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The Landscape of Digital Humanities

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Abstract

The digital humanities is increasingly becoming a “buzzword”, and there is more and more talk about a broadly conceived, inclusive digital humanities. The field is expanding and at the same time being negotiated, and this article explores the idea of a broadly conceived landscape of digital humanities in some depth. It is argued that awareness across this landscape is important to the future of the field. The study starts out from typologies of digital humanities, a “flythrough” of the landscape, and a discussion of what being a digital humanist entails. The second part is an exploration of four concrete encounters: ACTLab at University of Texas at Austin, the Humanities Arts Science Technology Advanced Collaboratory (HASTAC), the Humanities Computing Program at the University of Alberta, and Internet Studies. In the third part of the article, it is suggested that a model based on paradigmatic modes of engagement between the humanities and information technology can help chart and understand the digital humanities. The modes of engagement analyzed are technology as a tool, study object, expressive medium, exploratory laboratory and activist venue.

Introduction

Over the last five years, there has been a surge of activity in the multifarious emerging field often referred to as “digital humanities.” Of course, humanities-based engagement with information technology is not new, but we are now seeing a rich multi-level interaction with the “digital” that is partly a result of the persuasiveness of digital technology and the sheer number of disciplines, perspectives and approaches involved. Humanists are exploring differing modes of engagement, institutional models, technologies and discursive strategies. There is also a strategy-level push for the digital humanities which, among other things, affects university research strategies, external funding and recruitment. 1

This is the second article in a four-part series exploring the intersection of the humanities and the digital. In the first article, I examined the discursive transition from humanities computing to digital humanities, looking at how this naming is related to shifts in institutional, disciplinary, and social organization. I also addressed the epistemic culture and commitments of humanities computing, and tensions between this tradition and a broad notion of digital humanities. 2

In the current article, I start out from a broad notion of the digital humanities that is sometimes suggested but rarely analyzed in more detail. The landscape of digital humanities is explored more broadly through a “fly-through” critical overview of the landscape and an exploration of four concrete encounters. I argue that a better understanding of the landscape of the digital humanities is vital to the continued growth and consolidation of the field, and necessary to meet a range of exciting upcoming challenges. Importantly, acknowledging internal variation and tensions are critical to this enterprise, and it seems likely that the way forward is neither a singular vision of a unified, homogenous digital humanities nor extensive fragmentation and lack of shared awareness and common visions. It is suggested that one way of understanding and acknowledging the different traditions and epistemic commitments of the digital humanities is to consider different modes of engagement between the humanities and information technology. The third part of the article consequently offers an in-depth analysis of some paradigmatic modes of engagement between the humanities and information technology. I feel this approach will give a better sense of the breadth and depth of the field, different implementations, and points of connections and divergence. Further, I argue that a better understanding of the landscape of the digital humanities is vital to the continued growth and consolidation of the field, and necessary to meet 3

a range of exciting upcoming challenges.

The third article discusses cyberinfrastructure for the humanities and digital humanities more broadly, and presents a case study from HUMlab at Umeå University in Sweden. In the fourth and final article, I explore the multiple ways in which the digital humanities have been envisioned and how the digital humanities can often become a laboratory and means for thinking about the state and future of the humanities at large. I conclude by presenting a tentative visionary space for the future of the digital humanities. 4

The article series as a whole traces the digital humanities as a project in terms of history, epistemic commitments, modes of engagement with the digital, conceptual foundations for associated cyberinfrastructure, visions and hope invested, as well as future directions for the field, and necessarily, for the humanities at large. 5

Outline

This article is divided into three main parts that present different perspectives or lenses on the landscape of the digital humanities. 6

The first part provides a territorial fly-through (critical overview) of the landscape of the digital humanities that discusses ways of “reading” the territory as well as specific parts of the terrain. The picture given is broad, but also fairly particular in relation to specific initiatives and associated discourses. Typologies of the digital humanities are discussed, as well as what it might entail to be a digital humanist. 7

The second part of the paper presents four personal encounters with digital humanities initiatives that occurred between 2001 and 2009. These offer different perspectives on the digital humanities: ACTLab at University of Texas at Austin, the Humanities Arts Science Technology Advanced Collaboratory (HASTAC), the Humanities Computing Program at the University of Alberta and Internet Studies through an exchange with Charles Ess. 8

The third part discusses paradigmatic modes of engagement between the humanities and information technology: information technology as a tool, an object of study, an exploratory laboratory, an expressive medium and an activist venue. The first three modes of engagement are given most attention. This analytical model provides one possible way of charting the territory of the digital humanities. 9

Necessarily, any attempt at charting a large and indeterminate field such as digital humanities cannot be all-inclusive. The focus in the following exposition is large structures as well as particular examples, but the reader will find neither detailed accounts of specific fields such as computer mediated communication or history and computing, nor of associated fields such as technoscience (cf. [Ihde & Selinger 2003]) with which there is some overlap.[1] 10

Together, the fly-through, the encounters and the analytical framework will help garner a better understanding of the field of digital humanities. The mapping activity itself is as important as the resultant patchy map, however, and it is argued that the challenges and possibilities ahead call for a shared awareness and rich collaborations across the landscape of the digital humanities. [2] 11

Part I: Exploring the Digital Humanities

Introduction

In the following it will be assumed that the digital humanities comprise a field in a loose sense. This is not to suggest a well-defined and delimited academic field outside of the traditional humanities disciplines, but rather an inclusive notion that will allow us to talk about different kinds of initiatives and activities in the intersection between the humanities and information technology or the digital. It is claimed that this conversation can be quite important to further and consolidate digitally inflected work in the humanities. This does not mean, however, that the ultimate goal necessarily is an all-inclusive digital humanities. 12

Any attempt at mapping a field such as the digital humanities will naturally be a particular reading and interpretation of 13

that field. We will start by surveying a few suggested typologies for the digital humanities.

Typologies of the Digital Humanities

14 In a 2008 talk [McPherson 2008] and subsequent article [McPherson 2009a], Tara McPherson suggested a typology for the digital humanities that makes distinctions between the computing humanities, blogging humanities and multimodal humanities. According to McPherson, the computing humanities focus on building tools, infrastructure, standards and collections whereas the blogging humanities are concerned with the production of networked media and peer-to-peer writing. The multimodal humanities bring together scholarly tools, databases, networked writing and peer-to-peer commentary while also leveraging the potential of the visual and aural media that are part of contemporary life. This is a useful typology in that it is comprehensive, simple and points to the importance of networked media and writing as well as describes an ongoing development. It does not privilege nor explicitly single out the digital as an object of analysis, which partly may be a result of a more general focus on multimodal writing in the humanities at large, and arguably the most prominent mode of engagement for the multimodal humanities is the digital as an expressive medium. While the additive element of this typology is useful, we should be aware of the complexities of some of these issues. For instance, the tools used by computing humanists are probably very different from most of the tools used by multimodal humanists. As we have seen in the earlier analysis of humanities computing as digital humanities [Svensson 2009a], the epistemic commitments and conventions of a tradition cannot easily be subsumed in another type of digital humanities (cf. also [Ratto 2006]).

15 Along somewhat similar lines, [Davidson 2008] identifies two phases of digital humanities — Humanities 1.0 and Humanities 2.0 — making use of the distinction between Web 1.0 and Web 2.0. For instance, she says, “Humanities 2.0 is distinguished from monumental, first-generation, data-based projects not just by its interactivity but also by openness about participation grounded in a different set of theoretical premises, which decenter knowledge and authority” [Davidson 2008, 711–12]. Davidson presents a well-articulated vision for the humanities where technology is a key participant in the decentering of authorship, credentialing practices, reward systems, interdisciplinarity, and collaboration. The argument extends far beyond technology and basically concerns the situation and future for the humanities more generally:

> In a time of paradigm shifts, moral and political treachery, historical amnesia, and psychic and spiritual turmoil, humanistic issues are central — if only funding agencies, media interests, and we humanists ourselves will recognize the momentousness of this era for our discipline and take seriously the need for our intellectual centrality. [Davidson 2008, 715]

16 Both McPherson and Davidson point to a transition from humanities computing or computing humanities to multimodal humanities or humanities 2.0 (cf. also the Digital Humanities Manifesto 2.0 and the distinction between a first and second wave of digital humanities work). The endpoint can be interpreted as a current and forward-looking variety of the digital humanities. There is a clear assumption of change and trajectory here, and a risk that different epistemic traditions and goals are conflated in this trajectory. In practice, it would seem that humanities computing (even if called digital humanities) will not — at least not fully or anytime soon — become the multimodal humanities or humanities 2.0 envisioned in these articles. However, as both writers show, the intersection between these traditions is a productive and important one. Importantly, while there is a great deal of ongoing collaboration and identification of common goals, we need to be aware of the fact that we are concerned with several epistemic traditions and visions. It could be argued that there is a need for an expanded, multi-layered discussion of visions, collaborative possibilities, and possibly but not necessarily, an articulated convergent path forward.

17 Another mode of analysis is provided by Hayles ([Hayles Forthcoming PMLA] and [Hayles Forthcoming Chapter]) who manifests her intellectual curiosity for the field through identification of pivotal theoretical and methodological issues as well as through interviews with 17 digital humanists. Among issues identified and discussed are scalability, reading, algorithmic analysis, visualization and open review. Two digital humanities environments, the Centre for Computing in the Humanities at King’s College and the School of Literature, Communication, and Culture at Georgia Tech, function as case studies, and add to the analysis partly through their differentness. Hayles identifies two different strategies for

promoting a digital humanities agenda: assimilation and distinction. According to Hayles, assimilation extends existing scholarship into digital domains whereas distinction emphasizes new methodologies, novel research questions, and the emergence of new fields. When she discusses the outcomes of different models, she points to the risk of divergence:

> The kinds of articulation that emerge have strong implications for the future: will the Digital Humanities become a separate field whose interests are increasingly remote from the Traditional Humanities, or will it on the contrary become so deeply entwined with questions of hermeneutic interpretation that no self-respecting Traditional scholar could remain ignorant of its results? If the Digital Humanities were to spin off into an entirely separate field, the future trajectory of the Traditional Humanities would be affected as well. Obviously, this is a political as well as an intellectual issue. In the case of radical divergence (which I think would be a tragic mistake), one might expect turf battles, competition for funding, changing disciplinary boundaries, and shifting academic prestige. [Hayles Forthcoming PMLA]

18 Interestingly, Hayles brings up questions of the disciplinary status of digital humanities that have generated much discussion and debate over the years (cf. [Svensson 2009a]). This history is partly one of continuous tension between the disciplines and various forms of digital humanities, and given this fairly long track record (especially for humanities computing) and the current multiplexity of the field, it seems quite unlikely that the digital humanities would ever become a fully separate field.[3] What is likely, in any case, is continued tension, and "occasional turf battles, competition for funding, changing disciplinary boundaries and shifting academic prestige." Arguably, disunification can bring stability to a disciplinary area such as digital humanities (cf. [Galison 1997, 781–2]). Furthermore, fights within disciplines can be seen as a way to maintain "intellectual vibrancy" [Sterne 2005, 251].

The Diverse Territory of Digital Humanities

19 The complexity of digital humanities as a "field" comes partly from its disciplinary and institutional diversity, and its multiple modes of engagement with information technology. Looking at a restricted field, presumably part of the digital humanities, Bell notes that the " 'field' of cyberculture (or whatever) studies is diverse and heterodox, too undisciplined to be called a discipline" [Bell 2007, 52].

20 It is true that "digital humanities" probably defies any precise definition and that it can hardly be called a discipline. The question is whether it even constitutes a field. This is the position taken in the Digital Humanities Manifesto 2.0 (2009):

> Digital Humanities is not a unified field but *an array of convergent practices* that explore a universe in which: a) print is no longer the exclusive or the normative medium in which knowledge is produced and/or disseminated; instead, print finds itself absorbed into new, multimedia configurations; and b) digital tools, techniques, and media have altered the production and dissemination of knowledge in the arts, human and social sciences. [original emphasis] [Presner, Todd, et al. 2009]

21 And even if the assumption of a field is made, the emerging nature of this field will often be emphasized as in this definition from the website of the journal *Digital Humanities Quarterly*:

> Digital humanities is a diverse and still emerging field that encompasses the practice of humanities research in and through information technology, and the exploration of how the humanities may evolve through their engagement with technology, media, and computational methods. [DHQ About]

22 The "still" in "still emerging" seems to indicate that the field has been emerging for some time,[4] and that it has not yet reached a stable form.

23 There may be several reasons for trying to promote digital humanities as a field. In the case of humanities computing, there was already the sense of an established field with journals, conferences and people primarily engaged in the field.

This is not to say that everyone engaged in humanities computing (or humanities computing as digital humanities) would describe it as a field, but there is a fairly general consensus and a strong tradition. The following quote, from the introduction of the *Blackwell Companion to the Digital Humanities*, illustrates the somewhat ambivalent interrelation between humanities computing and digital humanities, and also shows how the two "fields" can coexist.

> The digital humanities, then, and their interdisciplinary core found in the field of humanities computing, have a long and dynamic history best illustrated by examination of the locations at which specific disciplinary practices intersect with computation. [Schreibman et al. 2004, xxiv]

24 Under this reading, humanities computing provides the core whereas digital humanities presumably also includes the disciplines. As I have shown earlier [Svensson 2009a], the problem may be the conflation that results from making the history of humanities computing into the history of digital humanities. In any case, the strength of humanities computing as a field partly comes from the epistemic investment in technology as tool and associated processes (ranging from metadata schemes to project management), and as we have seen earlier, it can be argued that this epistemic commitment often leads to a relatively weak link to the disciplines (beyond the purely instrumental).

25 An alternative focus on technology or the digital as study object, however, may lead to a weaker sense of the field of digital humanities — exactly because of the tight relation between the traditional discipline and the digitally inflected study object. The study object would probably also tend to be aligned with the epistemic commitments of an established discipline (or several disciplines) even in the context of a multidisciplinary complex. As a result, the discipline may change to incorporate such objects, but this is rarely a simple or straight-forward process, and one interesting question is whether the digital calls for other modes of investigation, collaboration and making that may be partially incompatible with the epistemic commitments of the established discipline or field:

> It follows that the consequences and implications of digital media for research into cultural studies themes, problematic, and questions cannot be explored simply by using the recognized, legitimate, preconstituted, disciplinary forms of knowledge: literary studies, philosophy, sociology, history, psychoanalysis, and so on. Digital media change the very nature of such disciplines, rending them "unrecognizable" as Derrida says of psychoanalysis. [Hall 2008, 81]

26 On a more mundane scale, there is definitely a tension between the traditional disciplines and some of the scholars and initiatives engaged with the digital as a study object. This sentiment, which may lead to the establishment of discipline-external centers or even new disciplines, is also significant. So while technology as a study object will often foster a much tighter relationship to the disciplines (closer to the heart of the disciplines) than technology as a tool, there might also be distancing. However, this distancing is often not institutionalized, which is an important factor in maintaining a fairly strong link to the disciplines. Humanities computing, on the other hand, is almost always institutionalized to some extent. For initiatives focused on the digital as a study object, discipline-external sentiment can be seen as channeled through organizations such as the Association of Internet Researchers, which gathers researchers from a number of disciplines.

27 In some cases, however, new fields or areas of research are institutionalized in relation to specific themes or study objects. An example would be games studies and internet studies, which have partly been institutionalized in some university contexts (e.g. at the Center for Games Research at the IT University in Copenhagen, the Singapore Internet Research Centre at Nanyang Technological University and the Oxford Internet Institute). Typically these do not strongly align themselves discursively with the digital humanities.

28 Part of the problem with an inclusive and broad notion of digital humanities may be that the relatively high level of abstraction makes it difficult to come to grips with the field on a more basic and practical level. From a strategic level, however, this may not be a problem, but rather an asset as it makes it possible to frame a large scope, substantial impact and broad engagement. This engagement often relates to the development of the humanities at large, a discussion of the traditional humanities disciplines, and sometimes a call to action. The below quote is from a HASTAC Forum discussion on the digital humanities where Brett Bobley, head of the NEH (National Endowment of the Humanities) Office of Digital Humanities, was one of the interlocutors.

> I don't know how Brett Bobley or others might answer this but I don't actually find disciplines tragic . . . just in need of major refurbishing and a good dose of introspection about what it is they do, how willing they are to be irrelevant to a larger world, how they fight their declining (in the humanities) numbers, and how urgently they reconsider their shape and importance in the light of the new, global forms of knowledge being produced everywhere around them, and changing the timelines and the geography of knowledge production. It is such an exciting time and I wish more in the humanities grasped the implications of what this new time means for the shape of our many fields and inter-fields. [Davidson 2009]

There is a fair degree of sympathy and understanding for the traditional (but seemingly declining) humanities in this statement, as well as a call for change. The digital humanities, thus, becomes a site for change and action. 29

Two Types of Digital Humanities

The diverse and multiple-mode territory of the digital humanities can be further exemplified by two descriptions of digital humanities in an educational context. The first text is a description of a planned, but not realized, interdisciplinary major in the Digital Humanities at Stanford University: 30

> The increasing importance assumed by digital technologies in contemporary culture has given rise to new forms of scholarly inquiry, new ways to assess and to organize humanistic knowledge, and new forms of cultural communication. The very questions that the humanities disciplines ask have changed. How have reading and writing changed in the digital era? What new forms of cultural expression emerge with the advent of the digital age and how do they build upon or break with the old? How should we assess the ethical and political implications of digital technologies? What kinds of tools do we have or do we need to develop in order to make sense of and/or to take advantage of these new technologies? [Interdisciplinary Studies in Humanities]

Here the emergent nature of digital humanities is emphasized, as well as a strong link to the humanities disciplines and a partial reconfiguration of the humanities. The major mode of engagement is technology as a study object, even if there is also an interest in the instrumental use of digital technology, and to some extent, information technology as a medium. In contrast, the following description from the Centre for Computing in the Humanities (CCH) website at King's College provides a much more static description of digital humanities. The main mode of engagement is clearly technology as a tool. 31

> The digital humanities comprise the study of what happens at the intersection of computing tools with cultural artefacts of all kinds. This study begins where basic familiarity with standard software ends. It probes how these common tools may be used to make new knowledge from our cultural inheritance and from the contemporary world. It equips students to analyze problems in terms of digital methods, choose those best for the job at hand, apply them creatively and assess the results. It teaches students to use computing as an instrument to investigate how we know what we know, hence to strengthen and extend our knowledge of the world past and present. [Centre for Computing in the Humanities]

We need to be careful not to draw too far-reaching conclusions from such limited and contextually situated material, but there can be no doubt that these two descriptions suggest rather different types of digital humanities and epistemic cultures. Unsurprisingly, there are several points of connection. One such connection is offered by the mention of tools and creating tools at the end of the first text, which relates to the predominant focus on tools and methods in the second text. Interestingly, despite the general CCH focus on tools, the short text does not say anything about creating new tools. [5] 32

Perspectives from Library and Information Science

Many digital humanities centers are housed in close proximity to university libraries,[6] which is not surprising given the 33

centrality of libraries to the humanities, and that many digital humanities initiatives have an interest in collections and interdisciplinary practice. Furthermore, such initiatives can sometimes function as resources in library based development and research work. Also, library reconstruction, changing usage patterns and resizing may result in available space and structural possibilities. A recent example of this type of symbiotic relationship can be seen in the newly instituted Center for Digital Scholarship at Brown (*Humanist* 23.636, February 12, 2010). There is a close link to what can be called "digital cultural heritage," which deals with digital management of and access to cultural heritage more broadly. In Europe, for instance, there is EU-funded research on cultural heritage, digital libraries and digital preservation (DigiCult).

Libraries are an important part of the infrastructure of the humanities, and in a sense, a kind of humanities laboratory [7] placed outside the departments and schools. Libraries are also, by default, important players in relation to humanities-based information and information technology. It is important to acknowledge, however, that traditional research libraries come with a set of epistemic commitments pertaining to the role of collections, the types of texts handled, tool building, collaboration with humanities scholars and distribution (see [Drucker 2009b] for a critical discussion). 34

The performed epistemic scope of library and information science in the context of the digital humanities is prevalent and not always entirely transparent. One recent example is a survey on digital humanities centers in the U.S. [Zorich 2008] prepared for the Council on Library and Information, where we find an institution-level working definition of the digital humanities: 35

> A digital humanities center is an entity where new media and technologies are used for humanities-based research, teaching, and intellectual engagement and experimentation. The goals of the center are to further humanities scholarship, create new forms of knowledge, and explore technology's impact on humanities-based disciplines. [Zorich 2008]

This is a fairly inclusive definition even though the outset could be said to be representative of an instrumental mode of engagement (most clearly indicated by "are used"). While the three goals presented here are broad and open-ended, it could be argued that they construe technology as being outside the disciplines rather than as an integrated part (which would be congruent with mainly seeing information technology as a tool). 36

Following the above definition, the report provides a list of activities, some or all of which a digital humanities center undertakes in the analysis presented in the survey (abbreviated): 37

1. Builds digital collections as scholarly or teaching resources,
2. Creates tools for authoring, building digital collections, analyzing collections, data or research processes, managing the research process,
3. Uses digital collections and analytical tools to generate new intellectual products,
4. Offers digital humanities training,
5. Offers lectures, programs, conferences or seminars on digital humanities topics,
6. Has its own academic appointments and staffing,
7. Provides collegial support for and collaboration with members of other academic departments at the home institution,
8. Provides collegial support for and collaboration with members of other academic departments, organizations or projects outside the home institution,
9. Conducts research in humanities and humanities computing (digital scholarship),
10. Creates a zone of experimentation and innovation for humanists,
11. Serves as an information portal for a particular humanities discipline,
12. Serves as a repository for humanities-based digital collections, and
13. Provides technology solutions to humanities departments.

Although not necessarily evident in the more general definition quoted above, this list of criteria makes it rather clear that there is a particular perspective or orientation underlying the definition. This information and library science perspective is perhaps not surprising given the origin of the survey (prepared for CLIR), but it does create a discrepancy 38

between the more general definition and the particular activities listed. A similar narrowing down of epistemic scope (in that case from a broad sense of digital humanities to traditional humanities computing) was noticed in an analysis of the call for papers for the Digital Humanities 2010 conference [Svensson 2009a]. The narrowing down in the case of the CLIR report is particularly noticeable in the focus on building digital collections and associated tools, using these collections, and serving as a repository (1-3, 12). Many of the other list items are service oriented: offering training, collegial support, serving as an information portal for disciplines, and providing technology solutions (4, 5, 7, 8, 10, 13). The remaining features are either structural (appointments and staffing) or more oriented towards research and experimentation (12, 10, and to some extent 5). We would not expect any list of this kind to be all-inclusive, but both the focus on collections and the totality of the defining criteria can be said to have a rather strong excluding function.

39 The link between digital humanities and libraries is robust, but not static, and the expansion of the digital humanities and changing roles for libraries may lead to a new set of dynamics and a renewed sense of library as laboratory as well as a physical and digital repository. The idea of the library as a space for collaborative scholarship is strengthened through the introduction of more study spaces for (primarily) students, project spaces for digital humanities and technical infrastructure such as large, interactive screens. Perhaps libraries have always been the analogue to laboratories, in that they are sites for knowledge production, a repository or archive, and a place of exchange. In this sense, the contemporary moment re-sensitizes the traditional function of the library in order to extend its dynamic qualities, rather than those that may be strictly archival.

Cyberculture Studies and Critical Digital Studies

40 The type of library and library science definition of digital humanities centers described above would probably not include research areas such as critical cyberculture studies, which predominantly focus on digital culture and the cultural construction of information technology as a study object:

> Critical cyberculture studies is, in its most basic form, a critical approach to new media and the contexts that shape and inform them. Its focus is not merely the Internet and the Web, but rather, all forms of networked media and culture that surround us today, not to mention those that will surround us tomorrow. Like cultural studies, critical cyberculture studies strives to locate its object of study within various overlapping contexts, including capitalism, consumerism and commodification, cultural difference, and the militarization of everyday life. [Silver 2006, 6]

41 The Resource Center for Cyberculture Studies is an online resource associated with this area, and one of the services provided is an extensive set of book reviews. These reviews are frequently carried out by several reviewers and are often accompanied by author responses. This is a very valuable resource, and it also gives an indication of the breadth and extent of more cultural study based approaches to the digital and information technology. As of November 24, 2008, there were 390 reviews available of the same number of books. Interestingly, this resource does not seem to include any books that explicitly deal with humanities computing or humanities computing as digital humanities. For instance, the 2004 volume *Companion to the Digital Humanities* has not been reviewed. The same is true of Willard McCarty's *Humanities Computing* (2005).[8]

42 Neither critical cyberculture studies, nor internet studies, nor initiatives such as new media studies and critical digital studies, which all come from cultural studies or art theory backgrounds, typically make frequent use of the term *digital humanities*. There is obviously a link between these fields and digital humanities as humanities computing, or digital humanities with a library and information science focus, but the connection is not necessarily simple or straightforward. In addition, the territories of all these "fields" are currently being negotiated and explored. In any case, the contrast between the King's College description of the field of digital humanities cited above and the description below of critical digital studies is quite significant.

> From the spectacular emergence of new media innovations such as blogging, podcasting, flashmobs, mashups, and RSS feeds to video-sharing websites (MySpace, YouTube), Wikipedia, and massively multiplayer online role-playing games (MMORPGs), the how and what we know of

> contemporary society, culture and politics is continuously being creatively transformed by strikingly original developments in technologies of digital communication. To the challenge of understanding the implications of technological innovations, Critical Digital Studies responds by developing a new method of critical digital studies: its scope — full-spectrum knowledge of the digital future; its method — media archaeology; its practice — crossing boundaries; and its goal — bending the digital future in the direction of creative uncertainty. [Kroker & Kroker 2008, 1]

43 Here we are concerned with a rather future driven, positivistic and arguably techno-romantic presentation (starting from "the spectacular emergence of new media innovations") that lists a number of contemporary media representations, as well as suggesting an ongoing creative transformation of society, culture and politics as a result of "strikingly original developments in technologies of digital communication" — a movement described by [Raley 2009, 25] as "the wired Left." The field itself is singularly defined in terms of scope, method and goal. The goal is described as "bending the digital future in the direction of creative uncertainty." In another passage of the same chapter, this is elaborated as "privileging the intermediations, inflections, and paradoxes that are so deeply characteristic of the digital flow" [Kroker & Kroker 2008, 9]. There is an activist sentiment here that is not very common in cultural studies-based approaches to the digital (although discontent with the current state of affairs may be emphasized), and very rare in traditional humanities computing discourse. This mode of engagement could arguably be described as the digital (or information technology) serving as a venue for "academic activism."

Digital Humanities as Activism and Artistic Practice

44 An example of digitally inflected academic activism is Sharon Daniel's work on women in prison, and on the prison system as a public secret, as exemplified her piece "Public Secrets" published in the journal *Vectors*. This is from the author's statement:

> Three years ago, on visiting day, I walked through a metal detector and into the Central California Womens' Facility. It changed my life. The stories I heard inside challenged my most basic perceptions — of our system of justice, of freedom and of responsibility. Walk with me across this boundary between inside and outside, bare-life and human-life, and listen to Public Secrets. [Daniel 2007]

45 Juhasz argues that she sees a turn towards art and activism in traditional scholarship, and that the digital part "is perhaps what was needed to push more scholars to engage with the personal and political implications of their practices" [Juhasz 2009]. She talks about collaboration, the role of affect and aesthetics and the impact of audiences as important factors in this movement. While the extent of this alleged "turn" could be disputed, it would seem that there is a connection between the digital, associated expressive means, and academic activism.

46 An important, but difficult, issue is whether art, activist-based initiatives, or academic activism at all should be considered to be part of the digital humanities. The answer has to do with how we relate to divisions between the humanities and art, the humanities and science, thinking and making, and the university and the outside world. These categories are not binary, and it does seem that the digital can sometimes help challenge these oppositions. Also, it would seem that the contemporariness of much of interpretative digital humanities work, coupled with an interdisciplinary sentiment and digital means of production and intervention, support an interest in academic activism.

47 We will return to a more in-depth discussion of the various modes of engagement identified here, including technology as an activist venue, later in this article. But let us first consider the inhabitants and landscape of the digital humanities.

Digital Humanists and Digital Humanities

48 As we have seen, digital humanities hardly make up an uncontested or well-defined landscape. So far the picture has been painted using rather broad and structural brush strokes. Another way of approaching this issue is to start from the individual or particular — from the individual person engaged in what may be called digital humanities.

It would seem tenable to state that minimally, digital humanities is manifested by a single scholar, teacher, artist, programmer, engineer or student doing some kind of work — thinking, reflecting, writing, creating — at the intersection of the humanities and information technology — or by "products" resulting from such activities. Every combination of the humanities and technology does not qualify as digital humanities, of course. For instance, while word processors may be interesting as a study object from a humanities perspective — e.g. looking at their conceptual history, the textually of revision functionality, or the prescriptiveness of built-in dictionaries — a humanities scholar using a word processor to write an article would not necessarily qualify as a digital humanist. 49

As a matter of fact, it is not entirely clear that even individuals deeply engrossed in the digital humanities would necessarily identify with the denominations "digital humanist" or "digital humanities." Partly because of the diversity and history of the field, disassociation may be rather vigorous: 50

> How different is it [speculative computing] from digital humanities? As different as night from day, text from work, and the force of controlling reason from pleasures of delightenment. [Drucker 2009a, 30]

Here the reading of digital humanities as traditional humanities computing seems rather clear, and the positioning of speculative computing outside the digital humanities would seem to contradict a very inclusive notion of the digital humanities.

The individual term *digital humanist* may be problematic because it may seem both too general in not relating to a specific discipline or competence (thus deemphasizing the discipline-specific or professional) and too specific in emphasizing the "digital" part of the scholarly identity (if you are scholar) or giving too much prominence to the humanities part of your professional identity (if you are a digital humanities programmer or a system architect). The more general and non-personal term *digital humanities* is more inclusive, but somewhat limited because of its lack of specificity and relatively weak disciplinary anchorage. For both variants, there is also a question of whether "the digital" needs to be specified at all, and it is not uncommon[9] to encounter the argument that technology and the digital are part or will be part of any academic area, and hence the denotation "digital" is not required. 51

But clearly these terms are gaining ground, and while the introduction of the term *digital humanities* may originally have been a top-down or strategy-driven process starting with journal names, funding initiatives and conferences, it now seems as if also *digital humanist* is spreading quickly as a means of self-identification. This is especially true of the plural form in addressing digital humanists collectively as in "Calling all Digital Humanists in the Pacific Northwest: Organizing THATCamp PNW" [Meloni 2009]. A more recent development is that scholars to a larger extent describe themselves as digital humanists on their personal websites and in other contexts, although there may be a certain degree of hesitancy: 52

> Recently I've claimed "digital humanist," though that term is arcane and hard to define. I define it as "someone with a humanities degree who's interested in computers." [French 2009b]

It would seem that the individualized forms *digital humanist* and *digital humanists* are more commonly used in relation to the digital as tool (and the humanities computing tradition) than the digital as study object, but the landscape is shifting. We also need to bear in mind that institutional identity is often linked to particular disciplines and departments rather than to the humanities more broadly (which is a much more abstract construction). It could be speculated that comparatively speaking, people in the digital humanities may seem to have a stronger sense of the humanities as a construct and as a whole since they often operate across several disciplines and since their position and identity are more strongly linked to the humanities at large. As for *digital humanities*, several organizations and consortia (with different agendas) are pushing for the term. A move of considerable symbolic power is the 2008 establishment of the Office of Digital Humanities at the National Endowment for the Humanities in the U.S. 53

These changing patterns can be exemplified by means of some crude search data from Google and the development between two data points approximately one and a half years apart. Needless to say, these data should be treated with caution in terms of methodology and accuracy, and the absolute figures have little significance. What is interesting is the 54

indication given by the relative change in frequency. On March 10, 2008, the query “digital humanist” resulted in 420 hits on Google. There were about the same number of hits for the plural form “digital humanists” (456 hits), and there were (about) 99,800 instances of “digital humanities.” The same queries executed on October 6, 2009, show that “digital humanist” is about eight times more common (3460), “digital humanists” 40 times more common (18,600), while the number of instances of “digital humanities” has doubled (about 180,000). The general pattern seems to be that direct references to digital humanists (singular and plural) have become much more common relative to references to digital humanities. The more frequent use of the plural form (five times as frequent as the singular form) is not surprising given that it carries with it a lesser degree of individuation (focusing on the group of digital humanists rather than individual people, cf. [Svensson 1998]) and seems to point to digital humanists being more commonly identified as a group of individuals. The more moderate relative increase of “digital humanities” would seem to indicate a degree of saturation or possibly moving away from the over-arching term to more specific reference (“digital humanist” and “digital humanists”).

Part II: Encounters

Introduction

Another perspective on the landscape of digital humanities can be offered by specific encounters with humanities and technology initiatives. In the following, I draw on some personal encounters with such settings and people between 2001 and 2009. Most the encounters are given a material quality through the examination of associated spaces, which is based on the assumption that space and spatial grounding is closely related to knowledge production [Livingstone 2003]. 55

The four encounters are by no means a representative sample, but rather a way of continuing the discussion, exploring emerging issues and providing some experiential and material grounding both in relation to the flythrough critical overview of the landscape of the digital humanities presented in Part I and the discussion of modes of engagement in Part III. They are also chosen because they accentuate different modes of engagement and perspectives on the digital humanities. The encounters are ACTlab at University of Texas, the Humanities Art Technology Advanced Collaboratory (HASTAC), the Humanities Computing Program at the University of Alberta, and Internet Studies (through an exchange with Charles Ess). 56

Encounter 1

> *There is a large, solid wooden table in the middle of the large, theater-like space. The very tall ceilings, the stage, stage lighting and the industry-like facility all add to the sense of performance and production space. Alongside the walls are workstations and in one end of the space is a cozy corner with couches, a bookcase and Christmas lights. The lights are dimmed and there are several simultaneous ongoing activities.* 57

I visited the ACTLab at University of Texas at Austin in 2001 and encountered a studio space with an articulated conceptual underpinning and a set of related practices. I was struck both with the actual space and the clearly stated relevance of its grounding: 58

> It's hard to separate the ACTLab philosophy from the studio space, and vice versa. They are co-emergent languages. The ACTLab studio is the heart of our program and in its semiotics it embodies the ACTLab philosophy. [Stone 2005]

Most of the courses given were thematic, which often turns out to be a productive or at least manageable interdisciplinary strategy. Broad themes allow faculty and students from a range of departments to participate around a topic of interest. In Sandy Stone’s words, “Our curricular philosophy is about constructing dynamic topic frameworks which function by defining possible spaces of discourse rather than by filling topic areas with facts” [Stone 2005]. ACTLab courses at this time included “Postmodern Gothic” (1996), “Gender and Sexuality at the Millennium: The Future of Desire” (1998), “Reading Reality: Virtual and Physical Narratives” (2000). There was a clear emphasis on creating and the below description seem to indicate that making precedes theory, or that making is primary or initial. 59

> ACTLab courses are concept-driven, rather than skills-driven; but we believe that theory flows from the act of making, rather than the other way around. The point of each ACTLab course is to help you define, develop, and produce a project that reflects on the social, cultural, aesthetic, political, and personal issues raised in that particular class. […] Our motto is *make stuff*. We offer you the opportunity to engage cutting-edge technologies, but we also encourage you to view these as tools rather than as ends in themselves. Make sure you're taking advantage of technology, rather than waking up to find that technology is taking advantage of you. That's why we encourage critical thinking, and offer you the opportunity to engage cutting-edge theory along with making. [original emphasis] [ACTLab]

[10]

Connecting making and critical practice is not simple, and the interrelation is complex and often difficult to analyze. Obviously, these are not distinct categories, and there is a fair deal of blurriness and a dynamic balance. In the case of ACTLab it seems that making is privileged and that critical practice, to a large extent, is achieved through the making. Consequently, there is considerably less focus on more traditional forms of critical production and reflection. This affects the balance and outset, and it seems that an enterprise such as ACTLab has more in common with an art school or a media production studio than a humanities department. 60

ACTLab began 1992 in a “closet” (Sandy Stone’s description). In the subsequent year, a classroom was appropriated, and soon after another classroom. 61

> In the process we painted the entire space black and hung Christmas lights from the ceiling, causing neighboring faculty to complain that we were running a den of iniquity. The ACTLab's first floor plan had a seminar table in the middle of the room, and the walls lined with workstations. [ACTLab]

[11]

The space I visited in 2001 was the new TV/Film production studio acquired in 2000, and as noted above, the central table was still part of the setup. The space was quite distinct in combining studio, performance and seminar elements as well as incorporating various technologies (both analogue and digital), and importantly, ACTLab could not be described as a sterile or instrumental space. The spatial grounding of ACTLab is obviously important, and in the personal experience of the author, there is a recurring interest in having lab and studio space when talking to the digital humanities community. 62

As evident from both the physical setup of the ACTLab studio and the above quote, technology is an integral part of the setup — and although making does not necessarily have to be digital or digitally supported, technology is undoubtedly an important prerequisite in this space for “making stuff.” This closeness to technology, “tinkering” and digitally supported expression is not necessarily that common in the digital humanities. In terms of the modes of engagement discussed in this article, the focus on technology as “tools rather as ends in themselves” suggests an instrumental relation, which here is intimately linked to the digital as a means of expression and as an activist venue in various projects and installations. Also, through the themes employed in the courses there is — to varying degrees — an interest in the digital as a study object. Nevertheless, it is quite likely that the ACTLab community would never use “digital humanities” to describe themselves (the online correlation seems almost negative).[12] 63

Although the ACTLab relates to many different disciplines and institutions, there seems to be a clear sense of being outside the traditional structures. Sandy Stone talks about the codeswitching umbrella — a device used to hide what is beneath and vice versa — and the contrast between the inside and outside is fundamental in the model presented. Institutional dire necessities, discourses of closure, structure and bean counting are contrasted with messy creativity, emergent work, risk, passion and deliberate structurelessness. According to Stone, “When people below the umbrella experience passion, people above the umbrella see structure.” The sense of being outside and oppositional is recurring in the narratives surrounding the ACTLab: 64

> Like any oppositional practice, we don't just live under the codeswitching umbrella; we also live under the institutional radar, and to live under the radar you have to be small and lithe and quick. We cut our teeth on nomadics, and although we've had some hair-raising encounters with people who went to great lengths to stabilize the ACTLab identity, we're still nomadic and still about oppositional practices. [Stone 2005]

This oppositional stance creates a strong discursive delineation between the ACTLab and the rest of the university, and although Stone talks about operating under the radar it also seems that ACTLab clearly and consistently signals its status of being different and oppositional; this is part of the essence of the ACTLab. There are several possible consequences of such a strategy; for instance a strong sense of interior community and a focus on collaboration with particular individuals rather than on structural and institutional collaboration. More importantly, it would seem that an inside position — under the umbrella — is not easily compatible with changing or subverting what is outside (e.g. the rest of the university) — above the umbrella. This is a deliberate and justifiable strategy, of course, but nevertheless an important question is whether there could be mutual gains from a more permeable umbrella? 65

Encounter 2

> *It just so happens that on Sept. 29-30, SHL will be hosting an important meeting on digital humanities work which will include two sessions that might be of interest to you: one (in the late afternoon of Sept. 29) a public conversation involving the directors of SHL, the Duke Franklin center, UCHRI, and the like; the second, on the morning of Sept. 30, a closed door conversation between the leaders of several new SHL-type research centers and top industry, foundation, and museum people about potential partnerships. You would be most welcome to join either or both.* 66

I was visiting Stanford University for a couple of meetings in the fall of 2004, and was interested in establishing contact with the Stanford Humanities Laboratory (SHL) and associated researchers. I was fortunate to stumble across a national meeting on digital humanities organized by HASTAC — the Humanities Arts Science Technology Advanced Collaboratory — mainly held on campus at Wallenberg Hall. HASTAC had recently been co-founded by David Theo Goldberg, UC Humanities Research Institute, and Cathy Davidson, Duke University (in 2002). The above email and friendly invitation is from SHL director Jeffrey Schnapp. 67

Wallenberg Hall is a renovated building in the central quad of the Stanford campus, which integrates technology-supported teaching areas, communal spaces, offices and open plan multiple-purpose zones. The large lecture theater which hosted the HASTAC meeting I attended has flexible furniture and three projection screens next to each other. Normally one screen serves as the primary screen and the two others function as supplementary screens. I have seen all of the screens used at the same time, but it is much more common that only the main screen is used. While there was a distinct physical grounding for the meeting, the multi-institutional sentiment and organization of HASTAC was rather based on the idea of a virtual organization. 68

At the HASTAC meeting I met a range of people interested in the digital humanities from a number of mostly American universities and institutes. American-style humanities centers were well represented. There was a multi-level discussion with a slant towards the institutional, organizational and visionary. Cathy Davidson and David Theo Goldberg spoke of HASTAC as a project. Both Davidson and Goldberg combine excellent track records in more traditional humanities and social science research with high-level institutional positions, which adds credibility and probably also leads to the foregrounding of questions to do with institutional practice, university-level strategies, national and international perspectives, and funding. 69

> HASTAC propels collaboration to a new multi-institutional level. Headed by the leaders in humanities-technology collaboration, HASTAC commands academic attention, and harnesses the prestige and existing infrastructure of top universities, industry, foundations, and government. This leadership team is expert in managing and facilitating interdisciplinary collaboration, and several illustrative projects are already underway. By generating new funding opportunities and reward systems for multi-author and multi-disciplinary projects, HASTAC will compel universities and

> funders to take note of this new model of scholarship. As an integral part of this process, the HASTAC collaborative will develop, test, and disseminate HASTAC propels collaboration to a new multi-institutional level. [HASTAC Vision]

70 The language used in the quote above is clearly not indicative of a hesitant humanities, but is rather an example of academic "power speak" and a clearly proactive humanities. This is particularly clear in the choice of verbs such as "commands" and "compel," and in stressing high-level leadership and expertise. This leadership and commanding perspective would seem to serve the cause well, and helps in identifying the humanities as a strong partner.

71 The fact that several humanities centers in the U.S. have served as important platforms and as a driving force for HASTAC is not accidental. At their best, humanities centers and cross-disciplinary institutes are catalysts for humanities-wide perspectives and change (cf. [Woodward 2009, 113]). While they work closely with humanities departments, they also typically maintain distance and a high degree of independence (see also [Shanks 2008] for a related vision of humanities hubs).

72 At the Stanford-based event, a pronounced interest in collaborative practice, laboratory environments and "new social relations" was expressed, as well as a concern with the future of the humanities. Questions posed in this session included "How will the Humanities survive?", as well as a general discussion of the importance of humanities leadership. The broad and outward sentiment of HASTAC presents an interesting contrast to ACTLab in terms of institutional strategy.

73 This largely strategic level conversation was mixed with reporting and discussion of a few ongoing projects and practical-level initiatives. One initiative presented was the online journal *Vectors*. Tara McPherson described the vision behind *Vectors*, which is a truly innovative attempt at moving technology as medium far beyond traditional scholarly manifestations while maintaining scholarly rigor and engagement. Some of the topics of the journal relate to the digital as a study object, but most do not. Some pieces might be described as installations while others are more akin to traditional humanities computing tools, or standard, if multi-modal, articles. Normally there is some element of interaction. The main mode of engagement is arguably technology as an expressive medium, however, and it could probably be argued that the journal rarely includes prototypical tools in line with the humanities computing tradition. Rather, it offers a mix between expressive medium and interpretative tool. We will look at *Vectors* more closely in Part III of this article.

74 More generally, initiatives like HASTAC, may risk — especially at an early phase — focusing on strategic-level issues at the expense of the more mundane issues such as actual research and real implementation. Put differently, there may be a gap between strategy, politics and grand visions and the grounding found in individual and institutional practice. This gap may be enlarged by the distributedness of such virtual organizations, although importantly, this organizational form is also scalable and potentially quite powerful. And because of the high-level, structural interest, the scope of transformation advocated may extend far beyond the intersection of the Humanities and information technology proper. While very important and exciting, this large scope and far-reaching ambitions may create a dissonance with ground-level research and education. It might be argued, however, that initiatives such as HASTAC are in fact establishing academic "trading zones" [Galison 1997] for the digital humanities, and that dissonance is integral to that process.

75 Furthermore, there is an important and complex relationship among pushing for changing funding, university and reward systems, and close contact with various policy makers and industry. There may be a risk of relying too much on external structures and hence directly or indirectly buying into belief systems that are part of such structures. Also, while technology obviously plays an important role, the kind of methodological and technological rigor and infrastructure associated with e.g. humanities computing may not initially be part of the setup.

76 Looking at the developments after 2004, HASTAC has grown with the support from a number of institutes, universities, the MacArthur Foundation and several other major funding agencies. Among other things, activities include workshops, conferences and a number of diverse venues to "make things happen." There is also a more obvious researcher involvement (also from many young researchers), a HASTAC scholar initiative (which combines local grounding and national level networking), and a very productive attempt at creating an energetic and modern web space for discussing

and demonstrating issues with digital humanities, digital media and learning (http://hastac.org/).

Encounter 3

77 *"I don't want to lose the computing connection," one of the students (with a computer science background) said. We are discussing digital humanities as a term (relating it to humanities computing) in one of the labs of the humanities computing program at the University of Alberta in Canada. In a well-equipped lab mainly set up for computer workstation work, there was also a large table affording laptop work and meetings. I enjoyed the mixed environment as well as getting a sense of what the students were working on. One student was engaged in a facetted browsing project, another one was doing an analysis of web-based games targeted at girls, and a third one was planning a short-term project to do an international "slice" of digital humanities for a particular day.*

78 I visited the University of Alberta in November 2008, which gave me the opportunity to reconnect with humanities computing and digital humanities in Canada. Based on my admittedly limited experience, it seems that Canadian humanities computing is characterized both by a commitment to humanities computing as practice and paradigm (hence maybe also less use of the term *digital humanities*) and an openness and willingness to engage with humanities and other disciplines broadly. This leads to a balancing act that often can consume much time and energy, and requires administrative maneuverability. The commitment to working with the disciplines in the case of the Humanities Computing Programme at Alberta (which much humanities computing activities at Alberta is centered around) is basic but not trivial:

> The balance between pursuing in-depth studies in the intellectual rigours of one discipline versus a broader integration of theoretical approaches is a constant struggle. The programme committee, with consultation from departmental representatives, decided that exposure to a breadth of disciplines should be essential to the MA as a Faculty of Arts programme, but that depth of knowledge in one discipline should be a complementary priority. Students apply to do the MA in Humanities Computing through a 'home' department: that is, one of the existing departments in the Humanities, Social Sciences or Fine Arts. [Sinclair & Gouglas 2002, 174]

79 During my visit we had several discussions of institutional models and it was entirely clear that this kind of integration was seen as crucial. Over time, administrative and implementation pathways are established, although trying to establish a multi-department model can be quite challenging. You need to involve a number of departments and you are dependent upon them and their support, and while affiliating students with humanities departments may not be difficult, a far greater challenge may be with departments outside of the humanities proper (not because of these departments, but because of administrative and disciplinary boundaries). Likewise, finding sustainable ways of sharing resources (including faculty) between departments and a humanities computing center or programme can be difficult, especially if the departments are small or pressed financially.

80 We also talked about space in relation to the lab I visited, as well as more generally. It was obvious that the fairly large meeting table, prominently placed in the lab as you enter the room, had not been easy to come by. In a *Humanist* entry from 2002, Stéfan Sinclair reports usefully about the first year's experiences from running the M.A. program in humanities computing at Alberta. One of the challenges he refers to is "offering social space to accompany the excellent lab space that we have — Humanities Computing should certainly be aware of the importance of human interaction in the work we do" [Sinclair 2002]. The social affordances of the space I visited had been come by through taking tables assigned for computers and putting them together into a large meeting table. The administration would not easily approve of a "non-functional" table. This is a tendency I have come across in labs and university environments around the world — the difficulty of controlling and planning the spaces that often are at the heart of educational and research programs.

81 It was apparent from the students talking about their projects that humanities computing at Alberta supports multiple modes of engagement with technology. While technology as tool (as in traditional humanities computing) predominates,

some projects were much closer to technology as study object. In general, the intellectual milieu seemed to draw on this multiplexity as well as on creating (often through programming) as an important part of the research process. Part of the discussion concerned Ph.D. possibilities and it was abundantly clear that few schools offer the kinds of programs that meet student expectations.[13] The question is whether such a program should maintain the balance demonstrated in a program such as the M.A. in Humanities Computing, or whether it would provide greater emphasis on either technology or an individual discipline. The transfer between different academic levels and schools can often prove to be a challenge as you build up new curricula and interdisciplinary programs. The temptation can also be to abandon a strong multiple affiliation model for more unified, and eventually disciplinary program.

I talked to Geoffrey Rockwell about process and methodology in relation to tool building and textual analysis. He is a well-established researcher and organizer in humanities computing who has long experience from large-scale projects such as Tapor, and he has progressively advocated web-based, modular and relatively open-ended tools for a long time (as opposed to the all-in-one software packages that were common earlier in humanities computing), as well as engaged with social software. When I was there, Rockwell and Stéfan Sinclair had just finished a bout of what they call experiments in text analysis or extreme text analysis. 82

> The idea is simple. Two people do text analysis together with only one person on the computer and the other directing and commenting (and typing a meta-narrative on another computer). This means that all decisions have to be discussed and negotiated which means that one is forced to reflect on what one is doing, which was the point for us. It takes longer, but you get a better result and you are forced to reflect on what you are doing […] Extreme Text Analysis, as we practiced it, was more a reflective practice, that used experiments in small text analysis to reflect on methodology and technology. [Rockwell 2008]

In their practice, they produce short web essays that do not focus on methodology or text analysis, but on the research question posed. It could probably be argued, however, that there is a basic tool-based sentiment here, which is maybe emphasized by the brevity of the individual analyses. Through using modular tools from the Tapor project, they are able to embed dynamic content in the web essays and, for instance, allowing a reader to check a query or try another one. In the example I was shown, the corpus query used in the article could be rerun, but interestingly and innovatively, you could also run a different query. This type of dynamic tool could be quite useful for not least text-centric academic publication. The researchers document the process through a meta level document and they provide reflections on text analysis. All this is done over a very limited period of time. While Rockwell's and Sinclair's extreme text analysis experiments are limited so far, there is no doubt that this is methodologically and conceptually a very interesting approach to text analysis drawing on a new generation of modular web tools, making and experimenting as an important part of the process, and combining interpretative and methodological foci. 83

Encounter 4

I had been intrigued by internet studies for quite some time and was interested in Charles Ess's work in the area, so his visit to HUMlab in the beginning of November, 2009, was very timely. Ess is a professor of interdisciplinary studies at Drury University and presently a guest professor at Aarhus in Denmark. We initiated an energetic discussion about internet studies and other matters, and among other things I learnt that there are presently three handbooks on internet studies or internet research being planned or finished. After his visit, the conversation continued, and the below is directly from our informal email conversation concerning internet studies. 84

Patrik Svensson:	My sense of internet studies (IS) is that it largely focuses on internet as a study object (no surprise of course).

85

Charles Ess:	I would say more on the sorts of human/social interactions that are facilitated by the technologies and applications, FWIW — this focus is why...

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PSV:	IS is not close to the technology in the sense of being involved in much tool building. It

87

	does not typically take place in lab and studio environments.	
CE:	Correct — though occasionally there are the equivalent of controlled experiments that may use a “real” lab or something analogous.	88
PSV:	My guess is also that the community at large does not have a strong sense of being part of “digital humanities” (neither in the humanities computing sense, nor in the more expansive and newer reading even if the latter would be closer I guess).	89
CE:	Unfortunately, I think this is correct — unfortunately, because as someone who tries to keep abreast of both worlds, I'm convinced they have much useful and fruitful to say to one another, but as I said, apart from me and perhaps one or two other people, I don't see much in the way of bridges, much less strong interactions between the two domains.	90
	A good chunk of this may be the artifact of the origins of what has become called Internet Studies predominantly in the social sciences. To be sure, there is some work done from the standpoint of the humanities — critical versions of cultural studies as applied both to online interactions and the scholarship/research thereupon come to mind, as well as the applied ethics work of Internet Research Ethics. But these are areas largely *not* at work, so far as I can tell, in digital humanities and humanities computing.	91
PSV:	There is a strand in the second type of digital humanities that is very much concerned with the future and development of the humanities (beyond the subject area) — using the digital as a vehicle I think — and my sense is that this is not part of IS to any large extent (seeing the field as potentially reforming the humanities — publication practices, tenure evaluation, collaborative work etc.). There would probably be a bit of this I guess — there seems to be a strong interdisciplinary sentiment in internet studies.	92
CE:	Exactly — and again, it may reflect a resource limit, but not on “the other side”: only so many humanists to go around, and while a few become engaged with IS, more became engaged with DH.	93
	(It occurs to me that this in turn may in part reflect the excitement in the 1980s re. hypertext and hypermedia, which dominated at least U.S. attention — including the now venerable TLG [Thesaurus Linguae Graecae] that Willard [McCarty] worked on. That is, those of us who cut our digital teeth on hypertext and hypermedia could see very clearly how computing would radically transform our work in the humanities, so I see this as providing considerable direction and momentum in the trajectory you describe in terms of this strand of the second type of DH.)	94
PSV:	Also, I do not get a sense that most internet studies researchers experiment a great deal with alternative modes of expression, multimodal installations etc. This is important to some kinds of new digital humanities — as represented in the journal *Vectors* among others.	95
CE:	I think it's more accurate to say that they primarily study it as an artifact more than they actively experiment with it, e.g., as many people in Scandinavia, for example, so so — here, in some measure, in conjunction with a strong tradition of design. As you initially said, while more or less everyone I know in IS is tech-happy and tech-savvy — very few	96

	take this to the point of actively constructing alternative environments, etc. in the name of research. There's just so much happening before us that it's all one can do to try to research and explore the diverse social and communicative phenomena from especially (but again, not exclusively) social science perspectives...

PSV:	Finally, there are some parts of new media like studies or initiatives (not digital humanities normally) that engage in “academic activism” — using technology to (potentially) change the world or make a political statement etc. Again, my sense is that is not a major part of IS? You may find this sentiment as part of certain kinds of cultural studies I imagine, but it does not seem to be mainstream to me in IS.	97

CE:	Again, I think this is quite accurate — though a more complete picture, in my view, goes like there. A significant number of researchers and scholars in IS are motivated, to some degree or another, by what they see as the transformative potentials of new communication technologies, though this is not always apparent or overt in their work. On occasion, the commitment to progressive politics creates tensions — both with the disciplinary requirements for some version of objectivity (lots of discussion, of course, re. “positivist” notions whose ghosts will walk the halls of many departments...vis-à-vis, for example, participant-observer methodologies, etc.) and, e.g., in the case of AoIR, institutional/organizational requirements to avoid overt political stands. ICT4D [Information and communication technology for development] is a place where this can comfortably and appropriate come to expression, as well as in cultural studies of the Anglophone sort — though one of our major points of contrast and tension (not to say, conflict) at the recent AoIR conference was how more German-oriented and philosophical senses of critical theory apparently failed to take on board the more radical critiques from the standpoint of race, gender, and sexuality at home in a more Anglophone critical studies tradition.	98

PSV:	I would be very thankful for any comments or clarifications! I realize that IS is not one thing, and that the above is an overgeneralization. I am so glad I met you, and with your experience, work on the edited volume etc. you are a perfect person to ask.	99

CE:	I hope this helps somewhat — and again, many thanks in turn: this has been most helpful indeed for me, and I couldn't be more pleased but to have had the opportunity to start to discuss these matters with. To be sure, I like to think that the work on the Blackwell volume, along with serving on the Executive Committee of AoIR, etc., gives me something of a reasonable overview — but it also gives me the very strong sense that for any generalization/observation I may want to make, the object of my attention is in constant flux and transformation and is being studied from thousands of diverse disciplinary and cultural perspectives: what the hell do I know?	100

Part III: Modes of Engagement

Introduction

In a conceptual and disciplinary map of the digital humanities, the encounters described above and the examples cited earlier would be distributed over a rather diverse territory. One important, distinguishing parameter is how different perspectives and initiatives relate to information technology and the digital. For example, as we have seen, traditional humanities computing tends to have a rather instrumental relationship to information technology, which serves primarily as a tool, whereas a cultural or media studies-based approach is more likely to focus on digital culture and the cultural construction of information technology as a study object. 101

In the previous analysis, it has been suggested that the territory of the digital humanities can be analyzed fruitfully through looking at principal modes of engagement between the humanities and information technology or the digital. Below, I will examine five major modes of engagement in some more detail: information technology as a tool, as a study object, as an expressive medium, as an experimental laboratory and as an activist venue. The first three modes will receive the most attention. Importantly, these should not be seen as mutually exclusive or overly distinct but rather as co-existing and co-dependent layers, and indeed, the boundaries in-between increasingly seem blurry. This does not mean, however, that it may not fruitful to analyze and discuss them individually as part of charting the digital humanities. 102

Different disciplines are likely to privilege different modes of engagement. For instance, cultural anthropology would seem more concerned with technology and the digital as an object of analysis than as a tool, and the converse relationship would probably be true of large parts of history as a discipline. Similarly, different approaches and interdisciplinary research fields express different configurations of engagement with the digital. Some of these will be explored below. 103

Tool

The instrumental role of information technology seems rather self-evident. Computers and, more generally, information technology are very capable of handling an increasing set of tasks. Historically, computers have often been seen only as tools, although that perception has changed over time[14]: 104

> In its fifty-year history, the computer so far has been a calculating machine, an electronic brain, a filing cabinet, a clerk, and a secretary. […] In the 1940s, when the brilliant and elegant John von Neumann, the brilliant and eccentric Alan Turing, and many others were designing the first programmable computers, they were not defining a new medium. They were building super-fast calculating engines to solve problems in science and engineering. [Bolter & Gromala 2003, 15]

Computers in humanities computing often take on the role of "calculating engines," and although the focus is not on science or engineering problem, they often become "textual engines." Also, underlying the use of computers as a tool may be an ideology of cognition and functionalism (cf. [Golumbia 2009]). As has been noted, the instrumental relationship to information technology is nearly a defining property for traditional humanities computing. The website for the Institute for Advanced Technology in the Humanities (IATH) states that "[o]ur goal is to explore and develop information technology as a tool for scholarly humanities research" [IATH].[15] This focus on tools naturally entails that the tools envisioned are different from standard tools such as word processing and web browsers. The challenge, as identified by Andrea Laue and others, also involves producing a new set of tools that are not as machine-like: 105

> In practice, the symbiotic machine became a problem-solving rather than a problem-posing device. For the most part, that is how the computer continues to function. Licklider's dream remains largely unfulfilled. Perhaps transforming the computer from machine to tool, from a device that automates mundane mental tasks to one that augments critical and creative thought, is the task now facing computing humanists. [Laue 2004, 159]

Interestingly, Laue's argument is clearly placed within the framework of computer as machine or tool. In some other varieties of digital humanities, for instance cybercultural, internet and media studies and internet studies, the instrumental use of information technology does often not extend far beyond standard tools. Here the tools used are mainly a means to an end and do not necessarily carry much prominence. Neither is there typically a strong interest to create and develop tools. 106

Increasingly, however, different kinds of tools and data are made available over the web, and it would seem much easier at the present for researchers to try out available tools than previously — for instance, through employing web-based software such as visualization tools or various APIs[16] to online services such as map services, social platforms and data base systems. Data can also be systematically collected from online environments, games (e.g. game metrics), as well as through tools and methodologies such as eye-tracking equipment (e.g. for analysis of game play or online 107

newspaper reading) and multi-spectral analysis (e.g. reconstruction of the making of art pieces such as paintings). Environmental archaeology data can be used for large scale aggregated modeling and visualizations of pre-historical environments, and data and material about historical sites can be used to create virtual reconstructions. Naturally, methodology and critical assessment of data sources and interpretative processes are quite important here. The same is true of grand projects such as "cultural analytics" at University of California at San Diego, which strive to use quantitative, analysis, interactive visualization and, to some degree qualitative analysis[17] to "begin analyzing patterns in massive cultural data sets" [Manovich 2009a]. Manovich describes the implications of such an approach:

> We believe that a systematic use of large-scale computational analysis and interactive visualization of cultural patterns will become a major trend in cultural criticism and culture industries in the coming decades. What will happen when humanists start using interactive visualizations as a standard tool in their work, the way many scientists do already? [Manovich 2009b]

Here, very powerful tools are projected, and the cultural analytics research group has some impressive examples[18], but obviously any alignment with science methodology in this manner should be critically analyzed, as well as the hopes invested in visualization and access to large amounts of data. [LaMarre 2010] points to the importance of the humanities being involved in setting agendas for this kind of work to avoid "a massively scientifistic attitude" as well as his reservations in terms of methodology: 108

> For experimenters know that the set-up is directed toward a certain problematic, and if the results are not predictable in advance, they will nonetheless fall in a certain range and register of experience. Without foregrounding some of these issues, I think we risk capitulation to neoliberalism and the university as hedge fund, to put it crudely. [LaMarre 2010]

There is obviously a range of available and possible digital tools for the humanities, and it does not seem that the digital humanities has yet developed a comprehensive framework, design sensibility and assessment methodology that will allow us to design, critically discuss and evaluate different kinds of tools in the best possible way (cf. [Kirschenbaum 2004]). Maybe this is not possible given the diversity of tools and epistemic traditions, but at least we need to foster careful design and the reflective analysis of tools. As for the design process, there seems to be a fairly common realization that the digital humanities have not traditionally focused on design or realized the importance of it. 109

> Blindness to the rhetorical effects of design as a form of mediation (not of transmission or delivery) is an aspect of the cultural authority of mathesis that plagues the digital humanities community. [original emphasis] [Drucker 2009a, 6]

The work of Drucker and her colleagues at University of Virginia is inspirational in the sense of innovation within a conceptual framework, a strong interest in design and a critical discussion of both the framework and the actual tools. Several of the tools or projects (e.g. *Temporal Modeling* and *Ivanhoe*) are situated and carefully described in [Drucker 2009a]. One interesting question is why we do not see more interpretative tools of this kind following these early experiments. It may be cost, a strong tradition of more established tools, low adoption, or possibly limited generalizability over curricula and institutions. 110

Another fairly well-documented example is Pliny developed by the Center for Computing in the Humanities at King's College which is a note-taking and annotation tool particularly aimed at humanities research and which allows users to "integrate these initial notes into a representation of an evolving personal interpretation" [Centre for Computing in the Humanities]. There is a fairly strong conceptual grounding here: 111

> In Bradley 2005 I suggested that tool builders in the digital humanities would have better success persuading their non-digital colleagues that computers could have a significant positive benefit on their research if the tools they built fit better into how humanities scholarship is generally done, rather than if they developed new tools that were premised upon a radically different way to do things. [Bradley 2008]

Pliny is deliberately not web-based (and hence maybe set in a old-style instrumental paradigm) and the power comes from the openness and not making too many assumptions about what resources may be valid or how a detailed interpretative process works — instead allowing space for that interpretation and epistemic alignment to be carried out. In this space creating, Pliny and the UVA tools have something in common, although the rationale, reasoning and epistemic commitments behind them are quite different. 112

A third example is the UC Los Angeles-based project HyperCities which may arguably be classified as a tool or a set of tools, but project leader Todd Presner says that he rather sees it as "part of an intellectual-humanistic project for conceptualizing/studying culture and cultural artifacts" [Presner 2009]. HyperCities is an ambitious project with its research driven conceptual grounding, use of online sources such as Google Maps, powerful visualization, rich layering of information and materials, user (including student) annotation and international perspective (cf. [Presner 2010]). It is quite easy to see how it has real research and pedagogical potential, and how the interface and richness of the materials can easily attract humanities scholars. It is also a platform and concept that has both maintained a conceptual basis and developed considerably from the early start as Hypermedia Berlin (the first pilot version was launched in 2004). In essence, the platform has become much more participatory and dependent on established Web 2.0 tools such as Google Maps.[19] The challenge for such large-scope projects may be to keep abreast as new projects and platforms emerge, and also, some early system level decisions can affect possible functionality. In the case of HyperCities, it would seem that the system was not originally designed to allow for searching as a main way to interact with the database and materials, which can be seen as problematic when "search" is currently such a strong paradigm. 113

This is obviously not the place to present a fully-fledged framework for classifying and analyzing digital tools for the humanities, but hopefully the above examples can work as a way of opening up a discussion of relevant parameters. It is fairly obvious that we are concerned with a range of tools and tool uses. Some are more specific to the digital humanities than others. For instance, while word processors certainly play a very important role for digital humanities, they are not specific to digital humanities. A concordance program, however, is much more specific and used by a smaller group of people. Many of these users would be "digital humanists" in disciplines such as linguistics and literary studies. This tool has an analogue predecessor and a largely "automatic" function. Consequently, it could be argued that a traditional piece of concordance software exhibits a high level of automaticity and fairly low degree of innovativeness. We may also want to refer to the interpretative, representational and explorative powers of tools: 114

> To date, the digital technology used by humanities scholars has focused almost exclusively on methods of sorting, accessing, and disseminating large bodies of materials. In this respect the work has not engaged the central questions and concerns of the disciplines. It is largely seen as technical and pre-critical, the occupation of librarians, and archivists, and editors. The general field of humanities education and scholarship will not take up the use of digital technology in any significant way until one can clearly demonstrate that these tools have important contributions to make to the exploration and explanation of aesthetic works. [McGann 2002]

There is a difference between a tool that mainly allows you to search for linguistic constructions in a text database (showing results in a table or concordance list), and a tool that does that as well as provides an interface where you can visualize results, create interpretative models, collaborate with others and combine different medial representations (for instance sound-audio, text, a timeline and relevant metadata). 115

Further suggestions for what to look for in analyzing and designing tools are the materiality of the interface, structural properties (e.g. layering of information), collaborative affordances, interpretative scope and modes of distribution. Through interaction design research, a number of digital artifact qualities can be brought into the picture. For instance, [Lövgren & Stolterman 2004] bring up categories such as motivation (e.g. playability and seductivity), immediate experience (e.g. pliability and fluency), social level (e.g. social action space and identity), structural qualities or engineering ideals (e.g. elegance and efficiency) and user creation of meaning (e.g. ambiguity and surprise). Also, certain methodologies and work practices from the design world may often add significantly to digital humanities practices — for instance prototyping, participatory design and combining conceptual level work with careful consideration of interface and interaction. 116

Digital tools should not be seen as neutral artifacts. In their construction and contextual use, they reproduce certain assumptions. While generic tools such as word processing programs are arguably more easily construed as "neutral," it would seem that the subjective and epistemic nature of tools is more explicit with interpretative and experimental tools. This does not mean that the epistemic commitments associated with digital tools and tool use are well understood or given enough attention. As [Ratto 2006] shows, these commitments are particularly relevant when different disciplines and outsets deal with the "same" digital objects, and hence important in relation to an expansive notion of digital humanities. Epistemic commitments may influence and determine identification of study objects, methodological procedures leading to results, representative practices, and interpretative frameworks. 117

Study Object

Information technology, or more broadly the digital, can be seen as affording objects of analysis for the humanities. Linguists may use digital tools (such as concordance software, acoustic analysis or dialectal mapping tools) to do their research, but if they move to incorporate digitally mediated language or communicative patterns in Second Life as objects of study into their research, we are concerned with a different mode of engagement. Of course, these objects may be studied using digital tools. These "new" objects of study (see [Peters 2009] for a sophisticated argument of the "new" in new media) can be more or less controversial in relation to the discipline at question. They can clearly be within the disciplines, arguably be part of new, emerging disciplines or relate to different kinds of interdisciplinary centers and associations. 118

The institutionalization of the humanities in the late 19th century and former part of the 20th century may be said to have linked certain objects of study, or facets of those objects, to certain disciplines. In her analysis, [Klein 1990, 24–8] discusses this process of disciplining and how it was related to scientification of knowledge, a new relationship between amateur and professional, and often minute methodologies to handle humanistiqc objects. The "same" analytical objects could be analyzed using the different methodologies strongly associated with the disciplines, but with this growth of disciplinary focus and specialization, there not would necessarily be a great deal of synthesis. 119

This model has been under pressure from an increased interest in interdisciplinary studies and different types of thematically organized research agendas. 120

> It is easy to see, in hindsight, how disciplines professionalized and specialized objects of analysis. To say that such objects were (under the older regime) disciplinarily driven is to say that disciplinary demands — historical and textual, institutional and official, methodological and epistemological — determined which were legitimate for analysis. [Davidson & Goldberg 2004a, 49]

Davidson and Goldberg point to how interdisciplinary practice calls for objects of analysis that are more diffuse and multiplex than those disciplinarily conceived. There is a tension between this type of object and the established sense of what normally constitutes a valid object of analysis in the traditional humanities. 121

> Traditional humanistic work assumes its object. A book, poem, text, image, or artifact, no matter how embedded in social production or psychoanalytic tangles, is usually assumed to have a discrete, bounded identity. [Drucker 2009a, 28]

Drucker emphasizes the codependent nature of that identity. One interesting question is how and if these codependent identities and diffused objects of analysis are manifested in the digital humanities work that primarily see the digital as a study object.

Let us again look at a particular community that can be assumed to have a commitment to technology as study object in a broad sense. In this sense, study objects include phenomena, cultural artifacts and processes that to some extent are digitally inflected. There is a fairly large group of researchers whom engage in "internet studies," of which many are organized by the Association of Internet Researchers (cf. the encounter described in Part II above). They had their tenth conference in October 2009. The organization is presented on their website as follows: 122

> The Association of Internet Researchers is an academic association dedicated to the advancement

> of the cross-disciplinary field of Internet studies. It is a member-based support network promoting critical and scholarly Internet research independent from traditional disciplines and existing across academic borders. [AoIR]

The description above must be taken to be a fairly authoritarian as it appears on the main “about” page on the organization’s website. Moreover, it is interesting to see that the research promoted is described as “independent from trauditional disciplines.” While we should not read too much into this, it is somewhat telling that the perspective presented is one of alleged independence rather than one pointing to the interaction between the organization and associated research in the traditional disciplines (where most of the participants are probably located institutionally).

123 Returning to the question of modes of engagement, it seems quite clear that the principal mode for internet research of this type is the digital or the internet as an object of analysis. This is not very surprising, of course, but it makes internet studies an interesting area to look more carefully in this context — also because it is a large and important organization. The investment in this particular mode of engagement seems quite clear. As the above quote shows, the internet is not necessarily seen as a study object that can be handled within the realms of any existing or new discipline, or even from an interdisciplinary, but not transdisciplinary, perspective.

> A trandisciplinary field is one defined by the globality of its object of study, combined with the complex, emergent, and changing nature of that object (Genosko, 2002, p. 26). The very nature of the Internet as an object of study is its incomprehensibility as a whole from disciplinary or interdisciplinary perspectives. [Hunsinger 2005, 277]

124 The study object is thus seen to be too complex or dynamic to be managed by any one discipline, and it can be argued that an approach less based on traditional institutional structure has clear advantages.

> In the indisciplined approach, there is no importance attached to unity of perspective or method because there is no need to engage in exclusionary boundary work. There is only a shared commitment to the importance of systematically analyzing a new phenomenon, even if that phenomenon changes. [Shrum 2005, 274]

125 We might question the ease of analyzing such objects without doing boundary work (where much of the interesting tension tends to take place) and with only a common commitment to analyzing a specific phenomenon (which in a sense makes the studied phenomenon static). It would seem that there is a risk here to disregard the epistemic commitments of the disciplines, as well as the emerging commitments of a new research community.

126 In any case, the connection to the digital humanities, which has a stronger historical and epistemic link to technology as a tool, is seemingly weak. Part of the reason is probably exactly the difference in main modes of engagement, and there also seems to be a sense in the digital humanities community, not least the parts more engaged with the digital as a study object, that internet research is too large or too traditional (alluding to the institutional placement) to be included under the heading digital humanities. Looking at the internet research community on a more general level, there seems to be a sense that the perceived independence is quite important.

> Internet research could become a subset telecom research, digital studies, or something else, and when it takes on the identity of the other, it will surely lose some of its current richness. [Hunsinger 2005, 278]

127 This emphasis on independent status was also quite clear from the AoIR website definition discussed earlier. On a more particular level, it is also difficult to identify a sense of internet research (in this organized sense) belonging to the digital humanities. For instance, looking at instances of “digital humanities” on the Air-L email list, the digital humanities is directly mentioned in 27 out of 19619 posts[20], and many of these are announcements coming from departments or organizations more invested in the digital humanities.

128 In some ways, it is interesting to compare internet research and humanities computing as they represent two parallel traditions with rather different epistemic scopes and principal modes of engagement. In [Svensson 2009a], a simple text

based analysis of the proceedings of the annual digital humanities conference (1996-2004) was carried out to get a better sense of the scope of digital humanities as humanities computing. In order to investigate a presumed commitment to technology as study object, we will now briefly look at the annual Association of Internet Researcher conference in a similar fashion. Again, this kind of data should not be taken too seriously, but together with other material and analysis, it can add to our understanding of the field.

129 The analysis is based on ten iterations of the conference (1999-2008) through the full programs of all the conferences. There is hence a partial chronological mismatch with the above study of digital humanities conferences. All titles and names of panels and sessions were included, and all other text removed. Functional words (pronouns, prepositions, conjunctions, modal verbs etc.) were removed, and all "content" words were retained. The 17 most frequent words all occurred in all ten AoIR conference programs: *internet* (absolute frequency: 639), *online* (421), *social* (213), *web* (179), *digital* (148), *community* (145), *virtual* (128), *research* (125), *media* (123), *communities* (116), *new* (105), *information* (102), *use* (87), *identity* (80), *study* (80), *communication* (76) and *case* (73). The contrast between this material and the data from the digital humanities/humanities computing conferences analyzed earlier is significant. While this may not be very surprising, it is interesting to note the very clear pattern. Among the 20 most frequent words for each conference series, there is not a single word that occurs in both corpora. This pattern is also clear in less frequent terms, which tend to be less generic. Looking at the 20th-50th most frequent words, humanities computing as evidenced in the material focuses on databases, models, resources, systems, editions and words, whereas internet studies focuses on space, divide, culture, self, politics and privacy.

130 Humanities based engagement with the digital or technology as an object of analysis is obviously multi faceted and complex, but looking at the digital humanities in a broad sense, this mode of engagement seems quite prevalent. Importantly, the digital may not have to be the main focus itself, but rather phenomena, cultural artifacts and processes that are digitally inflected. Initiatives with a significant investment in this mode often seem fairly discrete in the landscape of the digital humanities while they are rarely in fact recognized as digital humanities.

Expressive Medium

131 One important and apparent consequence of increased digitalization and, in particular, the web, is highly increased access to and availability of different types of content and media. Some of this content is born-analogue and much of it is born-digital. Increasingly, but not necessarily, these expressions are media rich, polytextual and mixed. [Schnapp & Shanks 2009, 147] discuss "fungibility" — the gathering of many types of content (moving image, text, music, 3D-design, database, graphical detail, virtual walk-through etc.) into a single environment — as the core of digital mediation. Content can accordingly be infinitely manipulated and remobilized without loss. As [McPherson 2009a] points out, some disciplines in the humanities have been affected significantly by this change including visual, media and digital studies. This engagement has typically been on the level of object of study rather than the production of expressive, creative media:

> Nonetheless, we have been slow to explore the potential of interactive, immersive, and multimedia expression for our own thinking and scholarship, even as we dabble with such forms in our teaching. With a few exceptions, we remain content to comment about technology and media, rather than to participate more actively in constructing knowledge in and through our objects of study. [McPherson 2009a, 120]

132 Looking at where we do find complex, multimodal, interactive and networked expressions in the humanities, it is clear that they are more common — but by no means very common — in undergraduate education than in faculty research. This can presumably be traced back to the idea that students are seen as more adept at using new media and that they need this kind of literacy for future careers (in particular outside the academy). On the whole, undergraduate education is probably also more likely to change in relation to external expectations and availability of new expressive modes than research carried out by senior scholars as part of a highly structured reward system. This does not mean that the traditions of undergraduate humanities education are not challenged by these modes:

> That is, digital media, functioning as they do in the world of networked computing, often break down

> the boundaries we once took for granted in setting tasks for our students: the finality of composition, the identity of the author, the role of the audience, and the unity of purpose. [Rabkin 2006, 136–7]

133 For instance, looking at the role of the audience, it is quite clear that the sense of an external, and potentially engaged audience, often has a strong motivating function in educational contexts [Svensson 2009b]. More generally, it seems that there is a movement, although fairly slow, in humanities education towards alternative modes of production. [Mactavish & Rockwell 2006] make an interesting comparison with the visual and performing arts and the process leading to their integration into academic curricula:

> In its growing interest in the research and instruction of multimedia art, design, and culture, therefore, humanities computing finds itself in league with the visual and performing arts in legitimizing technological practice and the creation of non-textual-only scholarly artefacts. [Mactavish & Rockwell 2006, 241]

134 It is not surprising to find that such expressions are more common in undergraduate education than in faculty research and graduate education. An important determining factor is the reward structures of academe. For tenure-track scholars, there is often a sense that digital modes of representation may place you at a relative disadvantage. Indeed, this may be outright advice from senior faculty and administrators. These reward structures may be changing, but at a very slow pace and there is no simple path forward although work such as “New Criteria for New Media” [Ippolito et al. 2009] is part of a lively and important discussion.

135 The reward structures, however, do not always stop Ph.D. researchers from expressing themselves alternatively, but it is often seen as an “extra” undertaking which does not replace the traditional work needed to qualify academically. Indeed, this pressure sometimes seems to result in securing very strong academic merits as we well as engaging in alternative practices and modes of production.[21] In some of the discourse surrounding this issue, it may appear that every digital humanist would have an interest in alternative, non-traditional production, but this is obviously not the case. Monographs and, in some disciplines, peer-reviewed articles, are not just tied to a traditional reward system, but may represent a dream of academic expression and a distinct scholarly identity for many young researchers. This sentiment may be difficult to disentangle from the fact that publishing presses and venues are invested with respect and value. [McPherson 2009b] points to the importance of working with academic presses to form new kinds of partnerships and platforms for digitally-rich publication.

136 There is a range of possible digitally inflected modes of expression, and these are situated within different disciplinary, institutional and personal contexts, and consequently come with different implications and degrees of risk taking. A dissertation presented as a virtual world installation would naturally be much more challenging to the established system than a personal research blog or a research oriented Twitter feed. If that Twitter feed, however, was suggested as carrying academic weight in a tenure portfolio, the stakes would be much higher. Similarly, an online video clip would not be expected to adequately present a research proposal to a funding agency, while it may be seen as potentially useful (or at least not harmful) as a reference in a written application.

137 It might be fruitful to also consider less extreme expressive situations where the stakes are not quite as high. The MLA conference in December 2009 provides an interesting example because of the use of networked (mainly text based) communication channels, and how this communication and exposure contributed to a conference that was not technology focused, as well as the external “reading” of the conference. In particular, the digital humanities contingency at the conference got received fairly large exposure despite their comparatively small numbers. According to Amanda French's calculation, a mere three percent of the conference participants were tweeters (in the sense of producing “Twitter entries” or tweets), and only few of these came from outside of “digital humanities.” The relatively large exposure was partly because there were many digital humanities-like sessions, many of them reportedly well attended, but also because the digital footprint of this contingency was comparatively large. Twitter played an important role and the hash tag #MLA09 accumulated 1750 tweets between Dec 4, 2009, and January 4, 2010 (the majority during the actual conference, and the days before and after). Also, the story of one previous attendee, Brian Croxall, and his not coming to the conference for financial reasons made the connection between remote and present participation quite

prevalent. In particular as this non-attendee posted his panel contribution online and tweeted about it at the same time as it was read at the conference [Croxall 2009]. Other participants at the conference posted their contributions before they did their conference presentations, and in these cases there may be a Twitter flow before, during and after the actual presentation.

138 Some of these uses of media are no more revolutionary than adding a YouTube reference to your application, and the buzz may not be proportionate to the actual impact at the conference,[22] but overall, one can see how the totality of the conversation and the flow, the media attention (including two articles in the *Chronicle of Higher Education*) and the power of aggregation of communication have the power to influence established structures and possibly change the dynamics of an academic conference with a considerable commitment to traditional humanities values.[23] Though perhaps not achieved at the MLA conference, there were certainly some illustrative steps taken in this direction. An even more recent example is provided by two partially simultaneous conferences in March 2010 with strong links to the digital humanities: the “NITLE Summit 2010: Advancing towards Liberal Arts 3.0” and the conference “Online Humanities Scholarship, The Shape of Things to Come”. Here there was a fairly substantial Twitter-based dialogue, uptake of tweeted questions on the floor, and cross tweeting between the two conferences. I will look at these two conferences more closely in the fourth article in this series.

139 A quite different and unsuccessful example of recent use of networked media in a conference situation is the Web 2.0 Expo conference in November 2009, at which a so-called back channel was made front channel through a screen behind the presenter. Tech celebrity Danah Boyd describes her experience of the setup as a speaker:

> And then, within the first two minutes, I started hearing rumblings. And then laughter. The sounds were completely irrelevant to what I was saying and I was devastated. [...] I didn't know what was going on but I kept hearing sounds that made it very clear that something was happening behind me that was the focus of everyone's attention. [Boyd 2009]

140 Her subsequent analysis importantly states that a public-facing Twitter stream forces the audience to pay attention to the back channel. Part of the challenge ahead is about exploring digitally inflected modes of academic expression, how they interrelate, and their importance for humanities scholarship.

141 As David Goldberg noted in a talk on May 14, 2009, at Umeå University, it is often easier to accept a changing process than a changed end product. Most of the papers and panels at the MLA conference discussed above were traditional in terms of deliverance, and the use of networked media (mainly “process”) did not influence these “products” in any major way (with the possible exception of Croxall's paper). Looking at academic publishing rather than conferences, a rich collaborative and networked process may be what leads to the publication of monograph (a privileged form of publication), but the monograph itself is likely to be seen as the product of one person or a few people. The process may partly be multimodal and networked, but the product is likely to be textual and single voice.

142 It seems clear that new academic journals only published digitally are more likely to be open to alternative modes of publication than traditional print journals,[24] and I will now look at two examples from the world of digital humanities: *Digital Humanities Quarterly* and *Vectors: Journal of Culture and Technology in a Dynamic Vernacular*. These journals reflect two fairly different traditions in the digital humanities. The inaugural issue of *Vectors* is from the fall/winter of 2005 and the first DHQ issue was published in the spring of 2007.

143 *Digital Humanities Quarterly* is published by the Alliance of Digital Humanities Organizations as a peer review and open access journal. It is exclusively an online publication and there is a commitment to “experiments in new media.” [DHQ About] A distinction is made between text centric and media centric submissions, and the former are submissions whose base format is text that may include ordinary multimedia such as image, sound and video files (in standard formats). Media centric submissions are defined as “submissions whose base format is something other than text. They may include ‘extraordinary multimedia’ (multimedia in non-standard formats) and may involve more complex interactive behavior.” All submissions can be media centric (or text centric), but there is also a specific submission type called “interactive works.” According to the Guidelines for Submission, suitable works can include original hypertext fiction, an

online educational application or game, an interactive visualization or an original interactive digital artwork [DHQ IM Guidelines]. Despite this expressed interest in interactive works and a commitment to experimentation, in many ways *DHQ* remains, at least on the level of its interface, a traditional, text-based academic journal. However, we need to acknowledge the importance of the journal having an open access format, underlying structured data and a rigorous peer-review system as well as being freely and publicly available.

144 *Vectors* never set out to be a traditional academic publication, but rather an experimental journal. It would seem to be an expression of the multimodal humanities that editor [McPherson 2009a] described in her categorization of the digital humanities. The following description is from a Call for Projects from the spring of 2004:

> *Vectors* is a new, international electronic journal dedicated to expanding the potentials of academic publication via emergent and transitional media. *Vectors* brings together visionary scholars with cutting-edge designers and technologists to propose a thorough rethinking of the dynamic relationship of form to content in academic research, focusing on the ways technology shapes, transforms and reconfigures social and cultural relations. [Vectors Journal 2004]

145 It is clear that *Vectors* deliberately positions itself in relation to traditional academic publishing as well as first-generation multimedia work. There is a commitment to "moving far beyond the 'text with image' format of most online scholarly publications." At the beginning of 2010, five issues had been published (Vol 1:1 to Vol 3:1), with a sixth expected to go live soon.

146 On a simple numerical level, *Vectors* and *DHQ* have generated about the same number of issues, although *DHQ* started two years later. Each *Vectors* issue has a specific theme, and for the first five issues the themes have been "Evidence", "Mobility", "Ephemera", "Perception" and "Difference". Of the *DHQ* issues published so far, there is one themed issue "Changing the Center of Gravity: Transforming Classical Studies Through Cyberinfrastructure" and three thematic clusters: "Done", "Data Mining" and "Digital Textual Studies: Past, Present, and Future." A simple comparison of the thematic foci hints at different epistemic traditions being involved. The themes chosen for *Vectors* relate to broad humanities-oriented research areas whereas the *DHQ* theme and clusters focus more on technology, methodology and the development of textual studies. Again, the data are crude, but the pattern is fairly clear.

147 In the first five issues of *DHQ* (Vol 1:1 to 3:2), there are a total of 36 articles (including the "special cluster" contributions). Of these, more than a third (14) have no non-textual elements whatsoever, although three of the articles have textual tables. Another 4 articles have a single non-textual element: a picture of deformed text, an inscription on a stone, a mathematical formula, and a screenshot from a piece of software called the manuscript browser. It is interesting to note that these images are indeed very textual. Looking at the full *DHQ* material, there are many images of manuscripts, book pages and text-oriented software.

148 It could be argued that the privileged mode of engagement of *DHQ* is technology as a tool and that there is a strong interest in digitalized text, editions, text analysis and methodology. Moreover, it would seem that this epistemic tradition is also represented in the actual medial expression. The journal is predominantly textual, many of the relatively few non-textual elements allude to text, the text is XML encoded, and amenable to "use" and reference. In sense of multimodal representation and digital expressiveness, the journal is not experimental, although there is a solid textual basis that can possibly be used in tools.

149 *Vectors*, on the other hand, is clearly invested in the digital as an expressive medium in an experimental and creative way. The technology itself does not seem to be a primary focus, whereas it is interwoven in a critical study of the digital (on one level, as a study object) as well as in the actual academic expression. This excerpt is from the introduction to the "Difference" issue (Vol 1:3):

> In trying to understand how difference matters in the digital era, we should perhaps suspect that the very structures of our information economy (and of the code that underwrites it) look a particular way today precisely because the Civil Rights and other freedom movements happened at mid-century. Both cybernetics and Civil Rights were born in quite real ways of World War II and are

> caught in tight feedback loops. Certain aspects of modularity, fragmentation, and dispersion that are endemic to digital media also structure the more covert forms of racism and racial representation that categorize post-Civil Rights discourse. [McPherson 2007]

150 *Vectors* presents a challenge in terms of analysis as it is much more difficult to "get to" in terms of the full content compared to *DHQ*. In *Vectors*, media and content are embedded in the projects, and principally, the projects have to be "experienced," and the reader often gets content bit by bit. For a few projects, there is a visualized index that provides access to different elements that make up that particular project including text, images and connections between elements. Interestingly, these indexes show some of the underlying ontology of *Vectors* in terms of the way content is structured and packaged. The *Vectors* team has developed a Dynamic Backend Generator (DBG)[Vectors Journal DBG 2006] described as a scholarly middleware tool, an easy-to-use database authoring tool and an intellectual sketchpad. Presumably, this tool is not used for all the projects. As any tool, it would seem likely that it imposes a kind of structure and ontology even if it is a very dynamic platform.

151 While *DHQ* allows traditional academic referencing through text and numbered paragraphs, there is no easy way to reference bits of content that are part of *Vectors* projects.[25] Indexes allow reference to individual components outside of the project itself, but for most projects, there is no readily available index of this kind. It may be argued that limited referenceability of *Vectors*' "packaging" is a consequence of the multi-modal, installation-like format. Simple text is obviously easier to reference than video or events in game-like worlds. However, this an important issue in relation to a connected "collective ether" [Ippolito et al. 2009, 71], and there is a tension between self-contained installation-like academic publications and the kind of referencing and collaborative knowledge building that is an integral part of knowledge building in much of the humanities.

152 This tension can also be evidenced in some of peer commentary and discussion associated with the *Vectors* projects. This comment is by Leo Braudy in relation the Anne Friedberg's "The Virtual Window Interactive" (design by Erik Loyer):

> I wonder generally if the basic interactive format in some ways vitiates the force of an ongoing argument, not just in Friedberg's project but in any project presented this way. A book, say, can be randomly accessed but also may have an argumentative spine. There is certainly a strong spine here, but I find it gets lost in the array of examples and commentary. The timeline functions as a spine of sorts, but primarily as it focuses on the history of developing technology. [Braudy 2006]

153 This is not necessarily a criticism of the format of the journal or this particular project, but rather an issue of what we expect, how cohesion and complex argument are created, what our frame of reference is (book or artistic installation), as well as modes of consumption.

154 While there are obviously structural commonalities in design and expression in *Vectors*, there is considerably variation in terms of expression. In the "Difference" issue discussed above, the projects are quite different. "Blue Velvet: Re-dressing New Orleans in Katrina's Wake" by David Theo Goldberg and Stefka Hristova (design by Erik Loyer) is fairly sequential on one level, as you get access to a new main text as soon as you have "read" the previous one. Arguably text is the dominant carrier of meaning, although the piece is also distinctly aural, visual and almost poetical. The textual expression itself is not uniform. Not only does the text move, but it also is textured through the use of different font sizes, colors and at times slanted text. The layout and presentation of text is meaningful and an important part of the narrative. There are also a number of images and a few films, all of which contribute to a coherent and suggestive narrative. Another of the projects, "Killer Entertainments" (by Jennifer Terry, design by Reagan Kelly), uses three juxtaposed windows with video clips of combat from Iraq and Afghanistan as well as contextual, networked nodes that provide information and critical reflection. The "RED Project" (by Christian Sandvig, from the same issue) traces predicted Wi-Fi use on an information layer on top of Yahoo! Maps based on statistics, U.S. census data and a conceptual model.

155 This expressive variation contrasts starkly with *DHQ*, where the format and mode of expression are quite predictable and conventionalized. To use *DHQ*'s terminology and classification, *DHQ* is text centric publication whereas *Vectors* is a media centric publication. These expressive preferences are tightly linked to different epistemic traditions. *DHQ* comes

from a humanities computing tradition invested in text and tools, and *Vectors* comes from a cultural studies and media production setting (at University of Southern California), where the digital is both a multiplex expressive mode and an object of analysis.

In most ways, *DHQ* is a traditional, if digital, publication. There is a structural layer of encoding, but at this point, it seems more part of the back end than really useful for most readers, and there is certainly great potential here. For instance, there would seem to be a niche in relation to encouraging dynamic interfaces to textual databases (cf. the discussion of extreme text analysis in Part II of this paper). There is also a conveyed interest in alternative modes of expression, but there is not much yet in terms of content. This clearly indicates the difficulty of actually facilitating complex multi-modal modes of academic expression. 156

Vectors has focused on being experimental and multi-modal, and has implemented and funded a production process that includes fellowships and additional resources. Needless to say, both are important publication venues for the digital humanities, although in different ways. It is not chance that the current article was intended for the *Digital Humanities Quarterly* from the very beginning. 157

Exploratory Laboratory

Some instrumental uses of digital technology in humanities contexts introduce an exploratory methodology, where the researcher or student is encouraged to explore materials, datasets or issues in an experimental fashion. A simple example would be a series of multimedia productions produced in Sweden about 10 years ago which covered the history of different parts of the capital (e.g. “Söderskivan” which covers the Southern part of Stockholm), by tracing history, large-scale demographic data and an extensive set of materials through an interactive and exploratory interface [Stockholm City Archives 1998]. This interface allowed easy navigation through large data sets, used multiple modes of visualization, gave quick responses and encouraged experimenting with the material. Although not interpretative in a strong sense, there is definitely a conceptual link to interpretative tools of the type discussed earlier, as exemplified by the tools the University of Virginia has produced. In this case, information technology does not only help manage, visualize and make accessible very rich materials, but it also facilitates exploratory and experimental interaction with the materials in a way that would not be possible without the technology. 158

At a more concrete level, humanities laboratories or digital humanities centers can also be exploratory laboratories that support exploration and experimentation whether in physical, digital or hybrid spaces. The exploratory affordances in an environment such as HUMlab at Umeå University come from the availability of data sets, a mix of analytical and creative practices, interdisciplinary challenges and competencies, international visitors, easy access to different types of technologies (that do necessarily have a precise, predefined function), and from the sense of being in a collaborative, lab or studio like space. Digital platforms such as TAPoR (Text Analysis Portal for Research) and Second Life can also function as exploratory spaces. When museology and culture analysis students at Umeå build exhibitions in Second Life and produce machinima films, the digital space is used as a laboratory that enables enactments and experimentation that would be quite difficult to facilitate in physical space. Similarly, when a researcher explores a text corpus through a collection of “interactive” tools provided in TAPoR, we may be concerned with a use of technology that extends beyond instrumental tools. 159

If we consider the digital more generally as a possible laboratory for the humanities, the discussion can be extended beyond specific interpretative and exploratory tools and spaces. The Humanities is often portrayed as not having a predicative or intervening role, whereas the sciences are said to attempt to both explain and predict natural phenomena. In looking at the primary interests of natural scientists, social scientists and humanists, [Kagan 2009, 4] makes an overarching distinction between predication and explanation of all natural phenomena (natural scientists), predication and explanation of human behaviors and psychological states (social scientists), and “an understanding of human reactions to events and the meanings humans impose on experience as a function of culture, historical era, and life history” (humanists). 160

In a seminal article, [Janlert & Jonsson 2000] introduce the concept of *cultural laboratory*. They discuss experimental practices of disciplines such as physics, chemistry and biology, including controlled experiments and interceptive 161

methods in limited and controlled environments. According to the authors, traditional humanities disciplines such as history, linguistics, comparative literature and art history make use of such practices to a very limited extent. Also, although the sciences study the “given” (nature) and the humanities study the “created” (what humans give rise to), the sciences are more prone to use active, interventionist methods and be involved in creative processes (e.g. creating new technology or materials). The humanities, which studies dynamic processes and cultural products associated with humankind, tend to observe, document and analyze, and are rarely seen as an important factor in creative processes.

Janlert and Jonsson argue that there are several reasons as to why the humanities tend to be analytical and passive in relation to their study objects: unmanageable objects of analysis (difficult to control and restrict), lack of scalability (often very substantial study objects that cannot be downscaled, and individual cultural artifacts that scale up badly because of the large number required), powerless models (limited quantitative models and lack of tools to manage large-scale qualitative analysis) and, finally, intervening and creating are often seen as controversial in the Humanities (ideologically difficult to implement active and intervening work processes). 162

It seems clear that modern information technology can have a significant role in facilitating the type of exploratory space — cultural laboratory — that Janlert and Jonsson discuss. The following is partly based on Janlert and Jonsson’s article. Dynamic visualization can offer a window to large data sets and possibilities to visualize or enact complex objects of analysis. Interactive tools can help the researcher to get an intuitive sense of objects of analysis and the model, and allow fast what-if analyses. On a more profound level, researcher interaction can change the models themselves, or their parameters, data and relations to allow the study of hypothetical correlations or comparison of outcomes from different models applied on the same object or situations. “Thick,” qualitative models — of detailed environments, objects, processes and correlations, unstructured information — can be handled through use of technology, and complex qualitative correlations can be modeled by massive simulations. Digital, controlled spaces — such as virtual worlds — can be used to facilitate cultural laboratory work. Participants in simulations could be humans or computer run entities. Real time interactive data can feed into digitally enhanced research spaces. Of course, all this is fairly visionary and non-concrete, and maintaining a critical stance is quite important. There is no doubt, however, that we see many of the elements discussed here in some of the interpretative digital humanities tools, interfaces to large material, and some of the *Vectors* projects. 163

Activist Venue

The issue of activism as related to the distinction between art, artistic practice and the humanities is by no means clear or uncontested. We earlier used Sharon Daniel’s *Vectors* project “Public Secrets” as an example of an activism in an academic setting, arguably placed within the digital humanities. There is a strong sense of intervention here that resonates with the “active” humanities discussed in the previous section. It could be argued that work such as Daniel’s “Public Secrets” brings together artistic installation and academic expression in a single frame that serves both as cultural critique and activist call for change. Making a connection between “their tinkering, playing, and visualization” and the academic criticism and cultural critique of her own kind of work, [Raley 2009, 14] discusses the aesthetic strategies of artists and activists as using hybrid forms of academic criticism [Raley 2009, 5]. According to Drucker, “making things, as a thinking practice, is not only formative but transformative” [Drucker 2009a, 31], and she includes aesthetic provocation as part of the practice of speculative computing as opposed to traditional digital humanities [Drucker 2009a, 29]. 164

As previously noted, it seems that the contemporary engagement, interventionist interest, critical stance and creative forms of expression associated with some of the digital humanities could be related to a mode of engagement according to which the digital facilitates an activist venue. 165

This activist engagement is, again, more prevalent in some areas than in others. One example is when art and the digital come together, as in the Australian-based email list *-empyre-*. Here activist engagement is often presented in an indirect form and sometimes in a highly theorized fashion. 166

> -empyre- facilitates critical perspectives on contemporary cross-disciplinary issues, practices and events in networked media by inviting guests -key new media artists, curators, theorists, producers

and others to participate in thematic discussions. [-empyre-]

-empyre- themes normally run for a month with guest editors, and previous themes include Sedition (the anti-terrorism bill), Sites in Translation (the San Diego/Tijuana border), Asian Perspective (with Young-Hae Chang Heavy Industries), Play with a Purpose: Politics and Art in Computer Games, and DNA Poetics. In other initiatives and forums, the direct engagement is typically much stronger and there is a stronger focus on acting and intervening. An example of this would be a group such as Preemptive Media (which is related to what is often referred to as tactical media): 167

> Preemptive Media is a group of artists, activists and technologists who are making their own style of beta tests, trial runs and impact assessments based on independent research. PM is most interested in emerging policies and technologies because they are contingent and malleable. The criteria and methods of PM programs are different from those run by businesses and government, and, therefore, PM gets different results. PM hopes that their inquiries create new opportunities for public discussion and alternative outcomes in the usually remote and closed world of technology-based research and development. [Preemptive Media]

In yet other types of experimental work, there may not be a strong or direct agenda per se, but a sense of creating meaning through facilitating different kinds of performative action through the support of digital technology. 168

> In other words, the massively collaborative, search and analysis gameplay of I Love Bees was a means to an end beyond innovative entertainment. It sought to create a highly connected player-base dedicated to, and impressively capable of, defining and solving large-scale problems together. [McGonigal 2008, 203–4]

Would we expect digital humanists to become involved in pervasive gaming, flash mobs, online installations or Twitter performances? The above quote is from a commercial project (I Love Bees), but similar kinds of methodologies have been applied to e.g. academic discourse as in PlaceStorming v 3.0: 169

> If your research were a superhero, what kind of superhero would it be? This provocative question forms the foundation of Jane McGonigal's PlaceStorming, which begins with the seemingly dubious union of academic writing and pervasive, mobile gaming. Not only does the game put the “site” back into “cite,” but it perforates the walls dividing academia and the world at large, inviting academicians to relinquish the sanctity of their written texts and gamers to play with those texts, transforming their meaning through an unlikely process of disassembly, recombination and discovery. [Vectors Journal PlaceStorming 2006]

In the dialogue associated with the piece on the *Vectors* website (with only two entries as of October 8, 2009), one question raised (by Tracy Fullerton) concerns the extent to which this perforation of the walls actually works in the sense of reaching outside an already initiated group and particular context. While this perforation may not have been achieved with this particular example, we need to acknowledge the importance of conceptual experimentation. Additionally, assessing activist and participatory practice must, necessarily, bring in a range of variables apart from actual or presumed impact. 170

In a suggestive article on “Artereality”, Schnapp and Shanks point to the intensity and seriousness of the battle fought in “the cultural spaces being opened up by digital technologies” [Schnapp & Shanks 2009, 147]. Some of the underlying tensions are described here: 171

> The most adventurous niches within higher education have started to register these complexities. They have begun to expand their models of training, research, and output in keeping with the distributive nature of innovation, creation, and authorship within the knowledge economy. Among the many accompanying shifts, there is an increasing erosion of the boundary line once separating the roles of scholar, artist, and technologist, as the old means of distributing knowledge give way to far more fluid means that easily allow creative producers to function in many roles and disseminate

> their productions to vast, geographically disparate audiences. What has emerged are varieties of creative practice that bridge the gap between thinking and doing, between the excavation of the past and the creation of the present, based on what Aristotle referred to as *phronesis*: knowledge integrated with practical reasoning. [Schnapp & Shanks 2009, 146]

172 This kind of vision suggests that making a clear separation between activist and art-based practice and more traditional humanities-based endeavors may not be trivial, and according to Schnapp and Shanks, hardly desired.

Conclusion

173 The territory of the digital humanities is currently under negotiation. While there is no doubt that the field is expanding, it is not entirely clear what is included and how the landscape can be understood or structured. These ongoing negotiations occur on multiple levels, from an individual graduate student and local institutions to national funding agencies and international institutional networking. They are consequently situated institutionally, physically, politically and epistemically. These negotiations, which tend to be located "in between," are particularly important to any attempt at analyzing or advocating an inclusively conceived digital humanities.

174 The current article started out from an inclusive notion of the digital humanities and three analytical and exploratory lenses: a critical overview of the landscape of the digital humanities, an investigation of specific encounters, and an analytical model based on paradigmatic modes of engagement. The critical overview of the landscape provided a structural and broad comprehension of the digital humanities as well as a critical discussion of typologies, varieties of digital humanities, epistemic traditions and digital humanists. In contrast, the four encounters focused on specific initiatives at particular points in time, and their material and ideational grounding. Based on the critical overview, the encounters and the analysis presented in the first article in this series, an analytical model was suggested based on paradigmatic modes of engagement between the humanities and information technology or the digital: tool, study object, expressive medium, exploratory laboratory and activist venue.

175 In addition to shedding light on these negotiations, which tend to be located "in between," the current article has attempted to complement a comprehensive overview of the landscape with more detailed, personal accounts of specific encounters. These perspectives on the digital humanities were complemented by an extended discussion of the epistemically and categorically poignant distinction of different modes of engagement between the humanities and information technology.

176 We are undoubtedly at an exciting and challenging point in time with regards to the area loosely described by the term *digital humanities*. As we have seen, the current landscape is multifaceted and characterized by a range of epistemic traditions and modes of engagement, and while there is a great deal of overlap and common interests, there is also a need of increased shared awareness. It could be argued that a better understanding of the landscape of the digital humanities, epistemic traditions and collaborative possibilities are vital to the further development of the field. A respectful dialogue of visions, agendas, competencies and research interests across much of this landscape can help us meet a range of exciting upcoming challenges.

177 One such important challenge is the rethinking, shaping and implementing of cyberinfrastructure for the humanities. What type of research infrastructure do we need? How do we align ourselves with science and engineering driven agendas, and how can we make a strong and grounded argument for humanities cyberinfrastructure? These are some of the issues discussed in the third article of this series, in which I look at cyberinfrastructure for the humanities in relation to the ongoing debate about research infrastructure and the digital humanities. HUMlab at Umeå University serves as a case study, and design principles are discussed as well as the conceptual underpinnings of infrastructure such as digital humanities centers.

178 In the final installment, I explore the hopes and visions invested in the digital humanities, and how the digital humanities often become a means for rethinking the humanities at large. How is the future of the humanities projected? Can the "digital" fundamentally change the humanities? What issues are critical? Could the expanded dialogue called for above lead to a shared vision of the digital humanities? And do we even want one?

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Notes

[1] Technoscience (and science and technology studies more generally) largely focuses on the social construction of knowledge production and the technological and social context of science. There is a clear connection to the digital humanities through an interest in the reconfiguration of human experience in the computational age, technology as an object of critical reflection, and through an interest in sites and modes of knowledge production.

[2] The current author is based in the North of Europe with strong North American connections and fairly substantial international network. The fieldwork has also included trips to Australia, Japan and South Korea. Nevertheless, the landscape presented in this article is not in any sense representative, global or all-inclusive, although it is hoped that much of the analysis and categorization have bearing also on digital humanities in other parts of the world. A useful resource and inclusive network is centerNet (http://digitalhumanities.org/centernet/), an international network for digital humanities centers.

[3] Although there is definitely a wish in some parts of the community to be semi-separate. This is a recent comment by Willard McCarty in relation to the broader interest in and acceptance for digital humanities: “But let me offer a different criterion for success: simply to be accepted as one of the community, to sit at the table among equals and talk, then to go back home to a department of the digital humanities, with its students, programmes, seminars and so on, and get on with educating and being educated.” [McCarty 2009]

[4] Arguably for a fairly long time as the initial emergence (of humanities computing) is often dated to the late 1940s.

[5] “There's another reason I stick to the simplest of tools. It's not just that these beginners would be stumped by Perl or Python, say, it's that their attention would be diverted from the intersection of the literary problem with computing to tool-making itself.” [McCarty 2010]

[6] Examples include IATH at University of Virginia, MITH at University of Maryland and the Humanities Laboratory at Lund University.

[7] This sense of the library is often articulated in discussions of the future of libraries. For instance, in a discussion about the Syracuse University Library, the humanities faculty made it clear that they considered the library their central laboratory. [Howard 2009] See also [Unsworth 1999].

[8] This was still true as of 30 January 2010.

[9] In the present author's experience, this has happened on numerous occasions when presenting on the digital humanities to audiences with a large portion of non-humanities participants.

[10] Accessed 18 August 2008.

[11] Accessed 15 February 2010.

[12] A Google search on 29 November 2009 for “+‘digital humanities’ +‘ACTlab’ ” rendered 37 hits, most of which are chance correlations or ACTlab email lists of job opportunities elsewhere.

[13] See [Klein 1990, 166–169] for a discussion of interdisciplinary degrees and graduate programs.

[14] See also [Wiberg 2005] who discusses the development of information technology use from crunching numbers to social interaction.

[15] Read in a different way, a statement like this one might be seen as an expression of the expected institutional function.

[16] Application Programming Interface.

[17] The extent of qualitative analysis in cultural analytics can be discussed. Lev Manovich tends to present a strong quantitative model (see e.g. [Manovich 2009b] and the discussion of Quantitative Cultural Analysis). See also [Navas 2009] for a discussion of qualitative elements.

[18] See [Douglass 2009]

[19] As [Hayles Forthcoming PMLA] notes, although this can be construed as a problem (mainly because of commercial interests), it can also be seen as a necessary part of the solution.

[20] Result of search queries carried out on 08 October 8 2009 on the Air-L Archive at http://listserv.aoir.org/pipermail/air-l-aoir.org/.

[21] One example of several would be Alex Galloway at New York University who, as a junior faculty, authored three books as well as producing software and being a widely exhibited artist.

[22] See [Parry 2010]. Matthew Kirschenbaum points to the MLA having a history of being relatively quick at adopting new technologies [Golden 2010].

[23] This makes MLA very different from clearly digitally inflected conferences such as THATCamp.

[24] There are, however, a range of examples of traditional print journals that have converted to a digital format successfully and innovatively (e.g. *Jump Cut*).

[25] It could probably be done through using screen capture software and uploaded captures, but this has to be achieved outside of the platform itself, and would presumably be fairly far-fetched for most readers.

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