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## **Digital Humanities: Centres and Peripheries**

### **Abstract**

This paper explores a history of humanities computing over the past decade as embodied in or represented by *A Companion to Digital Humanities* (first published in 2004), methodologically, theoretically, and in terms of community practice.

What is a field? Is it defined by what it includes or its porous outer boundaries? Is it through people? Its thought leaders and opinion makers? or is it defined by those on the peripheries agitating from outside. Is it defined by shared methodologies, ethics, and theories as opposed to those embraced by other communities? Does it have linguistic and geographic boundaries? a shared sense of history?

When in the summer of 2000, Ray Siemens and I began preparing for what eventually became *A Companion to Digital Humanities* published by Blackwell in 2004, these questions seemed simpler. Perhaps we were more naïve then. We were certainly younger, as was the field. At that time there was no core monograph that began to address these questions, nor was there a collection of essays that reflected the interdisciplinary and historical aspects of this emerging discipline. Rather, there were readers that dealt with the evolving practices at the intersections of computing and a single traditional disciplinary practice (see, for example, Bornstein, Finneran, Greenstein, Knowles, Schrum, Sutherland).

Just a few months ago our editor at Wiley-Blackwell, Emma Bennett, agreed that it was time for a new *Companion to Digital Humanities* to be published. She was clear that this should not be a second edition with a core of chapters from the first, but a text with wholly newly-commissioned articles. This decision came after a decade of discussions in which the core methods and theories underlying many of the chapters have been overtaken by technologies, methodologies, and social and business practices that none of

could have imagined. Moreover, the methods the editors of the *Companion* used to help select relevant topics and authors then, and the methods we are now discussing, are indicative of the sweeping changes in our field. I will be using the *Companion* as a point of departure for surveying Digital Humanities over the past decade, as a field, as a practice, as a set of methodologies, and as a community of research.

In 2000, reflecting fairly traditional notions of scholarship and authority, Ray and I established an advisory board. In our discussions we vacillated between editing a single text and editing a series that would allow for more extended treatment of key themes and practices. As we were discussing the options with our Board, John Unsworth, one of our board members, was approached by Andrew McNelly of Blackwell to edit a collection of essays for their Companion series. Blackwell Companions are mega-texts: original essays that seek to provide the latest scholarship on a discipline or area of study. It is expected that the contributors will engage with key concepts pointing to new and emerging areas of scholarship. In a gesture that is indicative of John's own generosity as a scholar and a colleague, as well as the collaborative nature of our field, John suggested we join forces as opposed to edit competing texts. Thus in the summer of 2001, at the Joint International Conference of the Association for Computers and the Humanities and the Association for Literary and Linguistic Computing (ACH/ALLC) at New York University, John, Ray, and myself met in Greenwich Village for lunch and agreed to edit the Companion together.

In early drafts of our correspondence and in our initial proposal to Blackwell, the title of the volume was still *A Companion to Humanities Computing*. We envisioned positioning the book to appeal to our peers as well as to the growing number of postgraduate and undergraduate courses being offered even then. After some deliberation, we settled on four broad sections: Part I: History; Part II: Principles; Part III: Applications; Part IV: Production, Dissemination, Archiving, which we felt could encompass not only the theoretical and practice-led aspects of the discipline, but the production, dissemination, and curating of these new scholarly outputs.

The first section, simply entitled 'History' (with chapters on Archaeology, Art History, History, Literary Studies, Linguistics, Multimedia, Music, Performing Arts, Classics, and Philosophy and Religions) represented a way of thinking about digital scholarship as emerging uniquely yet concurrently from the many traditional disciplinary practice in the

humanities. It was felt that to make this a truly interdisciplinary volume, we would need to provide scholars with a point of departure that created an explicit trajectory from their traditional practice into a more computer-mediated one While we considered other points of departure, for example linguistic or national, these approaches were abandoned as being too divisive (how to justify including Japanese but not French, Germany but not Australia) given the size of the volume and its scope. The disciplinary approach, however, was considered embracive enough to reach our target audience: not only colleagues already participating in the field, but those we wished to attract. It was important, therefore, when a scholar first opened the book, she could immediately recognise a point of departure.

It also sent an important message that the first chapter in this section be a history of humanities computing itself, taking its place along more traditional disciplinary practices. Susan Hockey was commissioned to write this chapter. Hockey's *Electronic Texts in the Humanities* had recently been published by Oxford University Press. It was the first monograph in English to capture a subfield of digital humanities comprehensively and historically. It is telling that in her preface Hockey reminds the reader that her monograph is not about the Internet. 'It is about tools and techniques which ought to be available via the Internet, but at present are not.'(v). The internet present in 2000 for texts encoded in TEI/SGML was via proprietary software called DynaWeb. DynaWeb was, compared to database-driven solutions available today, a heavyweight solution with limited display possibilities. Moreover, only very few higher education institutions owned a copy. My *Thomas MacGreevy Archive* originated in DynaWeb at the Institute for Advanced Technology in the Humanities (IATH) at the University of Virgina. And even when it was converted to TEI/XML several years later it still retained traces of the DynaWeb look, as does several of the projects that followed the same migration path.

Despite the huge changes in the World Wide Web in the following years that would instrumentally change the nature of electronic scholarship, Hockey's motivation is surprisingly contemporary: this 'book seeks to explain the intellectual rationale for electronic text technology in the humanities. It focuses on methodological issues and shows how an emphasis on the critical assessment of method can help scholars define and refine their research objectives.' (v)

Hockey's chapter in the *Companion*, 'The History of Humanities Computing', owed much to her monograph. Hockey defines DH as 'the applications of computing to research and teaching within subjects that are loosely defined as "the humanities", or in British English "the arts." (3) Moreover, Hockey reasoned that as the major applications of humanities computing involved text as 'defined by its major publications', it would be 'inevitable that this essay concentrates on this area.' (3) A decade later, this position might seem exclusionary. But at the time, not even a decade after the advent of the World Wide Web, only a few years after the development of XML, with the platform for asynchronous virtual worlds being MOOs, a text-centric approach was not only reasonable, perhaps the most practicable way to begin to historicize a set of practices that one would recognize as unreservedly belonging to digital humanities.

In 2001 the delineation between humanities computing and new media seemed clearer: those outer porous boundaries that I mentioned earlier. The new media folks had different champions: Jay Bolter, Alan Liu and Lev Manovich to name but three, while in humanities computing individuals such as Father Roberto Busa, Susan Hockey, Jerome McGann, and Alan Renear melded theory and practice in their scholarship, and were central to several of the field's foundational institutions. In the United States, it seemed that there were more academics who self-defined as being part of the new media community who were attached to Universities in California, signaling perhaps a hipper, silicon valley culture of embracing the new. This historical separation might be typified by two Modern Language Association Discussion Groups: 'Computer Studies in Language and Literature' and 'Media and Literature' in which in the former the intersection is between literature and what affordances a particular devise offers, and in the latter the intersection can range from device (radio) to platform (World Wide Web) to medium (film vs video). As indicative of this divide is the 2001 offerings at the MLA conference:

# **570.** Digital Approaches to Language and Text: Words, Images, and Beyond Program arranged by the Discussion Group on Computer Studies in Language and Literature. Presiding: Henry P. Biggs, Washington Univ.

- "Statistical Stylistics and Authorship Attribution: An Empirical Investigation, "David L. Hoover, New York Univ.
- 2. "Natural Language Processing and the Emergence of a New Theoretical Approach to the Study of Terms," Tanja L. Collet ,Univ. of Ottawa
- 3. "A Computation infrastructure or Aligning Tibetan Videos with Text, "Edward J. Garrett Univ .of Virginia
- 4. "Perl Programming in Stylistic Analysis and Pedagogy," Donald E. Hardy, Northern Illinois Univ.

## **254. Adaptation: Literature into Film** Program arranged by the Discussion Group on Media and Literature. Presiding: Everett C. Frost, New York

1. "One Novel, Five Adaptations: Proust on Film, "Pascal A. Ifri, Washington Univ.

Univ.

- "Mutating Aesthetics: The Gate Theatre's 'Beckett on Film'Project,"Anna McMullan,Trinity Coll., Dublin
- 3. "What Can a Film Make of a Book? Coppola's Apoc-alypse Now and Kubrick's Barry Lyndon," Donata Meneghelli, Univ. of Bologna

Fig 1. Sessions at the Modern Language Association 2001 arranged by the Discussion Groups on Computer Studies in Language and Literature and on Media and Literature

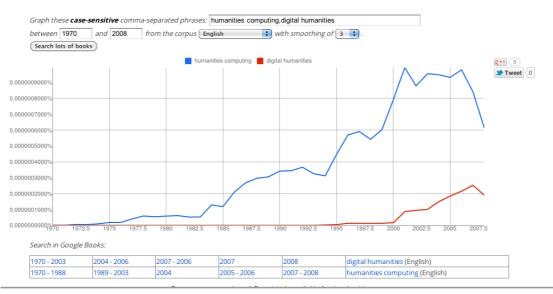
That year at the ACH/ALLC, the word 'digital' began to emerge as a term. Johanna Drucker's keynote entitled 'Reality Check: Projects and Prospects in Digital Humanities', positioned the activities at University of Virginia in terms of novel research outputs (eg elearning environments, serious games) and process (collaboration and exchange as opposed to the lone scholar model). Nevertheless, text and things textual predominated text, tei, encoding, xml, hypertext, literary, letters, verse, linguistic, mark-up, authorship. But as you can see from Fig 2. the words that are used the most are 'humanities' and 'digital': however, the only time they are used together is in Drucker's keynote.



**Fig 2.** Wordle of titles of talks from the 2001 ACH/ALLC (visualisation generated by Voyant)

It was about this time that our editor at Blackwell raised the issue of the title of the volume us. He was uncomfortable with the term 'Humanities Computing' as he thought the emphasis was too narrowly focused on computing, in a way, perhaps, that the MLA Discussion Group Computer Studies in Language and Literature conceived itself at the time. We suggested several alternatives, but it was John's suggestion of 'digital humanities', obviously already in play at IATH, that Andrew embraced. Google's Ngram Viewer (fig.3) demonstrates the rising currency of the new term beginning to emerge slightly before the Companion's publication.

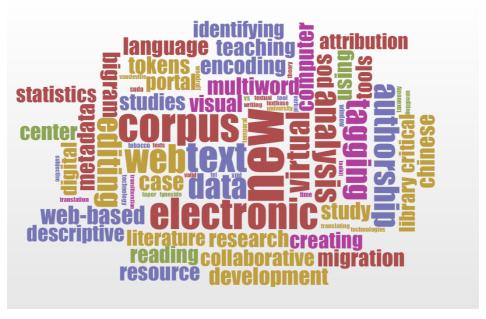




**Fig 3.** Google's Ngram Viewer tracking the terms 'humanities computing' and 'digital humanities' from 1970-2007

Two years later, in 2003, the Joint International Conference of the ACH and the ALLC was held at University of Georgia. The theme of the conference was Web X: A Decade of the World Wide Web, signalling perhaps the coming of age of a disruptive technology in humanities computing. Unfortunately, the only trace of the conference site is via the Wayback Machine, a stark reminder of the fragility and transience of dominant distribution medium of our field.

The most prominent word in the titles of papers that year was the word 'new' (fig 4.), such as 'Texts into Databases: The Evolving Field of New-style Prosopography' or 'New Technologies, New Strategies for Integrating Information and Knowledge: Forced Migration Online', as well as one of the keynotes, 'A New Library Model in the Digital Age: the UGA Student Learning Center'. It is also (not surprisingly) filled with words having to do with text: editing, data, corpus, multiword, attribution, tagging, texts, authorship, textual, textbase, writing, tokens, language. Rather in the minority are papers reflecting other media, such as 'Visual or Verbal: Two Approaches to Creating an Immersive Virtual Environment', 'Temporal Modeling' or 'Virtual Vaudeville: A Live Performance Simulation System'.



**Fig 2.** Wordle of titles of talks from the 2003 ACH/ALLC (visualisation generated by Voyant)

John, Ray, and I commissioned chapters for the *Companion* between these conferences. By the time we submitted the text to our publisher, there were contributors from seven countries: in order of the number of contributors per country, they were from the United States, the United Kingdom, Canada, Australia, Italy, the Czech Republic, and Denmark. At the time the three of us were North American based (although I had recently moved from Ireland where I completed my PhD and a PostDoc). We also all came from a Literary studies background, although John would move before the *Companion* was published to University of Illinois at Urbana Champagne as Dean of the Graduate School of Library and Information Science, and a few years later I would become Assistant Dean of Digital Collections and Research at University of Maryland Libraries.

The *Companion* too reflected our everyday concerns: both as scholars, and as practitioners in leadership positions in digital humanities centres. The second section, 'Principles', opened with a chapter entitled 'How the Computer Works' as it was felt it was not enough for our peers to come to terms with surface technologies, they also needed to understand the inside of the beast. Of the seven chapters in this section, four dealt explicitly with electronic text: classifying it, encoding it, and exploring its audiences

and purposes. Concepts denoting representation, modelling, classification figured strongly (fig 5), reflecting, perhaps, not only this deep engagement with text and strong links with the primary concerns of the of the Text Encoding Initiative, but the recognition that there existed a set of approaches (or principles) that transcend disciplinary boundaries through the idea creating representations for the purposes of study or in the design of something new (McCarty 255).

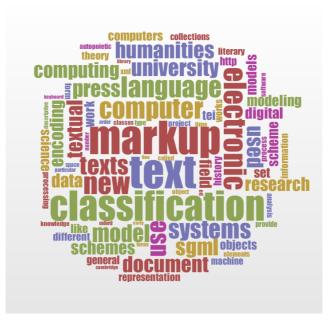


Fig 5. Wordle of the full text of the Principles section from *A Companion to Digital Humanities* (visualisation generated by Voyant)

Representing and remaking figure strongly in this section: the conversion from analogue to digital and the affordances that the new digital object offers. Alan Renear's chapter, simply entitled 'Text Encoding', described a methodology and theory (OCHO [Ordered Hierarchy of Content Objects]) for text encoding, particularly as it is embodied in the Text Encoding Initiative Guidelines. Jerome McGann's chapter, on the other hand, focused on the multidimensionality of text, its bibliographic codes, and the implications for remaking: 'translating our archive of cultural materials' demanding of us 'a clarity of thought about textually that most people, even most scholars, rarely undertake.' (198)

While both Renear and McGann focused on remodelling—they differed in their conception of text as structure, as infrastructure, as a semantic layer in making meaning. At the 1999 ACH/ALLC conference at University of Virginia, in a session chaired by

Susan Hockey entitled 'What is text? A Debate on the Philosophical and Epistemological Nature of Text in the Light of Humanities Computing Research', Renear and McGann squared off. (http://www2.iath.virginia.edu/ach-allc.99/proceedings/hockeyrenear2.html). Their first post-debate articulation was in the *Companion*. However, over the past decade, their positions have been further refined not only by their authors, but reformulated by subsequent scholars. What was at stake was (is) the epistemology of text. In a field that is perhaps more governed by consensus and methodology than strong theoretical positions, this was digital humanities equivalent to the 'theory wars' that divided literary studies departments in the 1970s and 1980s. The What is Text debates had their most immediate impact in the development of the Text Encoding Initiative which was at the same time reorganising -- moving from a fairly small organisational and editorial base to a more inclusive distributed consortium model. The organisational change was accompanied by concomitant shift in the nature, meaning, and purpose of markup. Hence the TEI began to remake itself: from identifying itself as a technical standard to a research community. Today's textual theory wars have shifted from the epistemology of text to the epistemology of reading. The locus of this debate has been within the covers of Critical Inquiry as Franco Moretti and Katie Trumpener battle over what Trumpener terms a 'stastically-driven model of literary history' (164), which is forcing an examination of nothing less than the methodology that underpins the vast majority of text-driven humanities: close reading.

The third section of the *Companion* was titled 'Applications'. Here the intention was to move from purely the disciplinary practice (of the first section) and common methods (of the second), to the application of those methods. Perhaps even more than today, it was key to make explicit applications that existed at the intersections between new technologies, traditional genres, and theoretical perspectives. It was in this section that theory turned into practice: a practice that bound us (or differentiated us) as a community from our nearest neighbours, fields such as computer science and library and information studies.

Carol Palmer's chapter on 'Thematic Research Collections' was the first extended treatment of the subject. Palmer drew heavily on a talk John Unsworth gave at the Modern Language Association Conference in 2000. Here Palmer began to draw distinctions between the kinds of digital collections that were scholar-driven as opposed to those created by libraries or archives. The distinctions, as Palmer admits, are more

porous than sharp (349), especially at the time her essay was written. As digital library holdings have become larger and thematic research collections more focused and experimental, the distinctions seem to have become clearer.

Other chapters in this section explored the application of new technologies to other mediums: Robert Kolker's chapter on 'Digital Media and the Analysis of Film' set out a research agenda in which film could be annotated – much like print has traditionally been done— within the same medium. His early experiments with *Casablanca* were fascinating and paved the way a multi-media driven analysis that has yet to be fully realised. Marie-Laure Ryan's 'Multivariant Narratives' explored the intersections between textuality, narrativity and multimedia, deftly negotiating the technical and theoretical underpinnings of the emerging genres of e-Literature and e-Art.

The forth and last section Production, Dissemination, Archiving were, in part, how-to articles: how to create sustainable, digital objects and projects. What issues to think about in terms of usability and interface, and how to convert primary sources. There are no articles here on reusability, harvesting, or integrating collections; that would all come much later as the technology matured to enable such practices. This section contains two chapters that deal with issues as relevant to the community today as it was a decade ago; valuing digital scholarship and the creation, valuing, and maintenance of domain-specific tools.

The Companion was published in December 2004. The following summer, at the ACH/ALLC conference at the University of Victoria, the editors invited all of the contributors who would be attending to participate in a panel.

(http://grape.hcmc.uvic.ca:8080/ach/site/xhtml.xq?id=96) In addition to Ray, John, and myself, Willard McCarty, Martha Nell Smith, Geoffrey Rockwell, Abby Smith, Claire Warwick, Perry Willett participated. Our goal was to discuss how the *Companion* served as both a historical record of the field as well as a snap-shot of the field at the time of its publication We asked the contributors, not to summarise their chapters, but, as a way of demonstrating just how fast the field was changing, to talk about how, if they were writing their chapters today, they would differ from what they submitted less than two years earlier. I still remember Perry Willett's response: it was a two word answer: Google Books. In 2002 when Willett was writing his chapter: 'Electronic Texts: Audiences and Purposes', the Google Book Project was still a secret, known only to a few researchers at

Google HQ. Google Books had changed everything he wrote about: the scale, the technology, the research possibilities.

Over the next decade aspects of the field would change so profoundly that by the time the paperback was published only three years later, many of its chapters were, possibly not out of date, but did not reflect the latest technologies and thinking in the field. When our editor, Emma Benett, approached us about bringing out a paperback, we asked if Blackwell would consider allowing us to make the text freely-available online. I remember John's response when I expressed my surprise when they gave us permission. He said, sometimes publishers surprise you.

The electronic version, along with a later text that Ray and I edited, *A Companion to Digital Literary Studies*, also published by Blackwell, were one of the first core texts that the newly-established Alliance of Digital Humanities Organisations hosted. The move from calling the conference the Joint International Conference of the Association for Computers and the Humanities and the Association for Literary and Linguistic Computing to 'Digital Humanities' under the auspices of a linguistically and symbolically-neutral umbrella organization, the Alliance Digital Humanities Organizations, signalled a singular turning point in digital humanities, not simply as a disciplinary practice, but as a community.

Although discussions began in 2002, it was not until 2006, at the Paris conference, that the new nomenclature was used. The more neutral sounding ADHO not only broke the Anglo-American bias, but it served to lesson links with certain historical methodological approaches, however tacitly, associated with these two organisations. It also signalled a more inclusive environment, as exemplified by the title of the 2011 conference at Stanford: *Big Tent Digital Humanities*, which in its call for papers reached out to 'Latin American scholars (welcoming digital scholarship from underrepresented regions in what had now become a North American/European bias), scholars in the digital arts and music, in spatial history, and in the public humanities' (https://dh2011.stanford.edu/?page\_id=97).

Since the publication of the paperback, we had been speaking with our editor about a new *Companion*. Over cups of coffee at the yearly Modern Language Association conference where at least one of us would meet with Emma, she expressed a not uncommon view

from publishers: that our field moved so fast that they had no publication model to keep up with it. But last year she agreed that the time had come for a new *Companion to Digital Humanities*: a decade after we began commissioning chapters for the first. This new text will have to reflect immense shifts: not simply a reshaping from a predominately textual focus, but wholly new methodological practices, new theories, a plethora of new technologies, devices, and business practices, and publication models. At a time when one of the bestselling apps for the iPad is TS Eliot's *The Waste Land*, a cross between a scholarly edition, a multimedia teaching resource, and a pretty cool app, the *Companion* will be entering a conversation about the pervasive role and nature of technology in virtually all aspects of our lives, not simply how we engage with it as scholars and teachers, but as human beings. The boundaries that seemed clearer around digital humanities in 2001 seem more porous today.

Fig 6 is a word cloud of the titles from the 2012 DH conference in Hamburg. The word 'text' has receded (although not disappeared) and other concerns have taken its place: languages: Chinese, German, and the much smaller English; methods, such as research, analysis, and exploring; the World Web that was so prominent in 2003 has become normalised.



Fig 6. Wordle from titles of the 2012 Digital Humanities Conference (visualisation generated by Voyant)

At the 2012 MLA the distinctions between the Discussion Groups mentioned earlier have also disappeared. The session sponsored by the Discussion Group on Media and Literature was entitled 'Digital Literary Studies: When Will it End?' The title caught the eye of Stanley Fish, a distinguished Professor of Literature and Law at the Florida International University, and a contributor to the New York times in their online 'Opinionator' blog. On 26 December he published a critique of the MLA's 2012 conference programme in which he discovered a new and heretofore unknown force (at least to him) in literary scholarship:

So what exactly is that new insurgency? What rough beast has slouched into the neighborhood threatening to upset everyone's applecart? The program's statistics deliver a clear answer. Upward of 40 sessions are devoted to what is called the "digital humanities," an umbrella term for new and fast-moving developments across a range of topics: the organization and administration of libraries, the rethinking of peer review, the study of social networks, the expansion of digital archives, the refining of search engines, the production of scholarly editions, the restructuring of undergraduate instruction, the transformation of scholarly publishing, the re-conception of the doctoral dissertation, the teaching of foreign languages, the proliferation of online journals, the redefinition of what it means to be a text, the changing face of tenure — in short, everything.

Although Fish's critique is somewhat tongue-in cheek, he does capture the present moment of digital scholarship, or at least how it is represented in literary studies. He notes the confidence of the rhetoric of those who are 'in' – 'while those who are not are made to feel ignorant, passed by, left behind, old. If you see a session on "Digital Humanities versus New Media"', he writes, 'and you're not quite sure what either term means you might think you have wandered into the wrong convention. . . And when a session's title is "Digital Literary Studies: When Will it End?", you might find yourself muttering, "Not soon enough.'

Perhaps what Fish is reflecting is a growing awareness (or resignation) of the 'digital' as part and parcel of the 'humanities'. Along with an anxiety in its pervasiveness, there is also a growing sense of possibilities that the new *Companion* will attempt to capture in a snapshot of our discipline at this time. When I opened this talk I mentioned that the changes in our field will also be reflected in the ways in which the editors shape the

collection. To this end, John, Ray, and I are planning a community-based exercise this summer that will invite suggestions as to the structure and content of the new *Companion*. It seemed fitting for a discipline that carries out so much of its knowledge exchange electronically, that this time we would dispense with the idea of an advisory board in favour of taking the pulse of the community where it hangs out: online.

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