Opening the 'black box' of digital cultural heritage processes: feminist digital humanities and critical heritage studies

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1.0 Introduction

'Why are the Digital Humanities so white?' asked McPherson in 2012 to draw attention to how little theorised questions of race and other 'modes of difference' are in the field of digital humanities (McPherson 2012). Humanities computing, whence digital humanities (DH) emanated, was predominately text-oriented in method and content (see e.g. Oakman). The DH that emerged c.2004 would come to be described as a 'big tent' (Pannapacker 2011) that enfolded a diverse range of methods and content, including humanistic fabrication, gaming and augmented reality (Jones 2014). Despite the field's ostensible widening of scope (cf. Prescott 2011), interventions like McPherson's foregrounded DH's impoverished understandings of how frameworks like race, gender and power intersect to operate on and through the computational tools, resources and infrastructures that DH builds and uses. Key to this also are the DH methodologies and methods that (re)produce these frameworks. McPherson's perspectives were amplified in other writings, like those of Bianco and Liu. The latter asked 'where is the cultural criticism in digital humanities?' (Liu 2012). Bianco argued that DH represents a regression to a retrograde humanities that has not yet integrated:

> '…cultural and critical critique; political, institutional, and governmental analyses; feminism, critical race, postcolonial, queer and affect studies; biopolitics; critical science and technology studies' experimental methodologies; social theory; and, certainly, philosophical inquiry into the ontic and ontological.' (p .101).

And yet, green shoots can be noticed. A growing body of work is critiquing and challenging the implicit and explicit power dynamics that operationalise difference as a justification for the ascendency of one social group over another in the making and use of digital tools and resources (e.g. Risam 2018). Powerful arguments for why such perspectives matter, and should not simply be relegated to those who choose to 'yack' instead of 'hack'---as the albeit contested divisions between making and thinking in DH have been categorised---are also being made:

> '…the difficulties we encounter in knitting together our discussions of race (or other modes of difference) with our technological productions within the digital humanities (or in our studies of code) are actually an effect of the very designs of our technological systems, designs that emerged in post-World War II computational cultural. (McPherson 2012 p.140).'

In line with the potential of critical theory, this body of work is not only critiquing such power dynamics, it is also seeking to redress. FemTechNet, for example, is 'an international movement of feminist thinkers, researchers, writers, teachers, artists, professors, librarians, mentors, organizers and activists sharing resources and engaging in activities that demonstrate connected feminist thinking about technology and innovation' (FemTechNet 2019). Their interventions include the 'Distributive Open Collaborative Course', a feminist re-thinking and re-implementation of the 'Massive

Online Online Course' (MOOC) format (Juhasz & Balsamo 2012). Moreover, building on the scholarship of women's studies, it is increasingly recognised that intersectionality should be a key tenet of methodology, analysis and interpretation in doing critical feminist DH because it is 'ethically and intellectually rich' (Ross 2018, p.220).

In this chapter we seek to draw attention to the resonances that exist between the field of Critical Heritage Studies and Feminist Digital Humanities. In doing so we wish to also provoke new ways of thinking about methodological approaches, and about the nature of the 'research method' itself as a practice bound up in the same codifying structures we attempt to dismantle. Critical Heritage Studies (CHS) is concerned with the power and knowledge systems at work in the relationships between people and heritage (Smith 2006, p.14). It is a rebuke to conventional heritage and heritage discourse, which is instead 'pluralising,' 'consciously post-Western,' and which aspires to be 'post-disciplinary' (Ashworth et al 2007; Winter 2013, p.451). Despite the centrality of heritage to the fields of Digital Humanities and Critical Heritage Studies they have largely proceeded in isolation of each other. Accordingly, Lutz has asked 'In what ways can concepts of critical heritage studies ›animate‹ debates in digital humanities and vice versa to highlight the specific changes produced by the digital in the context of cultural heritage and memory work?' (2017) We propose that an interlacing of the approaches of these fields to studies of the gendering of digital cultural heritage[1] resources would offer an important step forward.

Many scholars in Digital Humanities and Critical Heritage Studies are building on these critical debates in their fields to approach research in new ways. Nonetheless, we indicate in this chapter how normative methodologies and their processes are themselves a Western construct that further entrench exclusory, masculine paradigms that may limit creative potential and the exploration of epistemic alternatives. Yet we argue that methodologies may operate to construct but also *deconstruct* paradigmatic value systems. We should therefore appreciate their value as a critical intervention, as well as the value systems that created them.

Below we aim to give an overview of the scholarship on gender and digital humanities, and gender and heritage. We then discuss prominent trends in feminist digital humanities scholarship before discussing gender in relation to the foundational tenets of critical heritage studies. Observing that Digital Humanities and Critical Heritage Studies have recently turned to questions of how gender is performed by and through digital heritage, we propose that this suggests a fruitful way to bridge these currently largely unconnected fields. Finally, we discuss the role of oral history in undertaking research that could lead to deeper insights into gendering of digital cultural heritage as both product and process, as well as the ways in which it can and has been used in feminist research praxis. In this chapter, we focus primarily on feminist perspectives while recognising that the study of masculinity and masculine culture, along with gender fluidity and non-conformity, should also form part of enquiries into gender, digital humanities and digital cultural heritage.

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[1] The UNESCO Charter on the Preservation of the Digital Heritage says that:

'The digital heritage consists of unique resources of human knowledge and expression. It embraces cultural, educational, scientific and administrative resources, as well as technical, legal, medical and other kinds of information created digitally, or converted into digital form from existing analogue resources.' (UNESCO 2003)

2.0 Gender and digital humanities

In this section we discuss gender in the context of technology and digital humanities before giving an overview of recent Feminist Digital Humanities scholarship.

Gender is a cultural matrix that defines masculinity and femininity as separate and incommensurate (Abbate 2012 p. 3). Performances of masculinity and femininity are socially and culturally constructed and intersect with other power structures but are not contingent on biological sex. They are produced and re-produced by normative social roles and other dynamics between people and within society (Butler 1999). Along with factors like race and class, purported gender differences and characteristics can be called on to justify discrepancies of power and privilege, the distribution of labour and access to economies of opportunity and influence among social groups.

The scholarship of Feminist Technology Studies has shown technology to be a central stage for the performance and even ratification of gender (e.g. Faulkner and Arnold 1985). With regard to the history of computing, for example, gendered labour segregation confined many women to the lowest-ranking posts and resulted in the devaluing and overlooking of their work (e.g. Light 1999; Abbate 2012). Likewise, gender stereotypes can influence what counts as technology (e.g. Cockburn and Ormrod 1993). In early computing projects, the work assigned to women typically covered computer operation and programming (Hicks 2017), which was seen as lower in status and less difficult than the hardware-oriented work done by men (Light 1999). In other words, technology is not neutral but has been created 'in the interests of particular social groups, and against the interests of others' (Liff 1987 p. 180). Computing in particular is 'an explicitly hegemonic project built on labour categories designed to perpetuate particular forms of class status' (Hicks 2017 p.6).

Looking beyond computing, gender dynamics converge on DH via diverse processes, from the field's historical genealogies to the sociocultural dynamics that frame the contexts in which it is undertaken. For example, the library and archive sector with which DH is so connected is synonymous with feminised labour (Dean 2017; Caswell, 2016). This suggests that much can be gained from studying digital resources, workflows and infrastructures as sites of power, that both inflect and are inflected by gender. Feminist Digital Humanities critiques need not be limited to the digital resource as it is made available through an interface, or via its underlying code or generative algorithms, but can extend to the histories, actors, organizations, and circumstances that participated in or shaped the elaboration of a resource (see Wernimont 2013).

Feminist DH scholarship may then be summarised as proceeding along the following axes: content, method, infrastructure, history and theory. Wernimont has explored the difficulties of locating feminist digital interventions in terms of content and problematised 'the idea that simply saving women's work in digital form is enough' (2013). A number of digital archive projects that spoke to questions of difference, some in the context of second-wave feminist recovery, were created within and without the digital humanities community in 1990s. High profile projects like Women Writers online and Orlando exist still but many others have disappeared or are effectively dead (Earhart 2012; Mandell 2016).

A good deal of research has sought to interweave DH methods and techniques with gender or feminist-led analyses of retro-digitised cultural heritage materials. For example, studies have examined the automatic gender classification of French and literary and historical texts (Argamon et al 2009a). Machine learning and text mining have been used to identify and analyse what are argued to be linguistic markers of gender, race and nationality in 20th Century Black Drama (Argamon et al 2009b). In

the 'Black Women Big Data' project, Brown *et al* tackle the 'intersectional nature of oppression' in the 'silencing digitized terrain' of digital libraries. Training algorithms to discover 'hidden' documents, they demonstrate how topic-modelling informed by a Black feminist (intersectional) interpretation of method can be used to recover Black women's narratives and create future models for disrupting traditional, biased analyses of textual corpora (Brown *et al.*, 2016). Weingart and Jorgensen hand coded mentions of body parts in canonical fairy tales and computationally analysed those references, noting that their findings reinforced that of previous feminist scholarship while being based on a more empirical approach (2013).

The interplay of gender, expertise and recognition in the field of DH itself is another area of ongoing enquiry. For example, Berens examined the intersectional human and machine processes that excluded Molloy's early hypertext *afternoon* from the electronic literature canon and Molloy herself, along with other female hypertext trailblazers, from tenured university posts (Berens 2014). The esteem that is given to coding, and how this can exclude women from prominent areas of DH research has been addressed (Jackson *et al.*, 2008; Posner, 2012; Nowviskie). Despite some intimations (see Brown 2016), sustained analysis of how these debates essentialise gender has not been undertaken. A number of quantitative studies of the organisation and representation of the field of DH, as seen through conference, publication and other professional activities have also been undertaken, sometimes with gender as a point of focus (see Weingart).

Recent papers have discussed the transferrable lessons that Feminist Game Studies have for the project of articulating Feminist DH values (Losh 2015) and how an intersectional analysis could support the writing of alternate histories of DH and a more intellectually diverse research agenda that can accommodate studies of difference and cultural critique (Risam 2015). Addressed too has been the potential of philosophy of feminism scholarship (e.g. Hardin 1986) to inform the articulation of epistemology in DH and Information Science, especially in the context of infrastructures (Clement 2015). Druckers' work on 'non-representational approaches to interfaces' also draws on feminist and related theories to critique universal and totalising portrayals of 'the user' and explore the affective, embodied and situated forms of knowledge (2015). Risam similarly critiques how normative 'human' subjects, predicated on and privileging masculine Global North identities, are encoded within AI and machine learning technologies and how these may be reinforced and legitimised in uncritical DH scholarship (Risam, 2019). Part of a recent volume dealing with intersectionality in DH, this critique comes alongside a series of essays bringing into conversation gender, queer, lesbian, postcolonial and posthuman perspectives with the diverse materialities and philosophical concerns of the contemporary digital humanities (Losh and Wernimont, 2018).

3.0 Gender and Heritage

Although sustained theorizations of heritage specifically as it relates to gender are less common, there is a growing body of work dedicated to concepts around the gendered nature of heritage, heritage institutions, cultural heritage management, and to a lesser degree digital cultural heritage.[2] Gender is often understood solely as a women's issue

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[2] Only as recently as 2014, a UNESCO report on Gender, Heritage and Creativity for the first time acknowledged that gender does play an apparent role in the 'identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage' as defined in Article 4 of the World Heritage Convention.' (UNESCO 2014, p. 61)

and many case studies in heritage are, in this respect, concerned with issues of (mis)representation, marginalisation and (in)visibility (Smith 2008; Casserly and O'Neill 2017; Cramer and Witcomb 2018). What these tropes, value-systems, and absences of women in all walks of heritage tell us about masculinity and gender relations, as well as constructed, female social identities, receives comparatively less attention.

Cramer and Witcomb have shown how personalising historical women in exhibitions, as opposed to generalising in grand narratives, can allow for more critical perspectives where gendered experiences become more apparent (Cramer and Witcomb, 2018). Yet, what might be considered a language of exceptionalism has evolved around the reclamation of historically 'unsung women' (Lowenthal 2015, p.14). This may be strategic but tends to favour figures who were already privileged relative to their contemporaries, and more visible in the historical record and other material traces of the past because of their education, wealth, or status. Butler was somewhat prescient in warning that 'feminism ought to be careful not to idealize certain expressions of gender that, in turn, produce new forms of hierarchy and exclusion' (Butler 1999, p.viii). A gender approach to heritage is still a feminist one and requires 'not a monolithic emphasis on women, but an engendering of the past; it requires a consideration of gender as a process and a relation, and how masculinity has played out' (Engelstad 2007, p.218). The challenge is perhaps doing holistic gender work without re-obfuscating women in heritage, as has been the argument around, for example, women's history and the emergence of gender history (Casserly and O'Neill, 2017).

The issue of gender and heritage goes beyond absence, visibility or representation, concerning also methodologies, practices and interpretive assumptions based on normative ideas about gender and sexuality in academia and cultural heritage spaces (Reading 2015). It is about the division of labour in heritage research, preservation and management, both historically and contemporaneously (Mayo 1983, p.65; Levin et al 2010; Moravec 2017). Reading frames gender in relation to heritage in terms of '…how changing constructions of masculinity and femininity interact with what is valued and included as heritage' (2015, p.401).

The emerging 'gender archaeology' of the 1980s criticised archaeology for its role in substantiating a certain gender ideology, and mythology, about the social roles of men and women (Conkey and Spector 1984). Indeed, the recent furore over the gender of Bj 581 – the skeleton of a (female) Viking warrior discovered in the 19th c. – is an archetypal example of how deeply held assumptions around masculinity have and continue to bias archaeological interpretation even in the face of scientific evidence to the contrary (Hedenstierna-Jonson et al 2017; Norton 2017). And as demonstrated by Narayanan, the masculinity of urban heritage, combined with a lack of gender-conscious sustainable development, can have real and negative consequences for women's access to civic spaces in certain cultural contexts (Narayanan, 2014).

Indeed, masculinity, to a much greater extent than has been problematized, is a key subtext of the modern Heritage regime. The 'masculinity of heritage' as Smith says, is latent in the way heritage has been defined, valued and preserved in modern times: the monumental, the elite, the relics of androcentric histories of war, nationalism, colonialism, patrilineal monarchy, and patriarchal systems of governance (Smith 2008, p.161–2). A focus, in other words, on 'men and masculine pursuits' (Cramer and Witcomb 2018, p.3) has long been the gold standard for Heritage. Conkey and Spector impressed that gender biases were and are not exclusive to archaeology, rather they

are a 'feature of our entire intellectual tradition' (Conkey and Spector 1984:3). Moreover:

> '…the expression of gender identities in heritage can never be understood to be politically or culturally neutral, as what is constructed has a range of implications for how women and men and their social roles are perceived, valued and socially and historically justified.' (Smith 2008, p.161)

In other words, the concept and consequences of gender do not exist in an intellectual vacuum, whether in analogue or digital contexts. So too it opens new areas of enquiry for a DH that has engaged little with heritage as a socially constructed phenomenon. The questions that this raises for digital heritage resources widen existing DH purviews to include an enquiry into issues like: what are the gendered and/or sex-differentiated power relations at play in the heritage process, the meanings, silences and contestations they produce? How is the discourse around heritage gendered? How have normative conceptions of gender been reproduced or challenged in conventional and counter heritages? And perhaps most importantly, what are the material consequences for individuals and society?

To adequately synthesize a constellation of studies over the past thirty years of the heritage field is not possible here and would be to repeat what has been done elsewhere (Reading 2015; Wilson, 2018). It will be more useful here to consider gender in relation to some of the foundational Critical Heritage Studies issues. Lowenthal says that heritage was once 'limited to the annals of kingship and conquest and the deeds of great men' and 'now dwells on the everyday lives and aspirations of 'people without history'' (Lowenthal 2015, p.14). Critical Heritage Studies question the conventional and naturalised power structures that dictate what heritage is or isn't, what should or should not be preserved, who is or is not visible or included in heritage and the heritage process. It is especially concerned with challenging the dominance of Western or Eurocentric heritage discourse and elitist heritage structures, decolonizing heritage and advocating a 'pluralising,' 'multi-vocal,' 'participatory' even 'eclectic' heritage (Hall 2001, p.92; Smith 2006, p.12; Ashworth et al 2007, p.45, 50; ACHS 2012; Flinn and Sexton 2019). It increasingly looks to the relationship between heritage, social justice, human and cultural rights (Duff et al 2013; Coombe and Weiss 2015; Lynch 2017), and as Winter says, critical heritage should also 'be about addressing the critical issues that face the world today' such as multiculturalism, climate change, sustainability, and conflict resolution (Crooke 2001; Harrison 2013; Winter 2013, p.533; Harvey and Perry 2015). CHS is also, as mentioned above, heavily preoccupied with identity and the politics of recognition. Arguably then, a gender perspective might logically find more currency within the same rights-based, dissonant and transformative worldview within the core discourse of critical heritage. After all, gender-based discrimination and oppression, violence and sexual crime against cis-gender women and trans- men and women have legal and political heritages that continue to be unravelled at differing pace in different cultural contexts worldwide. Women's rights and LGBTQ+ rights are human rights. Men and women are inheritors of, and have played different parts in, anthropogenic climate change through shifting gender roles in production (Merchant 1990; Chakrabarty 2009). The consequences and legacies of war and civil conflict are gendered and, as Ward reminds us, often do little to advance gender relations (Ward, 2006, p.282). We are also seeing a period of significant flux regarding gender identities and gender relations in the public space. These are all global and personal, political and emotional issues affecting humanity and what it means to be human that are entangled with heritage yet remain subsidiary to the dominant trends within CHS. Indeed, the growing feminist

and gender critique within heritage studies was born in response to a conspicuous 'gender blindness' in the field described by Reading as an ignorance resulting from the 'earlier dispersal of studies across the multidisciplinarity of heritage studies' (2015, p. 339).

The intervention of digitality in the heritage sphere adds further layers to this gender-heritage complex not least as it ties in with the notions about power and knowledge structures that are central to CHS. It poses myriad questions about the nature of engagement, interpretation, cultural encoding, and accessibility that may be gendered or have gendered consequences. Wilson has gone so far as to describe gender as 'the fundamental mode of critique for the modern era' (2018, p.9). Already we can begin to see common cause with feminist DH. We will now propose that questions of how gender is performed by and through digital heritage, to which DH and CHS have recently turned, suggests a fruitful way to bridge these currently largely unconnected fields. We emphasise scholarship relevant to the issue of 'content', given the attention that Wernimont has given to the difficulties of accounting for this in digital heritage.

4.0 Digital heritage as bridge

The digital context in which heritage now finds itself, and where it is produced and reproduced, has implications for how gender plays out within it. Digitality has undoubtedly opened doors for 'gender mainstreaming' and a more participatory culture in heritage, being an environment in which – at great velocity - many voices can speak louder from the margins, new information can be reached, shared and mobilized. Or as UNESCO puts it 'access to this heritage will offer broadened opportunities for creation, communication and sharing of knowledge among all peoples' (UNESCO, 2003). However, nothing should be assumed about the power plays of cultural heritage on the internet. Horst and Miller are concerned with what opportunities 'the digital' offers our understanding of what it is to be human and they remind us of 'humanity's remarkable capacity to re-impose normativity just as quickly as digital technologies create conditions for change' (Horst and Miller 2013, p.13). Wilson reminds us that normativity is itself a 'site of control and domination' whether you exist within it or without (Wilson, 2018, p. 7). This has implications for thinking about gender (and race and class) and the reproduction of pre-digital patterns such as systems of social inequality, exclusions, hegemonic narratives, and soft power (Taylor and Gibson 2017). Further, this universalizing discourse of world heritage coupled with digitisation and 'open access' is not always appropriate to the value systems of Indigenous peoples to whom they may pertain. While digital heritage initiatives can be well-meaning and facilitate forms of repatriation in some contexts, in others they can operate to undermine efforts at 'decolonizing' heritage when they do not respect the knowledge systems, intellectual property and human rights of their subjects (Delva and Adams, 2016; Taylor and Gibson, 2017).

The so-called 'democratisation' of heritage through digitization and digital technologies is also fraught with caveats and requires a critical eye towards the processes at work in the mediation of digital objects that is true for all digital cultural heritage (Bishop 2017; Taylor and Gibson 2017). While the digital allows for a displacement of traditional powers structures in heritage, there are still people behind the creation and curation of digital heritage meaning that its processes remain situated and culturally coded (Cameron and Kenderdine 2007). What has, is and will be collected, preserved, privileged and disseminated by digital means is not a neutral endeavour (Gauld 2017): cultural knowledge systems (Mason 2007), metadata, digital cataloguing, descriptions

and arrangements in online collections and exhibitions can all operate to sustain or challenge the gender *status quo ante* in terms of findability, interpretation and agency in the digital space. Bishop has argued that digital databases and their search pathways have altered the information seeking behaviours of the public and academics but particularly historians, requiring feminist historians to 'read against the grain' and to 'question absence as well as presence' (Bishop 2017, p.771). Furthermore, what heritage becomes digital at all may be contingent on funding, policy, or national commemorative agendas that favour safe, canonical narratives tending towards white, male, heteronormative biases. This also throws into sharp relief the convergence of neoliberal economic policies and heritage practices (Cifor and Lee 2017; Moravec 2017). Furthermore, we must remember that the digital does not equate with accessibility (Reed 2014). As Bishop says, it is largely 'a first-world democratisation,' which gives little account of the 'digital divide,' the limitations on poorer women's access to, participation or inclusion in, both digital cultural heritage and digital humanities work, particularly in global south countries where internet and electricity provisions are chequered (2017, p. 771; Aiyegbusi, 2018, p. 437). These are just some of examples that demonstrate the messy ties between analogue, digital and human as they relate to gender in the field of heritage and which necessitate a practice of what might be called Critical Digital Heritage.

It is thus within this new digitality that feminist DH and critical heritage studies converge and pose novel theoretical and methodological questions. Concerns with 'rethinking canons and periodization, globalizing humanities research, addressing new media, and foregrounding politics and issues of power' are shared across each school of thought. More specifically, both feminist DH and what Wilson (2018, p. 6) describes as 'Critical Gender Heritage Studies' recognise and seek to theorize and challenge the default masculinity, euro-centricity and whiteness of their fields that is wrapped up in a presumed objectivity, neutrality and openness, as well as patriarchal, colonial 'origin narratives' (Wernimont and Losh, 2016, p.40; Ross, 2018). Such narratives speak to and legitimise certain identities while obfuscating or actively delegitimising others. Both fields also thus recognise, as Ross says, 'the impossibility of impartiality' and the need for a powerful, 'liminal,' and transformative critique of the disciplinary 'core' (Wernimont and Losh, 2016; Wilson, 2018, p.9; Ross, 2018, p.217). Winter has gone so far as to say that some critical approaches to heritage can be so strident as to be anti-heritage (Winter, 2013). Undeniably, similar currents are emerging in critical and feminist DH, and wider society, with concerns over the techno-social implications of our digitally embedded lives (Losh and Wernimont, 2018), producing as they do new inequities and unforeseen consequences for which more technology may be inadequate in remedying. 'Algorithmic universals' are indeed anything but, and have repeatedly proved biased in their outputs, with consequences ranging from corporate embarrassment to influencing real-world racial, homophobic or sexualised violence (Noble, 2018; Risam, 2019, p. 46).

Feminism is about more than women and gender; it is about power and concurrent dynamics of privilege that pervade our social realities (D'Ignazio and Klein, 2019). These dynamics have material consequences for peoples and societies, and transformation requires not just theoretical critique but also active methodological de-centring. Furthermore, intersectional feminist and gender analyses have been challenging narratives and praxis across a variety of disciplines that bear upon DH and CHS for some time. As such we must also actively avoid appropriation, and give recognition to the labour and intellectual contributions that predate and coexist with

the current critical turn, within and beyond the canon of these disciplines and practices (Wernimont and Losh, 2016).

5.0 Methodologies

How, then, might we take up the challenge of examining the systemic gendered structuring of white privilege and patriarchy within heritage, particularly what has been dubbed the Authorised (Digital) Heritage Discourse (Caswell et al; (Smith, 2006)? How can we examine heritage both as product and process? How can we discover (perhaps not just to understand but also to counteract and reverse) the ways in which intersectional identities are hidden and marginalised in digital heritage materials? Which methodologies can assist researchers to explore the 'black box' of heritage processes, for example, the erasure of the feminised labour that underpins digital heritage?

A critical digital heritage study of gendered heritage processes will require a suite of methodologies and approaches. We might argue that an ethnographic approach to heritage processes and production and the organisations and systems that produce them is necessary given the tacit assumptions, informal practices and prevailing dominant orthodoxies and cultures at work in the production and presentation of AHD. The need to engage with the social process of heritage and public history production, in a sustained and deep fashion, to understand the public manifestations of dominant and exclusive narratives embedded in exhibitions and digital displays has been widely acknowledged since MacDonald's influential appraisal of exhibitions at the Science Museum (2002). Such an embedded and critically engaged approach would enable researchers to explore these practices in the context of the dominant ethos of society rather than simply focusing on the final heritage production itself as neutral space, or by taking rhetorical explanations and justifications of purpose by heritage institutions for granted (MacDonald et al 2018). We acknowledge the need to pay attention to the development, qualities and affordances of digital heritage and digital archive resources and the need to develop /adopt / adapt research tools and methods that are appropriate for these digital environments. However, we must also recognise that the digital heritage environment is one that results from human agency, social structures and human-led decision-making processes. The humanities, ethnographic and social science research methods that seek to explore critical questions around the gendering of digital heritage will therefore share much in common with the methods and approaches that we would employ to study the processes underpinning non-digital [heritage] productions and environment.

> Within this field of the (organisational) ethnography of heritage institutions, professions and academic disciplines, one established critical humanistic research approach (Plummer 2001; Stanley 2013) we advocate is qualitative interviewing and life stories, in particular oral history. The practice of oral history has a long and close relationship with feminist and gender studies. At times, oral history has been identified as a specifically feminist research practice (concerned with hidden histories, power relations in research and society, and intersubjectivities). Feminist oral history practices ('research by, on, and for women' Iacovetta et al, 2018) have specifically been employed across a range of research subjects including the recovery of hidden or otherwise forgotten histories; the unpicking of how the structuring of gendered relations over time has impacted lives, careers, work places, families, organisations, etc; and as a tool associated with advocacy and struggles for raising the profile of women and women's contributions. Several research initiatives into the historical

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incarceration of women and institutional abuse in Ireland have utilized oral history as a core methodology to give voice to the voiceless of the past. The 'Waterford Memories Project' for example applies oral history within a digital humanities framework to investigate institutions for research, preservation, pedagogical and restorative social justice ends (The Waterford Memories Project, 2015).[3] Similarly, 'Industrial Memories' was a digital humanities response to the 2009 Ryan Report into historical child abuse in Church institutions in Ireland. A public, multimedia database and data analysis resource of the report and its witness testimony was created to interrogate and understand its full weight and complexity, the experiences of victims, and in turn the interconnectedness of power and patriarchal oppression in this particular cultural context (Industrial Memories, 2018).The subjectivities and intersubjectivities of oral history making thus further align with feminist theory and praxis. Ross insists on the impossibility of impartiality and objectivity in research. They are in themselves scientific, masculinist constructs that have operated to maintain gendered (as well racial, classist, colonial etc.) power structures within humanities fields such as archives, history, literature, and digital humanities itself (Ross, 2018, p. 217). As Cook put it, in the eyes of post-modern archival---and indeed, wider humanities---thought '[N]othing is neutral. Nothing is impartial. Nothing is objective'(2001, p. 7). The answer then, propose Ross and others, is a highly reflexive partiality in doing feminist, digital archival work (Cifor and Wood, 2017, p. 3; Ross, 2018, p. 217). And it is here also that oral history finds currency as a feminist DH methodology.

The history of the interconnectedness of feminist research and oral history, and the evolution of the application of oral history approaches (ones that focus on the past and those actions / motivations / challenges that might otherwise be hidden or invisible) has been discussed and critically analysed at length, not least in the edited volumes *Women's Words – the feminist practice of oral history* (Gluck & Patai, 1991) and its recent pluralised successor *Beyond Women's Words – feminisms and the practices of oral history in the twenty-first century* (Srigley et al, 2018). The latter volume, in addition to documenting a number of theoretical, decolonising and intersectional debates and applied developments in oral history as a methodology, also examines the impact of digital environments on feminist oral history. This is examined in terms of the creation of digital oral history archives that document the experience of women, in particular lesbians (Chenier 2018), 'feminist engagements with heritage culture' and questions of representation (Shea, 2018). A recent project of the Black Cultural Archives (BCA), an oral history of the Black Women's Movement, applied such feminist engagements. A community archive in south London, BCA is 'a national institution dedicated to collecting, preserving and celebrating the histories of diverse people of African and Caribbean descent in Britain.'(Black Cultural Archives, 2018a) This feminist oral history project in its methodology explicitly sought 'to present Black history by members of the Black community. To this end, the oral history interviews were undertaken by female, Black volunteers.'(Black Cultural Archives, 2018b) Similarly, the women's testimonies were the central reference point in creating interpretive text and shaping appropriate themes and audio excerpts for a future digital

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[3] See also 'Justice for Magdalenes Research,' www.jfmreasearch.com, and 'Archiving Personal Histories: The Tuam Mother and Baby Home,' https://www.nuigalway.ie/about-us/news-and-events/news-archive/2019/january/nui-galway-launch-project-to-archive-personal-histories-of-the-tuam-mother-and-baby-home.html

platform, in order that their voices and perspective be respected and salient at every level of the project.[4]

Relevant to the critical debates we are interested in here are suggestions of fundamental incompatibility between feminist sensibilities 'such as respect for the narrators, and the digital's pace, openness and impersonal, profit-driven nature' and the continued relevance of critical questions relating to the impact of race, gender, class that privilege what gets digitised and what gets posted and accessed (Iacovetta, Srigley and Zembrzycki, pp.11-12) Indeed, what is occluded or undervalued when the knowledge that tends to be privileged in digitisation and digital humanities research continues to be largely textual rather than oral? Ross further reminds us that digital platform design itself dictates the nature of its feminist engagements or otherwise, be it 'welcoming or exclusionary, open-ended or teleological, user-centred or dictatorial, plural or definitive.' Feminist DH might animate alternative digital heritage content, platforms and interfaces underpinned by feminist methodologies and epistemologies, in for example, constructing digital oral histories. Hall demonstrates a fine-grained approach in creating the digital exhibit 'Women Sing the Blues,' into which non-linearity, complexity and interactivity is in-built to engage women's interpretations of songs, and interpret the feminist genealogies of blues music heritage as a process through time (Hall, 2018). Perhaps similar modalities might be fruitful in creating digital oral history platforms by engaging the aesthetic, theoretical and historical and facilitating alternative ways of knowing (Hall, 2018). Feminist DH applied in curating oral histories can thus be more analytically and interpretively powerful, as well as more ethical, in the process of critical digital heritage.

In our own practice we have used oral history as a primary methodology to critically explore the (hidden and gendered) histories of digital humanities. We have explored the careers and contributions of the key figures and pioneers (Nyhan and Flinn, 2016) and the hidden and feminised labour that lay behind the work of some of these key canonical figures. The canonical history of Digital Humanities emphasises technological progress and narratives of 'great men', especially Fr Roberto Busa SJ (1913-2011). Nyhan has used oral history to uncover the nature of the contributions that were made to Busa's renowned *Index Thomisticus* project by the mostly female key punch operatives who worked on the project from c.1954-67. They worked for Busa in the keypunch school that he set up in Milan in 1956 and also in the Literary Data Processing Centre (CAAL) that he set up around the same time. Though their work has been overlooked and devalued by Busa, and by much of the scholarship written about the project by other scholars, they made an immense contribution to Busa's research by transcribing onto punched cards ''natural texts containing 12,000,000 words in 9 different languages in the Latin, Hebrew, Greek, and Cyrillic alphabets' (072_1968)'. They worked with Busa until c.1967 when, as he later described it, 'I completed the punching of all my texts' (Busa 1980 p.85). Oral history has thus played a key role in uncovering details of everyday significance of their work. Also, by uncovering the nature of the womens' contributions, and the processes that served to devalue and ultimately silence them and their work, we can get an insight into how knowledge was defined at the beginning of DH and into the categories of people who were considered able to make that knowledge. This raises crucial questions about the 'deep history' of digital cultural heritage tools and resources and the gendered practices that underpinned them and that remain little understood.

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[4] This is based on recent work carried out by one of authors during an EU-funded secondment in partnership between UCL with BCA.

6.0 Conclusion

This chapter has given an overview that is by no means exhaustive of the current critical debates in Digital Humanities as they relate to intersectional feminist theory and practice. In conversation with the founding principles of Critical Heritage Studies and its own set of gender and feminist debates, we have demonstrated how Feminist DH and (Gender) CHS have strong practical and analytical links and are in many ways ideologically aligned. Lastly, we have proposed and rationalised oral history as conceptually allied, and a potential tool, in feminist DH work.

> 'If we do not want to be complicit in the oppressive conditions created by our tools, our theories, and our institutional structures, then we have an obligation to do something about them.'(Wernimont and Losh, 2016:38)

Digital oral history making is just one potential tool for broader feminist digital humanities practice. Ethnographic methods are colonial in origin but institutional ethnographies of, for example, technology corporations---many of which have a large stake in digital cultural heritage---can shift the research gaze to expose the workings and/or exploitations of white, normative, neoliberal power structures that are both human and computational (Noble, 2018; Thylstrup, 2018). There is no silver bullet approach and we would argue, as with any robust research and analysis, that a suite of methodologies are possible and necessary; what matters in the end is how they are understood, critiqued and operationalised for intersectional, feminist ends (Wernimont, 2013).

Bibliography

Argamon, Shlomo, et al. 2009 'Gender, Race, and Nationality in Black Drama, 1950–2006: Mining Differences in Language Use in Authors and Their Characters.' *Digital Humanities Quarterly*, 3, no. 2 (June).

Argamon, Shlomo, et al. 2009 'Vive La Différence! Text Mining Gender Difference in French Literature.' *Digital Humanities Quarterly*, 3, no. 2 (June).

Abbate, Janet. (2012) *Recoding Gender: Women's Changing Participation in Computing*. MIT Press.

Ashworth, G. J., Graham, B. J. and Tunbridge, J. E. (eds) (2007) *Pluralising Pasts: Heritage, Identity and Place in Multicultural Societies*. London: London.

Bishop, C. (2017) 'The Serendipity of Connectivity: Piecing Together Women's Lives in the Digital Archive', *Women's History Review,* 26(5), pp. 766–780. doi: 10.1080/09612025.2016.1166883.

Black Cultural Archives (2018a) *Our Mission*. Available at: https://blackculturalarchives.org/about/ (Accessed: 12 September 2018).

Black Cultural Archives (2018b) *Subject Guide: The Black Women's Movement*. Available at: https://static1.squarespace.com/static/5a01baa7d7bdcee985c80c15/t/5a08920ae2c483d6cb7d8229/1510511116192/2016_Womens-Movement-updated.pdf (Accessed: 12 October 2018).

Brown, N. M. *et al.* (2016) 'Mechanized Margin to Digitized Center: Black Feminism's Contributions to Combatting Erasure within the Digital Humanities', *International Journal of Humanities and Arts Computing*, 10(1), pp. 110–125. doi: 10.3366/ijhac.2016.0163.

Commented [s2]: AU: Please provide publisher.

Commented [s3]: COMP: This is a journal

Butler, J. (1999) *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.

Cameron, F. and Kenderdine, S. (eds) (2007) *Theorizing Digital Cultural Heritage: A Critical Discourse*. MIT Press. Available at: https://www.dawsonera.com:443/abstract/9780262269742.

Casserly, M. and O'Neill, C. (2017) 'Public History, Invisibility, and Women in the Republic of Ireland', *The Public Historian*, 39(2), pp. 10–30. doi: https://doi.org/10.1525/tph.2017.39.2.10.

Chakrabarty, D. (2009) 'The Climate of History: Four Theses', *Critical Inquiry*, 35(2), pp. 197–222. doi: 10.1086/596640.

Cifor, M. and Lee, J. A. (2017) 'Towards an Archival Critique: Opening Possibilities for Addressing Neoliberalism in the Archival Field', *Journal of Critical Library and Information Studies*, 1(1), pp. 1–22. doi: 10.24242/jclis.v1i1.10.ISSN.

Cifor, M. and Wood, S. (2017) 'Critical Feminism in the Archives', *Journal of Critical Library and Information Studies*, 1(2), pp. 1–27. doi: 10.24242/jclis.v1i2.27.

Conkey, M. W. and Spector, J. D. (1984) 'Archaeology and the Study of Gender', *Advances in Archaeological Method and Theory*, Springer 7, pp. 1–38.

Cook, T. (2001) 'Archival Science and Postmodernism: New Formulations for Old Concepts', *Archival Science*, 1(1), pp. 3–24. doi: 10.1007/BF02435636.

Coombe, R. J. and Weiss, L. M. (2015) 'Neoliberalism, Heritage Regimes, and Cultural Rights', in Meskell, L. (ed) *Global Heritage: A Reader*. Wiley Blackwell. doi: 10.2139/ssrn.2644495.

Cramer, L. and Witcomb, A. (2018) ''Hidden from View'?: An Analysis of the Integration of Women's History and Women's Voices into Australia's Social History Exhibitions', *International Journal of Heritage Studies,* 25(2), pp. 1–15. doi: 10.1080/13527258.2018.1475409.

Crooke, E. (2001) 'Confronting a Troubled History: Which Past in Northern Ireland's Museums?', *International Journal of Heritage Studies*, 7(2), pp. 119–136. doi: 10.1080/713772347.

D'Ignazio, C. and Klein, L. (2019) 'Introduction', in *Data Feminism*. MIT Press. Available at: https://bookbook.pubpub.org/pub/dgv16l22 (Accessed: 28 March 2019).

Delva, M. and Adams, M. (2016) 'Archival Ethics and Indigenous Justice: Conflict or Coexistence?', in Foscarini, F. et al. (eds) *Engaging with Records and Archives: Histories and Theories*. London: Facet Publishing, pp. 147–172. doi: 10.29085/9781783301607.009.

Duff, W. M. *et al.* (2013) 'Social Justice Impact of Archives: A Preliminary Investigation', *Archival Science*, 13(4), pp. 317–348. doi: 10.1007/s10502-012-9198-x.

Engelstad, E. (2007) 'Much More than Gender', *Journal of Archaeological Method and Theory,* Springer, 14(3), pp. 217–234.

<conferenceref>Flinn, A. and Sexton, A. (2013) 'Research on Community Heritage: Moving from Collaborative Research to Participatory and Co-Designed Research Practice', *CIRN Prato Community Informatics Conference 2013*, pp. 1–14.

Gauld, C. (2017) 'Democratising or Privileging: The Democratisation of Knowledge and the Role of the Archivist', *Archival Science,* Springer Netherlands, 17(3), pp. 227–245. doi: 10.1007/s10502-015-9262-4.

Grahn, W. and Wilson, R. J. (eds) (2018) *Gender and Heritage: Performance, Place and Politics*. London and New York: Routledge.

Hall, J. (2018) 'Using a Feminist Digital Humanities Approach', *Frontiers*, 39(1), pp. 1–23.

Commented [s4]: AU: Omit for journal entry?

Commented [s5]: AU: Place of publication?

Commented [s6]: AU: Omit?

Commented [s7]: AU: Omit?

Commented [s8]: AU: Is this reference cited in chapter? There is only a Wilson 2018. See also comments in chapter.

Hall, S. (2001) 'Constituting an Archive', *Third Text*, 15(54), pp. 89–92. doi: 10.1080/09528820108576903.

Harrison, R. (2013) *Heritage: Critical Approaches*. London; New York: Routledge.

Harvey, D. and Perry, J. A. (eds) (2015) *The Future of Heritage as Climates Change: Loss, Adaptation and Creativity*. London: Routledge.

Hedenstierna-Jonson, C. *et al.* (2017) 'A Female Viking Warrior Confirmed by Genomics', *American Journal of Physical Anthropology*, 164(4), pp. 853–860. doi: 10.1002/ajpa.23308.

History - 2012 Manifesto (no date) *Association of Critical Heritage Studies*. Available at: http://www.criticalheritagestudies.org/history/ (Accessed: 1 August 2018).

Horst, H. and Miller, D. (2013) 'The Digital and the Human: A Prospectus for Digital Anthropology', in Horst, H. A. and Miller, D. (eds) *Digital Anthropology*. Bloomsbury Publishing, pp. 12–43. doi: 10.1093/obo/9780199766567-0087.

Industrial Memories (2018) *Industrial Memories, University College Dublin*. Available at: https://industrialmemories.ucd.ie/ (Accessed: 5 April 2019).

Levin, A. K. (ed.) (2010) *Gender, Sexuality and Museums: A Routledge Reader*. Routledge. Available at: https://www.dawsonera.com:443/abstract/9780203847770.

Losh, E. and Wernimont, J. (eds) (2019) *Bodies of Information: Intersectional Feminism and Digital Humanities*. Minneapolis: University of Minnesota Press.

Lowenthal, D. (2015) *The Past is a Foreign Country—Revisited*. Cambridge: Cambridge University Press.

Mayo, E. P. (1983) 'Women's History and Public History: The Museum Connection', *The Public Historian*. [National Council on Public History, University of California Press], 5(2), pp. 63–73. doi: 10.2307/3377251.

Merchant, C. (1990) 'Gender and Environmental' *The Journal of American History*, 76(4), pp. 1117–1121. doi: 10.2307/2936589.

Moravec, M. (2017) 'Feminist Research Practices and Digital Archives', *Australian Feminist Studies*, 32(91–92), pp. 186–201. doi: 10.1080/08164649.2017.1357006.

Narayanan, Y. (2014) 'Quo Vadis, Delhi? Urban Heritage and Gender: Towards a Sustainable Urban Future', *International Journal of Heritage Studies*, 20(5), pp. 488–499. doi: 10.1080/13527258.2013.771790.

Noble, S. U. (2018) *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York : New York University Press.

Norton, H. (2017) *How the Female Viking Warrior Was Written Out of History*, *The Guardian*. Available at: https://www.theguardian.com/science/2017/sep/15/how-the-female-viking-warrior-was-written-out-of-history (Accessed: 14 August 2018).

Onciul, B., Stefano, M. L. and Hawke, S. (eds) (2017) *Engaging Heritage, Engaging Communities*. Woodbridge and New York: Boydell Press.

Reading, A. (2015) 'Making Feminist Heritage Work: Gender and Heritage', in Waterton, E. and Watson, S. (eds) *Handbook of Contemporary Heritage Research*. Basingstoke: Palgrave Macmillan, pp. 397–413.

Reed, B. (2014) 'Reinventing Access', *Archives and Manuscripts*, 42(2), pp. 123–132. doi: 10.1080/01576895.2014.926823.

Risam, R. (2019) 'What Passes for Human? Undermining the Universal Subject in Digital Humanities', in Losh, E. and Wernimont, J. (eds) *Bodies of Information: Intersectional Feminism and Digital Humanities*. Minneapolis: University of Minnesota Press, pp. 39–56.

Ross, S. (2018) 'Toward a Feminist Modernist Digital Humanities', *Feminist Modernist Studies*,1(3), pp. 211–229. doi: 10.1080/24692921.2018.1505821.

Smith, L. (2006) *Uses of Heritage*. Oxon; New York: Routledge. doi: 10.1007/978-1-

Commented [s9]: AU: Place of publication?

Commented [s10]: AU: Please confirm journal title.

Commented [s11]: AU: Is this reference cited in chapter?

Commented [s12]: AU: Oxon or Routledge?

4419-0465-2_1937.

Smith, L. (2008) 'Heritage, Gender and Identity', in Graham, B. and Howard, P. (eds) *The Ashgate Research Companion to Heritage and Identity*. Abington: Routledge. doi: 10.4324/9781315613031.ch9.

Taylor, J. and Gibson, L. K. (2017) 'Digitisation, Digital Interaction and Social Media: Embedded Barriers to Democratic Heritage', *International Journal of Heritage Studies*. Routledge, 23(5), pp. 408–420. doi: 10.1080/13527258.2016.1171245.

The Waterford Memories Project (2015) *The Waterford Memories Project*. Available at: https://www.waterfordmemories.com/home (Accessed: 5 April 2019).

Thylstrup, N. B. (2018) *The Politics of Mass Digitsation*. Cambridge and London: MIT Press.

UNESCO (2003) *Charter on the Preservation of the Digital Heritage*. Available at: http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/mow/charter_preservation_digital_heritage_en.pdf (Accessed: 28 February 2018).

UNESCO (2014) *Gender Equality, Heritage and Creativity*. Paris: UNESCO. Available at: http://www.unesco.org/new/en/culture/gender-and-culture/gender-equality-and-culture/the-report/ (Accessed: 5 March 2018).

Ward, M. (2006) 'Gender, Citizenship, and the Future of the Northern Ireland Peace Process', *Eire-Ireland*, 41(1), pp. 262–284. doi: 10.1353/eir.2006.0012.

Wernimont, J. (2013) 'Whence Feminism? Assessing Feminist Interventions in Digital Literary Archives', *Digital Humanities Quarterly*, 7(1). Available at: http://www.digitalhumanities.org/dhq/vol/7/1/000156/000156.html.

Wernimont, J. and Losh, E. (2016) 'Problems with White Feminism: Intersectionality and Digital Humanities', in Crompton, C., Lane, R. J., and Siemens, R. (eds) *Doing Digital Humanities: Practice, Training, Research*. 1st edn. Routledge, pp. 35–46.

Winter, T. (2013) 'Clarifying the Critical in Critical Heritage Studies', *International Journal of Heritage Studies*, 19(6), pp. 532–545. doi: 10.1080/13527258.2013.818572.