451f>
- Barger, J. (1996f, January 22). Comp.ai.imho FAQ. *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/c1a8dfce16ec1830>

- Barger, J. (1996g, January 29). Hypertext Theories. *comp.text.sgml*. Retrieved from <http://groups.google.co.uk/group/comp.text.sgml/msg/3e3d8e75c4ea84f0>
- Barger, J. (1996h, February 5). Strongly-Typed Hyperlinks. *comp.text.sgml*. Retrieved from <http://groups.google.co.uk/group/comp.text.sgml/msg/6c05665398596764>
- Barger, J. (1996i, February 8). Amateur social science. *sci.research.careers*. Retrieved from <http://groups.google.co.uk/group/sci.research.careers/msg/ae35ccc6e5c44b3c>
- Barger, J. (1996j, February 11). FAQ?: old alt.hypertext FAQ. *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/1421d470367f3f0f>
- Barger, J. (1996k, February 12). Strongly-Typed Hyperlinks. *comp.text.sgml*. Retrieved from <http://groups.google.co.uk/group/comp.text.sgml/msg/3370ddbda6a7a774>
- Barger, J. (1996l, February 14). Strongly-Typed Hyperlinks. *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/d8bf2d6aa618316e>
- Barger, J. (1996m, February 15). Chomsky's elite fan club. *alt.tv.tv-nation*. Retrieved from <http://groups.google.co.uk/group/alt.tv.tv-nation/msg/d2e829ff71083953>
- Barger, J. (1996n, February 16). Universal linktyping. *comp.text.sgml*. Retrieved from <http://groups.google.com/group/comp.text.sgml/msg/52de29ee05a4ae5c>
- Barger, J. (1996o, February 20). The TuLiP project. *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/bfc889dfa09fed8f>
- Barger, J. (1996p, March 4). Catching up. *comp.ai.games*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai.games/msg/01f1e7a2f103722a>
- Barger, J. (1996q, March 20). HTML as a Cargo Cult. *comp.infosystems.www.authoring.html*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.infosystems.www.authoring.html/msg/41a523d9d44d5ae1>
- Barger, J. (1996r, March 22). The Theory WWWeb Designers Need. *alt.hypertext*. Retrieved from <http://groups.google.com/group/alt.hypertext/msg/f9add08d73a9f4e0>
- Barger, J. (1996s, April). The Robot Wisdom pages. Retrieved February 8, 2009, from <http://web.archive.org/web/19961224193622/http://www.mcs.net/~jorn/>
- Barger, J. (1996t, April 1). FAQ: The Outsider's Guide to A.I. *comp.ai*. Retrieved from <https://groups.google.com/group/comp.ai/msg/b78064f82057d056>
- Barger, J. (1996u, April 10). Amateur cognitive science paradigm. *soc.culture.scientists*. Retrieved from <http://groups.google.co.uk/group/soc.culture.scientists/msg/c126607f36c59827>
- Barger, J. (1996v, April 10). New Paradigm: Describing agent behavior. *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/82c16a90ac7ad6f0>
- Barger, J. (1996w, April 17). UNAMBOMBER is CHRIST? *alt.fan.unabomber*. Retrieved January 15, 2010, from <http://groups.google.co.uk/group/alt.fan.unabomber/msg/a0eec2eeeca2e92b>
- Barger, J. (1996x, April 18). Jason Hutchens wins 1996 Loebner Prize. *comp.ai.nat-lang*. Retrieved from <http://groups.google.co.uk/group/comp.ai.nat-lang/msg/a69a5bacf795365c>
- Barger, J. (1996y, April 18). Some thoughts on Roger Schank. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/b86b4945ef387cb2>
- Barger, J. (1996z, April 24). Towards the Perfect WWWeb Site. *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/c76fecaac41378ac>
- Barger, J. (1996aa, April 24). Politics. *Robot Wisdom*. Retrieved December 11, 2009, from <http://web.archive.org/web/19961223231410/http://www.mcs.net/~jorn/html/politics.html>
- Barger, J. (1996ab, April 29). WFAQ: Hot dog! *rec.arts.int-fiction*. Retrieved October 24, 2011, from <http://groups.google.com/group/rec.arts.int-fiction/msg/4f3cfb0c5bd7c9bc>
- Barger, J. (1996ac, May 5). Credibility and self-credibility. *alt.conspiracy*. Retrieved from <http://groups.google.com/group/alt.conspiracy/msg/7cfd32c0b9bba17d>
- Barger, J. (1996ad, May 11). AI and the fear of literature. *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/aa11220c49927358>
- Barger, J. (1996ae, June 7). Programmer Analyst, Multimedia project, Northwestern Univ (IL). *comp.ai.edu*. Retrieved from <http://groups.google.com/group/comp.ai.edu/msg/559b76076da969fb>
- Barger, J. (1996af, June 7). comp.ai.imho FAQ (Was: Unsolicited AI-FAQ testimonial). *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/f6e39ba81ed3c720>
- Barger, J. (1996ag, June 22). Psychology of Information. *sci.psychology*. Retrieved from <http://groups.google.com/group/sci.psychology/msg/7c96c4a22fac12f4>
- Barger, J. (1996ah, July 28). Help with the statistical education of a layman. *comp.ai*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/0e88e6db76ff6111>
- Barger, J. (1996ai, September 17). A.I. and Literature, etc. *rec.arts.books*. Retrieved January 19, 2010, from

- <http://groups.google.co.uk/group/rec.arts.books/msg/91c7f15d5a7057e8>
- Barger, J. (1996aj, September 18). FAQ: A.I. and Literature, etc. *rec.arts.books*. Retrieved November 8, 2011, from <http://groups.google.com/group/rec.arts.books/msg/af273b75655ab65f>
- Barger, J. (1996ak, October 17). The New Game FAQ v0.9. *bit.listserv.literary*. Retrieved from <https://groups.-google.com/group/bit.listserv.literary/msg/1bec8a29f033eab4>
- Barger, J. (1996al, November 8). Approaching psychology thru literature. *comp.ai.nat-lang*. Retrieved from <http://groups.google.co.uk/group/comp.ai.nat-lang/msg/e2db0d14ea8bde2c>
- Barger, J. (1996am, November 8). The New Joyce - The New Wake - The New Game. *bit.listserv.literary*. Retrieved from <http://groups.google.co.uk/group/bit.listserv.literary/msg/b03509e024dc8385>
- Barger, J. (1996an, December 19). Joyce Biography? *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/7717e7e2a3394c9e>
- Barger, J. (1996ao, December 28). Tiring of mentifex. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/b0e03703eb29923e>
- Barger, J. (1997a, January 3). Derrida important to AI? (was: The point of theory). *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/897b51cfef65ef9f>
- Barger, J. (1997b, January 13). Can anyone post the last version of AI FAQ ? *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/bf33580363fd40e5>
- Barger, J. (1997c, February 5). The New Joyce, The New Wake, The New Game. *alt.fan.rawilson*. Retrieved January 26, 2010, from <http://groups.google.co.uk/group/alt.fan.rawilson/msg/79185b2a0bd10127>
- Barger, J. (1997d, March 4). Where do i start to learn about ai theories and programming. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/fc9eda595455e1c3>
- Barger, J. (1997e, March 18). Information on a program called "psyc"? *comp.ai.nat-lang*. Retrieved from <http://groups.google.co.uk/group/comp.ai.nat-lang/msg/ba53427f20e25a65>
- Barger, J. (1997f, April). Responsible Party Political Platform. *Robot Wisdom*. Retrieved December 11, 2009, from <http://web.archive.org/web/19981207072244/http://www.mcs.net/~jorn/html/politics.html>
- Barger, J. (1997g, April 22). Basic AI info on net, please. *comp.ai.games*. Retrieved January 25, 2010, from <http://groups.google.co.uk/group/comp.ai.games/msg/38138bb40a17b03e>
- Barger, J. (1997h, May 9). Does AI imply AL? *comp.ai.alife*. Retrieved January 25, 2010, from <http://groups.-google.co.uk/group/comp.ai.alife/msg/f0a946a9bd9f1151>
- Barger, J. (1997i, May 12). Introductory material. *comp.ai.nat-lang*. Retrieved from <http://groups.google.co.uk/group/comp.ai.nat-lang/msg/5018127b25401a77>
- Barger, J. (1997j, May 15). Darwinian hypertext. *comp.human-factors*. Retrieved November 21, 2011, from http://groups.google.com/group/comp.human-factors/browse_frm/thread/1ca328f70623b336/833fdb635f5555e5
- Barger, J. (1997k, May 16). Newbie question:Is this an AI question? *comp.ai.fuzzy*. Retrieved from <http://groups.-google.co.uk/group/comp.ai.fuzzy/msg/d04285a250e16cf0>
- Barger, J. (1997l, June 2). New Joycean studies available on the Net. *bit.listserv.literary*. Retrieved from <http://groups.google.com/group/bit.listserv.literary/msg/970155fda55224a0>
- Barger, J. (1997m, June 2). James Joyce as cognitive scientist. *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/777f2fba7e045da2>
- Barger, J. (1997n, June 9). Kantrowitz's plagiarism documented. *comp.ai*. Retrieved from <http://groups.-google.co.uk/group/comp.ai/msg/05158b87a37c0c6a>
- Barger, J. (1997o, June 15). WACO: NY Times finally begins aboutface! *alt.news-media*. Retrieved from <http://groups.google.co.uk/group/alt.news-media/msg/a3a7feb394ea404d>
- Barger, J. (1997p, June 28). Righteous Joyceanism. *rec.arts.books*. Retrieved January 26, 2010, from <http://groups.google.co.uk/group/rec.arts.books/msg/de68786ffaf234d6>
- Barger, J. (1997q, July 11). An ontology for psychology. *comp.ai.nat-lang*. Retrieved from <http://groups.-google.co.uk/group/comp.ai.nat-lang/msg/2ee238bd775e905f>
- Barger, J. (1997r, July 29). The Conspiracy that Never Ends. *alt.fan.kia-mennie*. Retrieved from <http://groups.-google.co.uk/group/alt.fan.kia-mennie/msg/7f9963ebe5308db4>
- Barger, J. (1997s, August 9). True Skepticism. *sci.skeptic*. Retrieved from <http://groups.google.co.uk/group/sci.skeptic/msg/d9d26b2519ca5422>
- Barger, J. (1997t, August 10). Sci.skeptic FAQ challenges, #2. *sci.skeptic*. Retrieved from <http://groups.google.-com/group/sci.skeptic/msg/bc3b251c49e1f8df>
- Barger, J. (1997u, August 11). Story-generation as the future of lit. *rec.arts.books*. Retrieved October 21, 2011, from <https://groups.google.com/group/rec.arts.books/msg/c9fb83dcdf77d913?hl=en>
- Barger, J. (1997v, August 17). A one-hour visit to my hypertext design lab. *comp.infosystems.www.authoring.site-design*. Retrieved from <http://groups.google.co.uk/group/comp.infosystems.www.authoring.site-design>

design/msg/0ea8ad0df8b433a9

- Barger, J. (1997w, August 18). Everyone is a schizophrenic; it's just a matter of degree! *sci.psychology.theory*. Retrieved November 15, 2011, from <http://groups.google.com/group/sci.psychology.theory/msg/1665dbdabfc0447f>
- Barger, J. (1997x, August 19). Alt.etext FAQ/ electronic text. *alt.etext*. Retrieved from <http://groups.google.co.uk/group/alt.etext/msg/71480d2b9b927494>
- Barger, J. (1997y, August 20). Electronic Text (alt.etext) FAQ. *Robot Wisdom*. Retrieved November 14, 2008, from <http://web.archive.org/web/20000821201346/http://www.mcs.net/~jorn/html/net/etextfaq.html>
- Barger, J. (1997z, August 20). SNEAK-PREVIEW: alt.etext FAQ/ electronic text. *alt.etext*. Retrieved from <http://groups.google.com/group/alt.etext/msg/a5e73553a24b44eb>
- Barger, J. (1997aa, August 24). James Joyce: The New Game FAQ. *rec.arts.books*. Retrieved January 26, 2010, from <http://groups.google.co.uk/group/rec.arts.books/msg/c67d90e9f45a3e74>
- Barger, J. (1997ab, September 2). I'm a new undergraduate studying AI – can you help?! *comp.ai*. Retrieved from <http://groups.google.com/group/comp.ai/msg/93c9da656112ed76>
- Barger, J. (1997ac, September 11). An emerging paradigm for web hypertext? *alt.hypertext*. Retrieved from <http://groups.google.com/group/alt.hypertext/msg/d62e0ad1658fd1a7>
- Barger, J. (1997ad, September 18). When robots join the Freedom Club. *alt.2600*. Retrieved from <http://groups.google.com/group/alt.2600/msg/183e1a47d9186721>
- Barger, J. (1997ae, September 18). An emerging paradigm for web hypertext? *alt.hypertext*. Retrieved from <http://groups.google.co.uk/group/alt.hypertext/msg/46fce3da5779fa82>
- Barger, J. (1997af, October). Doctress Ana Voog. *Robot Wisdom*. Retrieved December 5, 2008, from <http://web.archive.org/web/19990508111417/www.robotwisdom.com/net/ana.html>
- Barger, J. (1997ag, October 17). Doctress Goddess Ana Voog, and her cam. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/71389a409d40997f>
- Barger, J. (1997ah, October 24). Loss of sense of space. *alt.individualism*. Retrieved from <http://groups.google.com/group/alt.individualism/msg/b91f298c60a0317f>
- Barger, J. (1997ai, October 26). Ana Voog's Fine-Art WebCam. *alt.artcom*. Retrieved from <http://groups.google.com/group/alt.artcom/msg/8acfa0fa0d67c676>
- Barger, J. (1997aj, October 27). The fine art of the webcam. *comp.infosystems.www.announce*. Retrieved from <http://groups.google.co.uk/group/comp.infosystems.www.announce/msg/000e9f3a9088cdb5>
- Barger, J. (1997ak, December 12). Squelch Naivete! (Was: In Praise of Naivete). *comp.human-factors*. Retrieved from <http://groups.google.co.uk/group/comp.human-factors/msg/b436da7c49d420c1>
- Barger, J. (1997al, December 15). AI, XML, and Frontier. *comp.ai.nat-lang*. Retrieved from <https://groups.google.com/group/comp.ai.nat-lang/msg/b7e66e4e68f70211>
- Barger, J. (1997am, December 18). Dream of Authentic Media. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/05fa5221863ccc9c>
- Barger, J. (1997an, December 19). Charter & FAQ. *alt.etext*. Retrieved from <http://groups.google.com/group/alt.etext/msg/5fd092a4059370e9>
- Barger, J. (1997ao, December 23). Lively new webpage. *alt.hypertext*. Retrieved from http://groups.google.com/group/alt.hypertext/browse_frm/thread/28cdefee6247d3cd/3ef4b796ead09a87
- Barger, J. (1997ap, December 25). "Weblogs" are the best format for hotlists. *comp.infosystems.www.announce*. Retrieved from <http://groups.google.co.uk/group/comp.infosystems.www.announce/msg/4af6ac27dad974fd>
- Barger, J. (1997aq, December 28). Dream of Authentic Media. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/51aa68be8d8abf99>
- Barger, J. (1997ar, December 28). Dream of Authentic Media. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/d03d4d4e6b3301fb>
- Barger, J. (1997as, December 28). Dream of Authentic Media. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/0711201e1763ef85>
- Barger, J. (1998a, January). Robot Wisdom WebLog for January 1998. *Robot Wisdom*. Retrieved November 26, 2008, from <http://web.archive.org/web/20000817183231/http://www.robotwisdom.com/log1998m01.html>
- Barger, J. (1998b, January 5). Mon, Jan 5, 1998 (First Quarter). *Robot Wisdom*. Retrieved February 8, 2010, from <http://www.robotwisdom.com/log1998m01.html>
- Barger, J. (1998c, January 6). Sony Bono Dead. *alt.showbiz.gossip*. Retrieved January 15, 2010, from <http://groups.google.co.uk/group/alt.showbiz.gossip/msg/4d6318116cced8ae>
- Barger, J. (1998d, January 24). Clueless web publishing. *alt.hypertext*. Retrieved from http://groups.google.com/group/alt.hypertext/browse_frm/thread/3822797c31a4324a/1940f233c8064981
- Barger, J. (1998e, January 24). Clueless web publishing. *alt.ezines*. Retrieved from

- <http://groups.google.co.uk/group/alt.ezines/msg/441f03a8f7163112>
- Barger, J. (1998f, January 25). Clueless web publishing. *alt.hypertext*. Retrieved from <http://groups.google.com/group/alt.hypertext/msg/25c157c17cfb87fb>
- Barger, J. (1998g, January 29). Clueless web publishing. *alt.hypertext*. Retrieved from <http://groups.google.com/group/alt.hypertext/msg/91a74acf4a0e0915>
- Barger, J. (1998h, February). Solace: Theory. *Robot Wisdom*. Retrieved December 18, 2009, from <http://www.robotwisdom.com/solace/99theory.html>
- Barger, J. (1998i, February). Solace: A textbook of romantic psychology. *Robot Wisdom*. Retrieved October 27, 2011, from <http://www.robotwisdom.com/solace/>
- Barger, J. (1998j, February). Robot Wisdom WebLog for February 1998 (waning). Retrieved August 28, 2009, from <http://robotwisdom.com/log1998m02b.html>
- Barger, J. (1998k, February 13). Strongly-Typed Hyperlinks. *comp.text.sgml*. Retrieved from <http://groups.google.co.uk/group/comp.text.sgml/msg/934f3e8dcccfe271>
- Barger, J. (1998l, February 23). AI, OS's, and the Web. *comp.human-factors*. Retrieved from <https://groups.google.com/group/comp.human-factors/msg/6228bf491ae85cad>
- Barger, J. (1998m, February 27). Newspages as signal-fires. *comp.infosystems.www.misc*. Retrieved from <http://groups.google.com/group/comp.infosystems.www.misc/msg/b01b77dbd2f9d9c8>
- Barger, J. (1998n, March 9). Huzzah! for Pirates. *rec.arts.books*. Retrieved from http://groups.google.com/group/rec.arts.books/browse_thread/thread/67735e939708e82c
- Barger, J. (1998o, March 12). The New Joyce, The New Wake, The New Game. *alt.books.james-joyce*. Retrieved January 26, 2010, from <http://groups.google.co.uk/group/alt.books.james-joyce/msg/5cd4441b2f42b1c6>
- Barger, J. (1998p, March 16). The craft of lit-psych. *alt.books.james-joyce*. Retrieved October 20, 2011, from <http://groups.google.com/group/alt.books.james-joyce/msg/3823374cc63a5237>
- Barger, J. (1998q, April). Robot Wisdom WebLog for April 1998 (waxing). *Robot Wisdom Weblog*. Retrieved December 9, 2008, from <http://web.archive.org/web/20000817183129/www.robotwisdom.com/log1998m04.html>
- Barger, J. (1998r, April 2). JOYCE: The riddles of Ulysses. *alt.books.james-joyce*. Retrieved October 20, 2011, from <http://groups.google.com/group/alt.books.james-joyce/msg/a75b0664444a3c6d>
- Barger, J. (1998s, April 11). The archetypes of Shem and Shaun. *alt.books.james-joyce*. Retrieved from <http://groups.google.com/group/alt.books.james-joyce/msg/0eb3ae6de0affc0d>
- Barger, J. (1998t, April 19). It was five years ago today... *alt.politics.usa.misc*. Retrieved from <http://groups.google.com/group/alt.politics.usa.misc/msg/631e6c2501aed765>
- Barger, J. (1998u, May). The New Game FAQ v1.3. *Robot Wisdom*. Retrieved January 27, 2010, from <http://web.archive.org/web/19991128033111/http://robotwisdom.com/jaj/newgame.html>
- Barger, J. (1998v, May 4). Teaching "representation" and "metaphor"? (long). *sci.cognitive*. Retrieved from <http://groups.google.com/group/sci.cognitive/msg/ad11cbc582b31fc3>
- Barger, J. (1998w, June 15). Is Web getting more/less usable? *comp.human-factors*. Retrieved from <http://groups.google.com/group/comp.human-factors/msg/45a70b60d4c5e6ea>
- Barger, J. (1998x, June 25). My weblog press release. *rec.arts.books*. Retrieved from http://groups.google.com/group/rec.arts.books/browse_thread/thread/a01e262d08703942
- Barger, J. (1998y, June 25). My mental webcam... again. *alt.society.neutopia*. Retrieved from <http://groups.google.co.uk/group/alt.society.neutopia/msg/43fd1e677b19a284>
- Barger, J. (1998z, July). Robot Wisdom WebLog for July 1998 (waxing). *Robot Wisdom*. Retrieved November 26, 2010, from <http://www.robotwisdom.com/log1998m07.html>
- Barger, J. (1998aa, July 31). weblogs.literate. *Robot Wisdom*. Retrieved March 3, 2008, from <http://robotwisdom.com/netlit/media.html#weblogs>
- Barger, J. (1998ab, July 31). Media.literate. *Robot Wisdom*. Retrieved April 15, 2009, from <http://web.archive.org/web/20001204135000/http://www.robotwisdom.com/netlit/media.html>
- Barger, J. (1998ac, August). Robot Wisdom WebLog for Jul-Aug 1998 (waxing). *Robot Wisdom*. Retrieved November 25, 2008, from <http://web.archive.org/web/20000817183028/www.robotwisdom.com/log1998m07c.html>
- Barger, J. (1998ad, August 6). Joycean Imposters. *rec.arts.books*. Retrieved from <http://groups.google.co.uk/group/rec.arts.books/msg/539003a330d02b50>
- Barger, J. (1998ae, September). Robot Wisdom WebLog for Aug-Sept 1998 (waxing). Retrieved June 24, 2009, from <http://web.archive.org/web/20000817183013/www.robotwisdom.com/log1998m08b.html>
- Barger, J. (1998af, September). Robot Wisdom WebLog for September 1998 (waning). *Robot Wisdom*. Retrieved June 29, 2009, from <http://web.archive.org/web/20010127133000/www.robotwisdom.com/log1998m09.html>

- Barger, J. (1998ag, September). Robot Wisdom WebLog for September 1998 (waxing). *Robot Wisdom*. Retrieved November 26, 2008, from <http://web.archive.org/web/20000817182958/www.robotwisdom.com/log1998m09b.html>
- Barger, J. (1998ah, September 3). Internet and Depression. *alt.books.james-joyce*. Retrieved from <http://groups.-google.com/group/alt.books.james-joyce/msg/4f3049f2ae3638aa>
- Barger, J. (1998ai, September 16). Musings: Quantifying media influence? *comp.human-factors*. Retrieved from <http://groups.google.com/group/comp.human-factors/msg/e11265d85da2888d>
- Barger, J. (1998aj, October). Robot Wisdom WebLog for October 1998 (waxing). *Robot Wisdom*. Retrieved November 26, 2010, from <http://www.robotwisdom.com/log1998m10b.html>
- Barger, J. (1998ak, October 30). Lynda J Barry FAQ. *alt.ernie-pook*. Retrieved from <https://groups.google.com/d/msg/alt.ernie-pook/llHpOCGSuCo/ctWZ24bxfBIJ>
- Barger, J. (1998al, December 26). Matt Groening interview. *Robot Wisdom Weblog*. Retrieved from <http://www.robotwisdom.com/log1998m12b.html>
- Barger, J. (1998am, December 31). Robot Wisdom Weblog for December 1998 (waxing). *Robot Wisdom*. Retrieved November 26, 2008, from <http://www.robotwisdom.com/log1998m12b.html>
- Barger, J. (1999a). The saga of Jorn. *Robot Wisdom*. Retrieved December 18, 2009, from <http://www.robotwisdom.com/jorn/index.html>
- Barger, J. (1999b, January). Robot Wisdom Weblog for January 1999 (waxing). *Robot Wisdom*. Retrieved December 15, 2008, from <http://www.robotwisdom.com/log1999m01b.html>
- Barger, J. (1999c, January 4). The WELL as elitists. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/022ba339c470b370>
- Barger, J. (1999d, January 17). Orientation/FAQ for Robot Wisdom Weblog [original version]. *Robot Wisdom*. Retrieved November 16, 2008, from <http://web.archive.org/web/20000901222622/http://www.mcs.net/~jorn/html/weblogs/orientation.html>
- Barger, J. (1999e, March). Robot Wisdom Weblog for March 1999 (waxing). *Robot Wisdom*. Retrieved December 13, 2009, from <http://www.robotwisdom.com/log1999m03b.html>
- Barger, J. (1999f, March 3). Hypertext theory bites! *comp.human-factors*. Retrieved from <http://groups.-google.co.uk/group/comp.human-factors/msg/af7f47070cee3cc8>
- Barger, J. (1999g, March 10). Re: Junk in URLs and link-rot. *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg003886.html>
- Barger, J. (1999h, March 14). Weblogs.com. *Userland*. Retrieved October 26, 2008, from <http://static.userland.-com/userLandDiscussArchive/msg004090.html>
- Barger, J. (1999i, March 18). Lenat's contexts in context. *alt.books.james-joyce*. Retrieved from <http://groups.-google.co.uk/group/alt.books.james-joyce/msg/f926498d937ab91c>
- Barger, J. (1999j, April 28). Other weblogs. *Robot Wisdom*. Retrieved November 26, 2008, from <http://web.archive.org/web/19990428145729/http://www.mcs.net/~jorn/html/weblogs/loglist.html>
- Barger, J. (1999k, June 16). Lakatos and the philosophy of science. *alt.books.james-joyce*. Retrieved October 25, 2011, from <http://groups.google.com/group/alt.books.james-joyce/msg/c212734e346a21db>
- Barger, J. (1999l, July). Robot Wisdom Weblog for July 1999 (waxing). *Robot Wisdom*. Retrieved February 5, 2009, from <http://www.robotwisdom.com/log1999m07b.html>
- Barger, J. (1999m, July). Robot Wisdom Weblog July 1999 (waning). *Robot Wisdom Weblog*. Retrieved July 24, 2011, from <http://www.robotwisdom.com/log1999m07.html>
- Barger, J. (1999n, July 10). Group clinic for new webloggers? *Userland's First Discussion Group*. Retrieved from [http://web.archive.org/web/19990902143905/http://news.userland.com/discuss/msgReader\\$8381](http://web.archive.org/web/19990902143905/http://news.userland.com/discuss/msgReader$8381)
- Barger, J. (1999o, July 25). A description of weblogs. *deja.comm.weblogs*. Retrieved from <http://groups.-google.co.uk/group/deja.comm.weblogs/msg/b22b83a6a1e79b93>
- Barger, J. (1999p, August). IMHOFAQ: The Outsider's Guide to Artificial Intelligence. *Robot Wisdom*. Retrieved January 25, 2010, from <http://www.robotwisdom.com/ai/>
- Barger, J. (1999q, August 4). Too hip, gotta go... *deja.comm.weblogs*. Retrieved from http://groups.google.co.uk/group/deja.comm.weblogs/browse_thread/thread/1b8f4cd20bac5d09
- Barger, J. (1999r, August 4). Meta: I'm stressing out. *Robot Wisdom Weblog*. Retrieved April 12, 2013, from <http://web.archive.org/web/20000817182656/http://www.robotwisdom.com/log1999m08.html>
- Barger, J. (1999s, August 26). Weblog page-design? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/25>
- Barger, J. (1999t, September). Weblog resources FAQ. *Robot Wisdom*. Retrieved February 4, 2009, from <http://www.robotwisdom.com/weblogs/>
- Barger, J. (1999u, September 8). Meditation, ego, and cognitive science. *alt.books.james-joyce*. Retrieved from <http://groups.google.com/group/alt.books.james-joyce/msg/644eef69ab7097ab>

- Barger, J. (1999v, September 13). Jorn's profile. *Epinions*. Retrieved January 15, 2010, from <http://www0.epinions.com/user-jorn>
- Barger, J. (1999w, October). The Robot Wisdom pages, a guided tour. *Robot Wisdom*. Retrieved August 27, 2011, from <http://robotwisdom.com/map.html>
- Barger, J. (1999x, October). The online annotated Damascus Gate. *Robot Wisdom*. Retrieved December 7, 2009, from <http://robotwisdom.com/jorn/dgate.html>
- Barger, J. (1999y, October 25). Bad vibes. *alt.fan.ana-voog*. Retrieved from <http://groups.google.co.uk/group/alt.-fan.ana-voog/msg/c29f754eb5bb36e6>
- Barger, J. (1999z, October 25). XML-CIA. *comp.ai.nat-lang*. Retrieved from <http://groups.google.com/group/comp.ai.nat-lang/msg/d3b3ba37b2b9306f>
- Barger, J. (1999aa, November 4). Metajournals discussion on "weblogs are evil." *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/283>
- Barger, J. (1999ab, November 5). Traction towards...? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/301>
- Barger, J. (1999ac, November 23). Weblog as performance. *Weblogs eGroup*. Retrieved from <http://tech.-groups.yahoo.com/group/weblogs/message/538>
- Barger, J. (1999ad, December). My.Internet: Jorn's Internet years. *Robot Wisdom*. Retrieved December 15, 2008, from <http://web.archive.org/web/20000817183613/http://www.robotwisdom.com/jorn/internet.html>
- Barger, J. (1999ae, December). Robot Wisdom Weblog for December 1999 (waning). *Robot Wisdom*. Retrieved December 8, 2009, from <http://www.robotwisdom.com/log1999m12b.html>
- Barger, J. (1999af, December 15). Ana doesn't art here anymore. *alt.fan.ana-voog*. Retrieved from <http://groups.-google.co.uk/group/alt.fan.ana-voog/msg/4e0492a12c7138a3>
- Barger, J. (2000a). Stephen Gaskin resources. *Robot Wisdom*. Retrieved November 6, 2011, from <http://www.robotwisdom.com/jorn/gaskin.html>
- Barger, J. (2000b, January 13). Webloggers gamble their reputation with every link they offer. *Website editors and journalistic/research integrity*. Retrieved from http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=002IfK
- Barger, J. (2000c, April 11). OneList guts eGroups. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/1540>
- Barger, J. (2000d, April 11). OneList guts eGroups. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/1544>
- Barger, J. (2000e, April 12). Play vs self-alienation. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/1568>
- Barger, J. (2000f, April 12). This mailinglist is extinct. *Weblogs eGroup*. Retrieved November 15, 2008, from <http://tech.groups.yahoo.com/group/weblogs/message/1574>
- Barger, J. (2000g, April 20). The Open Ulysses Annotation Project. *alt.books.james-joyce*. Retrieved from <http://groups.google.co.uk/group/alt.books.james-joyce/msg/cb8027a6e1b3bbdc>
- Barger, J. (2000h, April 26). Theory of Web relativity. *alt.culture.www*. Retrieved from http://groups.google.co.uk/group/alt.culture.www/browse_thread/thread/3b32367ef3c8f348
- Barger, J. (2000i, May 22). "Open source" academia? *rec.arts.books*. Retrieved October 22, 2011, from <http://groups.google.com/group/rec.arts.books/msg/53a03c4f73c766ea>
- Barger, J. (2000j, July 16). What happened to my whole earth? *alt.religion.kibology*. Retrieved from <http://groups.google.com/group/alt.religion.kibology/msg/4b58f43e11bc3535>
- Barger, J. (2000k, September). The New Game FAQ v1.4. *Robot Wisdom*. Retrieved January 27, 2010, from <http://www.robotwisdom.com/jaj/newgame.html>
- Barger, J. (2000l, October). Fallible humanity. *Robot Wisdom*. Retrieved January 19, 2010, from <http://www.robotwisdom.com/issues/psych.html>
- Barger, J. (2000m, December 27). Robot Wisdom Weblog archives. *Robot Wisdom Weblog*. Retrieved October 4, 2011, from <http://www.robotwisdom.com/log2000m12.html>
- Barger, J. (2000n, December 27). What is "racism"? *Lusenet*. Retrieved July 13, 2008, from http://greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=004ImF
- Barger, J. (2001a, February 25). A "VisiCalc" for the Web? *comp.human-factors*. Retrieved from <http://groups.-google.co.uk/group/comp.human-factors/msg/bb862c7c24bb0a94>
- Barger, J. (2001b, May 2). Anti-Americanism (Chomsky - resent). *rec.arts.books*. Retrieved from <http://groups.-google.co.uk/group/rec.arts.books/msg/ede3c45b1575115a>
- Barger, J. (2001c, August 5). Propaganda and "mind wrestling." *comp.ai.nat-lang*. Retrieved November 22, 2011, from <http://groups.google.com/group/comp.ai.nat-lang/msg/0d548bfa4db8b0ef>
- Barger, J. (2001d, December 7). Hypertext theory? *alt.hypertext*. Retrieved November 24, 2011, from

- <http://groups.google.com/group/alt.hypertext/msg/7d298cc212e0f508>
- Barger, J. (2002a, July). Iris Murdoch resources. *Robot Wisdom*. Retrieved November 8, 2011, from <http://www.robotwisdom.com/jorn/iris.html>
- Barger, J. (2002b, July). Robot Wisdom Weblog. *Robot Wisdom*. Retrieved December 13, 2009, from <http://www.robotwisdom.com/log2002m07.html>
- Barger, J. (2002c, July 22). RobotWisdom project update. *alt.books.james-joyce*. Retrieved from <http://groups.-google.co.uk/group/alt.books.james-joyce/msg/c7eac3cc12b6b0b>
- Barger, J. (2002d, September 1). Theory: Building the “Necessary Web.” *rec.arts.books*. Retrieved from <https://groups.google.com/group/rec.arts.books/msg/54074a5394738a5c>
- Barger, J. (2002e, October). An Internet way of self-knowledge. *Robot Wisdom*. Retrieved November 6, 2011, from <http://www.robotwisdom.com/weblogs/selfknowledge.html>
- Barger, J. (2002f, November 25). Newsgroup cliques? *alt.folklore.computers*. Retrieved from <http://groups.-google.co.uk/group/alt.folklore.computers/msg/a5ffc6eddf7baeab>
- Barger, J. (2002g, November 26). XML, AI, Cyc, psych, and literature. *alt.folklore.computers*. Retrieved October 27, 2011, from <http://groups.google.com/group/alt.folklore.computers/msg/3f63eae1fe5b3e3>
- Barger, J. (2003a, January 20). The FAQ-workup. *alt.hypertext*. Retrieved from http://groups.google.co.uk/group/alt.hypertext/browse_thread/thread/c90f591f746b0f9e
- Barger, J. (2003b, April 28). Academic AI and games. *comp.ai.games*. Retrieved from <http://groups.google.com/group/comp.ai.games/msg/80df4dbb40afc620>
- Barger, J. (2003c, June 26). Scifi, lit, and William Gibson. *alt.cyberpunk*. Retrieved November 23, 2011, from <http://groups.google.com/group/alt.cyberpunk/msg/332d1dcd496a9fe3>
- Barger, J. (2003d, September 28). A new methodology for the human sciences. *comp.ai.alife*. Retrieved from <http://groups.google.co.uk/group/comp.ai.alife/msg/e22f06703fdaa2d5>
- Barger, J. (2004a, May 13). Joyce’s epiphanies and invariance-under-zooming. *rec.arts.books*. Retrieved from <http://groups.google.com/group/rec.arts.books/msg/330262426daac596>
- Barger, J. (2004b, June 21). Theory: The Grand Metasynthesis. *comp.ai.nat-lang*. Retrieved October 20, 2011, from <http://groups.google.com/group/comp.ai.nat-lang/msg/ccec93780f280a03>
- Barger, J. (2005, October). Robot Wisdom Weblog. *Robot Wisdom*. Retrieved September 27, 2011, from <http://web.archive.org/web/20051020000858/http://robotwisdom.com/>
- Barger, J. (2006a, September). Robot Wisdom Weblog. *Robot Wisdom*. Retrieved September 27, 2011, from <http://web.archive.org/web/20060909083930/http://www.robotwisdom.com/>
- Barger, J. (2006b, October). Robot Wisdom Weblog. *Robot Wisdom*. Retrieved September 27, 2011, from <http://web.archive.org/web/20061016161943/http://www.robotwisdom.com/>
- Barger, J. (2006c, December 16). Historical note. *Robot Wisdom auxiliary*. Retrieved from <http://robotwisdom2.blogspot.com/2006/12/my-spiritualesthetic-evolutioneducation.html>
- Barger, J. (2007a, April 24). Warum ich so weise bin. *Robot Wisdom auxiliary*. Retrieved January 12, 2010, from <http://robotwisdom2.blogspot.com/2007/04/warum-ich-so-weise-bin.html>
- Barger, J. (2007b, May 30). Autobiographical calendar of reading (part two). *Robot Wisdom auxiliary*. Retrieved from http://robotwisdom2.blogspot.com/2007/05/autobiographical-calendar-of-reading_30.html
- Barger, J. (2007c, June 18). The Barger Canon. *Robot Wisdom auxiliary*. Retrieved from <http://robotwisdom2.blogspot.com/2007/06/barger-canon.html>
- Barger, J. (2007d, July 6). Jorn Barger. *Canon 2.0*. Retrieved from <http://canon2.blogspot.com/2007/07/jorn-barger.html>
- Barger, J. (2007e, July 19). Links On The MF-ing Page: A hypertext abc. *Robot Wisdom Auxiliary*. Retrieved January 1, 2009, from <http://robotwisdom2.blogspot.com/2007/07/links-on-mf-ing-page-hypertext-abc.html>
- Barger, J. (2007f, August 22). Jorn Barger (Wikipedia template). *Robot Wisdom Auxiliary*. Retrieved February 5, 2009, from <http://robotwisdom2.blogspot.com/2007/08/jorn-barger-wikipedia-template.html>
- Barger, J. (2007g, December 15). Top 10 Tips for New Bloggers From Original Blogger Jorn Barger. *Wired*. Retrieved November 15, 2008, from http://www.wired.com/print/culture/lifestyle/news/2007/12/blog_advice
- Barger, J. (2008a, February 19). Wikipedia Category: alleged anti-semites. *Robot Wisdom auxiliary*. Retrieved January 22, 2010, from <http://robotwisdom2.blogspot.com/2008/02/wikipedia-category-accused-of.html>
- Barger, J. (2008b, September). September 2008 links. *Robot Wisdom Auxiliary*. Retrieved January 31, 2010, from <http://robotwisdom2.blogspot.com/2008/10/september-2008-links.html>
- Barger, J. (2008c, October 6). Blogging’s new dark age. *Robot Wisdom Auxiliary*. Retrieved January 31, 2010, from <http://robotwisdom2.blogspot.com/2008/10/bloggings-new-dark-age.html>
- Barger, J. (2008d, December). December 2008 links. *Robot Wisdom auxiliary*. Retrieved January 31, 2010, from <http://robotwisdom2.blogspot.com/2008/10/december-2008-links.html>

- Barger, J. (2009a, January). January 2009 links. *Robot Wisdom Auxiliary*. Retrieved January 31, 2010, from <http://robotwisdom2.blogspot.com/2008/10/january-2009-links.html>
- Barger, J. (2009b, July 8). Birth of blogging. *Robot Wisdom auxiliary*. Retrieved October 25, 2010, from <http://robotwisdom2.blogspot.com/2008/10/birth-of-blogging.html>
- Barger, J. (2011, March 18). Which philosophers are good writers? *Quora*. Retrieved November 7, 2011, from <http://www.quora.com/Philosophy/Which-philosophers-are-good-writers/answer/Jorn-Barger>
- Barlow, A. (2007). *The Rise of the Blogosphere*. Westport, Conn.: Praeger.
- Baron, D. (1997). Index of /stories/baron. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/baron/>
- Barrett, C. (1997, June). Week of June 9, 1997. *CamWorld*. Retrieved November 27, 2008, from <http://web.archive.org/web/19980502071043/http://www.cambarrett.com/journal/6.9.97.html>
- Barrett, C. (1998a). CamList: The Mailing List. *CamWorld*. Retrieved September 1, 2011, from <http://web.archive.org/web/19981202011301/http://www.camworld.com/list/>
- Barrett, C. (1998b). How Cameron Got Screwed. *CamWorld*. Retrieved August 23, 2011, from <http://camworld.org/screwed/>
- Barrett, C. (1998c, January 2). Happy New Year! *CanmWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001150.html>
- Barrett, C. (1998d, January 14). Media Blitz. *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001152.html>
- Barrett, C. (1998e, January 19). Updated Media List. *CamWorld*. Retrieved April 27, 2012, from <http://camworld.org/journal/1998/01/#19>
- Barrett, C. (1998f, June 24). Übergeek. *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001160.html>
- Barrett, C. (1998g, August 12). Are You a Web Hero? *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001165.html>
- Barrett, C. (1998h, November 17). Newsflash: Sun wins injunction against Microsoft. *CamWorld*. Retrieved January 4, 2011, from <http://web.archive.org/web/20061029201105/http://www.cambarrett.com/journal/1998/11/#17>
- Barrett, C. (1999a, January 22). I'm out of town for a period of rest and relaxation. *CamWorld*. Retrieved August 20, 2011, from <http://web.archive.org/web/19990125093931/http://www.cambarrett.com/>
- Barrett, C. (1999b, January 26). Anatomy of a Weblog. *Camworld*. Retrieved February 7, 2010, from <http://www.camworld.org/journal/rants/99/01/26.html>
- Barrett, C. (1999c, January 28). CamWorld: Random Thoughts, Web Design, New Media. *CamWorld*. Retrieved November 9, 2008, from <http://web.archive.org/web/19990128075502/http://www.cambarrett.com/>
- Barrett, C. (1999d, January 30). The Tragedy of Wired. *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001178.html>
- Barrett, C. (1999e, February 2). CamWorld: Random Thoughts + Web Design + New Media. *CamWorld*. Retrieved August 27, 2011, from <http://web.archive.org/web/19990202092137/http://www.camworld.com/>
- Barrett, C. (1999f, April 8). Insomnia. *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001179.html>
- Barrett, C. (1999g, May 11). More About Weblogs. *Camworld*. Retrieved February 17, 2007, from <http://www.camworld.org/journal/rants/99/05/11.html>
- Barrett, C. (1999h, July 5). What Keeps You Up At Night? *CamWorld*. Retrieved August 20, 2011, from <http://camworld.org/archives/001182.html>
- Barrett, C. (1999i, July 27). Bookmarks Section and Who keeps blogs - deja.comm.weblogs. *deja.comm.weblogs*. Retrieved from <https://groups.google.com/group/deja.comm.weblogs/msg/df9f5c69b9fdbf0e>
- Barrett, C. (1999j, July 31). WebLogs. *Camworld*. Retrieved August 11, 2011, from <http://www.camworld.org/weblogs.html>
- Barrett, C. (2000, March 14). SXSW Weblog. *CamWorld*. Retrieved December 18, 2011, from <http://www.camworld.org/sxsw/2000/>
- Barrett, C. (2001, December 17). CamWorld: Journal: Rants. *CamWorld*. Retrieved February 21, 2010, from <http://camworld.org/journal/rants/>
- Barrett, C. (2003, June 11). I just checked my old archives. *Plasticbag*. Retrieved from http://web.archive.org/web/20030803121033/http://www.plasticbag.org/archives/2003/06/on_permalinks_and_paradigms.shtml
- Bartimo, J. (1984, November 12). Q&A Dave Winer: "Our motto here is management by shipping." *InfoWorld*, p. 46.
- Basch, R. (1998). Reva's Wrap. *Online User*, 22(4), 112.

- Batagelj, V., & Mrvar, A. (2008). Pajek – Program for Large Network Analysis. *Pajek Wiki*. Retrieved July 26, 2010, from <http://pajek.imfm.si/doku.php?id=pajek>
- Bateman, J. (1999, February 23). Version History. *Ocha Software*. Retrieved November 28, 2008, from <http://web.archive.org/web/20001022121029/http://ocha.net/modules/news/history.html>
- Batney, J. (1999, November 1). Weblogs mix creative expression with practical information. *Infoworld*. Retrieved November 25, 2007, from <http://web.archive.org/web/20030808180143/http://www.infoworld.com/cgi-bin/displayNew.pl?hotsites/hotextra991101.htm>
- Bausch, P. (2000a, March 27). Hey! Where did that post go? *Blogger*. Retrieved March 1, 2012, from http://web.archive.org/web/20011003214151/http://www.blogger.com/news_archive.pyra?which=2000_03_01_news_archive.xml#112347
- Bausch, P. (2000b, April 7). Onfocus. *Onfocus.com*. Retrieved April 6, 2012, from <http://web.archive.org/web/20000408170455/http://www.onfocus.com/>
- Bausch, P. (2000c, June 16). How to add permanent links to a blog. *Blogger*. Retrieved October 31, 2008, from http://web.archive.org/web/20010920023322/www.blogger.com/howto/permanent_links.pyra
- Bausch, P. (2000d, June 16). How to manage your site with Blogger, XML, and ASP. Part 2: Permanent links. *Blogger*. Retrieved November 1, 2008, from http://web.archive.org/web/20010410010245/http://www.blogger.com/howto/xml_asp_2.pyra
- Bausch, P., Haughey, M., & Hourihan, M. (2002). *We Blog: Publishing Online with Weblogs*. Indianapolis: Wiley.
- Bayers, C. (1998, May). The Promise of One to One (A Love Story). *Wired*, 5(6). Retrieved from http://www.wired.com/wired/archive/6.05/one_to_one_pr.html
- Bayne, K. M. (1998, October 1). Opportunities emerging for vertical portal sites. *Business Marketing*, p. 37.
- Bedell, D. (2000, April 13). Blogging your mind: Voices for the offbeat? *The Dallas Morning News*, p. 1F. Dallas.
- Behlendorf, B. (2000, April 24). Re: Email to Brian Behlendorf. *UserLand's first discussion group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg016601.html>
- Bender, W. (1994). Read all about it in the Daily You. *News in the Future*. Retrieved February 25, 2008, from <http://web.archive.org/web/19981206122437/nif.www.media.mit.edu/papers/forward.html>
- Benjamin, W. (1999). *The Arcades Project*. (H. Eiland & K. McLaughlin, Trans., R. Tiedemann, Ed.). Cambridge, MA: Harvard University Press.
- Benkler, Y. (2002). Coase's Penguin, or, Linux and "The Nature of the Firm." *The Yale Law Journal*, 112(3), 369–446.
- Benkler, Y. (2006). *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven and London: Yale University Press.
- Benning, J. (2000). Romenesko Revealed. *Online Journalism Review*. Retrieved from <http://www.ojr.org/ojr/workplace/1017965959.php>
- Berghel, H. (1998). The new push for push technology. *NetWorker*, 2(3), 28–36. doi:10.1145/280506.280516
- Bergstrom, L. (2000, December 27). Does anybody else see the irony in anti-Semitism in a devoted follower of James Joyce. *Metafilter*. Retrieved from <http://www.metafilter.com/4954/#36860>
- Berlind, D. (2005, January 21). Why blogging matters to your business and your IT. *Tech Republic*. Retrieved March 31, 2010, from http://articles.techrepublic.com.com/5100-22_11-5544944.html
- Berlinger, D. (1997, January 26). Creative good: A beginning. *Moments*. Retrieved November 29, 2008, from <http://web.archive.org/web/19971016015432/http://www.circumtech.com/moments/97/01/creative-goodabeginning.html>
- Berlinger, D. (2000, June 6). News from the Digital Prairie. *CircumTech*. Retrieved December 19, 2008, from <http://web.archive.org/web/20000609064357/http://news.circumtech.com/>
- Berlinger, D. (2009, July 8). And from the past... "Jorn Barger, the NewsPage Network, and the Emergence of the Weblog Community." *Turnings*. Retrieved from <http://turnings.phrasewise.com/2009/07/08/and-from-the-past-jorn-barger-the-newspage-network-and-the-emergence-of-the-weblog-community/>
- Bernstein, M. (1996, January 29). Hyperlinks (was: SGML and the US DoD). *comp.text.sgml*. Retrieved from <http://groups.google.com/group/comp.text.sgml/msg/c40dd4a79b73a0ba>
- Bernstein, M. (1998a, January 7). Scripting News. *HyStruct and HyTech Awards*. Retrieved August 5, 2008, from <http://www.eastgate.com/Best.html#scripting>
- Bernstein, M. (1998b, January 25). Clueless web publishing. *comp.infosystems.www.misc*. Retrieved from <http://groups.google.co.uk/group/comp.infosystems.www.misc/msg/7f597600f5586a15>
- Bernstein, M. (2009, July 9). Flames. *MarkBernstein.org*. Retrieved from <http://www.markbernstein.org/Jul09/Flames.html>
- Bernstein, M. (2011). Flocks, Herds, and Stories temporal coherence and the long tail. Presented at the WebSci Conference 2011, Koblenz. Retrieved from http://www.websci11.org/fileadmin/websci/Papers/148_paper.pdf

- Berton, J. (2010, November 11). Chris Gulker, photographer and Web pioneer, dies. *SFGate*. San Francisco. Retrieved from <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2010/11/10/BAB61GA2VH.DTL>
- Bevin, P. (2003, June 12). Ummm, Slashdot was doing permalinks several years before Blogger was invented. *Plasticbag*. Retrieved from http://web.archive.org/web/20030803121033/http://www.plasticbag.org/archives/2003/06/on_permalinks_and_paradigms.shtml
- Bialik, C. (2004, May 12). Freeing the Press: A newspaper labor action in 1994 led to an 11-day online-news experiment [paywalled article]. *The Wall Street Journal Online*. Retrieved from <http://online.wsj.com/article/SB108126594239375521.html>
- Bielik-Robson, A. (2011). *The Saving Lie: Harold Bloom and Deconstruction*. Evanston, Illinois: Northwestern University Press.
- Bizzell, P. (1987). What is a Discourse Community? In *Proceedings of the Penn State Conference on Rhetoric and Composition*. University Park.
- Bizzell, P. (1992). *Academic discourse and critical consciousness*. Pittsburgh, PA: University of Pittsburgh Press.
- Blogger. (2000, November 17). *Blogger.com*. Retrieved April 6, 2012, from <http://web.archive.org/web/200011190752/http://www.blogger.com/>
- Blood, R. (1999, July 26). Bookmarks Section and Who keeps blogs. *deja.comm.weblogs*. Retrieved from <https://groups.google.com/group/deja.comm.weblogs/msg/705a0bc7418450eb>
- Blood, R. (2000a, March 8). Hmmm. *Metafilter*. Retrieved January 12, 2009, from <http://www.metafilter.com/934/#1594>
- Blood, R. (2000b, September 7). Weblogs: A history and perspective. *Rebecca's Pocket*. Retrieved February 13, 2011, from http://www.rebeccablood.net/essays/weblog_history.html
- Blood, R. (2000c, October 7). I've been an avid watcher of the weblog community. *Rebecca's Pocket*. Retrieved from <http://www.rebeccablood.net/archive/2000/09.html>
- Blood, R. (2001). Wedding: Announcement. *Rebecca's Pocket*. Retrieved August 21, 2011, from <http://www.rebeccablood.net/wedding/announcement.html>
- Blood, R. (2002a). The social life of weblogs. *Rebecca's Pocket*. Retrieved August 25, 2011, from http://www.rebeccablood.net/presentations/social_life.html
- Blood, R. (2002b). *The weblog handbook: Practical advice on creating and maintaining your blog*. Cambridge, MA: Perseus.
- Blood, R. (2002c). Introduction. In *We've Got Blog: How Weblogs Are Changing Our Culture* (p. ix – xiii). Cambridge, MA: Perseus.
- Blood, R. (Ed.). (2002d). *We've Got Blog: How Weblogs Are Changing Our Culture*. Cambridge, MA: Perseus.
- Blood, R. (2003). Weblogs and Journalism: Do They Connect? *Nieman Reports*, 57(3), 61 – 2.
- Blood, R. (2004). How blogging software reshapes the online community. *Communications of the ACM*, 47(12), 53 – 55.
- Blustein, J. (1997, February 27). Frequently Asked Questions (FAQ list). *news.answers*. Retrieved from <http://groups.google.com/group/news.answers/msg/2fe38e6846f169c8>
- Bogart, S. (1997a, May). News, Pointers & Commentary: May 1-14 1997. *Steve Bogart*. NewsPage. Retrieved February 4, 2008, from <http://web.archive.org/web/19980211041046/www.olin.wustl.edu/~bogart/archive/1997/may01.html>
- Bogart, S. (1997b, May 2). New Frontier Site. *Scripting News*. Retrieved March 4, 2008, from <http://www.scripting.com/mail/mail970501.html>
- Bogart, S. (1997c, May 5). No one knows my plan 1997. *Steve Bogart*. Retrieved June 29, 2009, from <http://nowthis.com/oldsite/scrabbles/1997/plan97.html>
- Bogart, S. (1998a, December). Hey, you know those "Successories"? *Now This*. Retrieved from <http://nowthis.com/log/1998/12/29.html>
- Bogart, S. (1998b, February 11). Steve Bogart's Links Page. *Steve Bogart's Pages*. Retrieved November 29, 2008, from <http://web.archive.org/web/19980211034518/http://www.olin.wustl.edu/~bogart/links.html>
- Bogart, S. (1998c, February 15). First, a thank-you to Chris Gulker. *Now This*. Retrieved February 21, 2010, from <http://nowthis.com/oldsite/archive/1998/february.html#feb15>
- Bogart, S. (1998d, February 15). XML is going to be the file format for the rest of my career. *News, Pointers & Commentary*. Retrieved from <http://nowthis.com/oldsite/archive/1998/february.html#feb15>
- Bogart, S. (1998e, April 24). Hefty Hefty! *Steve Bogart's News, Pointers & Commentary*. Retrieved from <http://nowthis.com/oldsite/archive/1998/april.html#apr24>
- Bogart, S. (1998f, May 4). Am having a crisis of purpose. *News, Pointers & Commentary*. Retrieved from <http://nowthis.com/oldsite/archive/1998/may.html#may04>
- Bogart, S. (1998g, May 29). Archive May 1998. *Steve Bogart's Pages*. Retrieved November 29, 2008, from

- <http://web.archive.org/web/19980623085608/http://www.olin.wustl.edu/~bogart/archive/1998/may.html>
- Bogart, S. (1998h, June). News, Pointers & Commentary. *Steve Bogart's Pages*. Retrieved November 29, 2008, from <http://web.archive.org/web/19980623063620/http://www.olin.wustl.edu/~bogart/>
- Bogart, S. (1998i, June 23). Steve Bogart's Links Page. *Steve Bogart's Pages*. Retrieved November 29, 2008, from <http://web.archive.org/web/19980623074005/http://www.olin.wustl.edu/~bogart/links.html>
- Bogart, S. (1998j, July 14). Steve's Scribbles: Home. *Now This*. Retrieved February 21, 2010, from <http://nowthis.com/oldsite/scribbles/>
- Bogart, S. (1998k, November 23). Indefinite Pause. *News, Pointers & Commentary*. Retrieved July 29, 2011, from <http://nowthis.com/oldsite/>
- Bogart, S. (1998l, December 9). Well, I'm not really "back" yet. *Now This*. Retrieved July 13, 2011, from <http://nowthis.com/log/1998/12/09.html>
- Bogart, S. (1999a, August 20). Indefinite hiatus. *Now This*. Retrieved from <http://web.archive.org/web/19990827041555/http://www.nowthis.com/log/>
- Bogart, S. (1999b, October 6). And now, till we meet again. *Now This*. Retrieved from <http://web.archive.org/web/19991007181233/http://nowthis.com/log/>
- Bogart, S. (2010, October 22). Why attribute sources of links? *Now This*. Retrieved from <http://nowthis.com/2010/10/why-attribute-sources-of-links.html>
- Bolter, J. D. (1991). *Writing Space: The Computer, Hypertext, and the History of Writing*. Hillsdale, NJ: Erlbaum.
- Bolter, J. D. (2000). *Writing Space: Computers, Hypertext, and the Remediation of Print* (2nd ed.). Mahwah, N.J.: Erlbaum.
- Bolter, J. D., & Grusin, R. A. (1999). *Remediation: Understanding New Media*. Cambridge, Mass., and London: MIT Press.
- Borgatti, S. P., Jones, C., & Everett, M. G. (1998). Network Measures of Social Capital. *Connections*, 21(2), 27 – 36.
- Brand, S. (1987). *The Media Lab: Inventing the Future at MIT*. New York: Viking Penguin.
- Bray, T. (2005, August 4). Not 2.0. *Ongoing*. Retrieved from <http://www.tbray.org/ongoing/When/200x/2005/08/04/Web-2.0>
- Brockman, J. (1996). The Lover: Dave Winer. In *Digerati: Encounters with the Cyber Elite*. Retrieved from <http://www.edge.org/documents/digerati/Winer.html>
- Broder, A., Kumar, R., Maghoul, F., Raghavan, P., Rajagopalan, S., Stata, R., ... Wiener, J. (2000). Graph structure in the Web. *Computer Networks*, 33(1-6), 309 – 320.
- Brookshaw, C., Hammond, E., & Talley, B. (1997, August 11). Loose Cables. *InfoWorld*, 19(32). Retrieved from <http://web.archive.org/web/20030315005932/www.infoworld.com/cgi-bin/displayArchive.pl?/97/32/o04-32.56j.htm>
- Brown, B. (1999, May 28). An open letter to all you webloggers: There can't be that much lint in all your navels at the same time. *Teeth Magazine*. Retrieved February 28, 2008, from <http://web.archive.org/web/19990921080253/http://www.teethmag.com/showart.pl?pid=50>
- Brown, B. (2000, March 21). In which he's SxSWy. *BenBrown.com*. Retrieved January 11, 2009, from <http://web.archive.org/web/20000510171555/http://benbrown.com/daily/cds.cgi?c=2000/03/21>
- Brown, B. (2007, February 26). The Official Annotated Ben Brown SXSX Timeline, or Boy, Have I Had A Lot of Fun! *Internet Rockstar*. Retrieved April 4, 2012, from <http://web.archive.org/web/20070301162557/http://internetrockstar.vox.com/library/post/more-about-sxsw-and-benbrown.html>
- Bunn, A. (1998, March 24). Machine Age. *Village Voice*, p. 31. New York.
- Burt, R. (1995). *Structural holes: The social structure of competition*. Cambridge, MA, and London: Harvard University Press.
- Bush, V. (1945, July). As We May Think. *The Atlantic*, 176(1). Retrieved from http://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/3881/?single_page=true
- Byron, A., Berry, A., Haug, N., Robbins, J., & Eaton, J. (2008). *Using Drupal*. Sebastopol, CA: O'Reilly.
- Caddis. (2003, July 2). Mmmmmmm.....tubers. *Metafilter*. Retrieved from <http://www.metafilter.com/26748/Wel-come-back-Jorn#512626>
- Cadenhead, R. (1999a, November 11). Is Gillmor's eJournal a weblog? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/397>
- Cadenhead, R. (1999b, November 22). No Subject. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/537>
- Cadenhead, R. (2000, December 27). Jorn Barger seems to be declaring holy war on Robot Wisdom today. *Metafilter*. Retrieved from <http://www.metafilter.com/4954/>
- Cadenhead, R. (2002, July 19). In my personal experience. *Q Daily News*. Retrieved February 23, 2008, from

- <http://q.queso.com/archives/000930#779>
- Cadenhead, R. (2003). *Radio UserLand* (1st edition.). Indianapolis: Sams.
- Cadenhead, R. (2004). *Movable Type 3.0 Bible Desktop Edition* (Desk edition.). John Wiley & Sons.
- Cadenhead, R. (2007, February 22). Was the First Blog a .Plan File? *Workbench*. Retrieved November 1, 2008, from <http://workbench.cadenhead.org/news/3128/first-blog-plan-file>
- Callaghan, D. (2002, December 17). Traction Extends Enterprise Blogging. *eWeek*. Retrieved from <http://www.eweek.com/c/a/Midmarket/Traction-Extends-Enterprise-Blogging/>
- Campbell, J. L. (2005). Where do we stand? Common mechanisms in organizations and social movements research. In G. F. Davis, D. McAdam, W. R. Scott, & M. N. Zald (Eds.), *Social Movements and Organization Theory*. Cambridge: Cambridge University Press.
- Carter, R. (1998a, May 1). Web Log for the week of 1998/05/01. *Honeyguide Web Log*. Retrieved August 22, 2009, from <http://web.archive.org/web/19991008042527/www.chaparraltree.com/honeyguide/19980501.shtml>
- Carter, R. (1998b, May 22). Thanks for creating this Web log. *Comments for Robot Wisdom WebLog*. Retrieved November 11, 2008, from <http://web.archive.org/web/19990508100042/http://www.greenspun.com/com/weblog/weblog.html>
- Carter, R. (1998c, June 19). Web Log for the week of 1998/06/19. *Honeyguide Weblog*. Retrieved August 16, 2011, from <http://web.archive.org/web/20040812041023/www.chaparraltree.com/honeyguide/19980619.shtml>
- Carter, R. (1998d, October). Web Log for the week of 1998/10/09. *Honeyguide Web Log*. Retrieved October 16, 2010, from <http://web.archive.org/web/19991009124550/www.chaparraltree.com/honeyguide/19981009.shtml>
- Carter, R. (1998e, November 27). Web Log for the week of 1998/11/27. *Honeyguide Web Log*. Retrieved November 11, 2008, from <http://web.archive.org/web/20040812054719/www.chaparraltree.com/honeyguide/19981127.shtml>
- Cassidy, J. (2003). *Dot.con: How America lost its mind and money in the internet era*. New York: Harper.
- Champeon, S. (2000). Hesketh.com CTO Steven Champeon Recaps SXSW 2000 Interactive Festival. *Hesketh*. Retrieved from http://web.archive.org/web/20040627094054/http://hesketh.com/about/news/2000/SXSW_recap.html
- Chan, K. W., & Li, S. Y. (2010). Understanding consumer-to-consumer interactions in virtual communities: The salience of reciprocity. *Journal of Business Research*, 63(9–10), 1033–1040. doi:10.1016/j.jbusres.2008.08.009
- Chandler, D. (1998, August 18). Personal Home Pages and the Construction of Identities on the Web. *Aberystwyth University*. Retrieved February 14, 2008, from <http://www.aber.ac.uk/media/Documents/short/webident.html>
- Check, H. (2007, April 5). Blogging and Inspiration. Retrieved from http://www.sixapart.com/blog/2007/04/harold_check_bl.html
- Chen, K., Schach, S. R., Yu, L., Offutt, J., & Heller, G. Z. (2004). Open-Source Change Logs. *Empirical Software Engineering*, 9(3), 197–210.
- Cheney, J. (2000, March 9). Weblogging Cats & Dogs. *Pax Vobiscum*. Retrieved from <http://ican.editthispage.com/2000/03/09>
- Chess, D. M. (2000, January 5). Permanent URLs. *Weblogs Yahoo Group*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/939>
- Chin, S. A. (1996, February 9). Picture this: A wild cyberspace marathon. *San Francisco Chronicle*. Retrieved from <http://www.sfgate.com/cgi-bin/article.cgi?f=/e/a/1996/02/09/NEWS8420.dtl>
- Chronicle, Examiner open an online service – The Gate. (1995, April 5). *The San Francisco Chronicle*, p. D2.
- Clark, Kelly. (1998, July 21). By 2000, internet portals will be the key to reach consumers. *Business Wire*.
- Clark, Kendall. (2000, April 14). Event blogs. *Weblogs 2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/25>
- Cleland, K. (1996, June 24). Searching for a broader role on the Web: Yahoo tries TV, Lycos eyes books as directories look for ways to build brands. *Advertising Age*, p. 34.
- Coate, J. (1998). Cyberspace Innkeeping: Building Online Community. *Cervisa*. Retrieved January 31, 2011, from <http://cervisa.com/innkeeping.html>
- Coates, T. (2003, June 11). On Permalinks and Paradigms... *Plasticbag*. Retrieved February 11, 2008, from http://www.plasticbag.org/archives/2003/06/on_permalinks_and_paradigms/
- Cohen, D. (2005, March 7). The thinking person's big hit. *The Guardian*. Retrieved October 17, 2010, from <http://www.guardian.co.uk/education/2005/mar/07/internationaleducationnews.highereducation>
- Cone, E. (2001, May). Almost Famous. *Wired*, 9(5). Retrieved from

- http://www.wired.com/wired/archive/9.05/winer_pr.html
- Constant, D., Sproull, L., & Kiesler, S. (1996). The Kindness of Strangers: The Usefulness of Electronic Weak Ties for Technical Advice. *Organization Science*, 7(2), 119–135.
- Cook, W. (2006). Applescript. Retrieved from <http://www.cs.utexas.edu/~wcook/Drafts/2006/ashopl.pdf>
- Cook, W. (2007). AppleScript. In *Proceedings of the third ACM SIGPLAN conference on History of programming languages* (pp. 1–21). San Diego, California: ACM. doi:10.1145/1238844.1238845
- Cool Site of the Day Award. (1996, December). *Infi.net*. Retrieved April 21, 2012, from <http://web.archive.org/web/19961226220941/http://cool.infi.net/stillcool/still9512.html>
- Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research: techniques and procedures for developing grounded theory*. Los Angeles: Sage.
- Crevier, D. (1993). *AI: the tumultuous history of the search for artificial intelligence*. New York: Basic Books.
- Crowston, K. (1997). Reproduced and emergent genres of communication on the World-Wide Web. In *Proceedings of the Thirtieth Hawaii International Conference on System Sciences* (Vol. 6, pp. 30–39). Presented at the Thirtieth Hawaii International Conference on System Sciences. doi:10.1109/HICSS.1997.665482
- Crowston, K., & Williams, M. (1999). The effects of linking on genres of Web documents. In *System Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on* (Vol. Track2, p. 2 pp.). Presented at the System Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on. doi:10.1109/HICSS.1999.772648
- Crowston, K., & Williams, M. (2000). Reproduced and emergent genres of communication on the World-Wide Web. *The Information Society*, 16(3), 201 – 216.
- Curle, D. (1998). Filtered news services: solutions in search of your problem. *Online*, 22(2), 15–24.
- Dash, A. (2002, January 16). I'm glad Sippey finally made. *Dashes*. Retrieved June 17, 2010, from <http://dashes.com/anil/2002/01/im-glad-sippey.html>
- Dash, A. (2003, June 9). Under the iron. *Waffle*. Retrieved October 31, 2008, from http://web.archive.org/web/20030614090232/http://waffle.wootest.net/iron/anil_dash.php
- Dash, A. (2007, July 19). ...and five is jumping the shark. *Dashes*. Retrieved March 6, 2008, from <http://www.dashes.com/anil/2007/07/and-five-is-jumping-the-shark.html>
- Davison, P. (2010, November 20). Chris Gulker: “Independent” columnist and pioneer of the blogosphere. *The Independent*. London. Retrieved from <http://www.independent.co.uk/news/obituaries/chris-gulker-independent-columnist-and-pioneer-of-the-blogosphere-2139108.html>
- Dedman, B. (1998, January 12). It Isn't Just Big Brother Who Is Watching. *New York Times*. New York. Retrieved from <http://www.nytimes.com/library/cyber/week/011298page.html>
- DeFillippo, J. (2002, May). Blogrolling: Link manager for your weblog. *Blogrolling.com*. Retrieved November 12, 2008, from <http://web.archive.org/web/20020525203755/http://www.blogrolling.com/>
- Denton, N. (1997, September 17). Jobs appointed interim Apple chief executive. *Financial Times*. London.
- Dertouzos, M. L. (1991, September). Communications, computers and networks. *Scientific American*, 265(3), 30 – 37.
- Dery, M. (1995). Unplugged. *Educom Review*, 30(3). Retrieved from <http://web.archive.org/web/19970706112415/http://www.educom.edu/web/pubs/review/reviewArticles/30313.html>
- Dery, M. (1999, April 23). Bit Rot. *Suck*. Retrieved from <http://www.suck.com/daily/99/04/23/>
- Dibbell, J. (2000, May 2). Portrait of the Blogger as a Young Man. *Feed Magazine*. Retrieved from <http://web.archive.org/web/20000510161001/www.feedmag.com/feature/cx329.shtml>
- Dillon, A., & Gushrowski, B. A. (2000). Genres and the Web: Is the personal home page the first uniquely digital genre? *Journal of The American Society for Information Science*, 51(2), 202 – 205.
- Do filters really solve information overload? (1997). *Information Advisor*, 9(2), 1–5.
- Doctress Neutopia. (2004, July 5). Mission statement for Lovolution.net. *Lovolution.net*. Retrieved August 29, 2011, from <http://www.lovolution.net/MainPages/mission/mission.htm>
- Don, A. (1998). On My Screen. *Eastgate*. Retrieved March 30, 2012, from <http://web.archive.org/web/19980208034118/http://www.eastgate.com/picks/AbbeDon.html>
- Döring, N. (2002). Personal Home Pages on the Web: A Review of Research. *Journal of Computer-Mediated Communication*, 7(3). Retrieved from <http://jcmc.indiana.edu/vol7/issue3/doering.html>
- Dorothy. (1998, October 16). Arts And Letters Daily - ALD. *Nzine*. Retrieved from <http://www.nzine.co.nz/features/ald.html>
- Douglas, M. (1987). *How Institutions Think*. London: Routledge & Kegan Paul.
- Duncan, G. (1995, May 29). Frontier Justice. *TidBits*. Retrieved March 10, 2008, from <http://db.tidbits.com/article/01471>
- Dutton, D. (1998). The Bad Writing Contest: Press Releases, 1996-1998. *DenisDutton.com*. Retrieved October 30,

- 2010, from http://denisdutton.com/bad_writing.htm
- Dutton, D. (1999a, February). Weblogs. *Arts & Letters Daily*. Retrieved October 16, 2010, from <http://web.archive.org/web/19990508125724/http://www.cybereditions.com/aldaily/weblogs.htm>
- Dutton, D. (1999b, February 5). Language crimes: A lesson in how not to write, courtesy of the professoriate. *The Wall Street Journal*. Retrieved from http://www.denisdutton.com/language_crimes.htm
- Dutton, D. (1999c, May 7). Arts & Letters Daily - ideas, criticism, debate. Retrieved October 17, 2010, from <http://web.archive.org/web/19990508045725/http://cybereditions.com/aldaily/>
- Dutton, D. (2010). *The Art Instinct: Beauty, Pleasure, and Human Evolution*. Oxford: Oxford University Press.
- Dyson, E. (1989, April). Userland: Plumbing for the Mac. *Release 1.0*, 89(4), 4 – 6.
- Dyson, E. (1991, May 31). Power through scripting. *Release 1.0*, 1 – 22.
- Dyson, E. (1994, December 28). Intellectual Property on the Net. *Release 1.0*, 12(12), 1–28.
- Dyson, P. (1996, December 26). Publishers Are Making Money on the Net. *Seybold Seminars Online*. Retrieved April 26, 2010, from http://web.archive.org/web/19980630031427/www.seyboldpubs.com/News/columns/96/ec_122696.html
- Dyson, P. (1997a, January 24). Site Building at Micro & Macro Scales. *Seybold Seminars*. Retrieved March 17, 2010, from http://web.archive.org/web/19970219213600/www.seyboldseminars.com/columns/ec_012497.html
- Dyson, P. (1997b, July 18). WYSIWYG Ain't Content. *Seybold Seminars Online*. Retrieved April 26, 2010, from http://web.archive.org/web/19980630031149/http://www.seyboldpubs.com/News/columns/97/ec_071897.html
- Dyson, P. (1998, January 6). A 1988 Prediction (or Wish). *Seybold Seminars*. Retrieved May 13, 2010, from http://web.archive.org/web/19980630025949/www.seyboldpubs.com/News/columns/98/ec_010698.html
- Eaton, B. (1999a, May 26). I started keeping a list of other weblogs because cam's wasn't up-to-date. *Eatonweb*. Retrieved September 1, 2011, from http://www.eatonweb.net/weblog/archive_199.shtml
- Eaton, B. (1999b, August 25). Amazon has finally put it's demographic data to work. *Eatonweb*. Retrieved September 1, 2011, from http://www.eatonweb.net/weblog/archive_799.shtml
- Eaton, B. (1999c, November 2). Overview of pitas/blogger/etc? *Weblogs eGroup*. Retrieved from <http://tech-groups.yahoo.com/group/weblogs/message/245>
- Eaton, B. (1999d, December 7). In the Trenches with a Weblog Pioneer: An Interview with the Force Behind Eatonweb, Brigitte F. Eaton. Retrieved from <http://www.webword.com/interviews/eaton.html>
- Eaton, B. (2000a, February 17). Having looked at over 550 blogs. *Powazek*. Retrieved from <http://www.powazek.com/wtf/post/>
- Eaton, B. (2000b, May 13). So, Blogger removed its 7600 character limit. *Brig.nu*. Retrieved January 11, 2009, from http://web.archive.org/web/20000819163101/brig.nu/2000_05_13.shtml
- Eaton, B. (2000c, June). *Eatonbweb*. Retrieved April 28, 2012, from <http://web.archive.org/web/20000605085512/http://www.eatonweb.com/>
- Eddy Awards 1986. (1996). *MacUser*. Retrieved May 19, 2009, from <http://web.archive.org/web/20010214031321/macuser.zdnet.com/eddy96/history/eddy1986.html>
- Edmonds, A. (1997, August 25). A one-hour visit to my hypertext design lab. *comp.infosystems.www.authoring.site-design*. Retrieved from <http://groups.google.co.uk/group/comp.infosystems.www.authoring.site-design/msg/f160d8f52d2ab95c>
- Edmonds, A. (1998a, January 5). Andy Edmonds's News. Retrieved February 17, 2010, from <http://web.archive.org/web/19980117032713/aedmonds.home.mindspring.com/news.html>
- Edmonds, A. (1998b, March 20). Yee haw! Jorn put a graphic header up. *Greenspun*. Retrieved from <http://web.archive.org/web/19990508100042/http://www.greenspun.com/com/weblog/weblog.html>
- Eglash, R. (2004). Appropriating technology: An Introduction. In R. Eglash (Ed.), *Appropriating Technology: Vernacular Science And Social Power* (p. vii – xxi). Minneapolis: University of Minnesota Press.
- Einstein, D. (1995, August 29). Wozniak chastises his Apple: Biggest blunder was not sharing its OS. *The San Francisco Chronicle*, p. B1. San Francisco.
- Eisenberg, R. (1998, July 12). An insider's guide to indie Web sites. *The Examiner*. Retrieved November 19, 2008, from <http://www.sanfranciscochronicle.info/cgi-bin/article.cgi?f=/e/a/1998/07/12/BUSINESS1353.dtl&type=printable>
- Ellis, D. (1989). A behavioral approach to information retrieval design. *Journal of Documentation*, 46(3), 318 – 338.
- Engst, A. C. (1996, April 29). More Bookmarks than Books, Part III. *Tidbits*. Retrieved April 30, 2009, from <http://www.tidbits.com/tb-issues/TidBITS-326.html>
- Erickson, T. (1996, January). Social Hypertext, by Thomas Erickson. *Tom's Home Page*. Retrieved June 19, 2011, from http://www.pliant.org/personal/Tom_Erickson/SocialHypertext.html

- Fasoldt, A. (1995, December 17). Microsoft is testing an Internet “newspaper” you can customize. *The Post-Standard*, p. 15.
- Fawthrop, D. (1997, December 21). Charter & FAQ. *alt.etext*. Retrieved from <http://groups.google.com/group/alt.etext/msg/d418687249e1eb22>
- Fawthrop, D. (1998, February 15). Etext FAQ: or not as the case may be :-). *alt.etext*. Retrieved from <https://groups.google.com/group/alt.etext/msg/264e32a34ed0212d>
- Felter, W. (1997). Index of /stories/felter. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/felter/>
- Felter, W. (1998, August 14). The Hack the Planet Manifesto. *Hack the Planet*. Retrieved January 30, 2011, from <http://hack-the-planet.felter.org/meta/manifesto.html>
- Festa, P. (2003, February 25). Blogging comes to Harvard. *CNET News*. Retrieved from <http://news.com.com/2008-1082-985714.html>
- First simultaneous Mac/Windows release! (1997, November 22). *Frontier News*. Retrieved from [http://frontier-userland.com/news/default\\$1997/11](http://frontier-userland.com/news/default$1997/11)
- Firth, S. (1998, July 3). Baring your soul to the Web. *Salon*. Retrieved July 12, 2008, from http://archive.salon.com/21st/feature/1998/07/cov_03feature.html
- Foong, K. K. (1999, November 1). Let there be apps on tap. *Business Times*. Singapore.
- Foster, A. (2004). A nonlinear model of information-seeking behavior. *Journal of the American Society for Information Science and Technology*, 55(3), 228–237. doi:10.1002/asi.10359
- Foster, A. (2005). A non-linear model of information seeking behaviour. *Information Research*, 10(2). Retrieved from <http://informationr.net/ir/10-2/paper222.html>
- Foster, A. (2011, October). Qualitative Code Book for Foster’s Nonlinear Model of Information Behaviour. Aberystwyth University. Retrieved from <http://cadair.aber.ac.uk/dspace/handle/2160/7695>
- Foster, A., & Ford, N. (2003). Serendipity and information seeking: An empirical study. *Journal of Documentation*, 59(3), 321 – 340. doi:10.1108/00220410310472518
- Foster, A., Urquhart, C., & Turner, J. (2008). Validating coding for a theoretical model of information behaviour. *Information Research*, 13(4). Retrieved from <http://informationr.net/ir/13-4/paper358.html>
- Foucault, M. (1999a). On the ways of writing history. In *Aesthetics, Method, and Epistemology* (p. 279 – 296). New York: The New Press.
- Foucault, M. (1999b). Nietzsche, genealogy, history. In *Aesthetics, Method, and Epistemology* (p. 369 – 391). New York: The New Press.
- Foucault, M. (2002). *The archaeology of knowledge*. London and New York: Routledge.
- Frankel, B. (1997a). Index of /stories/frankel. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/frankel/>
- Frankel, B. (1997b, March 31). Advertising and The Internet - Intro. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/frankel/advertisingandtheinterneti.html>
- Freeman. (1996, June 4). Find your own road. *Suck*. Retrieved February 23, 2008, from <http://www.suck.com/daily/96/06/04/daily.html>
- Freiberger, P., & Swaine, M. (2000). *Fire in the Valley: The Making of The Personal Computer* (2nd ed.). McGraw-Hill Companies.
- Frey, C., & Cook, J. (2004, January 28). How Amazon.com survived, thrived and turned a profit: E-tailer defied predictions it would do none of those. *Seattle Post-Intelligencer*. Retrieved from http://web.archive.org/web/20040404113514/http://seattlepi.nwsourc.com/business/158315_amazon28.html
- Friedman, R. S. (1997). *The Factsheet five zine reader: The best writing from the underground world of zines*. New York: Three Rivers Press.
- Galbraith, D. (2002, November 7). Permalinks and trackback are the key to the semantic web. *David Galbraith’s Weblog*. weblog. Retrieved from <http://www.davidgalbraith.org/archives/000055.html>
- Gallagher, D. F. (2000, December 28). Invasion of the “Blog”: A Parallel Web of Personal Journals. *New York Times*. Retrieved from <http://www.nytimes.com/2000/12/28/technology/28BLOG.html>
- Gardner, M. (2000, April 13). I’ll volunteer. *Weblogs2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/1>
- Gardner, M. (2008, February 29). Mailing list now READ-ONLY. *Weblogs2 eGroup*. Retrieved from <http://tech-groups.yahoo.com/group/weblogs2/message/305>
- Garneau, G. (1993, May 15). Major newspaper companies join MIT research project. *Editor & Publisher Magazine*.
- Garrett, J. J. (1999a). The page of only weblogs. *JJG.net*. Retrieved September 4, 2009, from <http://web.archive.org/web/20000118102938/http://jjg.net/portal/tpoowl.html>

- Garrett, J. J. (1999b, January 4). Michael Sippey makes his irregular publishing schedule official. *Infosift*. Retrieved from <http://www.jjg.net/retired/infosift/1999/01.html>
- Garrett, J. J. (1999c, May 4). In the beginning, there was only one weblog. *Infosift*. Retrieved September 8, 2011, from <http://www.jjg.net/retired/infosift/1999/05.html>
- Garrett, J. J. (1999d, October 5). Portal. *JJG.net*. Retrieved September 4, 2009, from <http://web.archive.org/web/19991005144411/http://jjg.net/portal/>
- Garrett, J. J. (1999e, November 22). This feature is on indefinite hiatus. *Infosift*. Retrieved November 11, 2008, from <http://www.jjg.net/retired/infosift/>
- Garrett, J. J. (2001a, January 19). Tomalak: With all due respect, I believe I was the first to make the connection between weblogs and the What's New page. *Metafilter*. Retrieved from <http://www.metafilter.com/5373/Ego-Finds-a-New-Outlet-In-Blogs#43054>
- Garrett, J. J. (2001b, January 19). Well, the idea of a weblog actually predates the Web itself. *Metafilter*. Retrieved from <http://www.metafilter.com/5373/Ego-Finds-a-New-Outlet-In-Blogs#42983>
- Garrett, J. J. (2004, November). About me. Retrieved August 21, 2011, from <http://web.archive.org/web/20041125050014/http://www.jjg.net/about/>
- Garrett, J. J. (2011, March 2). Ten Years Later: Way Beyond Digital. *Adaptive Path*. Retrieved August 21, 2011, from <http://adaptivepath.com/ideas/ten-years-later-way-beyond-digital>
- Gates, B. (1994, October 27). Reply from Bill Gates. *DaveNet*. Retrieved August 19, 2008, from <http://www.scripiting.com/davenet/1994/10/27/replyfrombillgates.html>
- Gates, B. (1996, February 22). Support Freedom of Speech on the Internet. *DaveNet*. Retrieved May 1, 2010, from <http://www.scripiting.com/davenet/1996/02/22/billgatesonfreedom.html>
- Gatlin, C. F. (1999, March 23). Vote for the 1998 Web innovators. *Builder.com*. Retrieved October 11, 2009, from <http://web.archive.org/web/20001116232400/http://www.builder.com/Business/Nominations98/?st.bl.f-d.sg1.feat.1633>
- Gaudeul, A., & Giannetti, C. (2012). The role of reciprocation in social network formation, with an application to blogging. *Social Networks*, [forthcoming].
- Gaudeul, A., & Peroni, C. (2010). Reciprocal Attention and Norm of Reciprocity in Blogging Networks. *Economics Bulletin*, 30(3), 2230 – 2248.
- George, D. (1997, November 17). Chris Gulker. *Salon.com*. Retrieved from <http://dir.salon.com/story/travel/feature/1997/11/17/road/index.html>
- Gerwig, K. (1997). The push technology rage... so what's next? *NetWorker*, 1(2), 13–17. doi:10.1145/267290.267299
- Gibson, W. (1996, October 14). Gibson on the Web. Retrieved from <http://www.salon.com/weekly/gibson2961014.html>
- Giesler, M. (2006). Consumer Gift Systems. *The Journal of Consumer Research*, 33(2), 283 – 290.
- Gilbert, M. (1994, September 18). Getting Wired: This San Francisco magazine is the Rolling Stone of the digital revolution. *The Boston Globe*, p. A1.
- Gillmor, D. (1998, December 6). Small portals prove that size matters. *San Jose Mercury News*. San Jose. Retrieved from <http://www.cse.iitb.ac.in/~soumen/focus/DanGillmor19981206.htm>
- Gillmor, D. (1999a, May 24). Slashdot almost addictive for those who care. *San Jose Mercury News*. Retrieved from <http://web.archive.org/web/20000424113359/http://www.mercurycenter.com/svtech/columns/gillmor/docs/dg052599.htm>
- Gillmor, D. (1999b, June 8). Creating Web-based documents: thinking out of the box. *San Jose Mercury News*. Retrieved from <http://web.archive.org/web/19991104030100/http://www.mercurycenter.com/svtech/columns/gillmor/docs/dg060899.htm>
- Gillmor, D. (1999c, August 30). Frequently Asked Questions. *eJournal*. Retrieved April 1, 2012, from <http://web.archive.org/web/20001015210534/http://weblog.mercurycenter.com/ejournal/faq>
- Gillmor, D. (1999d, October 25). We launch. *eJournal*. Retrieved from <http://web.archive.org/web/20000919160535/weblog.mercurycenter.com/ejournal/1999/10/22>
- Gillmor, D. (1999e, October 25). As World Wide Web turns: new column online. *Mercury Center*. Retrieved January 16, 2009, from <http://web.archive.org/web/20000311031904/http://www.mercurycenter.com/svtech/columns/gillmor/docs/dg102699.htm>
- Gillmor, D. (1999f, November 15). Is Gillmor's eJournal a weblog? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/434>
- Gillmor, D. (2001, February 20). The Whys and Hows of Weblogs. *Dan Gillmor's eJournal*. Retrieved from <http://web.archive.org/web/20010917015304/web.siliconvalley.com/content/sv/2001/02/20/opinion/dgill->

- mor/weblog/GillmorWeblogExplainer.htm
- Gillmor, D. (2004a). *We the Media*. Sebastopol, CA: O'Reilly Media.
- Gillmor, D. (2004b). Introduction. In *We the Media*. Authorama. Retrieved from <http://www.authorama.com/we-the-media-1.html>
- Gillmor, D. (2009, October 26). Welcome to My Old Blog. *Bayosphere*. Retrieved from <http://bayosphere.com/2009/10/26/welcome-to-my-old-blog/>
- Gillmor, D. (2010a). *Mediactive*. Dan Gillmor.
- Gillmor, D. (2010b). Information safety. In *Mediactive*. Dan Gillmor. Retrieved from <http://mediactive.com/7-10-information-safety/>
- Gniady, J. (1996a). Stating the Obvious. *iGuide Net Reviews*. Retrieved April 21, 2012, from <http://web.archive.org/web/19961027132925/http://www.iguide.com/insites/16/2/index3.htm#http://www.theobvious.com/index.html>
- Gniady, J. (1996b). Suck. *iGuide Net Reviews*. Retrieved April 21, 2012, from <http://web.archive.org/web/19961027132925/http://www.iguide.com/insites/16/2/index3.htm#http://www.suck.com/>
- Goddard, I. (1999). Anti-Authoritarian Journal. Retrieved November 17, 2011, from <http://web.archive.org/web/19990127213506/http://erols.com/igoddard/journal.htm>
- Goffman, E. (1959). *The presentation of self in everyday life* (1st ed.). New York: Doubleday.
- Goodman, M. (1993, February 23). Censure Schank? *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/fce8a18c45c73aef>
- Gornstein, L. (1998, August 23). The Web: A plethora of portals. *Orange County Register*, p. K06. Santa Ana, California.
- Gouldner, A. W. (1960). The Norm of Reciprocity: A Preliminary Statement. *American Sociological Review*, 25(2), 161 – 178.
- Graham, B. (1997, July 17). NewHoo debut. *Bradlands*. Retrieved from http://www.bradlands.com/weblog/comments/newhoo_debut/
- Graham, B. (1999a, March 24). Not quite ready to write about it. *BradLands*. Retrieved from http://www.bradlands.com/weblog/comments/not_quite_ready_to_write_about_it/
- Graham, B. (1999b, May 23). PeterMe decides the proper way to say “weblog” is “wee’- blog.” *Bradlands*. Retrieved September 1, 2011, from http://www.bradlands.com/weblog/comments/wee_blog/
- Graham, B. (1999c, June 16). Why I Weblog. *The Bradlands*. Retrieved September 2, 2009, from http://www.bradlands.com/weblog/comments/essay_why_i_weblog/
- Graham, B. (2000, January 6). Navel gazing. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/953>
- Green, H. (1998). The Skinny on niche portals. *Business Week*, 66.
- Green, H., Himelstein, L., & Judge, P. C. (1998, March 2). Portal combat comes to the Net. *Business Week*, 73.
- Greenhouse, L. (1997, June 27). Court, 9-0, upholds state laws prohibiting assisted suicide; protects speech on Internet. *New York Times*. Retrieved May 6, 2009, from <http://www.nytimes.com/1997/06/27/us/court-9-0-upholds-state-laws-prohibiting-assisted-suicide-protects-speech.html?pagewanted=all>
- Grossman, Leonard. (2000a, January). Trust or Consequences. *Reflections of a Modem Junkie*. Retrieved July 13, 2008, from <http://lgrossman.com/mjnk/mjnk0001.htm>
- Grossman, Leonard. (2000b, February). Trust or Consequences – The Aftermath. *Reflections of a Modem Junkie*. Retrieved from <http://www.lgrossman.com/mjnk/mjnk0002.htm#3>
- Grossman, Lev. (2004, June 13). Meet Joe Blog. *Time*. Retrieved from <http://www.time.com/time/printout/0,8816,650732,00.html>
- Grumer, A. (1998, May). Weblog Archives [05/1998]. *Pigs & Fishes*. Retrieved November 15, 2008, from <http://pigsandfishes.com/links/weblog/archives.html?year=1998&month=05>
- Gu, B., Huang, Y., Duan, W., & Whinston, A. B. (2009). Indirect Reciprocity in Online Social Networks: A Longitudinal Analysis of Individual Contributions and Peer Enforcement in a Peer-to-Peer Music Sharing Network. *SSRN eLibrary*.
- Gulker, C. (1994a, December). Walking on Fifth Street. *Gulker.com*. Retrieved February 1, 2011, from <http://www.gulker.com/gulker/5thstreet.html>
- Gulker, C. (1994b, December). The Web, or can you succeed on-line by giving things away? *The Cole Papers*. Retrieved from http://www.colepapers.net/TCP.Archive/Cole_Papers_94/TCP_94_12/web.html
- Gulker, C. (1995a). The Wiring of America. *Gulker.com*. Retrieved July 9, 2011, from <http://www.gulker.com/gulker/wiring.html>
- Gulker, C. (1995b, March 2). Mac DTP Expert Wanted. *ba.jobs.offered*. Retrieved from <http://groups.google.com/group/ba.jobs.offered/msg/7666d70a2cafb97a?hl=en>

- Gulker, C. (1997a). Index of /stories/gulker. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/gulker/>
- Gulker, C. (1997b, March 14). What we learned from the Virtual Newsroom. *Apple@InternetWorld*; Retrieved May 21, 2009, from <http://web.archive.org/web/19970704141309/http://apple.www.conxion.com/news-Room/contentserver/newsroomwrap.html>
- Gulker, C. (1997c, May 31). May 1997 Archive. *Chris Gulker's News Page*. Retrieved September 17, 2008, from <http://web.archive.org/web/19991006011654/ww2.gulker.com/news/archive/may.html>
- Gulker, C. (1997d, July). Chris Gulker's News Page - July 1997 Archive. *Gulker.com*. Retrieved November 28, 2008, from <http://web.archive.org/web/19991005231431/ww2.gulker.com/news/archive/july.html>
- Gulker, C. (1997e, September). Chris Gulker's News Page - September 1997 Archive. *Gulker.com*. Retrieved November 28, 2008, from <http://web.archive.org/web/19991118015628/ww2.gulker.com/news/archive/september.html>
- Gulker, C. (1997f, October 5). Agents Home Page. *Gulker.com*. Retrieved August 29, 2009, from <http://web.archive.org/web/20000914072055/www.gulker.com/agents/index.html>
- Gulker, C. (1997g, October 7). DaveNet turns 3 today. *Gulker.com*. Retrieved August 11, 2010, from [http://web.archive.org/web/19990902234326/www.gulker.com/agents.board.fcgi\\$www.gulker.com_news?read](http://web.archive.org/web/19990902234326/www.gulker.com/agents.board.fcgi$www.gulker.com_news?read)
- Gulker, C. (1997h, October 8). Random Access explained. *Gulker*. Retrieved November 23, 2008, from <http://web.archive.org/web/19980415174941/www.gulker.com/ra/explainra.html>
- Gulker, C. (1997i, October 8). Current Reading. *Gulker*. Retrieved April 29, 2011, from <http://www.gulker.com/gulker/books.html>
- Gulker, C. (1997j, October 22). Networks. *Gulker.com*. Retrieved June 30, 2011, from <http://www.gulker.com/ra/networks.html>
- Gulker, C. (1997k, October 23). Obituary: Jon Postel. *The Independent*, p. 7. London.
- Gulker, C. (1997l, October 31). Chris Gulker's News Page. *Gulker.com*. Retrieved March 3, 2008, from <http://web.archive.org/web/19990430041721/ww2.gulker.com/news/archive/october.html>
- Gulker, C. (1997m, November 15). A new "age of letters." *Gulker.com*. Retrieved September 17, 2008, from <http://web.archive.org/web/19980215222047/ww2.gulker.com/news/about.html>
- Gulker, C. (1997n, November 16). Literacy, the ultimate renewable natural resource. *Gulker.com*. Retrieved September 9, 2010, from <http://www.gulker.com/ra/goldmine.html>
- Gulker, C. (1997o, December 29). New Years' resolutions... *Gulker.com*. Retrieved August 12, 2010, from [http://web.archive.org/web/19990902234326/www.gulker.com/agents.board.fcgi\\$www.gulker.com_news?read](http://web.archive.org/web/19990902234326/www.gulker.com/agents.board.fcgi$www.gulker.com_news?read)
- Gulker, C. (1998a, February 13). Chris Gulker's News Page. *Gulker*. Retrieved March 3, 2008, from <http://web.archive.org/web/19980215222004/ww2.gulker.com/news/>
- Gulker, C. (1998b, October 29). News Page is back. *Chris Gulker's News Page*. Retrieved from <http://web.archive.org/web/19991002221342/adelie.gulker.com/news/>
- Gulker, C. (1999a, May 10). The secret of Silicon Valley? We all have an axe to grind. *The Independent*. London. Retrieved from <http://www.independent.co.uk/arts-entertainment/network-the-secret-of-silicon-valley-we-all-have-an-axe-to-grind-1092759.html>
- Gulker, C. (1999b, November 1). Weblogs get a mention in InfoWorld. *Gulker.com*. Retrieved from <http://web.archive.org/web/20030701024703/http://www.gulker.com/indexarchive.html>
- Gulker, C. (2002a, January 20). Lightweight CMS. *Chris Gulker's Radio Weblog*. Retrieved August 29, 2009, from <http://radio.weblogs.com/0100924/stories/2002/01/20/lightweightCms.html>
- Gulker, C. (2002b, January 20). Chris Gulker checks in. *Dave's handsome Radio blog*. Retrieved from <http://radio.weblogs.com/0001015/stories/2002/01/20/chrisGulkerChecksIn.html>
- Gulker, C. (2002c, December 16). Bloggers come in from the cold. *The Independent*. London. Retrieved from <http://www.independent.co.uk/news/business/analysis-and-features/the-view-from-silicon-valley-bloggers-come-in-from-the-cold-611155.html>
- Gulker, C. (2003a, April 7). 16th Century network hackers. *Gulker.com*. Retrieved August 24, 2011, from <http://gulker.com/2003/04/07.html>
- Gulker, C. (2003b, December 17). The gentlemen of letters. *Gulker.com*. Retrieved September 9, 2010, from <http://www.gulker.com/categories/loneGeniusHackers/2003/12/17.html>
- Gulker, C. (2009, October 5). Our brief moment in the sun. *Gulker.com*. Retrieved October 25, 2010, from <http://www.gulker.com/wp/2009/10/05/our-brief-moment-in-the-sun/>
- Gunderloy, M. (1992). *The World of Zines: A Guide to the Independent Magazine Revolution*. New York: Penguin USA.
- Gunderloy, M. (1999a, November 2). You folks are fast :). *Weblogs eGroup*. Retrieved from <http://tech.groups.ya->

- hoo.com/group/weblogs/message/257
- Gunderloy, M. (1999b, November 11). Perspective of the old guard. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/390>
- Gunderloy, M. (2000a, January 2). Overflow Slashdotting. *Weblogs Yahoo Group*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/911>
- Gunderloy, M. (2000b, April 15). Alternate take. *Weblogs2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/30>
- Gunderloy, M. (2000c, June 18). Mike's Weblog. *Larkfarm*. Retrieved April 6, 2012, from <http://web.archive.org/web/20000619021901/http://www.larkfarm.com/weblog.asp>
- Gyford, P. (2000, December). *Conceptual dissemination between the internet and the mainstream*. The University of Houston Clear Lake. Retrieved from www.gyford.com/phil/uhcl/thesis/
- Hafner, K. (1997, May). The Epic Saga of The Well. *Wired*. Retrieved January 14, 2011, from http://www.wired.com/wired/archive/5.05/ff_well_pr.html
- Hafner, K. (1999, July 22). I Link, Therefore I Am: a Web Intellectual's Diary. *New York Times*. Retrieved from <http://query.nytimes.com/gst/fullpage.html?res=9D06E1D7163EF931A15754C0A96F958260&sec=&spon=&pagewanted=all>
- Halfhill, T. R. (1996, May). Inside the Ultimate Web Site. *Byte*. Retrieved from <http://web.archive.org/web/19961220062729/http://www.byte.com/art/9605/sec3/art2.htm>
- Hammersley, B. (2005). *Developing Feeds with RSS and Atom*. Sebastopol: O'Reilly.
- Hantschel, A. (1996, July 22). Online magazines offer more than chit-chat. *Milwaukee Journal Sentinel*, p. Cue & Jump Pg. 1.
- Hapgood, F. (1995, November). The Media Lab at 10. *Wired*, 3(11). Retrieved from http://www.wired.com/wired/archive/3.11/media_pr.html
- Harmon, A. (1998, March 26). Guess Who's Going On Line. *The New York Times*, p. G1.
- Harmon, A. (2003, February 17). Final Google deal ties company to weblogs. *The New York Times*, p. 3. New York.
- Harpold, L. (1999, May). Logrolling. *Smug*. Retrieved from <http://web.archive.org/web/19990824022812/http://www.smug.com/29/net.html>
- Harrison, T. M., & Stephen, T. (1996). *Computer Networking and Scholarly Communication in the Twenty-First-Century University*. New York: SUNY Press.
- Hartung, D. (1999, November 3). Metajournals discussion on "weblogs are evil." *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/279>
- Hartung, D. (2000, April 13). Event blogs. *Weblogs 2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/18>
- Haughey, M. (2000a, February 17). When I first saw a weblog. *Powazek*. Retrieved from <http://www.powazek.com/wtf/post/>
- Haughey, M. (2000b, March 6). Caroline wishes outloud for. *A whole lotta nothing*. Retrieved October 31, 2008, from <http://web.archive.org/web/20030617180031/http://a.wholelottanothing.org/archives.blah/005521>
- Haughey, M. (2000c, March 19). Reflections on SXSW. *A Whole Lotta Nothing*. Retrieved January 11, 2009, from <http://a.wholelottanothing.org/2000/03/reflections-on-sxsw.html>
- Haughey, M. (2000d, March 20). More is sometimes too much. *Haughey.com*. Retrieved December 18, 2011, from <http://www.haughey.com/more/is/sometimes/too/much/>
- Haughey, M. (2000e, December 27). Jorn has one or two points in his entire tirade that deserve further review. *Metafilter*. Retrieved from <http://www.metafilter.com/4954/#36784>
- Haughey, M. (2002, July 19). This stuck out as a really odd thing to say. *Q Daily News*. Retrieved from <http://q.queso.com/archives/000930#804>
- Henning, J. (2003, October 4). The Blogging Iceberg: Of 4.12 Million Hosted Weblogs, Most Little Seen, Quickly Abandoned. *Perseus*. Retrieved August 3, 2011, from <http://web.archive.org/web/20040209051600/http://www.perseus.com/blogsurvey/thebloggingiceberg.html>
- Herhold, S. (1997, February 7). Technique tells advertisers what you really want. *San Jose Mercury News*, p. 1C. San Jose, CA.
- Herring, S. (2007). A faceted classification scheme for computer-mediated discourse. *Language at Internet*, 4(1). Retrieved from <http://web.archive.org/web/20080331213233/http://www.languageatinternet.de/articles/2007/761>
- Herring, S. C., Scheidt, L. A., Bonus, S., & Wright, E. (2004). Bridging the Gap: A Genre Analysis of Weblogs. *Proceedings of the 37th Annual Hawaii International Conference on System Sciences (HICSS'04)*, 1 – 11.
- Herzberg, B. (1986). The Politics of Discourse Communities. In *Proceedings of the Conference on College Com-*

- position and Communication*. New Orleans.
- Hess, C., & Ostrom, E. (2007). Introduction: An Overview of the Knowledge Commons. In C. Hess & E. Ostrom (Eds.), *Understanding Knowledge as a Commons: From Theory to Practice* (p. 3 – 26). Cambridge, MA, and London: MIT Press.
- Hiler, J. (2002, July 22). The Microcontent News Blogging Software Roundup. *Microcontent News*. Retrieved April 12, 2012, from <http://web.archive.org/web/20021203020234/http://www.microcontentnews.com/articles/blogware.htm>
- Hilvert, J. (1997, February 25). Welcome to the land of Fray. *The Australian*, p. C11. Surry Hills.
- Himmelstein, L., & Siklos, R. (1999, April 26). PointCast: The Rise and Fall of an Internet Star. Retrieved from http://www.businessweek.com/1999/99_17/b3626167.htm
- Hirsch, D. H. (1975). American Dionysian Poetry and Modern Poetics. *The Sewanee Review*, 83(2), 334–347.
- Ho, J., & Tang, R. (2001). Towards an optimal resolution to information overload: an infomediary approach. In *Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work* (pp. 91–96). Presented at the Conference on Supporting Group Work, Boulder, Co.: ACM.
- Hogan, B. (2010). The presentation of self in the age of social media: Distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society*, 30(6), 377 –386.
- Holloway, M. (1997, December). Pattie. *Wired*, 5(12). Retrieved from <http://www.wired.com/wired/archive/5.12/maes.html>
- Holmes, P. (1997, March). Index of /stories/holmes. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/holmes/>
- HotWired FAQ. (1994, November 9). Retrieved March 29, 2010, from http://www.driftline.org/cgi-bin/archive/archive_msg.cgi?file=spoon-archives/deleuze-guattari.archive/d-g_1994/erik&msgnum=179&start=7713&end=7863
- Hourihan, M. (2000, March 28). I just added the permanent. *Hourihan.com*. Retrieved April 6, 2012, from <http://web.archive.org/web/20070114001844/http://meg.hourihan.com/2000/03/index>
- Hourihan, M. (2002, June 13). What We're Doing When We Blog. *O'Reilly Network*. Retrieved November 6, 2007, from <http://www.oreillynet.com/pub/a/javascript/2002/06/13/megnutf.html>
- Hubbard, A. (2009, February 1). The Creative Caveman. *The Sunday Star-Times*, p. 3. Auckland.
- Hudson, D. (1997, October 20). Smoking Tape Without a Filter. *Rewired*. Retrieved from <http://web.archive.org/web/19991002010229/http://www.rewired.com/97/1020.html>
- Humphries, B. (1998a, June 24). Web Log. *Whump.com*. Retrieved November 11, 2008, from <http://web.archive.org/web/19980625201841/http://www.whump.com/weblog.html>
- Humphries, B. (1998b, November 22). It's Official – Web Logs are a Movement. *Whump.com*. Retrieved July 16, 2009, from <http://www.whump.com/moreLikeThis/1998/11/22/00878/>
- Humphries, B. (1999, November 11). Using a Glossary to Unwind Comments from Links. *Whump.com*. Retrieved December 18, 2011, from <http://web.archive.org/web/20000302160545/http://www.whump.com/www/unwrappingLinks.html>
- Inside Macintosh: PowerPC system software*. (1994). Boston: Addison-Wesley.
- Jensen, D. (1984, November 28). Newspapers of the Future May Deliver News Via Computer. *Associated Press*.
- Jerz, D. (2007, November 9). The page of only weblogs. *Jerz's Literacy Weblog*. Retrieved from <http://web.archive.org/web/20080701023758/http://jerz.setonhill.edu/weblog/permalink/the-page-of-only-weblogs/>
- Jerz, D. G. (2003). On the Trail of the Memex: Vannevar Bush, Weblogs and the Google Galaxy. Retrieved from <http://www.dichtung-digital.org/2003/issue/1/jerz/index.htm>
- John, N. A. (2012). Sharing and Web 2.0: The emergence of a keyword. *New Media & Society*. doi:10.1177/1461444812450684
- Johnson, A. R. (1999). Internet news clipping services: How companies keep on top of their markets. *NetWorker*, 3(3), 30–35.
- Johnson, Bobbie. (2007, April 7). Blogs turn 10. *The Guardian*. Retrieved from <http://www.guardian.co.uk/news/blog/2007/apr/07/thetop40mome1>
- Johnson, Bradley. (1994, January 10). The commercial, and the product, that changed advertising. *Advertising Age*. New York.
- Johnson, S. (1995, December). Sucking Frenzy. *Feed Magazine*. Retrieved February 23, 2008, from http://web.archive.org/web/19970606080534/www.feedmag.com/95.11_filter.html
- Jones, C. (1996a, July 22). Internet file sharing: Apple outlines its approach to the Internet. *InfoWorld*, p. 16.
- Jones, C. (1996b, July 29). Fusion's Web site builder has 50 site style templates. *InfoWorld*, p. 6.
- Josey, A., Cragun, D. W., Stoughton, N., Brown, M., & Hughes, C. (2004). Grep. In *IEEE Std 1003.1*. The IEEE and The Open Group. Retrieved from

- <http://pubs.opengroup.org/onlinepubs/009695399/utilities/grep.html>
- Judge, P. C. (1996, October 7). Firefly: The Web site that has Mad Av. Buzzing. *Business Week*. Retrieved from <http://www.businessweek.com/1996/41/b349690.htm>
- Kahney, L. (2001, January 4). Dot-Com Beggars for Bucks. *Wired*. Retrieved from <http://www.wired.com/techbiz/media/news/2001/01/40979>
- Kaminski, P. (2009, October 26). Resurrecting Dan Gillmor's Blog. *Kaminski Wiki*. Retrieved March 10, 2012, from http://peterkaminski.com/wiki/Resurrecting_Dan_Gillmor%27s_Blog
- Kane, P. (1999, September 19). Worldwidewisdom. *The Sunday Herald*, p. 5.
- Kantrowitz, M. (1992, August 20). Proposed FAQ for comp.ai. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/3f3efa47736c0766>
- Kantrowitz, M. (1994, May 25). The wildest hypothesis yet. *comp.ai*. Retrieved from <http://groups.google.co.uk/group/comp.ai/msg/167d4cd914116054>
- Katz, J. (1996, November 10). Torn and Frayed. Retrieved March 30, 2012, from <http://web.archive.org/web/20000817180132/http://hotwired.lycos.com/netizen/96/46/index0a.html>
- Katz, J. (1999, May 24). Here Come The Weblogs. *Slashdot*. Retrieved from <http://slashdot.org/story/99/05/13/1832251/Here-Come-The-Weblogs>
- Kehoe, L. (1997, July 10). Amelio quits Apple ahead of third-quarter results. *Financial Times*, p. 1. London.
- Keller, J. (1999, September 7). She has seen the future and it is – weblogs. *Chicago Tribune*. Retrieved from <http://web.archive.org/web/20010121220000/www.chicagotribune.com/leisure/tempo/printedition/article/0,2669,SAV-9909070005,FF.html>
- Kelly, K., & Wolf, G. (1997, March). Push! *Wired*, 5(03). Retrieved from http://www.wired.com/wired/archive/5.03/ff_push_pr.html
- Kemp, A. (1979). *Current Awareness Services*. London: Bingley.
- Khare, R., & Rifkin, A. (1997). XML: A door to automated web applications. *IEEE Internet Computing*, 1(4), 78–87.
- Kim, E. E. (1998, December 11). Beyond the Mouse: Engelbart and Social Change. *Dr. Dobbs's*. Retrieved from http://unrev.stanford.edu/press/Dr._Dobbs_s/dr._dobbs_s.html
- Kirschenbaum, M. (1999). Media, Genealogy, History. *Electronic Book Review*. Retrieved February 19, 2008, from <http://www.altx.com/ebv/reviews/rev9/r9kir.htm>
- Kirschenbaum, M. (2010). What is Digital Humanities and What's it Doing in English Departments? *ADE Bulletin*, (150), 1 – 7.
- Kissell, J., & McKee, D. (1997). *Cyberdog: OpenDoc on the Internet*. Foster City, CA: IDG Books.
- Kitchen, J. (1999, November 10). Weblog Future- Business Model? *Weblogs eGroup*. Retrieved from <http://tech-groups.yahoo.com/group/weblogs/message/372>
- Kittler, F. A. (1992). *Discourse Networks, 1800/1900*. Stanford, CA: Stanford University Press.
- Kitzmann, A. (2003). That Different Place: Documenting the Self within Online Environments. *Biography*, 26(1), 48 – 65.
- Kleinberg, J. M. (1999). Authoritative sources in a hyperlinked environment. *Journal of the ACM*, 46(5), 604 – 632.
- Klimko, F. (1999, July 13). A twist: Logging on to “Web logs.” *The San Diego Union-Tribune*, p. 17.
- Knauss, G. (1997, May 30). Machine to the Slave. *Suck*. Retrieved from <http://web.archive.org/web/19970616051420/www.suck.com/daily/97/05/30/>
- Knauss, G. (1999, November 22). My Ass is a Weblog. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1999/11/22.html>
- Knight, P. (2003). Waco. In *Conspiracy Theories in American History: An Encyclopedia* (p. 717 – 719). Santa Barbara, CA: ABC-CLIO.
- Knobel, L. (2000, January 26). Draft press release. *Insider's guide to Davos*. Retrieved February 11, 2012, from [http://web.archive.org/web/20010222082545/http://www.davosnewbies.com/stories/storyReader\\$347](http://web.archive.org/web/20010222082545/http://www.davosnewbies.com/stories/storyReader$347)
- Kollock, P., & Smith, M. (1996). Managing the virtual commons: Cooperation and conflict in computer communities. In S. C. Herring (Ed.), *Computer-mediated Communication: Linguistic, Social, and Cross-cultural Perspectives* (p. 109 – 128). Amsterdam and Philadelphia: John Benjamins.
- Komter, A. E. (2005). *Social solidarity and the gift*. Cambridge University Press.
- Kottke, J. (2000, March 5). Finally. Did you notice the little icon next to today's date? *Kottke.org*. Retrieved October 31, 2008, from <http://web.archive.org/web/20000819164508/kottke.org/notes/0003.html#000305>
- Krahn, L. (1998a, November 30). Why a Web Log? *Windowseat Weblog*. Retrieved August 25, 2011, from <http://www.windowseat.org/weblog/why.html>
- Krahn, L. (1998b, December). Week of . . . December 5, 1998. *Windowseat Weblog*. Retrieved October 16, 2010, from <http://www.windowseat.org/weblog/archive/981205.html>

- Krahn, L. (1999a, January). January 25 - 29, 1999. *Windowseat Weblog*. Retrieved August 21, 2009, from <http://www.windowseat.org/weblog/archive/990129.html>
- Krahn, L. (1999b, February). February 22-26, 1999. *Windowseat Web Log*. Retrieved October 17, 2010, from <http://www.windowseat.org/weblog/archive/990228.html>
- Krahn, L. (1999c, March 31). Wow, cool! Welcome to the weblog community! *rec.arts.sf.fandom*. Retrieved from <http://groups.google.co.uk/group/rec.arts.sf.fandom/msg/ef12ff1efe13787e>
- Krahn, L. (2005, January 29). On hiatus. *Windowseat weblog*. Retrieved November 11, 2008, from <http://www.windowseat.org/weblog/archive/00000630.html>
- Krantz, M. (1999, December 27). Cruising Inside Amazon. *Time*. Retrieved from <http://www.time.com/time/printout/0,8816,992929,00.html>
- Krishnamurti, J. (1967a). *Commentaries on living: First series*. Wheaton, Illinois: Quest.
- Krishnamurti, J. (1967b). *Commentaries on living: Second series*. Wheaton, Illinois: Quest Books.
- Krishnamurti, J. (1967c). *Commentaries on Living: Third Series*. Wheaton, Illinois: Quest Books.
- Kumar, R., Novak, J., Raghavan, P., & Tomkins, A. (2003). On the bursty evolution of Blogspace. Presented at the WWW 2003, Budapest: ACM. Retrieved from <http://www2003.org/cdrom/papers/refereed/p477/p477-kumar/p477-kumar.htm>
- Kuntz, T. (1995, April 23). Tom Mandel and friends: A death on-line shows a cyberspace with heart and soul. *New York Times*. Retrieved from <http://www.nytimes.com/1995/04/23/weekinreview/word-for-word-tom-mandel-friends-death-line-shows-cyberspace-with-heart-soul.html?pagewanted=all&src=pm>
- Landow, G. (1992). *Hypertext: The Convergence of Contemporary Critical Theory and Technology*. Baltimore: The Johns Hopkins University Press.
- Lasica, J. D. (2001, August 2). The Promise of the Daily Me. *Online Journalism Review*. Retrieved October 14, 2010, from <http://web.archive.org/web/20011009081932/ojr.usc.edu/content/story.cfm?request=616>
- Lasica, J. D. (2002a). The Second Coming of Personalized News. *Online Journalism Review*. Retrieved from <http://www.ojr.org/ojr/lasica/1017779244.php>
- Lasica, J. D. (2002b, April 2). The Promise of the Daily Me. *USC Annenberg Online Journalism Review*. Retrieved April 29, 2007, from <http://www.ojr.org/ojr/lasica/1017779142.php>
- Lee, L. (1998a, December 7). Linking 1-2-3. *Tomalak's Realm*. Retrieved March 13, 2012, from <http://web.archive.org/web/20001017214819/http://www.tomalak.org/random/98/981207.html>
- Lee, L. (1998b, December 25). Christmas Note 1998. *Tomalak's Realm*. Retrieved August 23, 2011, from <http://web.archive.org/web/20010708214435/http://www.tomalak.org/random/98/981225.html>
- Leonard, A. (1996, April). Bots Are Hot! *Wired*, 4(4). Retrieved from http://www.wired.com/wired/archive/4.04/netbots_pr.html
- Lerner, R. M. (2004). At the forge: WordPress. *Linux Journal*, (125), 9.
- Levine, J. (2000, March 18). Manila and Daily Links. *Q Daily News*. Retrieved November 3, 2008, from <http://q.queso.com/archives/000139>
- Levine, R., Locke, C., Searls, D., & Weinberger, D. (1999, April). Cluetrain manifesto. *Cluetrain manifesto*. Retrieved April 2, 2012, from <http://web.archive.org/web/19990508175745/http://www.cluetrain.com/>
- Levy, S. (2001). *Hackers: Heroes of the Computer Revolution*. London: Penguin.
- Levy-Strauss, C. (1966). *The Savage Mind*. Chicago: University of Chicago Press.
- Lin, N. (2001). *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.
- Literary Weblogs: An Overview. (2002, August). *The Complete Review Quarterly*. Retrieved October 17, 2010, from <http://www.complete-review.com/quarterly/vol3/issue3/litblogs.htm>
- Lovink, G. (2012). *Networks without a Cause: A Critique of Social Media*. Cambridge: Polity Press.
- Lyke, D. (1999, November 11). Is Gillmor's eJournal a weblog? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/406>
- Lyke, D. (2000, April 14). Event blogs. *Weblogs 2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/20>
- Lyke, D. (2009, November 10). Weblog history. *Flutterby*. Retrieved October 25, 2010, from <http://www.flutterby.com/archives/comments/12655.html>
- Lyons, D. (1997, June 29). The Buzz About Firefly. *New York Times*. Retrieved from <http://www.nytimes.com/library/cyber/week/062997firefly.html>
- Macavinta, C. (1998, April 13). Excite, Lycos get more personal. *CNET News*. Retrieved from http://news.cnet.com/Excite,-Lycos-get-more-personal/2100-1023_3-210107.html
- Maes, P. (1997, July). Pattie Maes on Software Agents. *IEEE Internet Computing*, 10-19.
- Making waves: San Francisco newspaper opts for digital prepress imaging, sends paper to press by microwave. (1991). *American Printer*, 207(3), 26-29.
- Malda, R. (1997, June 13). Gnuhoo Web Directory. *Slashdot*. Retrieved from

- http://slashdot.org/articles/older/980613118210_F.shtml
- Manber, U., Patel, A., & Robison, J. (2000). Experience with Personalization on Yahoo! *Communications of the ACM*, 43(8), 35 – 39.
- Marin, R., & Sawhill, R. (1998, June 1). And Now, The Human Show. *Newsweek*, 64.
- Markoff, J. (1993, May 7). 17 Companies in Electronic News Venture. *New York Times*, p. D1.
- Markoff, J. (2001, April 9). Internet Critic Takes on Microsoft. *New York Times*. Retrieved from <http://www.nytimes.com/2001/04/09/technology/09HAIL.html?ei=5070&en=4ae13607661a35f4&ex=1218081600&pagewanted=print>
- Markoff, J. (2005). *What the Dormouse Said: How the Sixties Counterculture Shaped the Personal Computer Industry*. New York: Viking.
- Marriott, M. (1998, September 17). Happy Birthday, Your Team Won, Your Stock Crashed. *New York Times*. Retrieved from <http://www.nytimes.com/1998/09/17/technology/happy-birthday-your-team-won-your-stock-crashed.html?pagewanted=print>
- Marsh, J. (1999, September 9). What's with Weblogs? *Delusions of Adequacy*. Retrieved April 25, 2012, from <http://web.archive.org/web/20010310045713/http://www.adequacy.net/rant/rant34.shtml>
- Mathwick, C., Wiertz, C., & de Ruyter, K. (2008). Social Capital Production in a Virtual P3 Community. *Journal of Consumer Research*, 34, 832 – 849.
- Mayzlin, D., & Yoganarasimhan, H. (2010). Link to Success: How Blogs Build an Audience by Promoting Rivals. *Working Paper*. Retrieved from http://www.som.yale.edu/faculty/dm324/Link_to_Success.pdf
- McCullagh, D., & Broache, A. (2007, March 20). Blogs turn 10 – who's the father? *CNET News*. Retrieved from http://news.com.com/2100-1025_3-6168681.html
- McLuhan, M. (2003). *Understanding media: The extensions of man*. (W. T. Gordon, Ed.). Berkeley, CA: Gingko Press.
- Mead, R. (2000, November 13). You've Got Blog: How to put your business, your boyfriend, and your life online. *The New Yorker*. Retrieved March 21, 2012, from http://www.newyorker.com/archive/2000/11/13/2000_11_13_102_TNY_LIBRY_000022068
- Mead, R. (2006, May 29). Meg and Jason. *The New Yorker*. New York. Retrieved from http://web.archive.org/web/20060612235138/http://www.newyorker.com/talk/content/articles/060605talk_talk_mead
- Merholz, P. (1998, May 7). I can't keep my eyes off the new Apple Dodge Neon. *Peterme*. Retrieved November 20, 2008, from <http://www.peterme.com/browsed/browsed1998.html>
- Merholz, P. (1999a, January 25). Welcome to "My" Parlor. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1999/01/25.html>
- Merholz, P. (1999b, January 30). Cam, you're only partly right. *CamWorld*. Retrieved from <http://camworld.org/archives/001178.html>
- Merholz, P. (1999c, April 8). Ahoy metaphorphiles. *Peterme*. Retrieved from <http://web.archive.org/web/19990421170349/http://www.peterme.com>
- Merholz, P. (2011, March 2). Adaptive Path Turns 10. *Adaptive Path*. Retrieved August 21, 2011, from <http://adaptivepath.com/ideas/adaptive-path-turns-10>
- Metcalf, B. (1993, April 5). Get ready for personalized newspapers. *InfoWorld*, 52.
- Michalski, J. (1995, June 23). What's a zine? *Release 1.0*, 13(6), 1 – 24.
- Miller, C. (1984). Genre as Social Action. *Quarterly Journal of Speech*, 70, 151–67.
- Miller, C. R., & Shepherd, D. (2004). Blogging as Social Action: A Genre Analysis of the Weblog. (L. Gurak, Ed.) *Into the Blogosphere: Rhetoric, Community, and Culture of Weblogs*. Retrieved from http://blog.lib.umn.edu/blogosphere/blogging_as_social_action_a_genre_analysis_of_the_weblog.html
- Miller, H. (1995). The presentation of self in electronic life: Goffman on the Internet. Presented at the Embodied Knowledge and Virtual Space conference, London: Penn State. Retrieved from <http://citeseer-x.ist.psu.edu/viewdoc/download?doi=10.1.1.144.6097&rep=rep1&type=pdf>
- Miller, R. (2005, October 7). VeriSign Acquires Weblogs.com, Declares War on "Splogs." *Netcraft*. Retrieved August 8, 2008, from http://news.netcraft.com/archives/2005/10/07/verisign_acquires_weblogscom_declares_war_on_splogs.html
- Miller, V. (2000). Search Engines, Portals and Global Capitalism. In D. Gauntlett (Ed.), *Web.Studies: Rewiring Media Studies for the Digital Age* (pp. 113 – 121). London: Arnold.
- Mills, K. (1999, February 2). "Information Porthole" sets critics on fire. *Computerworld*. Retrieved October 18, 2010, from http://www.computerworld.com.au/article/51430/_information_porthole_sets_critics_fire/
- Mirapaul, M. (1998, December 24). Well-Read on Web. *New York Times*. Retrieved from <http://www.nytimes.com/1998/12/24/technology/screen-grab-well-read-on-web.html>
- Molm, L. D. (2010). The Structure of Reciprocity. *Social Psychology Quarterly*, 73(2), 119 – 131.

- Molm, L. D., Collett, J., & Schaefer, D. R. (2007). Building Solidarity through Generalized Exchange: A Theory of Reciprocity. *The American Journal of Sociology*, 113(1).
- Montgomery, K. (1996, February 21). "24 Hours of Democracy" to Broaden Awareness of Web Censorship Concerns. *PR Newswire*. San Francisco.
- Moran, S. (1997, September 15). Bookstores Fight For Sales Through Third-Party Deals. *Internet World*.
- Morgenstern, D. (1998, June 26). Frontier blazing Internet trail. Retrieved May 29, 2010, from http://web.archive.org/web/20000618090720/macweek.zdnet.com/1224-0627/nw_frontier.html
- Morozov, E. (2011). *The net delusion: The dark side of Internet freedom*. Philadelphia, PA: Perseus.
- Morrow, V. (1998, September). NewHoo! *Information World Review*, p. 16.
- Moulthrop, S. (1991). You Say You Want a Revolution? Hypertext and the Laws of Media. *Postmodern Culture*, 1(3). Retrieved from http://muse.jhu.edu/journals/postmodern_culture/v001/1.3moulthrop.html
- Moulthrop, S. (1992). Toward a rhetoric of informing texts. In *Proceedings of the ACM conference on Hypertext* (pp. 171–180). Milan, Italy: ACM. doi:10.1145/168466.168520
- Mulligan, J. P. (2000a, January 5). This is a topic that I have wondered about myself. *Weblogs Yahoo Group*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/940>
- Mulligan, J. P. (2000b, February 8). Metajohn. *Metajohn.com*. Retrieved November 4, 2008, from <http://web.archive.org/web/20000209134126/http://www.metajohn.com/>
- Murphy, J., Hashim, N. H., & O'Connor, P. (2007). Take Me Back: Validating the Wayback Machine. *Journal of Computer-Mediated Communication*, 13(1), 60–75. doi:10.1111/j.1083-6101.2007.00386.x
- Nanni, L. (1985, November 6). Demise of newspapers predicted by MIT expert. *Business Wire*.
- Naraine, R. (2005, October 6). VeriSign Acquires Dave Winer's Weblogs.com. *eWeek.com*. Retrieved August 17, 2008, from http://www.eweek.com/index2.php?option=content&task=view&id=37559&pop=1&hide_ads=1&page=0&hide_js=1
- Naughton, J. (2000, December 17). I have seen the future - and it's 300 years old. *The Observer*, p. 8. London.
- Negroponce, N. (1991). Products and Services for Computer Networks. *Scientific American*, 265(3), 76–83.
- Negroponce, N. (1993, March). HDTV: What's wrong with this picture? *Wired*, 1(1). Retrieved from http://www.wired.com/wired/archive/1.01/negroponce_pr.html
- Negroponce, N. (1994a, June). Less Is More: Interface Agents as Digital Butlers. *Wired*, 2(6). Retrieved from http://www.wired.com/wired/archive/2.06/negroponce_pr.html
- Negroponce, N. (1994b, August). Prime Time Is My Time: The Blockbuster Myth. *Wired*, 2(8). Retrieved from http://www.wired.com/wired/archive/2.08/negroponce_pr.html
- Negroponce, N. (1995). *Being Digital*. London: Hodder & Stroughton.
- Negroponce, N. (1996). Asparagus Soup. *IBM Systems Journal*, 35(3 - 4). Retrieved from <http://www.research.ibm.com/journal/sj/353/negroponce.html>
- Nelson, T. (1974). *Computer Lib: You Can and Must Understand Computers Now* (1st ed.). Chicago: Nelson.
- Nelson, T. (1987). *Literary machines: The report on, and of, Project Xanadu concerning word processing, electronic publishing, hypertext, thinkertoys, tomorrow's intellectual revolution, and certain other topics including knowledge, education and freedom*. Sausalito, CA.: Mindful Press.
- Nelson, T. (1990, December 28). How Hypertext (Un)Does the Canon: Address to the MLA, Chicago.
- NetObjects. (1996a, January 30). NetObjects Automates Website Authoring, Publishing and Management. *Business Wire*.
- NetObjects. (1996b, February 6). NetObjects Closes First Round Financing of \$ 5.4M from Norwest Venture Capital and Venrock Associates: One of Largest Financings for Internet Software. *Business Wire*. Redwood City.
- Netslaves. (2000, January 29). New Media Renaissance Man. *Wired*. Retrieved from <http://www.wired.com/culture/lifestyle/news/2000/01/33908>
- Neuburg, M. (1998). ch38. In *Frontier: The Definitive Guide*. O'Reilly. Retrieved from <http://pages.sbcglobal.net/mattneub/frontierDef/ch38.html>
- Nielsen, J. (1999). Spotlighted Links From 1999, Q2-Q4. *Use it*. Retrieved February 16, 2008, from <http://www.useit.com/hotlist/spotlight1999q234.html>
- Nielsen, J. (2005, October 17). Weblog Usability: The Top Ten Design Mistakes. *Useit*. Retrieved February 9, 2008, from <http://www.useit.com/alertbox/weblogs.html>
- Nolan, C. (1997, October 13). Talk is Cheap. *San Jose Mercury News*. San Jose.
- Nyveen, L. (1996, April 30). Essays of the Obvious. *Netsurfer Digest*, 2(13). Retrieved from <http://web.archive.org/web/19961111180640/http://www.netsurf.com/nsd/nsd.96.04.30.html#BEZ3>
- O'Connor, R. J. (1994, September 20). Computer industry may be left behind: Big hitters might push PCs off info highway. *San Jose Mercury News*, p. 1A. San Jose.
- O'Connor, R. J. (1996, February 6). Civil-liberties groups plan cyberspace protest of censorship. *The Philadelphia*

- Inquirer*, p. A05.
- O'Guinn, T., Allen, C., & Semenik, R. J. (2008). *Advertising and Integrated Brand Promotion*. Stamford, CT: Cengage Learning.
- O'Hanlon, C. C. (1997, October 10). Onlookers line up to see website wunderkinder work. *Australian Financial Review*, p. 55.
- Occhialini, R. (1997, November). Archive November 1997. *Bump*. Retrieved November 29, 2008, from <http://web.archive.org/web/19990417143356/http://www.bump.net/archives/nov97.html>
- Occhialini, R. (1998, December). Links. *Bump*. Retrieved December 18, 2008, from <http://web.archive.org/web/19981201174315/http://www.bump.net/link.html>
- Occhialini, R. (1999a, February 13). I've gotten two really well written responses to my Amazon question and rant. *Bump*. Retrieved from <http://radio-weblogs.com/0100237/1999/02/13.html>
- Occhialini, R. (1999b, August 2). Keeping up: Our RSS file is now in RSS 0.91 format. *Bump*. Retrieved August 27, 2011, from <http://radio-weblogs.com/0100237/1999/08/02.html>
- Orlowski, A. (2002, July 29). The Greatness of Robot Wisdom. *The Register*. Retrieved from http://www.theregister.co.uk/2002/07/29/the_greatness_of_robot_wisdom/
- Parikka, J. (2012). Archives in Media Theory: Material Media Archaeology and Digital Humanities. In D. M. Berry (Ed.), *Understanding Digital Humanities* (p. 85 – 104). Basingstoke and New York: Palgrave Macmillan.
- Paul, F. (1998a, July 8). Overrated! No. 8: Push. *Builder.com*. Retrieved from <http://web.archive.org/web/20000229063736/www.builder.com/Business/Paul/070898/ss02.html>
- Paul, F. (1998b, July 8). Overrated! No. 1: Portals. *Builder.com*. Retrieved from <http://web.archive.org/web/20000229211700/www.builder.com/Business/Paul/070898/ss09.html>
- Pegoraro, R. (1994, November 17). A Striking Debut: News Sans Paper. *The Washington Post*, p. D7.
- Perkins, R. (1998). Searching for portals. *The Simba Report on Directory Publishing*, 8(7).
- Permanent Links. (2000). *Blogger*. Retrieved March 1, 2008, from http://web.archive.org/web/200012151428/http://www.blogger.com/permanent_link.pyra
- Pernick, R. (1994, December 19). WELL community organizes global Internet New Year's party: WELL to open its MUSE to the Internet. *Business Wire*. Sausalito, CA.
- Peters, J. W. (2011, November 10). Romenesko leaves Poynter after conflict over quotes. *New York Times*. Retrieved from <http://mediadecoder.blogs.nytimes.com/2011/11/10/journalism-ethics-taken-too-seriously-romenesko-scolded-on-his-own-blog/>
- Piersol, K. (1994). A close-up of OpenDoc. *OII Spectrum*, 1(10), 1–7.
- Pinto, N. (1995, September 19). Internet Resource List -- AI -- Posting and Pointer. *comp.ai*. Retrieved January 26, 2010, from <http://groups.google.co.uk/group/comp.ai/msg/1a223d457698a4cb>
- Plotnikoff, D. (1996, February 2). A day in the life of Cyberspace: "Painting on Walls of Digital Cave" launches Thursday toward awesome pictorial goal of capturing it all. *San Jose Mercury News*, p. 1E.
- Pogue, D. (2006, September 20). When Apple Hit Bottom. *New York Times*. New York. Retrieved from <http://pogue.blogs.nytimes.com/2006/09/20/21pogue-email/>
- Poniewozik, J. (1999, June 10). Please Mr. Link Man. *Salon*. Retrieved from <http://www.salon.com/media/col/poni/1999/06/10/weblogs/print.html>
- Potts, K., Sable, R., Smith, N., Lindley, C., & Fredborg, M. (2007). *Textpattern Solutions: PHP-Based Content Management Made Easy*. Berkeley, CA: Apress.
- Powazek, D. (1996). The fray is a place. *The Fray*. Retrieved March 30, 2012, from <http://web.archive.org/web/19961018012224/http://www.fray.com/is/>
- Powazek, D. (1999, June 14). I agree with much of what Katz has to say. *Slashdot*. Retrieved from <http://tech.slashdot.org/comments.pl?sid=19408&cid=1881531>
- Powazek, D. (2000a, February 17). What the hell is a weblog? *Powazek*. Retrieved February 2, 2008, from <http://www.powazek.com/wtf/>
- Powazek, D. (2000b, June 22). Internal decisions made external. *Powazek.com*. Retrieved from http://www.powazek.com/2000_06_01_archive.shtml#375873
- Powazek, D. (2000c, August 14). Powazek. *Powazek.com*. Retrieved April 6, 2012, from <http://web.archive.org/web/20000815055541/http://www.powazek.com/>
- Powazek, D. (2002). *Design for Community: The Art of Connecting Real People in Virtual Places*. New York: New Riders.
- Powazek, D. (2003, March 9). Random SXSW Thoughts. *Powazek.com*. Retrieved from <http://www.powazek.com/2003/03/000041.html>
- Powers, S. (2002, September 1). We've got blog. *The Dallas Morning News*. Dallas.
- Poynder, R. (1997). It's push, Jim, but not as we know it: Push technology on the Web. *Information Today*, 14(11),

18.

- Prodoehl, P. (1999a, February 12). There's been soooo much going on lately. *Rasterweb*. Retrieved from <http://rasterweb.net/raster/199902.html#02121999>
- Prodoehl, P. (1999b, February 24). Rasterweb. *Rasterweb*. Retrieved December 19, 2008, from <http://web.archive.org/web/19990302030342/http://www.zymm.com/raster/>
- Puckett, J. (2011). *Zotero: A Guide for Librarians, Researchers and Educators*. The Association of College and Research Libraries.
- Quittner, J. (1996). Web Dreams. *Wired*, 4(11). Retrieved from http://www.wired.com/wired/archive/4.11/web_dreams_pr.html
- Raines, H. (2008, June 23). Romenesko and the Dawning of Gossip Journalism. *Wired*. Retrieved from http://www.wired.com/techbiz/media/news/2008/06/portfolio_0623
- Rakestraw, J. (2001). LTSeek Monthly Archives. *LTSeek*. Retrieved September 4, 2009, from <http://web.archive.org/web/20030202094850/ltseek.ltc.vanderbilt.edu/archives/monthly.htm>
- Rakestraw, J. (2002, January 10). LTSeek Home. *LTSeek*. Retrieved September 4, 2009, from <http://web.archive.org/web/20030202142755/http://ltseek.ltc.vanderbilt.edu/>
- Ramo, J. C. (1999, December 27). Jeffrey Preston Bezos: 1999 Person of the Year. *Time*. Retrieved from <http://www.time.com/time/printout/0,8816,992927,00.html>
- Redman, B. (1997, March 19). Conspiracy Nation New Archives. *alt.conspiracy*. Retrieved November 17, 2011, from <http://groups.google.com/group/alt.conspiracy/msg/a7457b2348d5a10d>
- Reid, R. H. (1999). *Architects of the Web: 1,000 Days that Built the Future of Business* (2nd ed.). New York: Wiley.
- Rettberg, J. W. (2008). *Blogging*. Malden, MA: Polity Press.
- Rheingold, H. (1985). *Tools for thought : The people and ideas behind the next computer revolution*. New York: Simon & Schuster.
- Rheingold, H. (1987, December 22). Virtual communities: exchanging ideas through computer bulletin boards. *Whole Earth Review*, 78.
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Reading, Mass: Addison-Wesley.
- Rheingold, H. (1996, February 8). Rant on the Occasion of the Signing of the Communications Decency Act. Retrieved February 27, 2007, from <http://www.well.com/~hhr/texts/rant24hrs.html>
- Rheingold, H. (2000). *The Virtual Community: Homesteading on the Electronic Frontier* (revised edition.). Cambridge, MA: The MIT Press.
- Rhodes, J. S. (1999, September 27). The Human Behind Robot Wisdom: An interview with the power behind Robot Wisdom, Jorn Barger. *Web Word*. Retrieved from <http://www.webword.com/interviews/barger.html>
- Richardson, J. (1999, June 2). Site-seeing for readers with attitude. *The Australian*, p. 38. Sydney.
- Riley, D. (2005, March 6). A short history of blogging. *Blog Herald*. Retrieved from <http://www.blogherald.com/2005/03/06/a-short-history-of-blogging/>
- Robb, J. (2001, October 5). What is a K-Log (Knowledge Management Weblog)? *John Robb's Radio Weblog*. Retrieved September 6, 2011, from <http://web.archive.org/web/20011116234450/http://jrobb.userland.com/2001/10/05.html>
- Roberts, G. F. (1998). The home page as genre: A narrative approach. In *Proceedings of the Thirty-First Hawaii International Conference on System Sciences* (Vol. 2, pp. 78–86). Presented at the Proceedings of the Thirty-First Hawaii International Conference on System Sciences. doi:10.1109/HICSS.1998.651686
- Robertson, L. (2000, September). The Romenesko Factor. *American Journalism Review*. Retrieved November 1, 2010, from <http://www.ajr.org/article.asp?id=588>
- Romenesko, J. (1998a, June 15). Companies Make a Push for Personalized Start Pages. *The Miami Herald*, p. 17BM.
- Romenesko, J. (1998b, December 2). The Obscure Store and Reading Room. *Obscure Store*. Retrieved February 17, 2010, from <http://web.archive.org/web/19981202060613/http://www.obscurestore.com/index.html>
- Romenesko, J. (1998c, December 5). The Obscure Store and Reading Room. *Obscure Store*. Retrieved February 17, 2010, from <http://web.archive.org/web/19981205104154/http://www.obscurestore.com/>
- Romenesko, J. (1998d, December 11). The Obscure Store and Reading Room. *Obscure Store*. Retrieved February 17, 2010, from <http://web.archive.org/web/19981212020133/http://obscurestore.com/>
- Romenesko, J. (2005, April 20). Jim Romenesko explains why he started his press site. *Slate*. Retrieved October 27, 2010, from <http://www.slate.com/id/2116903/sidebar/2117090/>
- Rosenberg, J. (1998, February 7). Troubles and Technologies. *Editor & Publisher Magazine*, p. 30. New York.
- Rosenberg, S. (1997a, April). Data Deluge: In the informational jungle, picking your guide is as important as keeping your head. *Salon*. Retrieved October 5, 2010, from

- <http://www.salon.com/april97/21st/data970410.html>
- Rosenberg, S. (1997b, November 13). A Giant Sucking Sound. *Salon*. Retrieved from http://archive.salon.com/21st/feature/1997/11/cov_13feature2.html
- Rosenberg, S. (1999, May 28). Fear of Links. *Salon*. Retrieved from <http://www.salon.com/print.html?URL=/tech/col/rose/1999/05/28/weblogs>
- Rosenberg, S. (2007, July 15). There is no “First Blogger.” *Wordyard*. Weblog. Retrieved from <http://www.wordyard.com/2007/07/15/no-first-blogger>
- Rosenberg, S. (2008, August 10). Open Salon launches. *Wordyard*. Retrieved from <http://www.wordyard.com/2008/08/10/open-salon-launches/>
- Rosenberg, S. (2009a). *Say Everything: How Blogging Began, What It’s Becoming, and Why It Matters*. New York: Crown.
- Rosenberg, S. (2009b). The unedited voice of a person: Dave Winer. In *Say Everything: How Blogging Began, What It’s Becoming, and Why It Matters* (eBook., pp. 47 – 69). New York: Crown.
- Rosenberg, S. (2009c). They shall know you through your links: Jorn Barger, filters. In *Say Everything: How Blogging Began, What It’s Becoming, and Why It Matters* (eBook., pp. 70 – 90). New York: Crown.
- Rosenberg, S. (2009d, July 25). Another archival find: Gillmor’s original blog. *Wordyard*. Retrieved March 10, 2012, from <http://www.wordyard.com/2009/07/25/another-archival-find-gillmors-original-blog/>
- Rossetto, L. (1993). Why Wired? *Wired*, 1(1). Retrieved from <http://web.archive.org/web/19980207174945/www.wired.com/wired/1.1/>
- Rossetto, L. (1994a, September 5). The Prime-time Net. *AdWeek*.
- Rossetto, L. (1994b, September 5). The prime-time net. *Brandweek*, p. 30.
- Rossney, R. (1995, April 20). People can’t help thrashing things out. *The San Francisco Chronicle*, p. E3. San Francisco.
- Rozansky, M. L. (1996, March 21). Digitizing the Wheat from the Chaff. *The Philadelphia Inquirer*, p. F01.
- Sacks, S. (2011, January 7). A Maecenas for the Internet Age: Denis Dutton showed how intellectual life can be made to flourish on the Web. *Wall Street Journal (Online)*. New York. Retrieved from <http://online.wsj.com/article/SB10001424052748704405704576064540563199586.html>
- Sadlon, E., Sakamoto, Y., Barrett, S., & Nickerson, J. V. (2008). The Karma of Digg: Reciprocity in Online Social Networks. In *Proceedings of the 18th Annual Workshop on Information Technologies and Systems (WITS)*.
- Sandberg-Diment, E. (1986, April 1). New Software for making note scribbling easier. *New York Times*. Retrieved June 4, 2009, from <http://www.nytimes.com/1986/04/01/science/personal-computers-new-software-for-making-note-scribbling-easier.html?&pagewanted=print>
- Sawhill, R. (2000, November 3). The gleeful contrarian. *Salon.com*. Retrieved from <http://www.salon.com/technology/view/2000/11/03/dutton/index.html>
- Schaefer, D. R., Light, J. M., Fabes, R. A., Hanish, L. D., & Martin, C. L. (2010). Fundamental principles of network formation among preschool children. *Social Networks*, 32(1), 61–71. doi:10.1016/j.socnet.2009.04.003
- Schank, R., Barbrook, R., Brand, M., Burke, R., Domeshek, E., Edelson, D., ... Pryor, L. (1990). *A Content Theory of Memory Indexing* (Technical Report No. 1). Evanston, IL: Institute for the Learning Sciences, Northwestern University.
- Schank, R., & Fano, A. (1992). *A thematic hierarchy for indexing stories in social domains* (Technical Report No. 29). Evanston, IL: The Institute for the Learning Sciences, Northwestern University.
- Schank, R., Ferguson, W., Birnbaum, L., Barger, J., & Greising, M. (1991). *Ask Tom: An Experimental Interface for Video Case Libraries* (Technical Report No. 10). Evanston, IL: The Institute for the Learning Sciences, Northwestern University.
- Scheidt, L. A. (2009, May). *Diary Weblogs as Genre* (PhD Thesis). Indiana University, Bloomington. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.154.3724&rep=rep1&type=pdf>
- Schiff, M. (1973). Neo-Transcendentalism in the New Left Counter-Culture: A Vision of the Future Looking Back. *Comparative Studies in Society and History*, 15(2), 130–142.
- Schoonmaker, S. (2012). Forking digital inclusion: The development of LibreOffice and the Document Foundation. Presented at the The Second ISA Forum of Sociology (August 1-4, 2012), Buenos Aires: Isaconf. Retrieved from <http://isaconf.confex.com/isaconf/forum2012/webprogram/Paper21947.html>
- Schrage, M. (1984, January 23). Apple sprouts Macintosh in bid to survive industry race. *Washington Post*, p. 1. Washington, DC.
- Schrage, M. (1985, October 7). An MIT Lab Tinkers With the Future of Personal Computers. *The Washington Post*, p. 13.
- Schrage, M. (1994, February). Is Advertising Dead? *Wired*, 2(2). Retrieved from

- http://www.wired.com/wired/archive/2.02/advertising_pr.html
- Searls, D. (1998, December 28). DaveNet has turned into the Naked Emperor report. *Scripting News*. Retrieved from <http://scripting.com/mail/mail981228.html>.
- Searls, D. (2000, December 17). Sunday, December 17, 2000. *Doc Searls Weblog*. Retrieved November 12, 2008, from <http://doc-weblogs.com/2000/12/17>
- Seybold San Francisco '94. (1994, September 16). *Newsbytes*. San Francisco.
- SF papers finally hit the online trail. (1994, April 18). *News Inc.* Retrieved from <http://www.newsinc.net/940418sa.html>
- Shahak, I., & Mezvinsky, N. (1999). *Jewish Fundamentalism in Israel*. London: Pluto Press.
- Sharkey, M. (2005). The Big Fish: Ten years later, the story of Suck.com, the first great website. *Keepgoing.org*, (20). Retrieved from http://www.keepgoing.org/issue20_giant/the_big_fish.html
- Shedden, D. (2010, February 7). New Media Timeline (1997). *Poynter Online*. Retrieved March 31, 2010, from http://www.poynter.org/content/content_view.asp?id=75929
- Shepherd, M., & Watters, C. (1998). The evolution of cybergenres. In *Proceedings of the Thirty-First Hawaii International Conference on System Sciences* (Vol. 2, pp. 97–109). Presented at the Proceedings of the Thirty-First Hawaii International Conference on System Sciences. doi:10.1109/HICSS.1998.651688
- Shirky, C. (2003). A Group Is Its Own Worst Enemy. *Clay Shirky's Writings About the Internet*. Retrieved from http://www.shirky.com/writings/group_enemy.html
- Shotton, C. (1996, July 29). Midas Inaugural Message. *MIDAS*. Retrieved February 9, 2012, from <http://scripting.com/midas/inaugural.html>
- Silver, D. (2000). Looking Backwards, Looking Forwards: Cyberculture Studies 1990-2000. In D. Gauntlett (Ed.), *Web.Studies: Rewiring Media Studies for the Digital Age* (p. 19 – 30). London: Arnold.
- Simmons, B. (1997a). Index of /stories/simmons. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/simmons/>
- Simmons, B. (1997b, March 27). Future Ideas for Content Server. *scripting.com*. Retrieved March 20, 2010, from <http://www.scripting.com/stories/simmons/futureideasforcontentserve.html>
- Simple Object Access Protocol (SOAP) 1.1. (2000, May 8). *W3.org*. Retrieved May 24, 2010, from <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>
- Sink, E. W. (1998, December 29). People with Honor. *Scripting.com*. Retrieved from <http://www.scripting.com/mail/mail981228.html>
- Sippey, M. (1995a, August 14). Mid-August Miscellany. *Stating the Obvious*. Retrieved March 7, 2008, from <http://www.theobvious.com/archive/1995/08/14.html>
- Sippey, M. (1995b, September 11). Back to School. *Stating the Obvious*. Retrieved June 12, 2010, from <http://www.theobvious.com/archive/1995/09/11.html>
- Sippey, M. (1995c, October 30). ASCII Nostalgia. Retrieved June 17, 2010, from <http://www.theobvious.com/archive/1995/10/30.html>
- Sippey, M. (1995d, December 25). 1995. The obligatory list. *Stating the Obvious*. Retrieved June 12, 2010, from <http://www.theobvious.com/archive/1995/12/25.html>
- Sippey, M. (1996a). About the Obvious. *Stating the Obvious*. Retrieved June 12, 2010, from <http://web.archive.org/web/19970107125651/theobvious.com/about/index.html>
- Sippey, M. (1996b). About Stating the Obvious. *Stating the Obvious*. Retrieved June 13, 2010, from <http://web.archive.org/web/19970411234721/http://theobvious.com/about/index.html>
- Sippey, M. (1996c). Suck Harder: The Fish. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/harder/aboutus/>
- Sippey, M. (1996d, February 19). Spare me the theme song, Dave. *Stating the Obvious*. Retrieved January 19, 2012, from <http://www.theobvious.com/archive/1996/02/19.html>
- Sippey, M. (1996e, April 8). Does It All Want to be Free? *Stating the Obvious*. Retrieved January 19, 2012, from <http://www.theobvious.com/archive/1996/04/08.html>
- Sippey, M. (1996f, July 22). I want better tools. *Stating the Obvious*. Retrieved June 11, 2010, from <http://web.archive.org/web/20001205010500/www.theobvious.com/archive.html?072996>
- Sippey, M. (1996g, September 16). Information Overload. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1996/09/16.html>
- Sippey, M. (1996h, October 28). Branding the Web. *Stating the Obvious*. Retrieved April 21, 2012, from <http://www.theobvious.com/archive/1996/10/28.html>
- Sippey, M. (1996i, December 16). Agents Invade the Address Book. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1996/12/16.html>
- Sippey, M. (1997a, February). The Network Diagram. *Stating the Obvious*. Retrieved June 12, 2010, from <http://www.theobvious.com/network/>

- Sippey, M. (1997b, February 10). To Press Against With Force. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1997/02/10.html>
- Sippey, M. (1997c, May). The Obvious Filter. *Stating the Obvious*. Retrieved November 28, 2008, from <http://web.archive.org/web/19971015050716/theobvious.com/filter/filter0597.html>
- Sippey, M. (1997d, May 26). A War of the Words. *Stating the Obvious*. Retrieved August 17, 2009, from <http://www.theobvious.com/archive/1997/05/26.html>
- Sippey, M. (1997e, June 13). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015050640/theobvious.com/filter/filter0697a.html>
- Sippey, M. (1997f, June 30). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015050556/theobvious.com/filter/filter0697b.html>
- Sippey, M. (1997g, June 30). More Buzzing about Firefly. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1997/06/30.html>
- Sippey, M. (1997h, July 15). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015050446/theobvious.com/filter/filter0797a.html>
- Sippey, M. (1997i, July 31). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015050059/theobvious.com/filter/filter0797b.html>
- Sippey, M. (1997j, August 15). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015045841/theobvious.com/filter/filter0897a.html>
- Sippey, M. (1997k, August 29). The Obvious Filter. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19971015045220/theobvious.com/filter/filter0897b.html>
- Sippey, M. (1997l, September). The Obvious Filter. *Stating the Obvious*. Retrieved November 28, 2008, from <http://web.archive.org/web/19971015044102/theobvious.com/filter/filter0997a.html>
- Sippey, M. (1997m, October 13). The Obvious Filter. *Stating the Obvious*. Retrieved February 13, 2008, from <http://web.archive.org/web/19971015044017/theobvious.com/filter/index.html>
- Sippey, M. (1997n, October 14). The Obvious Filter. *Stating the Obvious*. Retrieved April 22, 2012, from <http://www.theobvious.com/filter/>
- Sippey, M. (1997o, October 17). Retro-push: Get TheObvious.com via email every week. *Stating the Obvious*. Retrieved from <http://web.archive.org/web/19970107125620/theobvious.com/retro.html>
- Sippey, M. (1997p, December 22). Back from Hiatus. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1997/12/22.html>
- Sippey, M. (1997q, December 29). The One to One Future, Part I. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1997/12/29.html>
- Sippey, M. (1998a, February 2). The One to One Future, Part II. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1998/02/02.html>
- Sippey, M. (1998b, March 2). The One to One Future, Part III. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1998/03/02.html>
- Sippey, M. (1998c, March 30). The One to One Future, Part IV. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1998/03/30.html>
- Sippey, M. (1998d, April 28). Topic: Filtered for purity. *Stating the Obvious*. Retrieved February 25, 2008, from http://www.theobvious.com/archive/cat_filtered_for_purity.html
- Sippey, M. (1998e, April 29). Just One Question for David Hudson. *Stating the Obvious*. Retrieved from <http://www.theobvious.com/archive/1998/04/29.html>
- Sippey, M. (1998f, December 5). Stating the Obvious. *Stating the Obvious*. Retrieved February 17, 2010, from <http://web.archive.org/web/19981212033416/http://www.theobvious.com/>
- Sippey, M. (1999, January 4). Obvious Resolutions. *Stating the Obvious*. Retrieved February 17, 2010, from <http://www.theobvious.com/archive/1999/01/04.html>
- Sippey, M. (2000a, April 30). Pyra's Killer App. *Stating the Obvious*. Retrieved from <http://www.mail-archive.com/retro-push@theobvious.com/msg00007.html>
- Sippey, M. (2000b, August 1). Five. *Stating the Obvious*. Retrieved January 5, 2012, from <http://www.theobvious.com/archive/2000/08/01.html>
- Sippey, M. (2007, April 4). Anything But Obvious. Retrieved from http://www.sixapart.com/blog/2007/04/michael_sippey.html
- Smith, D. (2000, April 16). Alternate take. *Weblogs2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs2/message/40>
- Smolan, R. (1996a). Transcript of Rick Smolan Interview. Retrieved from http://www.transmitmedia.com/svr/vault/smolan/smolan_transcript.html
- Smolan, R. (1996b, January 7). "24 Hours in Cyberspace": Photojournalism on the Internet. *PR Newswire*. San Francisco.

- Smolan, R. (1997, February 9). Kids in Space. *Scripting.com*. Retrieved May 14, 2010, from <http://web.archive.org/web/19970219185625/http://www.scripting.com/davenet/stories/rickSmolan/default.html>
- Soat, J. (1993, July 5). OpenDoc aims to charge OLE. *InformationWeek*, p. 14.
- Software units plan to merge. (1987, July 9). *New York Times*. Retrieved from <http://www.nytimes.com/1987/07/09/business/company-news-software-units-plan-to-merge.html?pagewanted=print>
- Sommer, A. K. (1999, November 1). The media moguls. *The Jerusalem Post*. Retrieved from <http://web.archive.org/web/20000901221955/http://www.jpost.com/com/Archive/08.Nov.1999/Features/Article-5.html>
- Somogyi, S. (1996). The next convergence: Software for joining Web servers and databases. *Digital Media*, 5(11), 18–21.
- Sprague, D. (1997, December 21). Rage Against the (Sewing) Machine. *New York Post*, p. 45. New York.
- Stafford-Fraser, Q. (2004, December 18). Migrating from Radio Userland to WordPress. *Status-Q*. Retrieved from <http://www.statusq.org/archives/2004/12/18/542/>
- Stahlman, M. (1996, February 19). Masters of Their Own Moment. *Computer Reseller News*, p. 14.
- Stellin, S. (2001, May 7). Google's revival of a Usenet archive opens up a wealth of possibilities but also raises some privacy issues. *New York Times*. New York. Retrieved from <http://www.nytimes.com/2001/05/07/business/new-economy-google-s-revival-usenet-archive-opens-up-wealth-possibilities-but.html?pagewanted=all&src=pm>
- Stone, B. (2002). *Bloggling: Genius Strategies for Instant Web Content* (1st edition.). New York: R.
- Stone, R. (1998). *Damascus Gate*. Boston: Houghton Mifflin.
- Stusnick, H. (1997, September 22). Monday. *Offhand*. Retrieved February 23, 2008, from <http://www.offhand.com/remarks/971015.html>
- Suh, P. (1997, March 16). Comments on Apple@InternetWorld NewsRoom. Retrieved September 6, 2009, from <http://www.scripting.com/mail/mail970314.html>
- Suh, P. (1999, June 28). News Center Information. *Filsa.net*. Retrieved November 28, 2008, from <http://www.filsa.net/frontier/software/newsCenter/>
- Sullivan, J. (2005, December 14). Love him or hate him, Stern is a true pioneer. *Today*. Retrieved November 17, 2011, from <http://today.msnbc.msn.com/id/10454035>
- Sumser, J. (1996, October 25). Dave Winer. *1st Steps: Marketing and Design Daily*. Retrieved February 28, 2008, from <http://www.interbiznet.com/nomad1/archives/961027.html>
- Swaine, M. (1991, September 1). Calling Apple's Bluff. *Dr. Dobb's*. Retrieved from <http://www.ddj.com/showArticle.jhtml?articleID=184408623>
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swartz, J. (1997, March 15). Apple to Slash Workforce by 4,100: One-third of firm's jobs – biggest cutback ever. *The San Francisco Chronicle*, p. A1. San Francisco.
- Tanzillo, K. (1995, February). ISDN turns a corner, winning users' respect. *Communications News*, 33(2), 70.
- Tepper, M. (2003). The rise of social software. *netWorker*, 7(3), 18–23. doi:10.1145/940830.940831
- The Seybold Institute. (1997). *Seybold Seminars*. Retrieved May 23, 2010, from <http://web.archive.org/web/19971018032643/www.seyboldseminars.com/News/fellows.html>
- The Virtual Newsroom extends publishing into realm of on-line media. (1994, March 23). *Business Wire*. Boston.
- Thrift, N. (1999). Cities and economic change: Global governance? In John Allen, D. B. Massey, & M. Pryke (Eds.), *Unsettling cities: movement/settlement* (p. 283 – 338). London: Routledge.
- Tomkins, R. A. (1995, March 13). Enter the Bespoke Newspaper: Customers Will Get a Tailor-Made Information Service. *Financial Times*, p. 13.
- Trehan, S. (2003, October 27). Express yourself with Fray. *Hindustan Times*. New Delhi. Retrieved from <http://www.hindustantimes.com/News-Feed/Columns/Express-yourself-with-Fray/Article1-10005.aspx>
- Tribute, A. (1995). Press computer systems: Riding the Quark bandwagon. *Seybold Report on Publishing Systems*, 24(9).
- Trott, M. (2003, September 30). Interview with Paul Bausch. *Six Apart*. Retrieved November 1, 2008, from http://www.sixapart.com/blog/2003/09/interview_with.html
- Turner, F. (2006). *From counterculture to cyberculture: Stewart Brand, the Whole Earth Network, and the rise of digital utopianism*. Chicago: University of Chicago Press.
- Turpeinen, M. (2000, February). *Customizing News Content for Individuals and Communities* (PhD thesis). Helsinki University of Technology, Department of Computer Science and Engineering. Retrieved from http://pong.hiit.fi/dcc/papers/Turpeinen_Dissertation.pdf

- Useem, J. (2000, October 30). Dot-Coms: What Have We Learned? Profile: David Winer. *Fortune*, 142(10). Retrieved from <http://web.archive.org/web/20001110013500/http://www.fortune.com/fortune/2000/10/30/dot11.html>
- Userland. (1991, January 3). UserLand Software starts up, ships first product. *Business Wire*.
- Userland. (1998a, January 30). Frontier 5.0 is shipping! *Frontier News*. Retrieved from <http://frontier.userland.-com/news/1998/01/30>
- Userland. (1998b, June 24). New release! *Frontier News*. Retrieved August 9, 2008, from <http://frontier.userland.-com/news/1998/06/24>
- Userland. (1999, December 1). UserLand Releases Manila and Frontier 6.1,. *UserLand Software*. Retrieved from [http://www.userland.com/stories/storyReader\\$68](http://www.userland.com/stories/storyReader$68)
- Userland. (2001, March 9). Radio Userland is shipping! *Frontier News*. Retrieved August 10, 2008, from <http://frontier.userland.com/news/2001/03/09>
- Userland. (2005, September 6). Radio 8.2 Available Now. *UserLand Product News*. Retrieved August 11, 2008, from <http://productnews.userland.com/newsItems/departments/radioUserland/2005/09/06>
- Van Oosten de Boer, C. (n.d.). About. *Prolific*. Retrieved March 28, 2012, from <http://prolific.org/about/>
- Vanderleun, G. (2005, July 24). Ten Years Gone. *American Digest*. Retrieved February 28, 2012, from <http://americandigest.org/mt-archives/005663.php>
- Varadarajan, T. (2007, July 14). Happy Blogiversary. *Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB118436667045766268.html>
- Veen, J. (1997). *HotWired Style: Principles for Building Smart Web Sites*. San Francisco, CA: Wired.
- Voog, A. (1997a, November 10). Ana's FAQs: Graphics intensive. *Anacam*. Retrieved August 27, 2011, from <http://web.archive.org/web/19980212165203/http://www.anacam.com/anafaqg.html>
- Voog, A. (1997b, November 21). I've been writing in my new bulletin board so much. *Analog*. Retrieved August 27, 2011, from <http://www.anacam.com/analog/analog19n.html>
- Voog, A. (1997c, December 11). ANAVOOG.COM :))))). *Anacam*. Retrieved August 27, 2011, from <http://www.anacam.com/analog/analog23n.html>
- Voog, A. (2007, February 1). Anatomy. *Anacam*. Retrieved November 24, 2009, from <http://www.anacam.com/anatomy/>
- Voog, A. (2008). *Dreaming on Stage: 10 Years from a 24/7 Art/Life Webcam*. J.D. Casten.
- Walker, J. (2005). Feral Hypertext: When Hypertext Literature Escapes Control. *Proceedings of the sixteenth ACM conference on Hypertext and hypermedia*, 46 – 53.
- Wallace, M. (1998a). Sabrina: an NLP multibot. *Manifestation*. Retrieved November 5, 2010, from <http://web.archive.org/web/19991013095154/http://manifestation.com/sabrina/sabrina.html>
- Wallace, M. (1998b, January 11). Chaos and Creation in E-Prime. *Manifestation*. Retrieved September 18, 2012, from <http://web.archive.org/web/20000902202812/http://www.manifestation.com/buddha/htb00016.php3>
- Wallace, M. (1998c, February 6). TribeStorming. *Manifestation*. Retrieved September 19, 2012, from <http://web.archive.org/web/20001003205314/http://manifestation.com/buddha/htb00017.php3>
- Wallace, M. (1998d, April 7). Holography. *Sabren*. Retrieved from <http://web.archive.org/web/20051214074526/http://www.sabren.net/rants/1998/04/19980407a.php3>
- Wallace, M. (1998e, June 9). The living web. *Manifestation.com*. Retrieved September 5, 2009, from <http://web.archive.org/web/20010721093118/http://www.sabren.net/rants/1998/06/19980609a.php3>
- Wallace, M. (1998f, June 16). Presurfers. *Sabren*. Retrieved September 19, 2012, from <http://web.archive.org/web/20060209105451/http://www.sabren.net/rants/1998/06/19980616a.php3>
- Wallace, M. (1998g, June 18). Change and the Cookie Monsters. *Manifestation.com*. Retrieved September 14, 2009, from <http://web.archive.org/web/20010721094219/http://www.sabren.net/rants/1998/06/19980618a.php3>
- Wallace, M. (1998h, June 20). GnuHoo! *Manifestation.com*. Retrieved September 14, 2009, from <http://web.archive.org/web/20060209105504/http://www.sabren.net/rants/1998/06/19980620a.php3>
- Wallace, M. (1998i, July 5). I agree with Raphael. *Comments on Robot Wisdom WebLog*. Retrieved from <http://web.archive.org/web/19990508100042/http://www.greenspun.com/com/weblog/weblog.html>
- Wallace, M. (1998j, July 28). Weblogs. *Sabren*. Retrieved from <http://web.archive.org/web/20010715154034/http://www.sabren.net/rants/1998/07/19980728b.php3>
- Wallace, M. (1998k, September 23). Pagewatching Launchpad. *Sabren*. Retrieved September 4, 2010, from <http://web.archive.org/web/20010716192442/www.sabren.net/rants/1998/09/19980923c.php3>
- Wallace, M. (1998l, September 25). Page Tracker. *Sabren*. Retrieved September 4, 2010, from <http://web.archive.org/web/20020706192731/www.sabren.net/rants/1998/09/19980925c.php3>
- Wallace, M. (1998m, October 6). Arts and Letters Daily. *Manifestation*. Retrieved September 18, 2012, from <http://web.archive.org/web/20010724094205/http://www.sabren.net/rants/1998/10/19981006a.php3>

- Wallace, M. (1998n, October 24). Coming of Age on the Internet. *Hacking the Buddha*. Retrieved September 12, 2009, from <http://web.archive.org/web/20000303000443/http://www.manifestation.com/buddha/htb00022.php3>
- Wallace, M. (1998o, November 3). Presurfing Business Model Notes. *Sabren.net*. Retrieved December 14, 2008, from <http://www.sabren.net/rants/1998/11/19981103a.php3>
- Wallace, M. (1998p, November 5). Mission Musings. *Sabren.net*. Retrieved October 12, 2009, from <http://web.archive.org/web/20010306130209/http://www.sabren.net/rants/1998/11/19981105b.php3>
- Wallace, M. (1998q, November 8). More Plans. *Sabren.net*. Retrieved September 18, 2012, from <http://web.archive.org/web/20010306130044/http://www.sabren.net/rants/1998/11/19981108d.php3>
- Wallace, M. (1998r, November 11). Notes for a Microportal Taxonomy. *Sabren.net*. Retrieved December 14, 2008, from <http://web.archive.org/web/20010718151423/www.sabren.net/rants/1998/11/19981111d.php3>
- Wallace, M. (1998s, November 11). This is stupid. *Sabren*. Retrieved September 18, 2012, from <http://web.archive.org/web/20070902131415/http://www.sabren.net/rants/1998/11/19981111a.php3>
- Wallace, M. (1998t, November 11). Anti-Portal propaganda and software evolution. *Sabren*. Retrieved September 18, 2012, from <http://web.archive.org/web/20070902131535/http://www.sabren.net/rants/1998/11/19981111c.php3>
- Wallace, M. (1998u, December). Hacking the Buddha. *Manifestation.com*. Retrieved September 18, 2012, from <http://web.archive.org/web/19981206192040/http://manifestation.com/buddha/>
- Wallace, M. (1998v, December 5). Manifest Station. *Manifestation.com*. Retrieved June 21, 2009, from <http://web.archive.org/web/19981205063156/http://www.manifestation.com/>
- Wallace, M. (1998w, December 12). Manifest Station. *Manifestation*. Retrieved August 22, 2009, from <http://web.archive.org/web/19981212030746/http://www.manifestation.com/>
- Wallace, M. (1999a, February 15). Weblog Ethics. *Sabren*. Retrieved from <http://web.archive.org/web/20010224105110/http://www.sabren.net/rants/1999/02/19990215a.php3>
- Wallace, M. (1999b, February 16). Botstorm. *Sabren.net*. Retrieved October 1, 2010, from <http://web.archive.org/web/20060129074000/http://www.sabren.net/rants/1999/02/19990216a.php3>
- Wallace, M. (1999c, February 20). Just for kicks, I sent off an email to the tips department at wired news. *Linkwatcher Metalog*. Retrieved from <http://web.archive.org/web/20000831235302/www.linkwatcher.com/metalog/archive/1999/2/20>
- Wallace, M. (1999d, March). On the Care and Feeding of Bots. *Sabren.net*. Retrieved October 2, 2010, from <http://web.archive.org/web/20080401161136/http://www.sabren.net/articles/bots.php3>
- Wallace, M. (1999e, July 25). Changes to Metalog. *Linkwatcher Metalog*. Retrieved from <http://web.archive.org/web/20000831234255/www.linkwatcher.com/metalog/archive/1999/7/25>
- Wallace, M. (1999f, August 31). More on Corel. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20020108155242/http://www.sabren.net/archive/1999/8/31>
- Wallace, M. (1999g, October 6). Now, thrice the coverage! *Sabren*. Retrieved from <http://web.archive.org/web/20020220055832/http://www.sabren.net/archive/1999/10/06>
- Wallace, M. (1999h, October 14). Passion Police. Retrieved September 19, 2012, from <http://web.archive.org/web/20010914101418/http://www.sabren.net/rants/1999/10/19991014b.php3>
- Wallace, M. (1999i, November 5). Weblog search engine. *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg012750.html>
- Wallace, M. (1999j, November 24). Frequently asked questions. *Linkwatcher*. Retrieved October 3, 2010, from <http://web.archive.org/web/20000815223332/http://www.linkwatcher.com/faq/>
- Wallace, M. (1999k, November 25). Thanksgivings. *Sabren*. Retrieved September 21, 2009, from <http://web.archive.org/web/20010224104130/http://www.sabren.net/rants/1999/11/19991125a.php3>
- Wallace, M. (1999l, November 30). Don't miss: Jorn's regular expression metaphors! *Linkwatcher Metalog*. Retrieved September 12, 2009, from <http://web.archive.org/web/20000831233029/www.linkwatcher.com/metalog/archive/1999/11/30>
- Wallace, M. (2000a, September 11). Linkwatcher bot working again. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20050220235307/http://www.sabren.net/archive/2000/9/11>
- Wallace, M. (2000b, October 19). Monty revisited. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20020302112842/http://www.sabren.net/archive/2000/10/19>
- Wallace, M. (2000c, December 7). Monty – Clarification. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20050218162447/http://www.sabren.net/archive/2000/12/07>
- Wallace, M. (2001, April 1). Habit 3: Put first things first. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20050222175052/http://www.sabren.net/archive/2001/4/01>
- Wallace, M. (2002a, January 18). The Cornerhost Story. *Cornerhost*. Retrieved October 14, 2009, from <http://cornerhost.com/about/>

- Wallace, M. (2002b, August 12). Simple test cases for montybot working. *Sabren*. Retrieved October 3, 2010, from <http://web.archive.org/web/20081123110812/http://www.sabren.net/archive/2002/8/12>
- Wallace, M. (2003, April 24). Still kicking. *Without an e*. Retrieved October 3, 2010, from <http://withoutane.com/rants/marketlog/stillkicking.rnt>
- Wallace, M. (2006, February 9). Short day. *Without an e*. Retrieved from <http://web.archive.org/web/20071013233608/http://withoutane.com/rants/2006/02/shortday.rnt>
- Wallace, M. (2007, July 30). Feed list quality. *Without an e*. Retrieved October 3, 2010, from <http://web.archive.org/web/20071013234301/http://withoutane.com/rants/2007/07/feed-list-quality>
- Wang, A. (1999, August 2). Cutting Through the On-Line Clutter. *New York Times*. Retrieved from <http://www.nytimes.com/1999/08/02/business/media-cutting-through-the-on-line-clutter.html?page-wanted=all&src=pm>
- Wasko, M. M., & Faraj, S. (2000). "It is what one does": Why people participate and help others in electronic communities of practice. *The Journal of Strategic Information Systems*, 9(2 – 3), 155 – 173.
- Watts, A. (1966). *The book : On the taboo against knowing who you are*. New York: Vintage Books.
- Webb, W. (1995, March 18). Apple executive tells newspapers about new media: Newly named manager for Apple Computer previously held post at S.F. Examiner. *Editor & Publisher Magazine*, 24.
- Weblogs rack up a decade of posts. (2007, December 17). *BBC News*. Retrieved from <http://newsvote.bbc.co.uk/mpapps/pagetools/print/news.bbc.co.uk/1/hi/technology/7147728.stm>
- Weblogs.com. (1999, October 11). *WhoIs.UserLand.Com*. Retrieved July 23, 2011, from [http://web.archive.org/web/19991011212028/http://whois.userland.com/\\$weblogs.com](http://web.archive.org/web/19991011212028/http://whois.userland.com/$weblogs.com)
- Wellman, B., & Gulia, M. (1999). Net surfers don't ride alone. In M. A. Smith & P. Kollock (Eds.), *Communities in Cyberspace*. London: Routledge.
- Werbach, K. (1999, July). The Web Goes Into Syndication. *Release 1.0*. Retrieved from <http://downloads.oreilly.com/radar/r1/07-99.pdf>
- Werbach, K. (2001, May). Triumph of the weblogs. *Release 1.0*, 19(5), 21–26.
- Wild, A. (2004, February 25). Now boot up and blog on: A housewife has sold her internet diary for \$ 20,000, but she's not alone in making her innermost thoughts public. *The Herald*, p. 13. Glasgow.
- Wildstrom, S. E. (1995, April 17). An Online Feast of Business News. *Business Week*, p. 16.
- Wildstrom, S. E. (1997, February 24). "Push" buttons worth pressing. *Business Week*. Retrieved March 25, 2008, from <http://www.businessweek.com/1997/08/b35157.htm>
- Williams, A. J. (1997, May). May 1997. *Ragged Castle*. Retrieved November 27, 2008, from <http://www.ragged-castle.com/andyjw/olderblogarchives/199705.html>
- Williams, D. (2006). On and Off the 'Net: Scales for Social Capital in an Online Era. *Journal of Computer-Mediated Communication*, 11(2), 593–628. doi:10.1111/j.1083-6101.2006.00029.x
- Williams, E. (1999, August 23). We just launched a cool new tool at Pyra. *Evhead*. Retrieved July 12, 2008, from <http://evhead.com/1999/08/we-just-launched-cool-new-tool-at-pyra.asp>
- Williams, E. (2000a, May 8). Hey, Evhead™'s got permalinks! *Evhead*. Retrieved November 5, 2008, from <http://web.archive.org/web/20000511054916/http://www.evhead.com/#204415>
- Williams, E. (2000b, October 12). Meta: As the post below mentions, I'm trying out the new comments feature we're working on for Blogger. *Evhead*. Retrieved April 6, 2012, from <http://web.archive.org/web/20001014140546/http://www.evhead.com/#1059826>
- Williams, E. (2000c, October 31). Stat of the day. *Evhead*. Retrieved April 11, 2012, from <http://evhead.com/2000/10/stat-of-day-12355-new-blogs-have-been.asp>
- Williams, G. A. (1994). The WELL: On being in the community business. In *Proceedings of the 1st International Workshop on Community Networking Integrated Multimedia Services to the Home* (p. 249 – 254). Presented at the 1st International Workshop on Community Networking Integrated Multimedia Services to the Home, IEEE.
- Williams, Margot. (1996, August 12). It's the Personal Touch That Counts on the Internet. *Washington Post*, p. F21.
- Williams, Martyn. (1996, February 8). Online Protests Aimed at Telecom Bill. *NewsBytes*.
- Wilson, J. (1998, June). Well, I wanted to start a weblog in the tradition of Jorn Barger and the Honeyguide Weblog. *The untitled weblog*. Retrieved November 20, 2008, from <http://web.archive.org/web/19980629053851/http://www.ed.mtu.edu/~jowilson/weblog/>
- Winer, D. (1988, November). Outliners & Programming. *Userland*. Retrieved August 15, 2008, from <http://dave-winer.userland.com/outlinersProgramming>
- Winer, D. (1994a, October 7). Marc Canter Sings Again! Retrieved August 19, 2008, from <http://www.scripting.com/davenet/1994/10/07/marccantersingsagain.html>
- Winer, D. (1994b, October 13). Letter to Cannavino. *DaveNet*. Retrieved April 30, 2009, from <http://davenet.->

- scripting.com/1994/10/13/lettertocannavino.html
- Winer, D. (1994c, October 18). Bill Gates vs The Internet. *DaveNet*. Retrieved August 5, 2008, from <http://www-scripting.com/davenet/1994/10/18/billgatesvstheinternet.html>
- Winer, D. (1994d, October 19). Lots O'Comments. *DaveNet*. Retrieved February 20, 2012, from <http://scripting.com/davenet/1994/10/19/lotsocomments.html>
- Winer, D. (1994e, October 22). Scripting the Internet. *DaveNet*. Retrieved August 5, 2008, from <http://www-scripting.com/davenet/1994/10/22/scriptingtheinternet.html>
- Winer, D. (1994f, October 24). Software Bar, Part 1. *DaveNet*. Retrieved July 5, 2011, from <http://scripting.com/davenet/1994/10/24/softwarebarpart1.html>
- Winer, D. (1994g, October 27). Dave de'Demagogue. *DaveNet*. Retrieved May 13, 2011, from <http://scripting.com/davenet/1994/10/27/davededemagogue.html>
- Winer, D. (1994h, October 29). Platform is Chinese household. *Davenet*. Retrieved August 19, 2008, from <http://www.scripting.com/davenet/1994/10/29/platformischinesehousehold.html>
- Winer, D. (1994i, November 5). Random Breathless Stuff. *DaveNet*. Retrieved July 29, 2008, from <http://scripting.com/davenet/1994/11/05/randombreathlessstuff.html>
- Winer, D. (1994j, November 7). Dave's Automated Webster. *DaveNet*. Retrieved July 29, 2008, from <http://www-scripting.com/davenet/1994/11/07/davesautomatedwebster.html>
- Winer, D. (1994k, November 13). UserLand Got Lucky. *DaveNet*. Retrieved July 29, 2008, from <http://www-scripting.com/davenet/1994/11/13/userlandgotlucky.html>
- Winer, D. (1994l, December 4). Visions of Platform Vendors. *DaveNet*. Retrieved February 16, 2012, from <http://scripting.com/davenet/1994/12/04/visionsofplatformvendors.html>
- Winer, D. (1994m, December 8). The Online Stock Broker. *DaveNet*. Retrieved July 5, 2011, from <http://scripting.com/davenet/1994/12/08/theonlinestockbroker.html>
- Winer, D. (1995a, January 2). What is an Agent? *DaveNet*. Retrieved July 29, 2008, from <http://www.scripting.com/davenet/1995/01/02/whatisanagent.html>
- Winer, D. (1995b, January 9). R E S P E C T. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1995/01/09/respect.html>
- Winer, D. (1995c, January 11). I'll Show You My Agent If... *DaveNet*. Retrieved August 9, 2008, from <http://www.scripting.com/davenet/1995/01/11/illshowyoumyagentif.html>
- Winer, D. (1995d, January 16). Dig We Must! *DaveNet*. Retrieved August 9, 2008, from <http://www.scripting.com/davenet/1995/01/16/digwemust.html>
- Winer, D. (1995e, January 20). A Week Without DaveNet? *DaveNet*. Retrieved August 9, 2008, from <http://www-scripting.com/davenet/1995/01/20/aweekwithoutdavenet.html>
- Winer, D. (1995f, January 26). The SF Web-O'Lution. *DaveNet*. Retrieved August 5, 2008, from <http://www-scripting.com/davenet/1995/01/26/thesfwebolution.html>
- Winer, D. (1995g, January 27). AutoWeb 1.0b5 Change Notes. Retrieved August 4, 2008, from http://www.scripting.com/autowebdocs/autoweb10b5changenotes_118.html
- Winer, D. (1995h, January 27). How Bout Them Niners! *DaveNet*. Retrieved July 30, 2008, from <http://www-scripting.com/davenet/1995/01/27/howboutthemniners.html>
- Winer, D. (1995i, January 28). What is AutoWeb? *Scripting.com*. Retrieved August 1, 2008, from http://scripting.com/autowebdocs/whatisautoweb_119.html
- Winer, D. (1995j, January 28). AutoWeb 1.0 Docs. *AutoWeb*. Retrieved September 22, 2008, from http://www-scripting.com/autowebdocs/autoweb10docs_119.html
- Winer, D. (1995k, January 28). AutoWeb & Beyond. *AutoWeb*. Retrieved August 4, 2008, from <http://www.scripting.com/autowebdocs/autowebhome.html>
- Winer, D. (1995l, January 31). AutoWeb FAQs. *AutoWeb*. Retrieved May 4, 2010, from http://scripting.com/autowebdocs/autowebfaqs_122.html
- Winer, D. (1995m, February 3). Website Work. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1995/02/03/websitework.html>
- Winer, D. (1995n, February 6). The New Software Industry. *DaveNet*. Retrieved February 28, 2012, from <http://scripting.com/davenet/1995/02/06/thenewsoftwareindustry.html>
- Winer, D. (1995o, February 12). A Tough Customer. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1995/02/12/atoughcustomer.html>
- Winer, D. (1995p, February 17). Peaceful Uses of the Internet. *DaveNet*. Retrieved August 2, 2008, from <http://www.scripting.com/davenet/1995/02/17/peacefulusesoftheinternet.html>
- Winer, D. (1995q, February 21). Great Hair. Retrieved May 16, 2009, from <http://www.scripting.com/davenet/1995/02/21/greathair.html>
- Winer, D. (1995r, February 25). AutoWeb 1.0b4 Change Notes. *AutoWeb*. Retrieved September 22, 2008, from

- http://www.scripting.com/autowebdocs/autoweb10b4changenotes_116.html
- Winer, D. (1995s, February 25). Version Notes. *Autoweb*. Retrieved August 4, 2008, from http://www.scripting.com/autowebdocs/versionnotes_147.html
- Winer, D. (1995t, February 26). Scripting and Other Nerdy Fun. *AutoWeb*. Retrieved September 22, 2008, from http://www.scripting.com/autowebdocs/scriptingandothernerdy_148.html
- Winer, D. (1995u, February 26). AutoWeb 1.0b6 Change Notes. *AutoWeb*. Retrieved September 22, 2008, from http://www.scripting.com/autowebdocs/autoweb10b6changenotes_148.html
- Winer, D. (1995v, February 26). AutoWeb 1.0b7 Change Notes. *AutoWeb*. Retrieved September 22, 2008, from http://www.scripting.com/autowebdocs/autoweb10b7changenotes_148.html
- Winer, D. (1995w, March 3). Esther's List. *DaveNet*. Retrieved August 21, 2008, from <http://www.scripting.com/davenet/1995/03/03/estherslist.html>
- Winer, D. (1995x, March 10). A Computer for Your Body. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1995/03/10/acomputerforyourbody.html>
- Winer, D. (1995y, March 13). The Subjectives of OpenDoc. *DaveNet*. Retrieved May 8, 2009, from <http://www.scripting.com/davenet/1995/03/13/thesubjectivesofopendoc.html>
- Winer, D. (1995z, March 14). Off to the slaughter house! *DaveNet*. Retrieved February 8, 2012, from <http://scripting.com/davenet/1995/03/14/offtotheslaughterhouse.html>
- Winer, D. (1995aa, March 21). Two Views of OpenDoc. *DaveNet*. Retrieved March 27, 2009, from <http://www.scripting.com/davenet/1995/03/21/twoviewsofopendoc.html>
- Winer, D. (1995ab, March 23). A Big Tree Falls! *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1995/03/23/abigreefalls.html>
- Winer, D. (1995ac, March 27). Dozens of websites. *DaveNet*. Retrieved February 8, 2012, from <http://scripting.com/davenet/1995/03/27/dozensofwebsites.html>
- Winer, D. (1995ad, March 29). FLASH!!! *DaveNet*. Retrieved February 24, 2011, from <http://scripting.com/davenet/1995/03/29/flash.html>
- Winer, D. (1995ae, March 31). A Society of Parents. *DaveNet*. Retrieved August 1, 2008, from <http://www.scripting.com/davenet/1995/03/31/asocietyofparents.html>
- Winer, D. (1995af, April 12). Get up, and do it again. *DaveNet*. Retrieved May 18, 2009, from <http://davenet.scripting.com/1995/04/12/getupanddoitagain.html>
- Winer, D. (1995ag, April 13). FUD you too! *DaveNet*. Retrieved May 8, 2009, from <http://www.scripting.com/davenet/1995/04/13/fudyoutoo.html>
- Winer, D. (1995ah, April 18). Software costs money. *DaveNet*. Retrieved February 8, 2012, from <http://scripting.com/davenet/1995/04/18/softwarecostsmoney.html>
- Winer, D. (1995ai, April 26). Let's have fun! *DaveNet*. Retrieved July 29, 2008, from <http://www.scripting.com/davenet/1995/04/26/letshavefun.html>
- Winer, D. (1995aj, May 9). Being Free. *DaveNet*. Retrieved July 29, 2008, from <http://www.scripting.com/davenet/1995/05/09/beingfree.html>
- Winer, D. (1995ak, May 12). My Little Symphony. *DaveNet*. Retrieved February 9, 2012, from <http://scripting.com/davenet/1995/05/12/mylittlesymphony.html>
- Winer, D. (1995al, May 25). It's just music! *DaveNet*. Retrieved July 30, 2008, from <http://www.scripting.com/davenet/1995/05/25/itsjustmusic.html>
- Winer, D. (1995am, June 2). Talk & Vote. Retrieved September 24, 2008, from <http://www.scripting.com/davenet/1995/06/02/talkvote.html>
- Winer, D. (1995an, June 8). The interactive website. *DaveNet*. Retrieved February 29, 2012, from <http://scripting.com/davenet/1995/06/08/theinteractivewebsite.html>
- Winer, D. (1995ao, June 19). The HyperText Man. *DaveNet*. Retrieved January 27, 2011, from <http://scripting.com/davenet/1995/06/19/thehypertextman.html>
- Winer, D. (1995ap, June 20). Not the Usual Suspects. Retrieved September 24, 2008, from <http://www.scripting.com/davenet/1995/06/20/nottheusualsuspects.html>
- Winer, D. (1995aq, June 27). Don & Marie Packard. Retrieved February 20, 2009, from <http://www.scripting.com/davenet/1995/06/27/donmariepackard.html>
- Winer, D. (1995ar, July 18). Huge Wingspans. *DaveNet*. Retrieved September 2, 2008, from <http://www.scripting.com/davenet/1995/07/18/hugewingspans.html>
- Winer, D. (1995as, July 19). Go with the Flow. *Davenet*. Retrieved July 29, 2008, from <http://www.scripting.com/davenet/1995/07/19/gowiththeflow.html>
- Winer, D. (1995at, July 29). Evangelism as God Intended. *DaveNet*. Retrieved August 4, 2008, from <http://www.scripting.com/davenet/1995/07/29/evangelismasgodintended.html>
- Winer, D. (1995au, August 22). What is a Platform? *DaveNet*. Retrieved July 19, 2008, from <http://www.scripting.com/davenet/1995/08/22/what-is-a-platform.html>

- ing.com/davenet/1995/08/22/whatisaplatform.html
- Winer, D. (1995av, August 22). Chinese Household Revisited. *DaveNet*. Retrieved March 26, 2009, from <http://www.scripting.com/davenet/1995/08/22/chinesehouseholdrevisited.html>
- Winer, D. (1995aw, August 28). Steve Wozniak on Apple. *DaveNet*. Retrieved from <http://scripting.com/davenet/1995/08/28/stevewozniakonapple.html>
- Winer, D. (1995ax, September 3). We Make Shitty Software. *DaveNet*. Retrieved February 14, 2011, from <http://scripting.com/davenet/1995/09/03/wemakeshittysoftware.html>
- Winer, D. (1995ay, September 22). After all these years. *DaveNet*. Retrieved February 28, 2012, from <http://scripting.com/davenet/1995/09/22/afteralltheseyears.html>
- Winer, D. (1995az, September 22). Has Email Ever Made You Cry? *DaveNet*. Retrieved August 4, 2008, from <http://www.scripting.com/davenet/1995/09/22/hasemailervermadeyoucry.html>
- Winer, D. (1995ba, October 26). Don't Feed the Geeks. *DaveNet*. Retrieved July 28, 2008, from <http://www.scripting.com/davenet/1995/10/26/dontfeedthegeeks.html>
- Winer, D. (1995bb, November 19). New Features (v1.0b7). *Clay Basket*. Retrieved August 1, 2008, from <http://www.scripting.com/clay/newfeaturesv10b7.html>
- Winer, D. (1995bc, November 30). A love castle for developers. *DaveNet*. Retrieved February 8, 2012, from <http://scripting.com/davenet/1995/11/30/alovecastlefordevelopers.html>
- Winer, D. (1995bd, December 12). My Own Server, Again! *DaveNet*. Retrieved February 20, 2009, from <http://www.scripting.com/davenet/1995/12/12/myownserveragain.html>
- Winer, D. (1996a). News & Updates – Thru June 1996. *Frontier News*. Retrieved August 1, 2008, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives96/jun.html>
- Winer, D. (1996b). List of Essay Addresses. *24 Hours of Democracy*. Retrieved August 3, 2008, from <http://www.scripting.com/twentyFour/registry.html>
- Winer, D. (1996c). The Lover. Retrieved from <http://www.edge.org/documents/digerati/Winer.html>
- Winer, D. (1996d, January 5). Charlie Has a Dream Too. *DaveNet*. Retrieved March 29, 2010, from <http://davenet.scripting.com/1996/01/05/charliehasadreamtoo.html>
- Winer, D. (1996e, January 8). Gotta Be Aretha! *DaveNet*. Retrieved September 2, 2008, from <http://www.scripting.com/davenet/1996/01/08/gottabearetha.html>
- Winer, D. (1996f, January 13). MacGeekWeek. *Davenet*. Retrieved May 3, 2010, from <http://www.scripting.com/davenet/1996/01/12/macgeekweek.html>
- Winer, D. (1996g, January 26). Web Energy. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/01/26/webenergy.html>
- Winer, D. (1996h, February). News. *24 Hours of Democracy*. Retrieved August 2, 2008, from <http://www.scripting.com/twentyFour/news.html>
- Winer, D. (1996i, February 1). Censorship Bill Passes US Congress. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/01/censorshipbillpassesuscong.html>
- Winer, D. (1996j, February 2). Stalin Go Home! *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/02/stalingohome.html>
- Winer, D. (1996k, February 2). EFF Ribbons. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/02/effribbons.html>
- Winer, D. (1996l, February 8). Holding Hands in Cyberspace. *DaveNet*. Retrieved February 28, 2008, from <http://www.scripting.com/davenet/1996/02/08/holdinghandsincyberspace.html>
- Winer, D. (1996m, February 8). Sucking Up. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/08/suckingup.html>
- Winer, D. (1996n, February 8). The Blackout. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/08/theblackout.html>
- Winer, D. (1996o, February 9). I Promised My Grandfather. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/09/ipromisedmygrandfather.html>
- Winer, D. (1996p, February 10). Elegant Statements. *DaveNet*. Retrieved August 2, 2008, from <http://www.scripting.com/davenet/1996/02/10/elegantstatements.html>
- Winer, D. (1996q, February 12). 24 Hours of Democracy. *DaveNet*. Retrieved August 2, 2008, from <http://www.scripting.com/davenet/1996/02/12/24hoursofdemocracy.html>
- Winer, D. (1996r, February 12). New Date - 2/22/96. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/12/newdate22296.html>
- Winer, D. (1996s, February 16). Press Room. *24 Hours of Democracy*. Retrieved August 2, 2008, from <http://www.scripting.com/twentyFour/pressRoom.html>
- Winer, D. (1996t, February 16). Webmasters. *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/16/webmasters.html>

- Winer, D. (1996u, February 16). Sponsors. *24 Hours of Democracy*. Retrieved May 2, 2010, from <http://www.scripting.com/twentyfour/sponsors.html>
- Winer, D. (1996v, February 19). Dave's 24 Hour Tour #1. *24 Hours of Democracy*. Retrieved August 3, 2008, from <http://www.scripting.com/twentyFour/tour1.html>
- Winer, D. (1996w, February 19). Dave's 24 Hour Tour #2. *24 Hours of Democracy*. Retrieved August 3, 2008, from <http://www.scripting.com/twentyFour/tour2.html>
- Winer, D. (1996x, February 20). Dave's 24 Hour Tour #3. *24 Hours of Democracy*. Retrieved August 3, 2008, from <http://www.scripting.com/twentyFour/tour3.html>
- Winer, D. (1996y, February 21). Reading the Essays. *24 Hours of Democracy*. Retrieved September 18, 2008, from <http://www.scripting.com/twentyFour/readingTheEssays.html>
- Winer, D. (1996z, February 21). Dave's 24 Hour Tour #4. *24 Hours of Democracy*. Retrieved August 3, 2008, from <http://www.scripting.com/twentyFour/tour4.html>
- Winer, D. (1996aa, February 21). DaveNet Tours. *24 Hours of Democracy*. Retrieved August 2, 2008, from <http://www.scripting.com/twentyFour/daveNetTours.html>
- Winer, D. (1996ab, February 25). It's Like an Ant Farm! *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/02/25/itslikeanantfarm.html>
- Winer, D. (1996ac, March 4). PC Users Became a Medium. *Davenet*. Retrieved September 25, 2008, from <http://www.scripting.com/davenet/1996/03/04/pcusersbecameamedium.html>
- Winer, D. (1996ad, March 11). One Infinite Loop? *DaveNet*. Retrieved August 3, 2008, from <http://www.scripting.com/davenet/1996/03/11/oneinfiniteloop.html>
- Winer, D. (1996ae, April 2). I Yearn for System 6. *DaveNet*. Retrieved August 6, 2011, from <http://scripting.com/davenet/1996/04/02/iyearnforsystem6.html>
- Winer, D. (1996af, April 9). The Perfect Parent. *Davenet*. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/1996/04/09/theperfectparent.html>
- Winer, D. (1996ag, April 16). Flaming Lists. *Davenet*. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/1996/04/16/flaminglists.html>
- Winer, D. (1996ah, May 1). Bluegrass Music! *DaveNet*. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/1996/05/01/bluegrassmusic.html>
- Winer, D. (1996ai, May 12). Frontier 4.0. *Davenet*. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/1996/05/12/frontier40.html>
- Winer, D. (1996aj, May 14). Apple could zig. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/1996/05/14/applecouldzig.html>
- Winer, D. (1996ak, May 15). Watch This! *DaveNet*. Retrieved February 28, 2008, from <http://www.scripting.com/davenet/1996/05/15/watchthis.html>
- Winer, D. (1996al, May 18). Nerd's Guide to this Website. *DaveNet*. Retrieved July 31, 2008, from <http://www.scripting.com/davenet/aboutthiswebsite.html>
- Winer, D. (1996am, May 21). Java Java Java. *Davenet*. Retrieved July 17, 2008, from <http://www.scripting.com/davenet/1996/05/21/javajavajava.html>
- Winer, D. (1996an, May 24). See You In The Market. *Davenet*. Retrieved August 4, 2008, from <http://www.scripting.com/davenet/1996/05/24/seeyouinthemarket.html>
- Winer, D. (1996ao, June 7). Picky Crabb. *DaveNet*. Retrieved May 18, 2011, from <http://scripting.com/davenet/1996/06/07/pickycrabb.html>
- Winer, D. (1996ap, July 6). I Want Too Much! *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1996/07/06/iwanttoomuch.html>
- Winer, D. (1996aq, July 16). The Macintosh Internet Strategy. Retrieved March 9, 2009, from <http://www.scripting.com/davenet/1996/07/16/themacintoshinternetstrate.html>
- Winer, D. (1996ar, July 22). Influence. *DaveNet*. Retrieved March 9, 2009, from <http://www.scripting.com/davenet/1996/07/22/influence.html>
- Winer, D. (1996as, August 19). Diggin The Times. *DaveNet*. Retrieved February 27, 2011, from <http://scripting.com/davenet/1996/08/19/DigginTheTimes.html>
- Winer, D. (1996at, August 23). Macarena! *DaveNet*. Retrieved February 23, 2009, from <http://www.scripting.com/davenet/1996/08/23/macarena.html>
- Winer, D. (1996au, September 6). ActiveX or Java? *DaveNet*. Retrieved February 23, 2009, from <http://www.scripting.com/davenet/1996/09/06/ActiveXorJava.html>
- Winer, D. (1996av, October 24). Que Sera Sera. *DaveNet*. Retrieved February 10, 2011, from <http://scripting.com/davenet/1996/10/24/QueSeraSera.html>
- Winer, D. (1996aw, October 29). Stop that Prop! *DaveNet*. Retrieved February 23, 2009, from <http://www.scripting.com/davenet/1996/10/29/StopthatProp.html>

- Winer, D. (1996ax, November). News & Updates – Thru November 1996. *Frontier*. Retrieved October 24, 2008, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives96/nov.html>
- Winer, D. (1996ay, December). Welcome to www.Scripting.com. *Scripting.com*. Retrieved March 1, 2008, from <http://web.archive.org/web/19961227123243/http://www.scripting.com/>
- Winer, D. (1996az, December). News & Updates – Thru December 1996. *Frontier*. Retrieved October 24, 2008, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives96/dec.html>
- Winer, D. (1996ba, December 17). A Custom Cookie-Cutter. *DaveNet*. Retrieved July 28, 2009, from <http://www-scripting.com/davenet/1996/12/17/ACustomCookieCutter.html>
- Winer, D. (1996bb, December 18). The Killer Tag. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1996/12/18/TheKillerTag.html>
- Winer, D. (1996bc, December 31). The Art of Moving Forward. *DaveNet*. Retrieved August 1, 2008, from <http://www.scripting.com/davenet/1996/12/31/TheArtofMovingForward.html>
- Winer, D. (1997a). The Story of Frontier. *Userland*. Retrieved July 16, 2008, from <http://davewiner.userland.com/historyOfFrontier>
- Winer, D. (1997b). Index of /stories/winer. *Scripting*. Retrieved May 21, 2010, from <http://www.scripting.com/stories/winer/>
- Winer, D. (1997c, January). News & Updates – Thru January 1997. *Frontier*. Retrieved October 6, 2008, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives97/jan.html>
- Winer, D. (1997d, January). Credits: Frontier 4.2/Mac. *Frontier*. Retrieved February 5, 2011, from [http://frontier-userland.com/stories/storyReader\\$314](http://frontier-userland.com/stories/storyReader$314)
- Winer, D. (1997e, January 10). Cookies. *DaveNet*. Retrieved April 12, 2010, from <http://www.scripting.com/davenet/1997/01/10/Cookies.html>
- Winer, D. (1997f, January 18). Powerscripters. *DaveNet*. Retrieved April 22, 2010, from http://davenet.scripting-com/1997/01/18/Power_scripters.html
- Winer, D. (1997g, January 21). Frontier 4.2 Download Page. *Scripting.com*. Retrieved March 1, 2009, from <http://www.scripting.com/frontier/newReleases/Frontier42.html>
- Winer, D. (1997h, January 21). NewsPage. *Frontier*. Retrieved September 16, 2008, from <http://www.scripting-com/frontier/netScripting/newsPage.html>
- Winer, D. (1997i, January 23). A New Groove. *Davenet*. Retrieved March 1, 2008, from <http://www.scripting-com/davenet/1997/01/23/ANewGroove.html>
- Winer, D. (1997j, February). Scripting News – February 1997. *Scripting News*. Retrieved November 21, 2008, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives97/feb.html>
- Winer, D. (1997k, February 1). Site Changes. *Scripting.com*. Retrieved July 31, 2008, from <http://www.scripting-com/stories/siteChanges.html>
- Winer, D. (1997l, February 8). Special Stories Site. *DaveNet*. Retrieved March 20, 2010, from <http://www.scripting.com/davenet/stories/>
- Winer, D. (1997m, February 9). Breaking Rules. *DaveNet*. Retrieved September 2, 2008, from <http://www.scripting.com/davenet/1997/02/09/BreakingRules.html>
- Winer, D. (1997n, February 12). Canary in a Coalmine. *DaveNet*. Retrieved September 2, 2008, from <http://www-scripting.com/davenet/1997/02/12/CanaryinaCoalmine.html>
- Winer, D. (1997o, February 13). NewsPage Change Notes. *Frontier*. Retrieved March 17, 2010, from <http://www.scripting.com/frontier/netScripting/newsPageChanges.html>
- Winer, D. (1997p, February 19). Scripting News. *Scripting.com*. Retrieved April 18, 2008, from <http://web.archive.org/web/19970219184710/http://www.scripting.com/>
- Winer, D. (1997q, February 23). The Promise of Push. *DaveNet*. Retrieved September 3, 2008, from <http://www-scripting.com/davenet/1997/02/23/ThePromiseofPush.html>
- Winer, D. (1997r, February 24). Week of February 24. *Scripting.com*. Retrieved September 2, 2008, from <http://www.scripting.com/stories/week0224.html>
- Winer, D. (1997s, February 25). This Web is Free. *DaveNet*. Retrieved September 2, 2008, from <http://www-scripting.com/davenet/1997/02/25/ThisWebisFree.html>
- Winer, D. (1997t, February 25). Can't Touch This! *DaveNet*. Retrieved September 3, 2008, from <http://www-scripting.com/davenet/1997/02/25/CantTouchThis.html>
- Winer, D. (1997u, February 27). Back in the USSR. *DaveNet*. Retrieved September 3, 2008, from <http://www-scripting.com/davenet/1997/02/27/BackintheUSSR.html>
- Winer, D. (1997v, February 28). What's Going On? Retrieved August 19, 2008, from <http://www.scripting.com/davenet/1997/02/28/WhatsGoingOn.html>
- Winer, D. (1997w, March). Scripting News – March 1997. *Scripting.com*. Retrieved April 1, 2010, from <http://www.scripting.com/frontier/admin/oldNewsPages/archives97/march.html>

- Winer, D. (1997x, March). News Room. *Apple @ InternetWorld*. Retrieved February 25, 2009, from <http://web.archive.org/web/19981205074514/http://apple.www.conxion.com/newsRoom/>
- Winer, D. (1997y, March 3). Simulated People. *DaveNet*. Retrieved September 3, 2008, from <http://www.scripting.com/davenet/1997/03/03/SimulatedPeople.html>
- Winer, D. (1997z, March 4). Content Server Preview. *DaveNet*. Retrieved February 26, 2009, from <http://www.scripting.com/davenet/stories/contentServer/default.html>
- Winer, D. (1997aa, March 6). Mac Developers @ InternetWorld. *DaveNet*. Retrieved September 3, 2008, from <http://www.scripting.com/davenet/1997/03/06/MacDevelopersInternetWorld.html>
- Winer, D. (1997ab, March 7). Moon Mission. *DaveNet*. Retrieved September 3, 2008, from <http://www.scripting.com/davenet/1997/03/07/MoonMission.html>
- Winer, D. (1997ac, March 8). Demo w/Amelio at InternetWorld. *DaveNet*. Retrieved March 20, 2010, from <http://www.scripting.com/davenet/stories/amelioDemo.html>
- Winer, D. (1997ad, March 10). Fire Drill! *DaveNet*. Retrieved February 25, 2009, from <http://www.scripting.com/davenet/1997/03/10/FireDrill.html>
- Winer, D. (1997ae, March 10). About this Site. *Apple @ InternetWorld News Room Site*. Retrieved May 21, 2009, from <http://web.archive.org/web/19970704141233/http://apple.www.conxion.com/newsRoom/about.html>
- Winer, D. (1997af, March 13). Greed Acres. *DaveNet*. Retrieved March 21, 2010, from <http://www.scripting.com/Davenet/1997/03/13/GreedAcres.html>
- Winer, D. (1997ag, March 14). Thanks! *Apple @ InternetWorld*. Retrieved April 6, 2010, from <http://web.archive.org/web/19981202054918/apple.www.conxion.com/newsRoom/stories/thanks.html>
- Winer, D. (1997ah, March 14). Apple Changes. *DaveNet*. Retrieved April 6, 2010, from <http://www.scripting.com/davenet/1997/03/14/AppleChanges.html>
- Winer, D. (1997ai, March 17). The OpenDoc Lesson. *DaveNet*. Retrieved February 25, 2009, from <http://www.scripting.com/davenet/1997/03/17/TheOpenDocLesson.html>
- Winer, D. (1997aj, March 19). The Struggle to Stay Wizzy. *DaveNet*. Retrieved August 23, 2008, from <http://www.scripting.com/davenet/1997/03/19/StruggletostayWizzy.html>
- Winer, D. (1997ak, March 27). The goal. *Scripting.com*. Retrieved March 4, 2009, from <http://www.scripting.com/stories/winer/thegoal.html>
- Winer, D. (1997al, March 27). Content Server Guidelines. *Scripting News*. Retrieved March 4, 2009, from <http://www.scripting.com/stories/winer/contentserverguidelines.html>
- Winer, D. (1997am, March 27). Copyrights. *Scripting.com*. Retrieved March 3, 2009, from <http://www.scripting.com/stories/winer/copyrights.html>
- Winer, D. (1997an, March 28). A Young Valley. *DaveNet*. Retrieved March 19, 2010, from <http://www.scripting.com/davenet/1997/03/28/AYoungValley.html>
- Winer, D. (1997ao, April). Archive: April 1997. *Scripting News*. Retrieved April 1, 2010, from <http://www.scripting.com/1997/04.html>
- Winer, D. (1997ap, April 5). Hail This! *DaveNet*. Retrieved August 23, 2008, from <http://scripting.com/davenet/1997/04/05/HailThis.html>
- Winer, D. (1997aq, April 9). Sandboxes. *DaveNet*. Retrieved August 9, 2008, from <http://www.scripting.com/davenet/1997/04/09/Sandboxes.html>
- Winer, D. (1997ar, April 14). CDF Support in Frontier. *Scripting.com*. Retrieved July 8, 2011, from <http://web.archive.org/web/19970615133641/http://www.scripting.com/fatPages/97/04/cdfSupport.html>
- Winer, D. (1997as, April 15). Working on the Seybold News Site. *DaveNet*. Retrieved August 23, 2008, from <http://web.archive.org/web/19970615165247/http://www.scripting.com/davenet/stories/seyboldSite.html>
- Winer, D. (1997at, April 16). Say Yes to Everyone. *DaveNet*. Retrieved August 23, 2008, from <http://scripting.com/davenet/1997/04/16/SayYestoEveryone.html>
- Winer, D. (1997au, April 21). Can Apple Survive? *DaveNet*. Retrieved April 9, 2010, from <http://www.scripting.com/davenet/1997/04/21/CanAppleSurvive.html>
- Winer, D. (1997av, April 25). No Theories Needed. *DaveNet*. Retrieved April 13, 2008, from <http://www.scripting.com/davenet/1997/04/25/NoTheoriesNeeded.html>
- Winer, D. (1997aw, April 28). New Technology for Scripting News. *DaveNet*. Retrieved August 24, 2008, from <http://www.scripting.com/davenet/stories/NewTechnologyforScripting.html>
- Winer, D. (1997ax, April 29). People Suite. *Scripting.com*. Retrieved May 8, 2010, from <http://web.archive.org/web/19970722015537/www.scripting.com/fatPages/97/05/peopleSuite.html>
- Winer, D. (1997ay, April 29). Custody Suite. *Scripting.com*. Retrieved May 8, 2010, from <http://web.archive.org/web/19970722015547/http://www.scripting.com/fatPages/97/05/custodySuite.html>
- Winer, D. (1997az, May 5). The Artemis Project is developing a private lunar base. *Scripting News*. Retrieved November 21, 2008, from <http://www.scripting.com/1997/05/05.html>

- Winer, D. (1997ba, May 7). New Features in Frontier 4.2. *Frontier*. Retrieved October 6, 2008, from <http://www.scripiting.com/frontier/newReleases/newIn42.html>
- Winer, D. (1997bb, May 13). Tuesday, May 13, 1997. *Scripting News*. Retrieved April 21, 2010, from <http://www.scripiting.com/1997/05/13.html>
- Winer, D. (1997bc, May 15). Thursday, May 15, 1997. *Scripting News*. Retrieved April 21, 2010, from <http://archive.scripiting.com/1997/05/15>
- Winer, D. (1997bd, May 16). NewBot. *DaveNet*. Retrieved April 21, 2010, from <http://davenet.scripiting.com/1997/05/16/NewBot.html>
- Winer, D. (1997be, May 25). Think Seybold, Dave. *DaveNet*. Retrieved August 23, 2008, from <http://scripiting.com/davenet/1997/05/25/ThinkSeyboldDave.html>
- Winer, D. (1997bf, May 27). Tuesday, May 27, 1997. *Scripting News*. Retrieved April 20, 2010, from <http://www.scripiting.com/1997/05/27.html>
- Winer, D. (1997bg, June 4). Wednesday, June 04, 1997. *Scripting News*. Retrieved May 10, 2010, from <http://www.scripiting.com/1997/06/04.html>
- Winer, D. (1997bh, June 5). From August 1996. *Scripting News*. Retrieved August 10, 2011, from <http://www.scripiting.com/1997/06/05.html>
- Winer, D. (1997bi, June 6). Where the Okies Went. *DaveNet*. Retrieved February 8, 2010, from <http://www.scripiting.com/davenet/1997/06/05/WheretheOkiesWent.html>
- Winer, D. (1997bj, June 6). Brains and Sex Appeal. *DaveNet*. Retrieved June 5, 2010, from <http://scripiting.com/davenet/1997/06/06/BrainsandSexAppeal.html>
- Winer, D. (1997bk, June 12). Web Economics. *DaveNet*. Retrieved February 23, 2009, from <http://www.scripiting.com/davenet/1997/06/12/WebEconomics.html>
- Winer, D. (1997bl, June 19). Anyone But Microsoft. *DaveNET*. Retrieved March 14, 2010, from <http://www.scripiting.com/davenet/1997/06/19/AnyoneButMicrosoft.html>
- Winer, D. (1997bm, June 20). June Design Update. *DaveNet*. Retrieved February 28, 2009, from <http://web.archive.org/web/19991115194109/http://www.scripiting.com/davenet/stories/designJune.html>
- Winer, D. (1997bn, June 24). Tuesday, June 24, 1997. *Scripting News*. Retrieved May 20, 2010, from <http://www.scripiting.com/1997/06/24.html>
- Winer, D. (1997bo, July 8). The Sure Road to Bankruptcy. *DaveNet*. Retrieved April 8, 2010, from <http://www.scripiting.com/Davenet/1997/07/08/TheSureRoadtoBankruptcy.html>
- Winer, D. (1997bp, July 15). Response to Mackido. *DaveNet*. Retrieved May 18, 2011, from <http://scripiting.com/davenet/stories/ResponsetoMackido.html>
- Winer, D. (1997bq, July 21). Carl and the Two Guys. *DaveNet*. Retrieved April 8, 2010, from <http://www.scripiting.com/davenet/1997/07/21/CarlandtheTwoGuys.html>
- Winer, D. (1997br, July 30). Another Offer to Apple. *DaveNet*. Retrieved April 8, 2010, from <http://www.scripiting.com/davenet/1997/07/30/AnotherOffertoApple.html>
- Winer, D. (1997bs, August 8). Frontier 5: New Feature Areas in 5.0. *Scripting.com*. Retrieved April 19, 2010, from <http://www.scripiting.com/Gimme5/stories/fourFeatureAreas.html>
- Winer, D. (1997bt, September 3). Is it time to quit? *DaveNet*. Retrieved April 8, 2010, from <http://www.scripiting.com/davenet/1997/09/03/Isittimetquit.html>
- Winer, D. (1997bu, September 24). Winning at Seybold. *DaveNet*. Retrieved April 19, 2010, from <http://www.scripiting.com/davenet/1997/09/24/WinningAtSeybold.html>
- Winer, D. (1997bv, October 2). I Liked The Ad. *DaveNet*. Retrieved April 13, 2010, from <http://www.scripiting.com/davenet/1997/10/02/ILikedTheAd.html>
- Winer, D. (1997bw, October 7). Three Years of DaveNet. *DaveNet*. Retrieved July 19, 2008, from <http://www.scripiting.com/davenet/1997/10/07/ThreeYearsofDaveNet.html>
- Winer, D. (1997bx, November 12). O'Reilly Query. *Scripting*. Retrieved May 18, 2010, from <http://www.scripiting.com/davenet/stories/OReillyQuery.html>
- Winer, D. (1997by, November 25). Thanksgiving 1997. *DaveNet*. Retrieved April 11, 2010, from <http://www.scripiting.com/davenet/1997/11/25/Thanksgiving1997.html>
- Winer, D. (1997bz, December 15). Scripting News in XML. *DaveNet*. Retrieved July 30, 2008, from <http://www.scripiting.com/davenet/1997/12/15/scriptingNewsInXML.html>
- Winer, D. (1997ca, December 24). Wednesday, December 24, 1997. *Scripting News*. Retrieved from <http://www.scripiting.com/1997/12/24.html>
- Winer, D. (1997cb, December 31). Index of /97/12/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripiting.com/97/12/stories/>
- Winer, D. (1998a, January). Credits: Frontier 5.0. *Frontier*. Retrieved February 5, 2011, from [http://frontier.userland.com/stories/storyReader\\$314](http://frontier.userland.com/stories/storyReader$314)

- Winer, D. (1998b, January 6). Bang that Script! *DaveNet*. Retrieved May 10, 2010, from <http://www.scripting.com/davenet/1998/01/06/bangThatScript.html>
- Winer, D. (1998c, January 19). The Tail and the Dog. *DaveNet*. Retrieved March 16, 2009, from <http://www.scripting.com/davenet/1998/01/19/theTailAndTheDog.html>
- Winer, D. (1998d, January 20). Frontier 5.0b9 app-only release. *Scripting News*. Retrieved November 19, 2008, from <http://archive.scripting.com/1998/01/20>
- Winer, D. (1998e, January 21). Sites I Watch. *Scripting.com*. Retrieved July 15, 2008, from <http://www.scripting.com/dwiner/notepad.html>
- Winer, D. (1998f, January 22). Script Meridians. *DaveNet*. Retrieved August 28, 2008, from <http://www.scripting.com/davenet/1998/01/22/scriptMeridians.html>
- Winer, D. (1998g, January 31). Index of /98/01/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/01/stories/>
- Winer, D. (1998h, February 15). Workflow Notes. *Scripting.com*. Retrieved May 10, 2010, from <http://www.scripting.com/fatPages/stories/workflowNotes.html>
- Winer, D. (1998i, February 27). RPC over HTTP via XML. *DaveNet*. Retrieved August 27, 2008, from <http://www.scripting.com/davenet/1998/02/27/rpcOverHttpViaXml.html>
- Winer, D. (1998j, February 28). Index of /98/02/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/02/stories/>
- Winer, D. (1998k, March 2). Frontier-based HTTP Client. *Scripting.com*. Retrieved August 28, 2008, from <http://www.scripting.com/dwiner/Demos/httpClient.html>
- Winer, D. (1998l, March 5). XML is also a commercial. *DaveNet*. Retrieved May 8, 2010, from <http://www.scripting.com/davenet/1998/03/05/xmlIsAlsoACommercial.html>
- Winer, D. (1998m, March 17). The Dog Ate My Homework. *DaveNet*. Retrieved March 16, 2009, from <http://www.scripting.com/davenet/1998/03/17/theDogAteMyHomework.html>
- Winer, D. (1998n, March 20). Frontier 5.0.2 Status Report. *Scripting.com*. Retrieved May 10, 2010, from <http://www.scripting.com/98/03/stories/status502.html>
- Winer, D. (1998o, March 31). Index of /98/03/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/03/stories/>
- Winer, D. (1998p, April 15). A Note to My Readers. *Davenet*. Retrieved August 28, 2008, from <http://www.scripting.com/davenet/1998/04/15/aNoteToMyReaders.html>
- Winer, D. (1998q, April 22). Keep your eye on the prize. *DaveNet*. Retrieved April 25, 2010, from <http://davenet.scripting.com/1998/04/22/keepYourEyeOnThePrize.html>
- Winer, D. (1998r, April 30). Index of /98/04/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/04/stories/>
- Winer, D. (1998s, May 12). Rhapsody Cancelled. *DaveNet*. Retrieved February 15, 2012, from <http://scripting.com/davenet/1998/05/12/rhapsodyCancelled.html>
- Winer, D. (1998t, May 13). B.O.G.U. *DaveNet*. Retrieved February 18, 2009, from <http://www.scripting.com/davenet/1998/05/13/bogu.html>
- Winer, D. (1998u, May 26). Healing the Netscape Wound. *DaveNet*. Retrieved February 27, 2011, from <http://scripting.com/davenet/1998/05/26/healingTheNetscapeWound.html>
- Winer, D. (1998v, May 31). Index of /98/05/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/05/stories/>
- Winer, D. (1998w, June 1). Recasting. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/1998/06/01/recasting.html>
- Winer, D. (1998x, June 18). We're Ready! *DaveNet*. Retrieved August 28, 2008, from <http://www.scripting.com/davenet/1998/06/18/ready.html>
- Winer, D. (1998y, June 29). Business Development. *DaveNet*. Retrieved May 22, 2009, from <http://www.scripting.com/davenet/1998/06/29/businessDevelopment.html>
- Winer, D. (1998z, June 31). Index of /98/06/stories. *Scripting*. Retrieved June 2, 2010, from <http://www.scripting.com/98/06/stories/>
- Winer, D. (1998aa, July 2). Thursday, July 02, 1998. *Frontier News*. Retrieved from <http://frontier.userland.com/news/1998/07/02>
- Winer, D. (1998ab, July 8). The Magic of Windows. *DaveNet*. Retrieved July 29, 2008, from <http://www.scripting.com/davenet/1998/07/08/theMagicOfWindows.html>
- Winer, D. (1998ac, July 23). It's Working. Retrieved August 28, 2008, from <http://www.scripting.com/davenet/1998/07/23/itsWorking.html>
- Winer, D. (1998ad, August 31). What Is UserLand? *Userland.com*. Retrieved August 9, 2008, from <http://web.archive.org/web/19981207065355/www.userland.com/whatIsUserland.html>

- Winer, D. (1998ae, November 4). How a Windows Developer Thinks. *DaveNet*. Retrieved January 27, 2012, from <http://scripting.com/davenet/1998/11/04/howWindowsDeveloperThinks.html>
- Winer, D. (1998af, November 16). Monday, November 16, 1998. *Scripting News*. Retrieved November 21, 2008, from <http://www.scripting.com/1998/11/16.html>
- Winer, D. (1998ag, December 29). People With Honor. *DaveNet*. Retrieved February 10, 2011, from <http://scripting.com/davenet/1998/12/28/peopleWithHonor.html>
- Winer, D. (1999a, January 17). NY Times: Saying Goodbye to Silicon Valley. *Scripting News*. Retrieved May 22, 2009, from <http://www.scripting.com/1999/01/17.html>
- Winer, D. (1999b, January 18). Monday, January 18, 1999. *Scripting News*. Retrieved May 22, 2009, from <http://www.scripting.com/1999/01/18.html>
- Winer, D. (1999c, January 19). Writing for Searching is an anthem for evolution. *Scripting News*. Retrieved from <http://www.scripting.com/1999/01/19.html>
- Winer, D. (1999d, January 25). Aliens or Micro-Organisms. *DaveNet*. Retrieved November 1, 2008, from <http://www.scripting.com/davenet/1999/01/25/aliensMicroOrganisms.html>
- Winer, D. (1999e, February 10). DaveNet: Mail to the Future. *Scripting News*. Retrieved February 17, 2011, from <http://www.scripting.com/1999/02/10.html>
- Winer, D. (1999f, March 14). Milestone: Frontier reads Slashdot.org. *Scripting News*. Retrieved October 26, 2008, from <http://www.scripting.com/1999/03/14.html>
- Winer, D. (1999g, March 18). Everyone's Equally Nasty. *DaveNet*. Retrieved August 11, 2008, from <http://www.scripting.com/davenet/1999/03/18/everyonesEquallyNasty.html>
- Winer, D. (1999h, April 5). My.Vacation.Com. *DaveNet*. Retrieved August 4, 2008, from <http://www.scripting.com/davenet/1999/04/05/myVacationCom.html>
- Winer, D. (1999i, April 21). Demystifying Frontier. *Userland*. Retrieved May 6, 2009, from <http://static.userland.com/userLandDiscussArchive/msg005152.html>
- Winer, D. (1999j, May 10). Dreams or Teams? *DaveNet*. Retrieved January 31, 2012, from <http://scripting.com/davenet/1999/05/10/dreamsOrTeams.html>
- Winer, D. (1999k, May 24). Edit This Page. *DaveNet*. Retrieved April 4, 2008, from <http://www.scripting.com/davenet/1999/05/24/editThisPage.html>
- Winer, D. (1999l, May 24). DaveNet: Edit This Page. *Scripting News*. Retrieved July 23, 2011, from <http://scripting.com/1999/05/24.html>
- Winer, D. (1999m, May 28). Weblogs. *DaveNet*. Retrieved July 15, 2008, from <http://www.scripting.com/davenet/1999/05/28/weblogs.html>
- Winer, D. (1999n, June 25). UserLand Frontier. *UserLand Frontier*. Retrieved February 17, 2011, from [http://frontier.userland.com/stories/storyReader\\$948](http://frontier.userland.com/stories/storyReader$948)
- Winer, D. (1999o, July 6). XML.COM: iSyndicate backs ICE. *Scripting News*. Retrieved February 5, 2012, from <http://scripting.com/1999/07/06.html>
- Winer, D. (1999p, July 11). How your weblog works. *Userland*. Retrieved July 15, 2008, from [http://my.userland.com/stories/storyReader\\$134](http://my.userland.com/stories/storyReader$134)
- Winer, D. (1999q, July 24). Dave the Disintermediator. *DaveNet*. Retrieved September 3, 2008, from <http://scripting.com/davenet/1999/07/24/daveTheDisintermediator.html>
- Winer, D. (1999r, July 25). Jorn Barger's complaint. *UserLand's first discussion group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg008727.html>
- Winer, D. (1999s, August 10). Scripting News Bulletins. *DaveNet*. Retrieved February 22, 2009, from <http://www.scripting.com/davenet/1999/08/10/scriptingNewsBulletins.html>
- Winer, D. (1999t, August 24). Ted Nelson Returns. *DaveNet*. Retrieved August 30, 2008, from <http://scripting.com/davenet/1999/08/24/tedNelsonReturns.html>
- Winer, D. (1999u, September 4). What is UserLand.Com? Retrieved March 2, 2009, from <http://web.archive.org/web/19991023092601/http://www.userland.com/>
- Winer, D. (1999v, October 6). Through the magic of syndication. *Scripting News*. Retrieved July 18, 2008, from <http://www.scripting.com/1999/10/06.html>
- Winer, D. (1999w, October 19). You gotta believe! *DaveNet*. Retrieved February 17, 2011, from <http://scripting.com/davenet/1999/10/19/youGottaBelieve.html>
- Winer, D. (1999x, October 23). Response to Flutterby. *UserLand*. Retrieved November 20, 2009, from <http://static.userland.com/userLandDiscussArchive/msg012280.html>
- Winer, D. (1999y, October 25). Dan Gillmor's Wee Blog! *DaveNet*. Retrieved March 3, 2008, from <http://www.scripting.com/davenet/1999/10/25/danGillmorsWeeBlog.html>
- Winer, D. (1999z, October 28). The Crazy Bar Scene in Star Wars. *DaveNet*. Retrieved August 14, 2008, from <http://www.scripting.com/davenet/1999/10/28/theCrazyBarSceneInStarWars.html>

- Winer, D. (1999aa, November 1). Intentional Online Communities. *UserLand's first discussion group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg012575.html>
- Winer, D. (1999ab, November 1). Monday, November 01, 1999. *Scripting News*. Retrieved from <http://www.-scripting.com/1999/11/01.html>
- Winer, D. (1999ac, November 1). Overview of pitas/blogger/etc? *Weblogs eGroup*. Retrieved from <http://tech.-groups.yahoo.com/group/weblogs/message/244>
- Winer, D. (1999ad, November 1). I'd like Jorn to point to UserLand sites. *Lusenet: Robot Wisdom*. Retrieved from http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=001RXF
- Winer, D. (1999ae, November 2). Weblogs at the Cusp of Acceptance. *Userland*. Retrieved July 12, 2008, from <http://static.userland.com/userLandDiscussArchive/msg012616.html>
- Winer, D. (1999af, November 2). Overview of pitas/blogger/etc? *Weblogs eGroup*. Retrieved from <http://tech.-groups.yahoo.com/group/weblogs/message/246>
- Winer, D. (1999ag, November 2). Re: Overview of pitas/blogger/etc? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/244>
- Winer, D. (1999ah, November 3). Metajournals discussion on "weblogs are evil." *Weblogs eGroup*. Retrieved July 12, 2008, from <http://tech.groups.yahoo.com/group/weblogs/message/281>
- Winer, D. (1999ai, November 5). Traction towards...? *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.-com/group/weblogs/message/302>
- Winer, D. (1999aj, November 6). Saturday, November 06, 1999. *Scripting News*. Retrieved from <http://www.-scripting.com/1999/11/06.html>
- Winer, D. (1999ak, November 8). LinkWatcher problems? *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg012819.html>
- Winer, D. (1999al, November 10). Weblog Future- Business Model? *Weblogs eGroup*. Retrieved from <http://tech.-groups.yahoo.com/group/weblogs/message/373>
- Winer, D. (1999am, November 11). Thursday, November 11, 1999. *Scripting News*. Retrieved September 30, 2010, from <http://www.scripting.com/1999/11/11.html>
- Winer, D. (1999an, November 16). What are weblogs? *Weblogs.com*. Retrieved February 17, 2011, from <http://web.archive.org/web/20040201224146/http://newhome.weblogs.com/personalWebPublishingCommunities>
- Winer, D. (1999ao, November 16). No flames. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/451>
- Winer, D. (1999ap, November 18). Thursday, November 18, 1999. *Scripting News*. Retrieved from <http://scripting.com/1999/11/18.html>
- Winer, D. (1999aq, November 19). LinuxCare: Fear of Forking. *Scripting News*. Retrieved from <http://www.-scripting.com/1999/11/19.html>
- Winer, D. (1999ar, November 20). Tomorrow is a Day Without Weblogs. *Scripting News Annex*. Retrieved February 17, 2011, from <http://scripting.com/1999/11/30.html>
- Winer, D. (1999as, November 22). Monday, November 22, 1999. *Scripting News*. Retrieved April 19, 2010, from <http://www.scripting.com/1999/11/22.html>
- Winer, D. (1999at, November 29). Getting started with Manila. *ManilaNewbies*. Retrieved January 16, 2009, from [http://web.archive.org/web/20001101042231/http://weblogs.userland.com/manilaNewbies/stories/storyReader\\$160](http://web.archive.org/web/20001101042231/http://weblogs.userland.com/manilaNewbies/stories/storyReader$160)
- Winer, D. (1999au, November 29). Frontier 6.1 has been released! *Userland Frontier*. Retrieved from [http://frontier.userland.com/news/default\\$1999/11](http://frontier.userland.com/news/default$1999/11)
- Winer, D. (1999av, December 4). A new Site. *Scripting News*. Retrieved February 3, 2012, from <http://scripting.-com/1999/12/04.html>
- Winer, D. (1999aw, December 8). EditThisPage.Com. *DaveNet*. Retrieved August 14, 2008, from <http://www.-scripting.com/davenet/1999/12/08/editthispagecom.html>
- Winer, D. (1999ax, December 8). DaveNet: EditThisPage.Com. *Scripting News*. Retrieved February 3, 2012, from <http://scripting.com/1999/12/09.html>
- Winer, D. (1999ay, December 9). Thursday, December 09, 1999. *Scripting News*. Retrieved from <http://archive.-scripting.com/1999/12/09>
- Winer, D. (1999az, December 11). Re: Who writes Bloat? *UserLand*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg013580.html>
- Winer, D. (1999ba, December 11). Saturday, December 11, 1999. *Scripting News*. Retrieved from <http://scripting.-com/1999/12/11.html>
- Winer, D. (1999bb, December 16). Thursday, December 16, 1999. *Scripting News*. Retrieved November 18, 2009, from <http://www.scripting.com/1999/12/16.html>

- Winer, D. (1999bc, December 19). Jeff Bezos was named Time Magazine's Man of the Year. *Scripting News*. Retrieved from <http://scripting.com/1999/12/19.html>
- Winer, D. (1999bd, December 20). Security Alert: You must install this fix if you're running Frontier 6.1. *Scripting News*. Retrieved March 3, 2011, from <http://scripting.com/1999/12/20.html>
- Winer, D. (1999be, December 22). A holiday gift from UserLand. *Editthispage.com*. Retrieved March 4, 2009, from [http://web.archive.org/web/20000611045626/http://www.editthispage.com/stories/storyReader\\$19](http://web.archive.org/web/20000611045626/http://www.editthispage.com/stories/storyReader$19)
- Winer, D. (1999bf, December 23). A brief history of EditThisPage.Com. *Edit This Page*. Retrieved June 3, 2009, from [http://web.archive.org/web/20000823194816/http://www.editthispage.com/stories/storyReader\\$20](http://web.archive.org/web/20000823194816/http://www.editthispage.com/stories/storyReader$20)
- Winer, D. (1999bg, December 23). A million Manila sites in 2000. *UserLand's first discussion group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg013850.html>
- Winer, D. (1999bh, December 26). CNN: Curtis Mayfield Dies. *Scripting News*. Retrieved March 3, 2011, from <http://scripting.com/1999/12/26.html>
- Winer, D. (1999bi, December 28). What Are Weblogs? *Weblogs.com*. Retrieved December 13, 2009, from <http://web.archive.org/web/20000815202412/www.weblogs.com/about>
- Winer, D. (1999bj, December 28). Tuesday, December 28, 1999. *Scripting News*. Retrieved December 13, 2009, from <http://archive.scripting.com/1999/12/28>
- Winer, D. (2000a, January 3). A Batman New Year. *DaveNet*. Retrieved March 2, 2011, from <http://scripting.com/davenet/2000/01/03/aBatmanNewYear.html>
- Winer, D. (2000b, January 5). Companies do secondary offerings all the time. *Greenspun Lusenet*. Retrieved from http://greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=002EHf
- Winer, D. (2000c, January 11). DaveNet Live/Boston is scheduled for February 8 at the Hynes Auditorium. *Scripting News*. Retrieved March 2, 2011, from <http://scripting.com/2000/01/11.html>
- Winer, D. (2000d, January 17). Content Server. *UserLand*. Retrieved May 10, 2010, from <http://contentserver-userland.com/>
- Winer, D. (2000e, January 19). Wednesday, January 19, 2000. *Scripting News*. Retrieved from <http://scripting.com/2000/01/19.html>
- Winer, D. (2000f, January 24). DaveNet: Killer Patents. *Scripting News*. Retrieved May 18, 2012, from <http://scripting.com/2000/01/24.html>
- Winer, D. (2000g, January 24). Killer Patents. *DaveNet*. Retrieved April 29, 2009, from <http://davenet.scripting.com/2000/01/24/killerPatents.html>
- Winer, D. (2000h, January 29). Two Days at Davos. *DaveNet*. Retrieved August 29, 2008, from <http://scripting.com/davenet/2000/01/29/twoDaysAtDavos.html>
- Winer, D. (2000i, February 4). How to Make Money on the Internet. *DaveNet*. Retrieved July 19, 2008, from <http://www.scripting.com/davenet/2000/02/04/howToMakeMoneyOnTheInterne.html>
- Winer, D. (2000j, February 18). Give Democracy a Chance. *DaveNet*. Retrieved March 14, 2010, from <http://www.scripting.com/davenet/2000/02/18/giveDemocracyAChance.html>
- Winer, D. (2000k, February 22). NY Times: McCain Is Victorious in Arizona and Michigan. *Scripting News*. Retrieved March 2, 2011, from <http://scripting.com/2000/02/22.html>
- Winer, D. (2000l, February 23). How to win the Presidency on the Internet. *DaveNet*. Retrieved February 20, 2011, from <http://scripting.com/davenet/2000/02/23/askNotWhatTheInternetCanDo.html>
- Winer, D. (2000m, February 28). DaveNet: No More Pesos for Senor Bezos. *Scripting News*. Retrieved March 2, 2011, from <http://scripting.com/2000/02/28.html>
- Winer, D. (2000n, March 2). The Two-Way-Web. *DaveNet*. Retrieved July 16, 2008, from <http://www.scripting.com/davenet/2000/03/02/theTwowayweb.html>
- Winer, D. (2000o, March 9). Next week at Esther's. *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2000/03/09/nextWeekAtEsthers.html>
- Winer, D. (2000p, March 17). Was JFK a Hippie? *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2000/03/17/wasJfkAHippie.html>
- Winer, D. (2000q, March 19). Weblogs.Com changes. *Weblogs.com*. Retrieved August 12, 2008, from [http://web.archive.org/web/20000620034033/http://www.weblogs.com/stories/storyReader\\$421](http://web.archive.org/web/20000620034033/http://www.weblogs.com/stories/storyReader$421)
- Winer, D. (2000r, March 24). I hate database-y. *Weblogs 2 eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/1398>
- Winer, D. (2000s, March 26). Sunday, March 26, 2000. *Scripting News*. Retrieved from <http://archive.scripting.com/2000/03/26>
- Winer, D. (2000t, March 27). Linking to archive from the News Day template. *Manila Newbies*. Retrieved November 3, 2008, from [http://web.archive.org/web/20001018175412/http://weblogs.userland.com/manilaNewbies/stories/storyReader\\$2527](http://web.archive.org/web/20001018175412/http://weblogs.userland.com/manilaNewbies/stories/storyReader$2527)
- Winer, D. (2000u, March 29). DaveNet on Hiatus. *Scripting News*. Retrieved May 31, 2011, from <http://scripting.com/2000/03/29/daveNetOnHiatus.html>

com/2000/03/29.html

- Winer, D. (2000v, March 29). Re: DaveNet on Hiatus. *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg015780.html>
- Winer, D. (2000w, March 29). DaveNet on Hiatus. *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2000/03/29/davenetOnHiatus.html>
- Winer, D. (2000x, March 30). UserLand as a publisher. *UserLand*. Retrieved February 28, 2009, from [http://web.archive.org/web/20000901041857/http://scriptingnews.userland.com/stories/storyReader\\$510](http://web.archive.org/web/20000901041857/http://scriptingnews.userland.com/stories/storyReader$510)
- Winer, D. (2000y, March 30). RE: DaveNet...thank you for it. *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg015796.html>
- Winer, D. (2000z, April 1). Today is the three-year anniversary of Scripting News. *Scripting News*. Retrieved November 2, 2008, from <http://www.scripting.com/2000/04/01.html>
- Winer, D. (2000aa, April 11). OneList guts eGroups. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/1538>
- Winer, D. (2000ab, April 11). OneList guts eGroups. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/1542>
- Winer, D. (2000ac, April 12). Jorn Quotes Satchel. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/1569>
- Winer, D. (2000ad, April 12). It's even worse than it appears. *Weblogs eGroup*. Retrieved from <http://tech.groups.yahoo.com/group/weblogs/message/1546>
- Winer, D. (2000ae, April 18). Re: Group Hug Part II. *Userland's First Discussion Group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg016365.html>
- Winer, D. (2000af, April 22). Email to Brian Behlendorf. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg016542.html>
- Winer, D. (2000ag, April 24). Washington Post: US, States Favor Plan to Split up Microsoft. *Scripting News*. Retrieved October 28, 2008, from <http://www.scripting.com/2000/04/24.html>
- Winer, D. (2000ah, May 9). UserLand submits SOAP to W3C. *DaveNet*. Retrieved September 12, 2008, from <http://www.scripting.com/davenet/2000/05/09/userlandSubmitsSoapToW3c.html>
- Winer, D. (2000ai, May 17). Sun is a mystery to me. *Scripting News*. Retrieved from <http://scripting.com/2000/05/17.html>
- Winer, D. (2000aj, May 26). Bertrand Meyer; The Ethics of Free Software. *Scripting News*. Retrieved February 23, 2012, from <http://scripting.com/2000/05/26.html>
- Winer, D. (2000ak, June 8). What the Web Wants. *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2000/06/08/whatTheWebWants.html>
- Winer, D. (2000al, June 18). About the blue arrows. *Scripting News*. Retrieved from <http://archive.scripting.com/2000/06/18#aboutTheBlueArrows>
- Winer, D. (2000am, June 24). Dot-What? *Davenet*. Retrieved June 3, 2009, from <http://www.scripting.com/davenet/2000/06/24/dotwhat.html>
- Winer, D. (2000an, July 11). Shaking out content. *DaveNet*. Retrieved June 4, 2009, from <http://www.scripting.com/davenet/2000/07/11/shakingOutContent.html>
- Winer, D. (2000ao, July 17). The Napster Weblog. *DaveNet*. Retrieved June 4, 2009, from <http://www.scripting.com/davenet/2000/07/17/theNapsterWeblog.html>
- Winer, D. (2000ap, July 29). Apple sparked a revolution. *Radio UserLand*. Retrieved February 18, 2011, from <http://radio.userland.com/archive/stories/appleSparkedRevolution>
- Winer, D. (2000aq, July 29). Radio Userland beta. *Scripting News*. Retrieved November 3, 2008, from <http://archive.scripting.com/2000/07/29#radioUserlandBeta>
- Winer, D. (2000ar, August 22). O'Reilly, again. *Friends of Rohit Khare*. Retrieved from <http://www.xent.com/FoRK-archive/aug00/0725.html>
- Winer, D. (2000as, September 26). What is UserLand? *Userland.com*. Retrieved August 12, 2008, from <http://web.archive.org/web/20001203063400/http://www.userland.com>
- Winer, D. (2000at, September 26). I went to a meeting of the ICE working group today. *Scripting News*. Retrieved March 12, 2012, from <http://scripting.com/2000/09/26.html>
- Winer, D. (2000au, September 29). Strange bedfellows. *DaveNet*. Retrieved June 6, 2009, from <http://davenet.scripting.com/2000/09/29/strangeBedfellows#strangeBedfellows>
- Winer, D. (2000av, October 15). Tucker Goodrich. *Scripting News*. Retrieved March 3, 2011, from <http://scripting.com/2000/10/15.html>
- Winer, D. (2000aw, October 31). What is Scripting News? [original version]. *Scripting.com*. Retrieved May 29, 2009, from <http://web.archive.org/web/20001202015300/http://scriptingnews.userland.com/whatIsScriptingNews>

- Winer, D. (2000ax, October 31). DaveNet: Virtual Bandwidth. *Scripting News*. Retrieved April 11, 2012, from <http://scripting.com/2000/10/31.html>
- Winer, D. (2000ay, November 8). Wednesday, November 08, 2000. *Scripting News*. Retrieved May 29, 2009, from <http://web.archive.org/web/20001109010800/http://www.scripting.com>
- Winer, D. (2000az, December 5). Development Philosophy. *Scripting News*. Retrieved September 3, 2008, from <http://archive.scripting.com/2000/12/05#developmentPhilosophy>
- Winer, D. (2000ba, December 27). Heads-up, I'm working on new features for RSS. Retrieved March 3, 2011, from <http://scripting.com/2000/12/27.html>
- Winer, D. (2001a, January 4). Desktop Websites. *Davenet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/2001/01/04/desktopWebsites.html>
- Winer, D. (2001b, January 4). DaveNet: Desktop Websites. *Scripting News*. Retrieved April 12, 2012, from <http://scripting.com/2001/01/04.html>
- Winer, D. (2001c, January 7). What if technologists had integrity? *DaveNet*. Retrieved September 8, 2008, from <http://www.scripting.com/davenet/2001/01/07/whatIfTechnologistsHadInte.html>
- Winer, D. (2001d, January 8). What is Integrity? *DaveNet*. Retrieved February 18, 2009, from <http://www.scripting.com/davenet/2001/01/08/whatIsIntegrity.html>
- Winer, D. (2001e, January 26). Where we're at. *Scripting News*. Retrieved September 24, 2008, from <http://archive.scripting.com/2001/01/26#whereWereAt>
- Winer, D. (2001f, February 13). How to Make Money on the Internet v2.0. *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2001/02/13/howToMakeMoneyOnTheInterne.html>
- Winer, D. (2001g, February 15). Notes from the O'Reilly P2P Conference. *DaveNet*. Retrieved August 30, 2009, from <http://www.scripting.com/davenet/2001/02/15/notesFromTheOreillyP2pConf.html>
- Winer, D. (2001h, February 19). Internet 3.0. *DaveNet*. Retrieved August 6, 2008, from <http://www.scripting.com/davenet/2001/02/19/internet30.html>
- Winer, D. (2001i, February 22). The art that comes from competition. *DaveNet*. Retrieved March 10, 2009, from <http://www.scripting.com/davenet/2001/02/22/theArtThatComesFromCompeti.html>
- Winer, D. (2001j, February 25). Workflow. *DaveNet*. Retrieved August 5, 2008, from <http://www.scripting.com/davenet/2001/02/25/workflow.html>
- Winer, D. (2001k, March 2). Me and Microsoft. *DaveNet*. Retrieved February 10, 2011, from <http://scripting.com/davenet/2001/03/02/meAndMicrosoft.html>
- Winer, D. (2001l, April 17). The Web is a Writing Environment. *DaveNet*. Retrieved July 18, 2008, from <http://www.scripting.com/davenet/2001/04/17/theWebIsAWritingEnvironmen.html>
- Winer, D. (2001m, July 22). We Remembered Kennedy. *Dave's Manila Playtown*. Retrieved February 25, 2011, from <http://dave.editthispage.com/2001/07/22>
- Winer, D. (2001n, July 31). Napoli on Napster. *UserLand's first discussion group*. Retrieved from <http://static.userland.com/userLandDiscussArchive/msg019305.html>
- Winer, D. (2001o, October 21). Getting ready to flip the switch. *Weblogs.com*. Retrieved October 6, 2010, from <http://oldweblogscomblog.scripting.com/2001/10/21>
- Winer, D. (2001p, October 25). Thursday, October 25, 2001. *Scripting News*. Retrieved March 16, 2010, from <http://www.scripting.com/2001/10/25.html>
- Winer, D. (2001q, November 16). The History of Weblogs. *Weblogs*. Retrieved from <http://web.archive.org/web/20040618083656/http://newhome.weblogs.com/historyOfWeblogs>
- Winer, D. (2001r, December 22). A Weblog Manifesto. *DaveNet*. Retrieved April 9, 2008, from <http://www.scripting.com/davenet/2001/12/22/aWeblogManifesto.html>
- Winer, D. (2002a, January 11). Estimated time of arrival: 6:30PM Pacific. *Scripting News*. Retrieved August 7, 2008, from <http://archive.scripting.com/2002/01/11>
- Winer, D. (2002b, June 6). Is it marketing or journalism? *DaveNet*. Retrieved March 10, 2009, from <http://www.scripting.com/davenet/2002/06/06/isItMarketingOrJournalism.html>
- Winer, D. (2002c, July 7). Checking In. *DaveNet*. Retrieved August 8, 2008, from <http://www.scripting.com/davenet/2002/07/07/checkingIn.html>
- Winer, D. (2002d, July 19). A new beginning. *DaveNet*. Retrieved August 8, 2008, from <http://www.scripting.com/davenet/2002/07/19/aNewBeginning.html>
- Winer, D. (2003a). What is Scripting News? *Essays from Exodus*. Retrieved September 1, 2008, from <http://essaysfromexodus.scripting.com/whatIsScriptingNews>
- Winer, D. (2003b, January 6). First essay of the year. *DaveNet*. Retrieved July 2, 2011, from <http://scripting.com/davenet/2003/01/06/firstEssayOfTheYear.html>
- Winer, D. (2003c, January 31). Never underestimate Steve Case. *DaveNet*. Retrieved July 2, 2011, from <http://scripting.com/davenet/2003/01/31/neverUnderestimateSteveCas.html>

- Winer, D. (2003d, May 23). What makes a weblog a weblog? *Weblogs at Harvard Law*. Retrieved May 28, 2009, from <http://blogs.law.harvard.edu/whatmakesaweblogaweblog.html>
- Winer, D. (2003e, September 21). The Spirit of the Web. *BloggerCon 2003*. Retrieved July 10, 2008, from [http://web.archive.org/web/20031001162739/http://blogs.law.harvard.edu/bloggerCon/stories/storyReader\\$401](http://web.archive.org/web/20031001162739/http://blogs.law.harvard.edu/bloggerCon/stories/storyReader$401)
- Winer, D. (2003f, October 8). Nine Years of DaveNet. *Davenet*. Retrieved August 8, 2008, from <http://www.scripting.com/davenet/2003/10/08/nineYearsOfDavenet.html>
- Winer, D. (2003g, November 11). Tuesday, November 11, 2003. *Scripting News*. Retrieved May 7, 2010, from <http://www.scripting.com/2003/11/11.html>
- Winer, D. (2004a, March). DaveNet: Home. *Scripting.com*. Retrieved July 7, 2011, from <http://scripting.com/davenet>
- Winer, D. (2004b, May 17). As good a time as any. *Scripting News*. Retrieved August 9, 2008, from <http://archive.scripting.com/2004/05/17#asGoodATimeAsAny>
- Winer, D. (2005a, January 27). Thursday, January 27, 2005. *Scripting News*. Retrieved from <http://scripting.com/2005/01/27.html>
- Winer, D. (2005b, February 2). Scripting News. *Scripting.com*. Retrieved January 2, 2009, from <http://web.archive.org/web/20050203024513/http://scripting.com/>
- Winer, D. (2005c, July 24). Sunday, July 24, 2005. *Scripting News*. Retrieved from <http://archive.scripting.com/2005/07/24>
- Winer, D. (2007a, January 1). Good morning, and good new year! *Scripting News*. Retrieved May 7, 2010, from <http://www.scripting.com/2007/01/01.html>
- Winer, D. (2007b, January 21). The 10 year anniversary of Scripting News is approaching. *Scripting News Annex*. Retrieved July 29, 2008, from <http://scripting.wordpress.com/2007/01/21/scripting-news-for-1212007/>
- Winer, D. (2007c, February 21). Celebrating 10 years. *Scripting News*. Retrieved August 21, 2008, from <http://www.scripting.com/stories/2007/02/21/celebrating10Years.html>
- Winer, D. (2007d, March 12). An untold story of UserLand. *Scripting News*. Retrieved August 8, 2008, from <http://www.scripting.com/stories/2007/03/12/anUntoldStoryOfUserland.html>
- Winer, D. (2007e, March 20). The blog bootstrap. *Scripting News*. Retrieved July 18, 2008, from <http://www.scripting.com/stories/2007/03/20/theBlogBootstrap.html>
- Winer, D. (2007f, March 21). My first blog. *Scripting News*. Retrieved August 2, 2008, from <http://www.scripting.com/stories/2007/03/21/myFirstBlog.html>
- Winer, D. (2007g, March 26). The future of UserLand. *Scripting News*. Retrieved August 13, 2008, from <http://www.scripting.com/stories/2007/03/26/theFutureOfUserland.html>
- Winer, D. (2007h, March 29). A decade in a download. *Scripting News*. Retrieved August 22, 2008, from <http://www.scripting.com/stories/2007/03/29/aDecadeInADownload.html>
- Winer, D. (2007i, April 1). A decade of Scripting News. *Scripting News*. Retrieved August 22, 2008, from <http://www.scripting.com/stories/2007/04/01/aDecadeOfScriptingNews.html>
- Winer, D. (2007j, April 11). We can arrive at a fair solution. *Scripting News*. Retrieved from <http://scripting.com/stories/2007/04/11/weCanArriveAtAFairSolution.html>
- Winer, D. (2007k, April 28). Twitter as coral reef. *Scripting News*. Retrieved August 7, 2008, from <http://www.scripting.com/stories/2007/04/28/twitterAsCoralReef.html>
- Winer, D. (2007l, July 16). Like so many things. *Duncanriley.com*. Retrieved from <http://web.archive.org/web/20070818131755/http://www.duncanriley.com/2007/07/15/wall-street-journal-tries-to-re-write-blogging-history/#comment-158739>
- Winer, D. (2008a, January 11). The debate about the worth of podcasting. *Scripting News*. Retrieved May 7, 2010, from <http://www.scripting.com/stories/2008/01/11/theDebateAboutTheWorthOfPo.html>
- Winer, D. (2008b, April 1). 11 years of Scripting News. *Scripting News*. Retrieved September 23, 2008, from <http://www.scripting.com/stories/2008/04/01/11YearsOfScriptingNews.html>
- Winer, D. (2008c, August 9). Edwards scandal indicts MSM and political bloggers. *Scripting News*. Retrieved May 7, 2010, from <http://www.scripting.com/stories/2008/08/09/edwardsScandalIndictsMsmAnd.html>
- Winer, D. (2009, July 3). A link back to the beginning. *Scripting News*. Retrieved June 10, 2010, from <http://www.scripting.com/stories/2009/07/03/aLinkBackToTheBeginning.html>
- Winer, D. (2010, March 28). Was Scripting News really born on April 1? *Scripting.com*. Retrieved April 1, 2010, from <http://www.scripting.com/stories/2010/03/28/wasScriptingNewsReallyBorn.html>
- Winer, D. (2012, March 2). 15 years of Scripting News. *Scripting News*. Retrieved from <http://scripting.com/stories/2012/03/02/15YearsOfMakingFun.html>
- Winer, D., & Simmons, B. (1997, April 10). Seybold Seminars Online. *Scripting.com*. Retrieved August 23, 2008, from <http://www.scripting.com/seibold/>

- Winer, D., & Simmons, B. (2000, May 1). News Items. *Manila Newbies*. Retrieved November 3, 2008, from [http://web.archive.org/web/20001020123808/http://weblogs.userland.com/manilaNewbies/stories/storyReader\\$3002](http://web.archive.org/web/20001020123808/http://weblogs.userland.com/manilaNewbies/stories/storyReader$3002)
- Wittig, R. (2003, March 25). Justin Hall and the Birth of the 'Blogs. *Electronic Book Review*. Retrieved February 18, 2008, from <http://www.electronicbookreview.com/thread/electropoetics/serial>
- Wohlfarth, I. (1986). Et Cetera? The Historian as Chiffonnier. *New German Critique*, (39), 143–168.
- Wolf, G. (1994, October). The (Second Phase of the) Revolution Has Begun. *Wired*, 2(10). Retrieved from http://www.wired.com/wired/archive/2.10/mosaic_pr.html
- Wright, C. (1995, April 20). Kafka's father's approach is right for computers. *The Age*, p. 24. Melbourne, Australia.
- Wycherley, G. (2001, November 9). NZ professor named in \$39m website lawsuit. *The New Zealand Herald*. Auckland.
- Wylie, M. (1999, January 14). Virtual snobbery: If you're not on the list, you don't get into certain net areas. *Times-Picayune*, p. 1E. New Orleans.
- Yates, J., & Orlikowski, W. J. (1992). Genres of organizational communication: A structurational approach to studying communications and media. *Academy of Management Review*, 17(2), 299 – 326.
- Y-Life: Yippee/Ya-Hooey. (1996, May 20). *Ziff Davis Net*. Retrieved April 21, 2012, from <http://web.archive.org/web/20000115113200/http://www4.zdnet.com/yil/content/depts/columns/960520.html>
- You Don't Yahoo?: Niche Portals Bring New Competition in Content, Service. (1998, October 12). *MIN's New Media Report*, 4(21).
- Zachary, G. P. (1992, May 1). Apple enlists small company for software. *Wall Street Journal*. New York.
- Zakon, R. (2006). Hobbes' Internet Timeline: The definitive ARPAnet & Internet history. *Zakon.org*. Retrieved April 15, 2008, from <http://www.zakon.org/robert/internet/timeline/>
- Zeldman, J. (2001). *Taking your talent to the Web: A guide for the transitioning designer*. Indianapolis, IN: New Riders.
- Zuckerman, E. (2008). Meet the Bridgebloggers. *Public Choice*, 134(1/2), 47–65.