

Exploring the History of Digital History: Setting an Agenda

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In 2003 the late American historian and digital history pioneer Roy Rosenzweig wrote that historians were confronted with a “fundamental paradigm shift from a culture of scarcity to a culture of abundance” (Rosenzweig 2003). As more and more historical sources were digitised, Rosenzweig argued that historians urgently needed to rethink their practices. To this day, this diagnosis remains a defining characteristic of doing history after the digital turn. Yet the problem of technologically induced abundance in historical research is far from new. During one of the first computing in the humanities conferences at Yale University in 1965, a predecessor of Rosenzweig, Hayward Alker, already spoke about the need to confront “problems of abundance” in historical research due to the availability of “masses of [digital] historical data” (Alker 1965).

This is only one of many possible examples that can serve to illustrate a broader point: key epistemological and methodological questions in what we now call ‘digital history’ were already debated decades ago by earlier generations of computing historians, yet this is often forgotten. Such forgetfulness is not exclusive to the discipline of history, however, but a consequence of the fact that “the history of computing in the humanities is an almost uncharted research topic” (Nyhan, Flinn and Welsh 2015). As a result, much discourse about digital humanities in the past twenty years is characterised by a rhetoric of radical newness. This situation has recently begun to change, as interest in the history of the digital humanities is growing. These endeavours can be seen as part of a broader process of consolidating the field by excavating its historical and intellectual underpinnings.

This paper proposes a framework and an agenda for excavating the history of digital history. Its basic premise is that new technologies have always shaped historical research practices and affected historical knowledge production. Yet this has never been a straightforward process of continuity and progress in which digital history emerged as the inevitable endpoint of computing’s encounter with history. That teleological image belies a much more complex historical development which was characterised by different phases, which have variously been labelled computerised history or historical computing, history and computing, and today digital history (to limit the overview to the Anglophone world). Crucially, the transitions between these phases entailed more than discursive shifts; they were characterised by continuities and ruptures engendered by the emergence of new technologies and user generations. Each phase was also characterised by the importance of transnational networks of practitioners, and by the political & ideological backgrounds and positions they brought to the table. Existing debates, however, often ignore the transnational networks, relations, and interactions among different actors and broader questions of field formation, while the origins of digital history are either traced through a focus on technology or imagined to be confined to one particular geography.

Furthermore, the uptake of computing in historical research in the post-World War II period was rooted in a broader context of engagement with technology that began in the late 19th century. Many digital humanists seem sceptical of the suggestion that tracing the supposed ‘roots’ of the field should involve looking back further than the arrival of the *digital* computer on the scholarly scene in the 1950s and especially 1960s. Yet there are several reasons to frame and contextualise digital history in terms of pre-digital developments going back to the late 19th century, not only because of the rootedness of ‘the digital’ in ‘the analog’, the temporal overlaps between them and their effects on scholarly research practices, but

also by dint of the basic logic of comparison; we can only find out what is specific and new in the current digital era when we compare it to what came before.

Indeed, since the late 19th century, a *transnational* communicative space has developed in which knowledge and expertise about new technologies circulated among archivists, librarians and scholars across the Atlantic Ocean. Nevertheless, studies that focus on historical aspects of the development of digital humanities and digital history predominantly focus on *national* cases while relatively few attempts have been made to compare and integrate these national perspectives and analyse the abovementioned transnational dimensions. Since Daniel Greenstein's seminal 1996 article, for instance, in which he traced the diverging developments of computer-aided historical research in Europe and the United States (Greenstein 1996), only Boonstra, Breure and Doorn have attempted to widen the spatio-temporal focus in their 2004 overview *Past, Present and Future of Historical Information Science* in which they included the third 'center' of historical computing as it emerged in the late 1950s and early 1960s (next to the United States and Western Europe): communist Central and Eastern Europe.

The latter calls to mind the oft-observed dominance of Anglophone digital humanities discourses and practices that tends to ignore the field's spatial diversity (Fiormonte 2017; Mahony and Gao 2019) which only recently has begun to be questioned. This is equally true for digital history, where a persistent tendency exists to 'look West' only. Yet, from the 1960s onwards, the first 'history and computing' conferences brought together practitioners from the USA, UK, many different European countries ('West' and 'East'), as well as the Soviet Union. An important event, for instance, was the World Congress of Historical Sciences that was held in 1970 in Moscow, which featured a methodological strand with a strong focus on computing's affordances and brought many early computing historians together. The creation of the Association for History and Computing more than a decade later (1987-early 2000s) with its national member associations, workshops and conferences, and various publications highlight the transnational outlook of the history and computing period that preceded the current era of digital history. And then we have not yet included any discussion of developments outside the Global North in more recent decades.

This brings me to the political dimensions and the role of ideologies in shaping digital history's prehistory. Technological innovations have always shaped and been shaped by the political and ideological currents of the time. The role of punched cards and early computing in shaping post-WWII society, and in sustaining powerful new visions of post-war modernity, is well known and extended far beyond alliances between the military and the sciences (Leslie 1993; Jones 2017). When historical research is concerned, however, the nexus between ideology, technology and the academy was nowhere clearer than in efforts to integrate computational techniques in the new (politically inspired) historical materialist historiography in the communist bloc in the 1960s and 1970s. At the same time, there is also the broader dimension of technology's influence on knowledge production in relation to 20th century colonialism (see, for instance, Arnold 2005).

Finally, as I will argue, the integration and uptake of new technologies in historical research also differed significantly across the main phases of the historical research *process* (data & information gathering, processing, analysis, and dissemination) in space as well as time. Moreover, uptake was decisively shaped by at least three other intertwined factors, already alluded to above: the people involved and the question of generational (dis)continuity, the scholarly and other networks they were embedded in, and the overarching political constellations in which they had to operate and aligned, or chose to align, themselves with. As a result, the human-machine encounter in historical research birthed multiple configurations that were as local as they were shaped by international contacts and the transnational transfer and exchange of knowledge and practices.

The paper is structured as follows:

- Brief outline of the current state of debate about the history of digital history (and digital humanities more broadly), explicitly situating this within the broader context of recent global approaches to the history of historiography and the history of the humanities, as well as the ‘practice turn’ in the (history of the) sciences and historical scholarship.
- Brief overview of the main phases of the human-machine encounter in historical research, as they have been proposed by various scholars, which take technological developments as point of departure (very roughly: from machine aids 1940s-1950s, to analog/ digital computing and personal computing 1950s-1980s, to Internet and WWW 1980s-1990s, to now).
- Outline of a spatio-temporal framework which 1) moves away from the technology-driven chronology outlined above to a focus on the main phases of the historical research process and the uptake of technology in each of them since the late 19th century and; 2) decenters the classic narrative to include the former communist bloc and, more recently, the Global South.
- Discussion of the importance of the three earlier mentioned factors:
 - People & user generations.
 - Networks and events.
 - Politics and ideologies.
- The paper will conclude with a proposal for a research agenda.

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