

# What's digital about Digital Humanities?

## Introduction

### what digitality has meant in the digital humanities

Fifteen years ago, the author of this chapter was participating to a digital humanities “unconference”<sup>1</sup>: among the many topics discussed, the participants wondered if ‘analog’ and ‘digital’ humanities would one day converge. One answer came out: it would not be possible to see both converge without traditional humanities adopting digital humanities’ practices (and for instance unconferences, openness – open access, open data and so on – etc.) Those practices were not all digital *per se* – some were induced by the use of digital tools, but others seem more to be a question of sheer traditions, not necessarily linked to the use of any digital tools. Wikis, for instance, did not invent collaboration. After all, digital humanities did not only relate to Humanities and computing – there was something more, linked to what could be called culture, or traditions.

What's digital in Digital Humanities? The answer seems obvious, but the two words and the expression they are combined into bear ambiguities and ambivalences. None of them have easy definition, all the more that there are variations from one country to the other. We could also add that their history, their temporality – from a centuries old word (Humanities) to an expression coined around 2004 for Digital Humanities – are quite different. ‘Digital’ – from latin, related to fingers and by extension numbers under 10 and, starting around 1945, what is related to computer opposed to analog technologies – and ‘Humanities’, both latin words, but with meanings that are older for humanities, with strong traditions, and more recent with ‘digital’ (its change of meaning at least), and a tradition that is being built, in a way. That's what's digital humanities is trying to confront, centuries old traditions and a few decades old other one.

Questioning the digitality of Digital Humanities is questioning those definitions and temporalities and how they are confronting within the term “digital humanities”. The aim of this chapter proposal is to evaluate the *digitality* of digital humanities. In *The Archived Web* (Brügger (2018) Chapter 2, “The Digital and the Web”), Niels Brügger notes that many publications about “digital and X” (p. XX) have been published, without much reflection on what *digital* means. If we stand from a particular use of electricity that is at the center of the binary system that is a computer, *digital* means the use of ‘0’ (no electricity) and ‘1’ (electricity) as an alphabet (Finnemann, quoted by Brügger<sup>2</sup>). The problem of such a definition of *digital* is that 0/1 are to be seen as building blocks. Let's then follow Brügger:

In the present context, the term digitality is used to capture the specific ways in which the digital bits are materialized and combined in a concrete media artifact and in concrete texts.

So, what's the digitality of Digital Humanities? In other words, what's *digital* in the *digital* humanities? How did (still do) Digital Humanities set up specific ways to transform digital bits, to materialize them into concrete artefacts, and maybe more cultural ones (see notion of ‘digital’ as a culture (see Doueihi (2012))). There are canonical definitions of Digital Humanities, the oldest one being in *A Companion to Digital Humanities* (2004, see below):

Especially since the 1990s, with the advent of the World Wide Web, digital humanities has broadened its reach, yet it has remained in touch with the goals that have animated it from the outset: using information technology to illuminate the human record, and bringing an

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<sup>1</sup>That happened during THATCamp 2009. For a definition of what were THATCamps, please go to the now archived website: <https://thatcamp.org/about/index.html>. The anecdote here dates back to THATCamp CHNM 2009. One blog post discussing that can be read here: <https://chnm2009.thatcamp.org/06/25/us-vs-them/index.html>. The anecdote is narrated as it happened according to the author's memory – it might have happened otherwise.

<sup>2</sup>Finnemann, N. O. (1999). Modernity modernised: The cultural impact of computerisation. In P. A. Mayer (Ed.), Computer, media and communication (pp. 141–159). Oxford: Oxford University Press.

understanding of the human record to bear on the development and use of information technology. (Schreibman, Siemens, and Unsworth (2004b)).

This definition – that also describes the transition from Humanities computing to Digital Humanities – describes a sort of return ticket of the Humanities to information technologies. But this return-ticket does not say much, in the end, of the digitality in the digital humanities, as it sends the definition of ‘digital’ to information technologies.

The answer to those questions depends on *how* Digital Humanities can be defined. And this *how* is far from easy. Based on a database made of *Day of DH* quotes - a yearly event mobilising quite broadly the DH community –, Jason Heppler created the website *What is Digital Humanities* that relies on around 800 different definitions of DH.

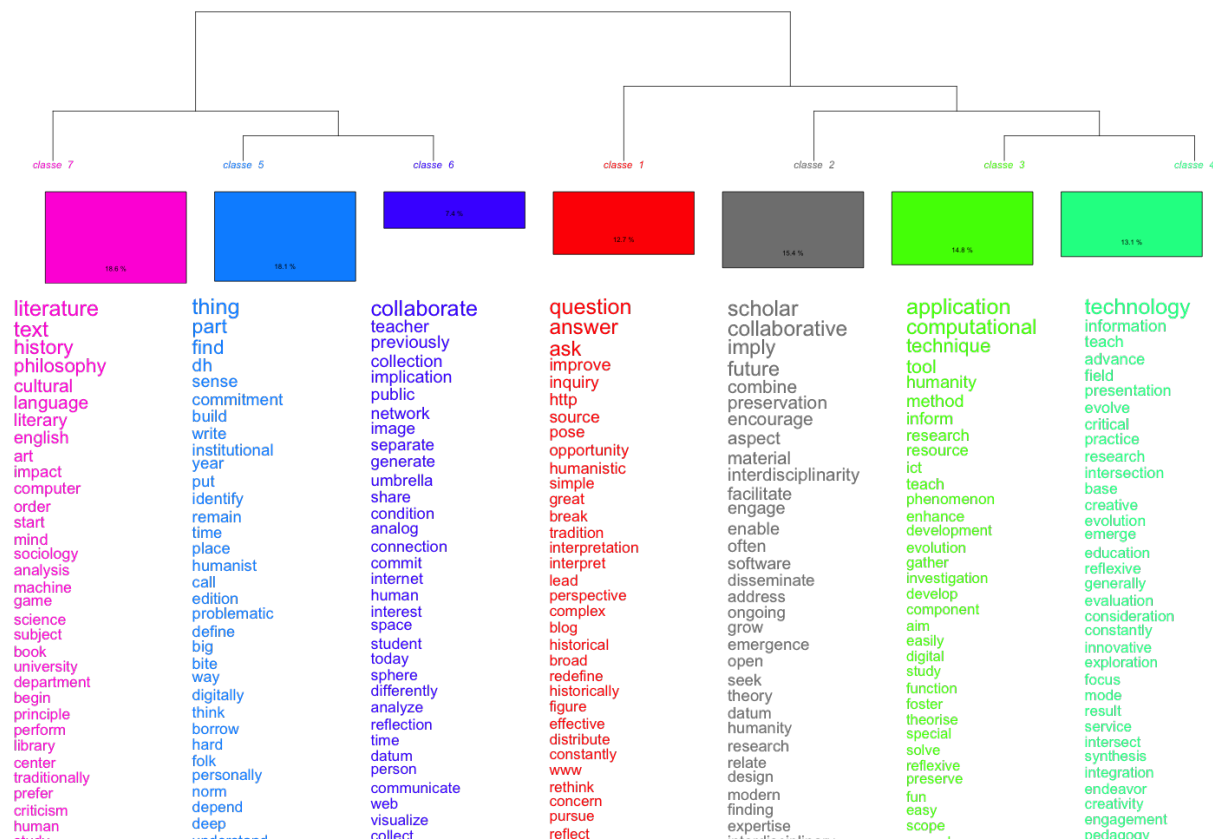


Figure 1: Figure 1 – Clustering (Hierarchical descending Clustering, based on Reinert (1993) as implemented in the iramuteq application)

The Figure 1 is a distant reading (a quantitative approach) of those almost 800 quotes that looks for a definition of digital humanities: and there is obviously not much about ‘digital’ *per se*. Where are 0s and 1s? What digitality means to Digital Humanities?

## The History of Digital Humanities as a myth

The usual narration of Digital Humanities history starts with a meeting between Roberto Busa, a Jesuit, and his project of indexing Thomas Aquinas’ full work, with IBM chairman, Thomas J. Watson, in 1946. As Roberto Busa passed away in 2011 at 97, most generations of researchers in Humanities computing and, then, Digital Humanities could still read his foreword to *A Companion to Digital Humanities* Busa (2004).

Busa’s project, the *Index Thomisticus*, indexed, in the end, more than 10 millions words, in 56 volumes. The

first of them was published in 1974 and the publication of all volumes was completed in 1980. In the end, the *Index Thomisticus* was a *digital* project – in the sense that it used *digital* machines that were mainframes – with paper (it began using punchcards) or analog (tapes) inputs and paper outputs (books). The project was then transformed into CD-ROM (1992) and into a website (2005). In the end, this project bears analog as well as digital characteristics, influenced numerous other projects, but also bears some aspects of a myth: a key person (Roberto Busa), an influence over several generations, the insistence on text and on ways to transform text into something that can be computed and structured (lemmatization, concordances, etc).

Other usual steps of a traditional history of Digital Humanities include the creation of two associations - the Association for Literary and Linguistic Computing (ALLC) in 1973 (today, the European Association for Digital Humanities) and the Association for Computer in the Humanities (1978), the former more European and the latter being more North-American. Starting in 1988, the two associations organised a conjoint annual conference. With the Association for Computational Linguistics, both created the Text Encoding Initiative (TEI) consortium – a major actor in Humanities computing and today in Digital Humanities that shows how Humanities Computing were rooted into the study of text. The TEI has as a main mission to encourage *via* a common markup language the encoding and semanticization of the digital version of texts. The strong influence of computational linguistics but also of English departments (Kirschenbaum (2012)) is often emphasized to explain this part of DH history. In itself, the work within and between associations is a rather traditional (in the sense, here, of non-digital) one.

A more digital step in this history is the creation of the *Humanist* Discussion Group – *Humanist* and not *Digital Humanist* nor *Computational Humanist* nor... – by Willard McCarthy.

Around 2004, the switch from Humanities Computing to Digital humanities started. The first step of this switch was the publication of the *Blackwell Companion to Digital Humanities*, edited by Susan Schreibman, Ray Siemens and John Unsworth. The three editors, in their introduction, present the book as a turning point in Digital Humanities as “for the first time, a wide range of theorists and practitioners, those who have been active in the field for decades, and those recently involved, disciplinary experts, computer scientists, and library and information studies specialists, have been brought together to consider digital humanities as a discipline in its own right, as well as to reflect on how it relates to areas of traditional humanities scholarship.” (Schreibman, Siemens, and Unsworth (2004a)) and then pay an homage to the work of Roberto Busa, who wrote the Foreword (Busa (2004)). But, observing that the field has expanded, the authors suggest a sort of definition of digital humanities: “Especially since the 1990s, with the advent of the World Wide Web, digital humanities has broadened its reach, yet it has remained in touch with the goals that have animated it from the outset: *using information technology to illuminate the human record, and bringing an understanding of the human record to bear on the development and use of information technology.*” (emphasis mine). Later in this introduction, a short mention of Humanities Computing defines it as the “interdisciplinary core” of Digital Humanities.

The publication of the Companion seemed to open the way to a further institutionalization of Digital Humanities with the creation of the Association of Digital Humanities Organization (2005), an association regrouping DH associations, and being the main organizer of the regular series of Digital Humanities conference, based on the former joint conferences of ACH and ALLC. This first annual DH conference was organized in Paris, in the walls of the good old Sorbonne. Its website is not available anymore, but as an archive.

The switch from Humanities Computing to Digital Humanities is quite obvious when we look at Google Trends, that reflects search queries with Google Search (Figure 2).

There are several possible interpretations about the switch from Humanities Computing to Digital Humanities and the changes in institutionalization that followed. The immediate origins of the *Companion* is one: the term *Digital Humanities* came up during exchanges between the editors and their publishers at Blackwell. In a way, it was a sort of rebranding: using an expression that was easily understandable (though not that well defined), so that the book could reach a large audience. The introductory text of the *Companion* and other researchers (myself included) insisted on the long-term effects of the rise of the World Wide Web – the editors of the Companion are insisting on “human record” and the digitization of the “human record” obviously found in the web a way of dissemination. Here, the crossing of datafication and networkization could be seen as one of the grounding stones of Digital Humanities. This rise of Digital Humanities – whether because of

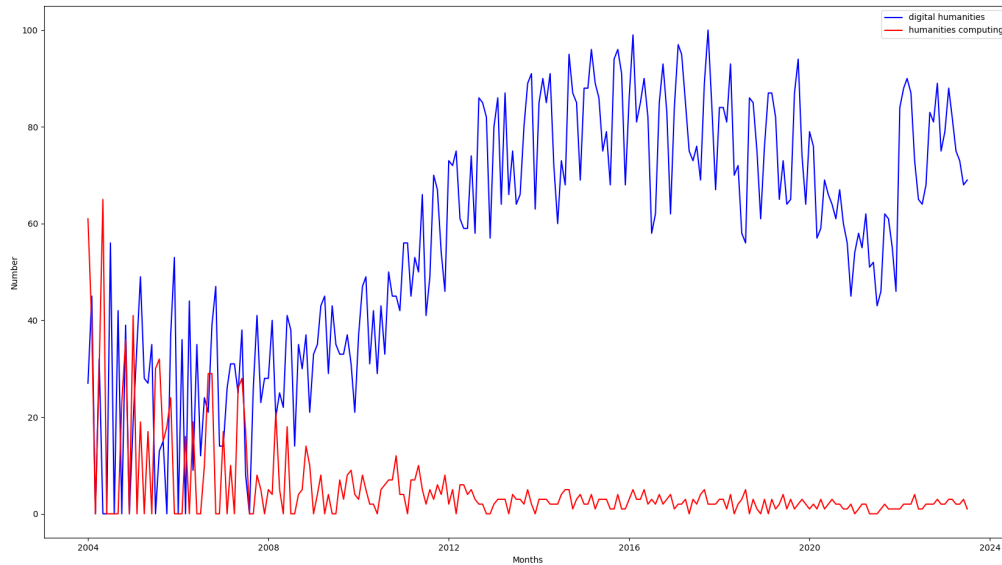


Figure 2: Figure 2 – Google trends: Humanities Computing and Digital Humanities.

a rebranding or of the advent of the web – also gave birth to new digital practices in the Humanities: the switch to Digital Humanities corresponds also to a rise of newcomers (like myself in 2008).

In 2011, Roberto Busa, who wrote the foreword of the *Companion* (without using the expression *digital humanities*), passed away. A number of blogposts paid an homage to his work, for instance on Stephen Ramsay’s blog (Ramsay (2011)). If Ramsay admits that Busa was part of a wider intellectual field, he claims its importance and influence in Digital Humanities. And quotes: “Perhaps the New Criticism was taking hold in some other part of the world, but for Busa, philology was the proper hermeneutical framework.” – founding Digital Humanities in the old European tradition, pre-1945. Humanities Computing as founded on both computers and old (european) traditions, cautioning in advance later criticism of Digital Humanities (Allington, Brouillette, and Golumbia (2016)).

If we can admit that Busa was part of a wider intellectual field, why did his name become that central in Digital Humanities? Stephen Ramsay, quoting John Unsworth, seems to give the answer: “Most disciplines can’t point to a founding moment, much less a divine one.”

## A counter-history of Digital Humanities?

As Ramsay wrote in 2011, “Busa was one among the many who were striving to bring computer technology — then in its early infancy — to bear on humanistic problems back in the forties. Like most dh scholars today, he was part of a much wider intellectual network.” But some part of this intellectual network are considered today as Digital Humanities fragments and some part are not. Focusing on the French School of the *Annales* in history, rarely mentioned as part of the 1950s/1960s inspirators of Humanities Computing and Digital Humanities, trying to look at the “digitality” of the *Annales* we will try here to understand, as a sort of negative of a picture, what’s not digital in Digital Humanities.

## Were the School of the Annales digital?

In 1959, two French historians published an article that is the first in a major French speaking history journal to deal with what's yet not called in French "ordinateur" or "informatique". Using "mécánographie", François Furet and Adeline Daumard are explaining how they were able to deal with sort of massive data, e. g. notarial records of the 18<sup>th</sup> Century (François Furet and Adeline Daumard (1959)). Two years later, two archaeologists, in the same journal, cross-referenced two databases to get more information on Assyrian presence in Cappadocia (Paul Garelli and Jean-Claude Gardin (1961)). Though probably less focused on text than Busa's work, the French historians belonging to the Annales school, and working with large statistical series such as Emmanuel Leroy-Ladurie ((laduriePaysansLanguedoc1966?)), have occasionally used the same computing facilities as Busa: the Euratom facilities in Ispra, Italy, are explicitly mentioned by Garelli and Gardin (Paul Garelli and Jean-Claude Gardin (1961)) as well as by Busa (Busa (2004))<sup>3</sup>. The use of mainframes and quantitative data fit quite well into the *longue durée* concept defined by Fernand Braudel (Braudel (1958)) in 1958. A famous sentence by Le Roy Ladurie from an article in a French newsmagazine, *Le Nouvel Observateur*, even described as the future quantitative historian as obligatorily being a "programmer" ((leroyladurieFinErudits1968?)).

Though quantitative history, as practiced by the 1960s generation, declined after the surge of microhistory (Ginzburg (1999 (1976))) in the mid-1970s – a rise that can be interpreted as a switch from the search for patterns to the search for irregularities in details (Bacquet (2015)) –, the early 2000s saw a new upsurge of quantitative methods based on large amounts of data<sup>4</sup>. In *Graphs, maps and trees*, Franco Moretti (Moretti (2007)), drawing on articles he published at the beginning of the 2000s, has tried to answer a simple question: how to write the history of the European literature of the 18th and 19th centuries without limiting oneself only to "great novels" or "great authors"? How to write the history of a literature with too many novels for a historian to read? In 2007, his answer lied in the combination of graphs (the Annales style quantitative history), maps (inspired from geography) and trees (evolution). As such, this book indirectly reintegrates the Annales in the Digital Humanities: if Franco Moretti did not really belong to DH – Ted Underwood recalls us that distant reading, the key concept pushed forward by Moretti, is of a different genealogy than Digital Humanities (Underwood (n.d.)), all the more that distant reading is not obligatory *digital* or, in other words, is not obligatory computer-based –, his book and the concept of distant reading became very popular within Digital Humanities. This popularity could be explained by the conjunction of several factors, including the fact that the coming of big data in the 2010s led to a renewal of quantitative approaches, as well as the coming to maturity of AI-based technologies and algorithms such as machine and deep learning.

This sort of integration of the School of the Annales in the DH was confirmed by the publication of the *History Manifesto*, that tried, among other things, to renew Braudel's idea of *longue durée* ((guldiHistoryManifesto2014?)). Drawing on the expansion of historical big data – massive digitization programs of historical documents –, the two authors, Jo Guldi and David Armitage, have argued that the concept of *longue durée*, that they contrast with a sort of narrowing down of the timescale of historians' works, would be the best answer for historians to make history ... The publication of the *History Manifesto*, that shed strong debates notably in the US and France, including in the *Annales HSS* (Annales HSS (2015)), is one of the key that allows us to understand the return of the concept of *longue durée*, including in Digital History and Digital Humanities: more than 50 years after Braudel's seminal article, the School of the Annales was integrated into DH.

The fact that the 1950s and 1960s generations of historians belonging to the School of the Annales were not considered as belonging to Humanities Computing or Digital Humanities before the 2000s / 2010s whereas they used the same facilities – Euratom's mainframes in Italy – as the one researcher considered as the "founding father" of those same academic strands shows that the *digital* is not the only factor that led to the definition of those same fields.

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<sup>3</sup>For more information on the Euratom facilities at Ispra and Digital Humanities: Lejeune (2022).

<sup>4</sup>we should state here that quantitative methods never disappeared, and could even have been used by all historians of all historiographies. What we define here as "quantitative" is rather a question of how to find patterns in large amounts of data.

## Current reassessment of digital humanities' history. Insistance on labor / digital labor (Busa, see Nyhan).

- Busa and digital (gender) labour (Nyhan)
- Demands for more inclusivity / diversity, etc (GO::DH and Fiormonte et al. 2021)?
- DH and the toxic turn (Gold / Klein 2019)

(what about Svensson – Landscape, etc DHQ –?)

## Digital Humanities beyond digitality

Sources of this part: Will be based on manifesto of DH 20.0, which is in the end partly digital only. + introduction to the 4 volumes of debates in the digital humanities.

- manifesto of DH 2.0 (Presner, Drucker, etc)

=> DH as a community, as *avant-gardesque* of humanities and (for some aspects) social sciences.

- manifesto Paris

=> strong focus on interdisciplinarity

## Conclusion: a multilayered digitality?

Conclusion would be more around the notion of digital culture, and DH as part of something larger and cultural.

Digitality as set of bits or sort of culture (Milad Doueïhi, *Pour un humanisme numérique*) -> digital as culture, not as digital *stricto sensu*. Gives a better hint of what are Digital Humanities: use of computers in Humanities, but also specific practices, even, maybe, specific set of research questions, etc (more collective, more community-ish, supposed to be more open). But still being part of Humanities for other kind of practices (academic association).

In fine, DH as characterized with non-digital elements and digital ones. But question is: non-digital elements are still partly based on an encounter with the computer.

Could we talk of a sort of multi-layered digitality of Digital Humanities?

- digital *stricto sensu* – no DH without computers
- transformation of bits into cultural digital objects
- Traditions / practices around those cultural digital objects

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