

**CENTRE FOR ADVANCED  
SPATIAL ANALYSIS**  
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**Paper 12**

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**FINDING THE  
SOURCE OF THE  
AMAZON.COM:  
EXAMINING THE  
HYPE OF THE  
“EARTH’S  
BIGGEST  
BOOKSTORE”**

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**Martin Dodge**



Centre for Advanced Spatial Analysis  
University College London  
1-19 Torrington Place  
Gower Street  
London WC1E 6BT

Tel: +44 (0) 171 391 1782  
Fax: +44 (0) 171 813 2843  
Email: [casa@ucl.ac.uk](mailto:casa@ucl.ac.uk)  
<http://www.casa.ucl.ac.uk>

<http://www.casa.ucl.ac.uk/amazon.pdf>

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## **Introduction**

Amazon.com is an archetype of the emerging e-commerce, heralded by many as a paragon of the bright future of the Information Age. But what is the real story behind the hype? How did it come to be, how has it established such a strong brand on the Internet and beyond, how does it operate in practice, how is it trying to build a loyal community, and what might its impacts be on traditional bookshops? My interest in writing a paper on Amazon.com was sparked at the end of 1998 whilst enjoying a workshop on the changing nature of geographic accessibility in the Information age, where Amazon was often cited as a powerful exemplar in many of our discussions. (Note, this may have been because attendees were literate, well-off academics who like to buy books). I realised I knew little about this company apart from the hype that surrounds it, despite the fact that I first purchased books from them in January 1998. Therefore, I thought it would be a worthwhile exercise to learn more about the company, and try to reveal some of the truth behind the hype.

In this paper I begin by examining the fascinating mythology that surrounds the founding of the company in 1995 and its amazing stock market performance since its become a public company in 1997. I then map out the geography of Amazon.com in terms of both virtual and real properties, focusing on how it is growing and expanding. The paper concludes with a brief discussion of the geography of e-commerce and some of the implications for Amazon.com and retailing.

## **The Mythical Source of Amazon.com**

Few companies in recent history can have enjoyed such a successful birth as Amazon.com, which has had a tremendous amount of press coverage, the majority of which has been positive and upbeat. In the space of under five years, a whole mythology of exaggerated stories and half-truths have formed around the Amazon.com phenomenon. These have been eagerly perpetuated by the chief-executive Jeff Bezos, the company's PR department, as well as the popular press and business media. The richest vein of these creation myths focus on Bezos the man. Alongside the mythology, the incredible stock market capitalisation of the company is a whole other fantastic story. In many respects the myths completely overshadow the actual operation of the company, which has been very successful in itself. The mysticism of Amazon.com makes a virtual company even more virtual, as de Jonge in a lengthy, penetrating New York Times article says, "... *Amazon.com's ultimate form remain forever elusive, a lovely shimmering at the edge of the horizon. In this way Amazon.com truly is a virtual company, existing only in the imagination.*" (de Jonge 1999:36). It also makes it much more difficult to critically assess the company's business strategy and its likely impact on retailing.

The core of the creation mythology rest firmly on the shoulders of one man - Jeffrey P. Bezos, the founder, chief executive and largest share holder in the company. Bezos is Amazon.com and Amazon.com is Bezos. The success of the company has also made him a multi-billionaire, on paper

at least. His face is one of the key visual motifs used to represent the company in the media. Figure 1 is what Amazon.com looks like to the press and public alike; it has four principle motifs - the web site, rows of book shelves in a warehouse, Bezos looking friendly and relaxed, and a chart of the company's stock price. Bezos is a media-friendly CEO, happy to give interviews and always providing journalists with good quotes. Consequently, he enjoys a good personal profile in the media. De Jonge describes him as a "... *brilliant, charming, hyper and misleadingly goofy mastermind.*" (de Jonge 1999:36). His persona is typical of the jovial 'tech-nerd' millionaires, with his informal dress sense and attitude. His ability and drive have also been underestimated by competitors, to their cost. One pundit famously predicted the failure of the company, terming it "Amazon.toast" (Kotha & Rindova 1998). He is hard working and hard-driving on his employees injecting an almost missionary zeal in the company, who's motto is "*work hard, have fun, make history*". He firmly believes Amazon.com will lead a revolution in the retail landscape. De Jonge, again, telling comments that, "... *Bezos is one of the world's most ascendant capitalists, with apparently boundless ambition.*" (de Jonge 1999:68). Even so, his image and that of the company has come in for more criticism this year, as worries about future growth and profitably increase.

The retelling of the creation myths sometimes goes back into Bezos's childhood as the science nerd, dreaming of being an astronaut. However, the critical point at which the narrative typically kicks off is his almost revelatory moment in the summer of 1994 when working at an investment bank on Wall Street, he is reported to have seen the statistic that the Internet was growing at 2300% a year. His oft-quoted response was that "*Anything growing that fast is going to be ubiquitous very quickly. It was my wake-up call.*" (Kotha & Rindova 1999). The creation story continues with his choice of the book market as the initial target, the journey of discovery as Bezos and his wife go west, literally and figuratively, to found the company in a garage in a Seattle suburb. This is truly a genesis story to rival any other company and provides journalists with a good hook for stories. The selection of books as the first target market for an online shopping venture was because databases of books in print were readily available and even the mammoth book superstores of Borders and Barnes & Noble could only stock a fraction of the books available. In addition, the two dominant players in the US book market - Barnes & Noble and Borders only held about twelve percent of the market, meaning there were not any "800-pound gorillas" that controlled the territory. Bezos clearly saw the book market as ripe for a new style of aggressive competitor and he was proved right. The myth then centres on the journey west from New York to Seattle, driving across country in an old Chevy - the pioneer myth of the individual going to claim the Cyberspace frontier. On this journey, legend has it that Bezos typed out his business plan for Amazon.com on a laptop on his knees and arranged meetings with potential backers for the venture on his cell phone, while his wife drove.

The prototype Amazon.com web site was built on workstations in the garage of the house Bezos rented, very much in the fashion of other legendary Silicon Valley start-ups like Apple and Microsoft (Cringely 1996). The web site went live in July 1995 (the exact date is never given, perhaps it has

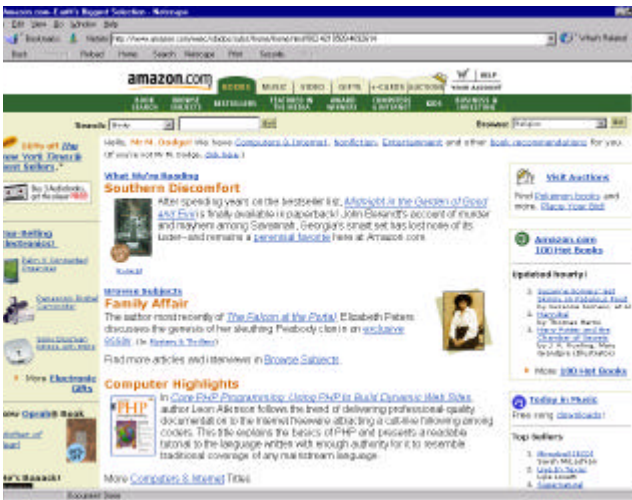
already become shrouded in the mists of time), and within a couple of months they were doing \$20,000 worth of business a week. The Amazon.com name quickly spread by word of mouth, clever marketing and an increasingly large advertising budget. Expansion has happened rapidly and I will look at this in the next section.

Other myths of Amazon.com include the unpretentious, almost frugal, nature of Bezos. There are the stories of the rented apartment and home-made desks. Business Week, in a long cover article on Amazon.com in December 1998, commented amusingly that, “*Unlike most of his Silicon Valley colleagues, Bezos is so cheap that the desks are made of doors and four-by-fours.*” (Business Week 1998:72). Then there is the “delicious irony” of the story that Bezos held meetings and interviews in the early days in the coffee shop of the local Barnes & Noble bookstore.

It is unclear how many of these myths are true and how much is Bezos’s spin and journalistic embellishment, but it certainly makes for an interesting narrative. It is also an important component of Amazon.com’s potent brand. Customer service zealotry is part of the self-generated Amazon legend. In virtually every interview Bezos gives he proudly reiterates the Amazon.com commandment that “*Our vision is that we want to be the world’s most customer-centric company.*” (Business Week 1999b:54). From personal experience using Amazon.com their customer service is better than many large online companies. This customer service commitment costs a lot and Amazon has invested a considerable amount of financial and human resources during the start-up of the company on it. Amazon has also been successful at promoting the communal myth whereby shoppers become actively involved in the company beyond simply spending money. This is seen most obviously in the facility to write and post reviews on the web site and in terms of the Associates program, which has been a particularly successful initiative. This is a form of micro-franchising where other web sites list books (usually in a specialised niche) which are linked to Amazon for purchasing. The owner of the Associate site earns a small commission for every book sale they generate for Amazon. There are over 260,000 Associate sites and these represent a huge number of virtual storefronts scattered across the web that drive business to Amazon (Johnson 1999).

Closely linked to the customer-focused, community building ethos is the idea of Amazon.com as the David figure, in the “David v Goliath” battles. The small upstart Amazon is battling the mighty “brick-bound” bookstore to offer consumers better service and lower prices. At the beginning of Amazon.com’s history there was certainly substance to this David image as it was dwarfed in scale by both Borders and Barnes & Noble. (1997 revenues for Borders were \$1.9 billion, Barnes & Noble was \$2.4 billion and Amazon.com was only \$147 million). The lawsuits that both Wal-Mart and Barnes & Noble have launched against Amazon.com in the past helped perpetuate the David myth (Sullivan 1998b). However, Amazon.com has quickly caught up, gaining marketing share and diversifying rapidly, and projected 1999 revenues will be in the order of \$1.5 billion.

a



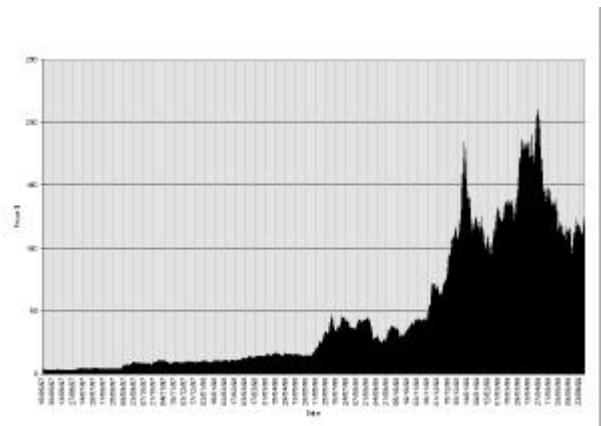
b



c



d



(Sources: (a) web screenshot, 1st July 1999, (b) & (c) de Jonge, 1999), (d) data from <http://www.nasdaq.com>)

Fig 1: What does Amazon.com look like?

Kotha has also argued that the choice of name Amazon.com is important in generating a fresh image, differentiating it from existing “bricks-and-mortar” retailers. It could be argued that image of the Amazon creates a sense in peoples minds of a place for vastness, a store much larger than in the material world and unrivalled selection (Kotha & Rindova 1999). There is also the conscious decision to add .com to the name, instantly establishing its online credentials. While de Jonge eloquently says of the name, “... overflowing with so much third-world, underdog, eco-conscious goodwill that every click on Amazon.com feels like a vote for the rain forest.” (de Jonge 1999:40).

## The Earth’s Biggest .... Stock Bubble

The genesis myths discussed above are swamped by the reporting of the story of Amazon.com’s stock price and market capitalisation. Along with AOL, Yahoo! and a handful of other companies, Amazon is very much one of the “It stocks” of the Internet economy, perhaps the key driver of US economic prosperity in the second half of the 1990s. The actual Amazon company is truly virtual as its actuality seems to bear little relation to its valuation on the stock market. Many reports on Amazon focus on its capitalisation and the fact that it is worth so much more than large, established and profitable corporations; for example the Business Week article from December 1998 had a table entitled “Amazon’s Amazing Valuation” and showed it ahead of firms like Hilton Hotels, Barnes & Noble, Toys’R’Us and Kmart. Amazon’s valuation is based on hope and one might say dreams of future riches. As yet, Amazon.com has not made a profit and it is not projected to do so for another couple of years.

As of the 1<sup>st</sup> of July 1999, Amazon.com’s market capitalisation on the Nasdaq stock market was \$19.89 billion, with a share price of around \$125.00. This compares to an initial valuation at the IPO in May 1997 of \$18.00 a share. The graph in figure 2 shows the stock price from May 1997 to the end of June 1999. Of course, Amazon.com has posted some extremely impressive growth figures since opening for business in 1995, as demonstrated by table 1.

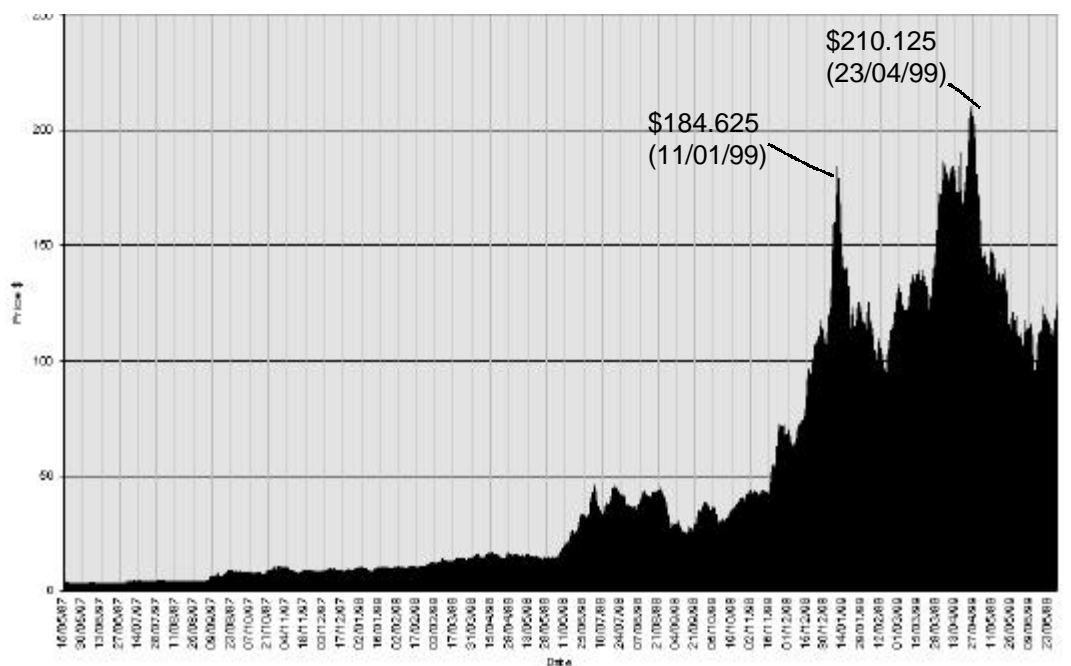
	Revenues #	Losses #	Customers@	Advertising costs #
1995	0.51	0.30	-	-
1996	15.75	6.25	0.18	3.4
1997	147.79	31.02	1.5	21.2
1998	610.00	124.5	6.2	60.2
1stQ 1999	293.60	30.6	8.4	-
1999	1400.00*	578.00*	11	

# millions of USD | @ millions | \* projected figures - Business Week,1999b

Table 1: Amazon in Figures

But do these figures justify the expectations of future potential on which the stock valuation is based. I think not, but I am not a financial expert. It has been argued that Amazon and the other high-flying Internet stocks are the result of a classic bubble and are not being judged rationally. Comparisons have been drawn between Internet stocks and the famous tulip bulb price bubble<sup>1</sup> in Holland in 1637 (Terkowitz 1999). Many analysts are struggling to define new models and parameters that fit the empirical facts of the stock prices, which Business Week memorably described as “*Trying to get your arms around the value of an Internet stock is like trying to hug air.*” (Business Week 1998).

The key question is when will the bubble burst (Economist 1999). There was some sizeable re-adjustments in the stock price in the spring of 1999, but it still remains much higher than when the company went public. Amazon.com shares are also highly volatile, with wild fluctuations at the slightest news or rumour, subject to rampant speculation and sudden panics. Figure 2 clearly shows Amazon’s roller-coaster share price. Between June 1998 and June 1999 the share price range has been from \$21 to \$210. The massive capitalisation is also a powerful distorting lens making it impossible to gauge the real worth of Amazon. It has encouraged more intense media scrutiny recently. De Jonge eloquently describes the result as “...*Amazon.com is a \$20 billion, 2,100-employee company built on the thin membrane of a bubble, and this brings a manic precariousness to the place that no amount of profitless growth can diminish.*” (de Jonge 1999:39). The bubble has enabled Amazon’s rapid expansion in 1998 and 1999 through acquisitions and investments (see the timeline of events in table 3). Bezos and other Amazon executives have assiduously avoided comment on the swings in stock value. However, it is certainly a motivating factor for many employees who enjoy stock options. Bezos is a paper multi-billionaire from the stock value, but has reportedly only sold one small block of shares, netting himself around \$23 million (Bayers 1999).



(Source: data from <http://www.nasdaq.com/>)

Fig 2: Amazon.com stock price from May 1997 to June 1999.



## **The Geography of Amazon.com**

Amazon.com has several important geographical dimensions - both real and virtual. For any Internet company the principle public face is their web site. Amazon.com's web site is vital - it is its storefront to the world. Web sites are a form of geography - geography of the screen. Amazon's homepage screen geography is shown in figure 1 (a). The design is simple and functional, almost to the point of ugliness. It is easy to use and crucially, fast loading over home modems with only a few small graphics. The site is also backed up with innovations such as one-click ordering. To explore the virtual space of Amazon's web site one either browses or uses keyword searching. Web pages are generated from databases of the many millions of books, CDs, videos and gifts that Amazon stocks.

The geography of the screen is a world in miniature, totally under the control of the designers (Johnson 1997). The design and usability of web sites is an area of increasing concern given the rising number of people who are accessing information and services via this medium. This is not necessarily an area for geographical concern being more at the scale of architecture (Wurman 1997) and design (Jacobson 1999). The major reasons people shop online is the speed and convenience, however too many web site designs fail seriously to meet these requirements (Chaplin 1999). Key problems are difficulties with site navigation, confusion over how to order and most especially slow loading pages. This all impacts directly on the experience of shopping online. Amazon is better than many e-commerce sites and this is reflected in its growing number of customers (table 1) and high volume of repeat business. For some, usability is also an issue of accessibility, for example when sites are rendered completely unusable for people with disabilities (Waddell 1999).

As well as screen space, domain space is a vital commodity in today's Internet. The history of the domain name system means there is an artificial scarcity of names in the prized portion, with people launching a 'land-grab' for the short, memorable name (Shaw 1997). A good domain name is vital to the establishment of an online presence. It is much more important than an address in the real-world. This is illustrated by the high prices companies are willing to pay to secure the most appropriate and memorable name, for example the BBC buying [bbc.com](http://bbc.com) or Compaq paying over \$3 million for [altavista.com](http://altavista.com) (Bicknell 1999). Amazon is clearly synonymous with its domain name, but beyond its core web sites ([amazon.com](http://amazon.com), [amazon.co.uk](http://amazon.co.uk) and [amazon.de](http://amazon.de)) it has also made a land grab of its own, registering over forty additional names under .com alone. Table 2 lists these names and it is clear many are related to its core retailing areas of books, videos and music. Other names have been registered for future expansion and also to lock out 'carpet-baggers'; still it is interesting to speculate what plans they have for [amazontv.com](http://amazontv.com).

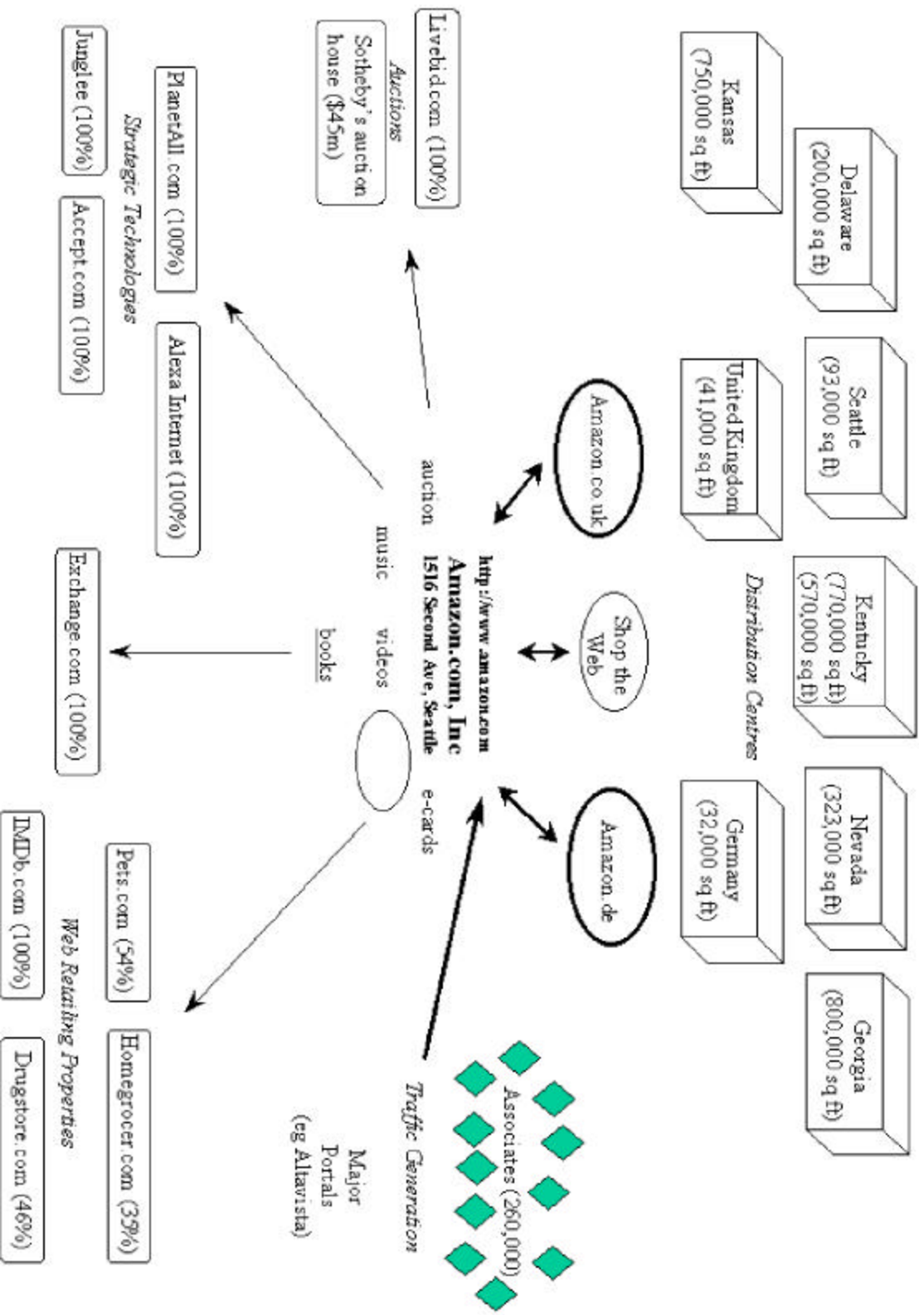
<b>AMAZON-AUCTION.COM</b>	<b>BOOK-STORE.COM</b>	<b>AMAZONMUSIC.COM</b>
<b>AUCTIONAMAZON.COM</b>	<b>RELENTLESS.COM</b>	<b>BOOKMATCHER.COM</b>
<b>AMAZON.COM</b>	<b>MUSICMATCHER.COM</b>	<b>AMAZONCLASSICAL.COM</b>
<b>GIFT-CLICK.COM</b>	<b>AMZN.COM</b>	<b>AMAZONTELEVISION.COM</b>
<b>AMAZONKIDS.COM</b>	<b>CHEAPOBOOKS.COM</b>	<b>FILMLOVERS.COM</b>
<b>BOOKDRIVE.COM</b>	<b>BROWSE.COM</b>	<b>AMAZONGREETINGS.COM</b>
<b>AMAZONROCK.COM</b>	<b>AMAZONJUNIOR.COM</b>	<b>AMAZONFILMS.COM</b>
<b>AMAZONMOVIES.COM</b>	<b>AMAZONVIDEOS.COM</b>	<b>MOVIEMATCHER.COM</b>
<b>AMAZONMEMBERS.COM</b>	<b>BESTSELLERS.COM</b>	<b>VIDEOLOVERS.COM</b>
<b>PRIZEWINNERS.COM</b>	<b>FRIEND-CLICK.COM</b>	<b>AWARDWINNERS.COM</b>
<b>AMAZONJR.COM</b>	<b>FILMCHAT.COM</b>	<b>AMAZONSTORE.COM</b>
<b>AMAZONFILM.COM</b>	<b>AMAZONBLUES.COM</b>	<b>AWAKE.COM</b>
<b>AMAZON500.COM</b>	<b>MUSICHAT.COM</b>	<b>AMAZONCARD.COM</b>
<b>AMAZONVIDEO.COM</b>	<b>BOOKMALL.COM</b>	<b>AMAZONTUBE.COM</b>
<b>MUSICCHAT.COM</b>	<b>FRIENDCLICK.COM</b>	<b>AMAZONTV.COM</b>
<b>AMAZONGREETING.COM</b>	<b>AMAZONJAZZ.COM</b>	<b>BOOKCHAT.COM</b>

*Table 2: Com domain names registered by Amazon.com, Inc.*

Another important geographical dimension is the geography of growth, expansion and diversification. This has certainly been rapid, as can be seen from the growth in revenues shown in table 1. The growth is evident in both new online stores, major investments in other companies and new physical facilities. Figure 3 maps out the extent and landmarks of the Amazon.com empire as of summer 1999, showing both internal expansion and external diversification through acquisition. Table 3 provides a timeline view of significant events in Amazon's brief history. At the core of the map is Amazon.com itself, represented by the solid rectangle, which in the real-world is spatially represented at the mailing address 1516 Second Avenue, Seattle, but it is more meaningfully mapped by its web site location at <http://www.amazon.com>. Surrounding Amazon are all the associated properties - both real and virtual.

Although, Amazon.com is an online company, it's principle activity is still shipping 'atoms' to customers, rather than dealing purely with 'bits' (to use the Negroponte terminology). To support this it needs facilities to store and pack goods. It does its own packing and shipping to customers to maintain quality. Amazon has had to invest significantly in warehousing, particularly in 1999, and the company currently has seven major distribution centre in the US and two in Europe. These are represented by cubes on the map and are labelled with their location and size.

Obviously, Amazon.com does not have physical, "bricks and mortar" retail stores, instead it has a growing number of virtual stores on its web site. Amazon started with books and has moved into music CDs, videos and gifts in 1998 and auctions, e-cards and "shop-the-web" in 1999. These virtual



(Source: information from company annual reports and press releases)

Fig 3: Mapping the expanding Amazon.com empire.

stores are mapped as small ellipses physically connected to the Amazon.com core. In some senses these represent natural, evolutionary growth. It has also expanded and diversified, particularly in 1999, through investments and acquisitions of other companies. These are shown as small, rounded rectangles ranged along the bottom half of the map. They fall into three broad categories - web retailing properties, strategic technologies and auction related. (The timeline in table 3 gives details on the dates of these investments and acquisitions). They represent a sizeable outlay of capital and also highlight the considerable ambition of Bezos to grow Amazon.com beyond books.

Despite the globalisation rhetoric of the “Earth’s biggest bookstore”, Amazon still felt it necessary to expand overseas by opening ‘local’ franchises. This was achieved with the national Amazons in the UK (www.amazon.co.uk) and Germany (www.amazon.de), which opened in October 1998. These are represented on the map in figure 3 as emboldened ellipses. Figure 4 shows their web site homepages. At present they only sell books. It may appear strange to open local stores as consumers from around the world, including the UK and Germany, can purchase at the main Amazon.com stores. The problem is building trust with consumers to shop with Amazon, when they perceive the store as being American, with prices in US dollars and high overseas shipping charges. The logic being that customers will be happier buying from a local store, charged in local currency. And in the case of Amazon.de the site is in German, of course. Local distinctiveness comes from the domain names, the site design, the language employed and unique editorial content (see figure 4). Another key advantage is faster and cheaper shipping costs for books that can be sourced locally. These two national Amazon franchises have been successful since their launch and are the leading online bookstores in their respective countries. It will be interesting to see if Amazon opens further national branches in the future.



Source: web screenshots, 2nd July 1999

Fig 4: amazon.co.uk & Amazon.de web sites

<u>Date</u>	<u>Event</u>
<b>1995</b>	
July 1995	Open Amazon.com web site
<b>1996</b>	
<b>1997</b>	
14th October 1997	One millionth customer account
18th November 1997	Second distribution centre in Delaware opens
<b>1998</b>	
April 1998	Purchase of Bookpages Ltd. in UK and ABC Burcherdient in Germany
15th May 1998	IPO. Initial stock price - \$18.00
11th June 1998	Music store opens at Amazon.com
4th August 1998	Acquires Junglee and PlanetAll.com
15th October 1998	Amazon.co.uk and Amazon.de open
17th November 1998	Video and gift stores open at Amazon.com
<b>1999</b>	
7th January 1999	Nevada distribution centre opens
24th February 1999	Investment in and alliance with Drugstore.com (46% stake)
29th March 1999	Investment in Pets.com (54% stake)
30th March 1999	Online auction site opens at Amazon.com
12th April 1999	Acquires Livebid.com, Accept.com and Alexa Internet
13th April 1999	Kansas distribution centre opens.
26th April 1999	Acquires Exchange.com
27th April 1999	e-cards service opens at Amazon.com
18th May 1999	Investment in Homegrocer.com (buys 35% stake)
7th June 1999	Ten millionth customer account
8th June 1999	Georgia distribution center open
16th June 1999	Alliance sith Sotheby's auction house (\$45 million investment)

(Source: Amazon.com, Inc. annual company reports & press releases)

*Table 3: Timeline of Amazon.com*

Despite the localisation efforts in these national branches, the reality is that true power still resides in the head office in Seattle. Like many global operations they are arguably fooling the public into thinking they are buying locally when in fact the money flows out of the country. In the case of Amazon, this can easily be revealed because the web sites of Amazon.co.uk and Amazon.de are hosted on the server farm back in Seattle, despite the appearance of the national domain. The results of three traceroutes<sup>2</sup> from South Africa to Amazon.com, Amazon.co.uk and Amazon.de, given in table 4, clearly show they all follow the same route through the Internet and end in Seattle.

The final components of the map of Amazon.com are what I have termed “traffic generation” from the thousands of Associate sites and the major portals. These are shown as diamond shaped symbols on the right-hand side of the map. Generation of traffic is vital to get people onto the Amazon.com site where they may buy things. Amazon spend millions on prominent links and recommendations from major search engines and portals, including Yahoo, AOL, Excite, and AltaVista. This is very much like prominent advertising in the real-world to get people through the doors, into a store. Amazon has been very successful and is probably the most visited retail web site on the Internet today. Web site popularity measures (like tv audience figures) show Amazon.com in or around the top-ten, as shown in table 5. From the Media Metrix figures, Amazon.com received an estimated 10.8 million unique visitors in May 1999. To keep the visitors coming, fuelling expansion, requires a large marketing budget as is apparent from table 1.

	<b>100hot.com #</b>	<b>Media Metrix *</b>	<b>Visitors &amp;</b>
1	AOL.com and Netscape	AOL Network	46,243
2	Microsoft Corp. including MSN.com	Microsoft Sites	32,389
3	Yahoo and Four11	Yahoo Sites	31,299
4	AltaVista Search Engine, Compaq	Lycos	29,963
5	Go.com World Network	Go Network	20,864
6	Excite, Magellan, City.Net, and WebCrawler	GeoCities	19,965
7	Lycos Search Engine, Point	The Excite Network	17,192
8	Amazon.com	Time Warner Online	13,106
9	Xoom	Amazon	10,831
10	Blue Mountain Arts' Electronic Greeting Cards	AltaVista Sites	10,633

Sources:

# from <http://www.100hot.com/>, June 1999

\* from <http://www.mediametrix.com/>, for May 1999

& unique visitors (000s) who visited at least once

*Table 5: Top-Ten Most Popular Web Sites*

## **The Geography of E-commerce**

I had hoped to obtain some statistics on Amazon.com’s visitors, customers, or sales broken down by region or country for this paper. Not surprisingly Amazon are very cagey about releasing this kind of information and gave me a polite brush-off. In the absence of firm sales / customer figures from the online companies themselves it is very difficult to get an empirical handle on the evolving global

Hop No.	www.amazon.com	Hop time	www.amazon.de	Hop time	www.amazon.co.uk	Hop time
1	fe0-0.cr1.sdt.ifrica.net	2	fe0-0.cr1.sdt.ifrica.net	2	fe0-0.cr1.sdt.ifrica.net	2
2	gip-penn-2-serial10-1.gip.net	568	gip-penn-2-serial10-1.gip.net	570	gip-penn-2-serial10-1.gip.net	590
3	sl-bb7-pen-1-0-0.sprintlink.net	573	sl-bb7-pen-1-0-0.sprintlink.net	563	sl-bb7-pen-1-0-0.sprintlink.net	572
4	sl-bb11-pen-1-3.sprintlink.net	572	sl-bb11-pen-1-3.sprintlink.net	567	sl-bb11-pen-1-3.sprintlink.net	939
5	sl-bb10-sea-8-0.sprintlink.net	695	sl-bb10-sea-8-0.sprintlink.net	674	sl-bb10-sea-8-0.sprintlink.net	693
6	sl-bb11-sea-9-0.sprintlink.net	681	sl-bb11-sea-9-0.sprintlink.net	682	sl-bb11-sea-9-0.sprintlink.net	668
7	sl-bb1-sea-8-0-0.sprintlink.net	686	sl-bb1-sea-8-0-0.sprintlink.net	860	sl-bb1-sea-8-0-0.sprintlink.net	664
8	sl-internap-14-0-0.sprintlink.net	656	sl-internap-14-0-0.sprintlink.net	676	sl-internap-14-0-0.sprintlink.net	937
9	border3as.fe0-1.fenet2.sea.pnap.net	668	border3as.fe0-1.fenet2.sea.pnap.net	746	border3as.fe0-1.fenet2.sea.pnap.net	825
10	amazon-4.sea.pnap.net	683	amazon-6.border3as.sea.pnap.net	715	amazon-6.border3as.sea.pnap.net	679
11	208.226.123.11	693	208.226.122.14	669	208.226.123.14	684
12	www.amazon.com	760	www.amazon.de	676	www.amazon.co.uk	697

(Source: traces run on the 5th July 1999, from <http://www.global-one.co.za/service/traceroute.html>)

Table 4: Traceroutes from South African to Amazon web sites

geography of e-commerce. Governments and regional organisations like the EU and OECD are beginning to prepare for serious measurement (US Department of Commerce 1999, OECD 1999c), particularly as there is increasing interest in taxing this activity. In the absence of comprehensive, representative and reliable statistics on the Internet economy there is an over-reliance of the dubious projections (speculations) from pundits and consultants like Forester Research, as well as high-priced research reports based on small samples, often with little geographic discrimination.

Although the Internet has diffused around the world with remarkable rapidity, there are still significant variations in access to the online world across space and within different segments of society with the costs of getting online varying greatly (Hoffman & Novak 1998, McConnaughey & Lader 1998, Petrazzini & Kibati 1999). Despite growing numbers of users outside of the US, the States is still the overwhelmingly powerful force in the online world. The US is naturally leveraging this power to dominate global e-commerce. The structure of the Internet’s network infrastructure and bandwidth costs continue to give the US unfair advantages, what Cukier has termed “bandwidth colonialism” (Cukier 1999). The US also has the benefit that all the most popular web sites are owned and located within its borders. The OECD found in 1997 that 94 of the top 100 sites were based in the US, with 40 of these in California (Cukier 1999). This pattern can also be seen from the top-ten web sites listed in table 5.

Evidence of the US’s dominance of online shopping is provided by the OECD’s analysis of the geography of secure web servers used for electronic commerce (OECD 1999b). Figure 5 shows a bar chart of secure web servers per capita for the OECD countries for August 1999. (The data comes from Netcraft - <http://www.netcraft.co.uk/>). Some twenty-two thousand secure web servers were located in OECD countries, but sixteen thousand of these were in the US, yielding a per capita measure of 6.1. This was three times the OECD average and considerably ahead of the second place country - Iceland.

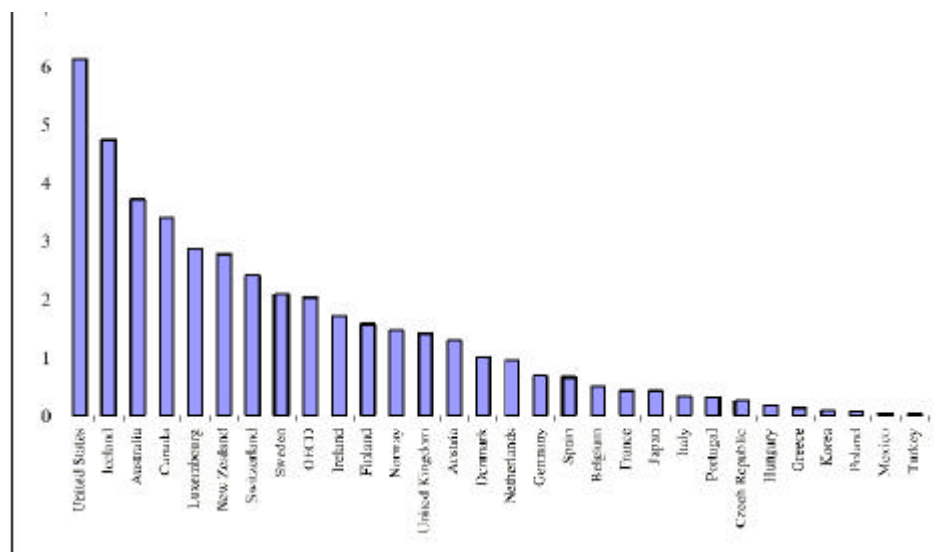


Fig 5: Secure web servers per 100,000 inhabitants, August 1998 (source: OECD 1999b)



## Will Amazon Wash Away The Malls?

The key question of interest to planners and geographers is what will be the spatial impacts of online shopping<sup>3</sup>, pioneered by Amazon.com, on retailing in real shops and malls. A corollary of this, is the question of whether Amazon will still be in the vanguard of change in two or five years time. Not surprisingly, Bezos is gung-ho about the prospects for his company and also the impacts of online retailing. For example he is quoted as saying that “*strip malls are history*” (Bayer 1999:116).

The argument is that the convenience and lower prices offered by online merchants will drive the older, general purposes shopping malls to the wall as increasing market share is taken by Cyberspace. However, online shopping will not destroy all retailing in bricks and mortar stores, as even the most ardent virtual advocates acknowledge that the Web can not replace the physical, emotional experience of shopping in the hustle and bustle of the real-world. The physical retailers that will continue to flourish are likely to be at two ends of the spectrum - the high-quality “shoptainment” stores that provide personal service and / or an entertainment experience and the 24 x 7 convenience store. Retail space in the middle will be increasingly squeezed by the online world, although the degree of impact will vary from product to product. Where book stores in the real-world fit into this pattern is not clear. Independent bookstores have long been under pressure, first from the big superstores and now from the heavy discounts offered by the online stores.

Empirical evidence on these impacts and changes is difficult to gather. It is probably still too early in the restructuring to discern boarded up shops and closed malls as a direct consequence of virtual retailing. At present, online shopping only constitutes a few percent of total retail spend in the US, although Wilson showed that for one market segment - travel agency online merchants are dramatically affecting physical agencies (Wilson 1999). Investors' perceptions do not necessarily wait for empirical evidence as the mark down in the stock value of big corporate mall owners has shown. In the last year the stock price of the four biggest owners of US malls fell by 14% (Wired 1999). Clearly in all the speculation on the impacts of online retailing we need to be careful not to fall into the utopian, “death of cities” fantasies that lurk behind much of the writing about telecommunications and the Internet (Graham 1997, Gillespie 1998)

Another important question is whether Amazon will suffer the fate of the hare in the race with the tortoise. Amazon was ahead of the curve and has grown impressively, but the question is can it fight off increasingly stiff competition from other large corporations. For example, the German media giant Bertelsmann AG has aggressively entered the online book market with a large investment in barnesandnoble.com and the development of the bol.com (book online) web stores in six main European countries. Amazon is saddled with heavy debts and the worry is that other companies with deeper pockets will wait them out in a long game and undercut them with heavier discounts. There is also an interesting new area of emerging competition from consumers who can use agent

technologies for powerful comparative shopping. A good example in the field of books is the Acses comparative shopping site (Sullivan 1999a) which is powerful and easy to use, enabling one to find the best price deal from twenty plus online retailers. Acses has certainly reduced the amount I spend with Amazon.com. There are also the dangers of weakening the Amazon brand through too rapid and diverse expansion.

Some have argued that despite the early lead of the online pioneers like Amazon.com, they are inherently vulnerable because the barriers to entry are supposedly much lower than in the material world. This is in fact far from true. It is relatively easy and cheap to set up an e-commerce web site, but crucially it is difficult and very costly to get customers through the door (Rosenberg 1999). Getting people to visit your web site is harder than it might look. The majority of web users, like consumers in the real-world, take the path of least resistance, which means they will end up at the doors of the online retailer who pays the portals and search engines the highest amount for prominent advertising and links. Only the largest will survive and make a profit online.

So the malls may suffer serious flood damage, but in the end Amazon.com may yet run dry.

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<sup>1</sup> At the height of the legendary Tulip price bubble, one bulb sold for 4,200 guilders, around \$1.5 million today.

<sup>2</sup> See Dodge 1999 for information on what traceroute is and how it can be used to explore the Internet

<sup>3</sup> Of Course online shopping is only a small component of e-commerce, with many predictions that the most dramatic impacts will be in the business-to-business side of things, rather than consumer retail.