What is the Digital Humanities

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Abstract. This article will describe current trends in digital humanities around the world. Digital humanities are clearly about more than using a computer for research and teaching in the humanities and methods and strategies such as modelling, visualisation, programming, and collaboration are central. Its connection to the humanities, to asking questions rather than answering them, even to see digital humanities practice as aiming at meaning, is clear. Yet, the term remains hard to define. Through the investigation in this article I will encircle what is meant by the term and how it is distinguished from other areas in academia. I will also show how the term is contested and that the area includes a number of potential and real conflicts.

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Introduction

Digital humanities is becoming increasingly popular in many parts of the world and is seen by some as the next big thing. Two examples of the novel visibility of digital humanities are the interest for distant reading, not the least connected to the Stanford Literary Lab established by Jockers and Moretti [1], and recent articles in *Nature* and *Science* using quantitative methods to study language and culture [2, 3]. In this article I will give an overview of the field, focusing mostly on the development in the last 5 years. For historical discussions covering the history back to the early starts more than sixty years ago, see, e.g., [4]. As providing an absolute definition of the term "digital humanities" is not very fruitful, I will attempt to encircle it through examples, while also drawing some general lines based on these examples [5].

As a way of introduction I will give an example of a digital humanist, namely myself. I started my university studies in the late 1980s with mathematics and computer science. Getting bored with the focus on "hard" knowledge I moved over to general literature and completed a bachelor with those three subjects. I worked for a while in the library sector until I became involved in The Documentation Project [6] in 1995. This was a large scale Norwegian digitisation project where I had the role of technical consultant, planning and overseeing scanning and text encoding done by people on employment schemes [7].

From 1998 to 2000 I was the manager of the Henrik Ibsen Manuscript project [8], before I got involved in the Muse-

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um Project [9], another large scale digitisation project which included a significant system development part. In the project, systems for research and collection management in areas such as archaeology, ethnography, and natural history were established. This included the development of general server based services for media files (image and sound) and digital maps. I was deeply involved also in lexicography, in Norway as well as in Zimbabwe and Mozambique. The work included a hybrid mix of project planning and management, digitisation logistics, system analysis, implementation, and research and development.

In 2009 I enrolled in the first PhD programme in digital humanities at King's College London, using a collection of documents I administered the digitisation of in the Documentation Project as my object of study. I used core digital humanities methods in my work: text modelling, model experiments, and critical mapping. After finishing the PhD I was back in Norway for a year or so before I moved to Passau to be a Vissenschaftlicher Mitarbeiter with a newly established Lehrstuhl für Digital Humanities. Using a terminology which is common especially in North America: I moved from alt-ac [10] to a "normal" academic.

At this point I have a "real" digital humanities education and work in a digital humanities university department. But the road there was long and winding. A similar pattern can be observed more generally. In addition to traditional digital humanists, who often were on the fringe of established academia and focused on creating things (as is seen clearly above in the years 1995-2009), we now start seeing candidates with

degrees in digital humanities, being more integrated into the ordinary university system, as the last five years of my career is an example of. Someone getting a PhD in digital humanities and going on to a junior academic position is still noteworthy for its novelty [11]. In a few years that may no longer be the case. What is the context for the transformation from digital humanities as an alternative academic activity to digital humanities as an established academic discipline? That will be the topic for this article.

1. Organisations

How has the growing popularity of digital humanities been reflected in organisational development the last few years? The main conference in the area, the annual Digital Humanities conference (previously the ALLC/ACH conference) is now attended by more than 500 participants annually, showing a significant growth over time. The number of regional conferences is growing: the traditional annual UK and Canadian conferences has been followed by an annual Japanese conference and a biannual Australasian one after 2010. This includes a development away from the traditional European-North American scope of the digital humanities organisations, with more and more areas becoming part of the international family. Active groups are under development in Latin America and Asia and also in parts of Africa and the Middle East regional and international cooperation is under development. It is a sign of times to come that the first Digital Humanities annual conference in the Southern hemisphere, indeed the first one outside Europe and North America, will be organised in Sydney in 2015. We also see a regionalisation and a growth in non-English language conferences, as several regional conferences in Europe are examples of.

In some areas of digital humanities disciplinary conferences has been organised for decades. Computer Applications and Quantitative Methods in Archaeology (CAA), both a series of international and national conferences, is a good example. Less regular conferences with shorter histories are found in other disciplines as well. Another tendency is a growing number of digital humanities tracks in established "non-digital" conferences such as the MLA and the ICLA conference. Traditional journals such as LLC: The Journal of Digital Scholarship in the Humanities and Digital Studies / Le champ numérique has been followed by new journals such as Digital Humanities Quarterly. Also new thematic journals appear, such as the TEI Journal. All in all we see a multitude of parallel developments creating a multi-faceted picture. This organisational development may to an extent be a driving force for wider changes, but more importantly it is a sign of deeper processes.

Another sign is the organisations themselves, where much has happened at the European and International levels since the early 2000s. Traditionally, there were two organisations in this area, the *Association of Literary and Linguistic Compu*-

ting (ALLC, founded 1973) with its centre in Europe and the Association for Computing in the Humanities (ACH, founded 1978) with its centre in the US. In 1996 a third organisation was established with a Canadian focus, the Consortium for Computers in the Humanities/Consortium pour ordinateurs en sciences humaines (COCH/COSH). The organisations cooperated closely especially on the common annual conference - it was every second year in Europe, under the name ALLC/ACH, and every second in North America, under the name ACH/ALLC.

Then, in the early 2000s, discussions started which eventually led to the establishment of an umbrella organisation, the Association of Digital Humanities Organisations (ADHO), with the three organisations as constituent organisations. ALLC later changed its name to EADH (the European Association for Digital Humanities) and COCH/COSH to CS-DH/SCHN (Canadian Society of Digital Humanities/Société canadienne des humanités numériques) in order to better reflect their current scholarly foci and also current terminology.

Neither of the three organisations had a strict geographical area and co-membership was and is common. There were also extensive outreach activities. A noteworthy example is the series of workshops in Japan supported by EADH, leading up to the establishment of the *Japanese Association for Digital Humanities* in 2011. Together with the *Australasian Association for Digital Humanities*, also founded in 2011, it completes the list of regional constituent organisations. In addition, an international organisation focusing specifically on digital humanities centres, *centerNet*, is also a constituent organisation of ADHO, bringing the total number up to six.

The main income for the whole ADHO system is EADH's share of the profit of its journal, *LLC: The Journal of Digital Scholarship in the Humanities*. This income makes it doable to run a number of activities at ADHO level, including conference bursaries, prizes, open journals, and general infrastructure. It also finances many activities at the level of the constituent organisations, of which the most important for Europe is the EADH small grants support scheme and the shared infrastructure.

A further development in Europe the last few years is the establishment of national and language based associations. Two are already formed and are now associate organisations of EADH: the German language association *Digital Humanities im deutschsprachigen Raum* (Dhd) and the Italian *Associazione per l'Informatica Umanistica e la Cultura Digitale* (AIUCD).

Other groups are forming in France, Spain, the BeNeLux area, and the Nordic countries. Some are national, some are language based, and others cover several countries as well as several languages. There is great diversity, but the common factor is that there is an urge to organise at new levels and that all of this has gained momentum within the last five years. A similar momentum is also observable at the policy level of the European Science Foundation [12].

2. Themes

All this work we see in establishing and running organisations, conferences, and journals aim at something else, namely, scholarly activities. What is the core of the research and teaching going on in digital humanities right now? To start on the research side, I will base this short survey on the official story of honourable work given by ADHO. How can we understand the values of the digital humanities community as it is communicated through the ADHO bursaries and two of the prizes? [13]

The major prize in digital-humanities is the Busa Prize, given to recognise outstanding lifetime achievements in the application of information and communications technologies to humanities research. It has been awarded six times since 1998:

1998: Roberto Busa; 2001: John Burrows;

2004: Susan Hockey; 2007: Wilhelm Ott;

2010: Joseph Raben;

2013: Willard McCarty.

The application of computers for textual and linguistic analysis is a common topic for all of these winners, and for most of them the development of digital textual resources have been a central area of engagement. The Fortier Prize is an annual prize given for the best paper by a young scholar/early stage researcher at the conference. It has ween awarded four times:

2010: Maciej Eder: "Does Size Matter? Authorship Attribution, Small Samples, Big Problem."

2011: Scott Weingart and Jeana Jorgensen: "Computational Analysis of Gender and the Body in European Fairy Tales." 2012: Marc Alexander: "Patchworks and Field-Boundaries: Visualizing the History of English."

2013: Courtney Evans and Ben Jasnow: "Mapping Homer's Catalogue of Ships."

While it is clearly the case that like the Busa awardees all winners of the Fortier prize were honoured for textual work in a wide sense, the tendency is slightly different in this latter prize, awarded for a single achievement made by young scholars. Even if two of the prizes are clearly in line with the traditional literary and linguistic paradigm, the methods are novel for the other two. While the object of study for Weingart and Jorgensen exist in textual form, the method of analysis is network analysis. And the method used by Evans and Jasnow, again for a study of a textual work, is map visualisation and analysis.

Once we move over to the bursary awards, however, the picture changes more visibly. 10-14 young scholars get scholarships for the conference every year and the topics they present on show a much wider scope. The presenters given bursaries in 2013 are listed in Table 1.

While this list shows that textual work is still important, it has been extended both with new methods and with new objects of study: we have media studies and musicology; network analysis, and visualisation. Also the topics are partly new, with a stronger emphasis on gender and postcolonial issues, and also discussions about digital humanities itself in light of critical approaches. We will come back to some of these issues when we discuss conflicts below.

3. Education

In the area of university teaching there is also a significant development on the way. There is a growth in the number of digital humanities positions at many universities.

Table 1. List of presenters.	
Hamed M. Alhoori:	"Identifying the Real-time impact of the Digital Humanities using Social Media Measures."
Adam Anderson and David Bamman:	"Inferring Social Rank in an Old Assyrian Trade Network."
Drayton Callen Benner:	"The Sounds of the Psalter: Computational Analysis of Phonological Parallelism in Biblical Hebrew
	Poetry."
Alberto Campagnolo:	"Bindings of Uncertainty. Visualizing Uncertain and Imprecise Data in Automatically Generated
	Bookbinding Structure Diagrams."
Alexandra Chassanoff:	"Shall These Bits Live?" Towards a Digital Forensics Research Agenda for Digital Humanities
	with the BitCurator Project."
Constance Crompton:	"On Our Own Authority: Crafting Personographic Records for Canadian Gay and Lesbian Libera-
	tion Activists."
Courtney Evans and Ben Jasnow:	"Mapping Homer's Catalogue of Ships."
Paul Matthew Gooding:	"The Digitized Divide: Mapping Access to Subscription-Based Digitized Newspapers."
Andrew Hankinson:	"SIMSSA: Towards full-music search over a large collection of musical scores."
Simon Rowberry:	"Widening the Big Tent: Amateurs and the 'Failure of the Digital Humanities'."
Graham Alexander Sack:	"Simulating Plot: Towards a Generative Model of Narrative Structure."
Ayush Shrestha:	"Digging into Human Rights Violations: Phrase mining and trigram visualization."
Dana Ryan Solomon:	"Theorizing Data Visualization: A Comparative Case-Study Approach."
Lindsay Thomas:	"4Humanities: Designing Digital Advocacy and VizOR: Visualizing Only Revolutions, Visualizing
	Textual Analysis."

I will give some examples of how this is connected to research strategies and curriculum development on three continents. Are there lessons to be learned for institutions in countries where this development is yet to start?

In the US there has been a number of positions opened the last few years calling for digital humanities competence. Many of these have been issued in English departments. This is an example of departments extending their scope to include a selective component of digital humanities which is felt to be specifically natural to the department in question [14]. It is similar to the situation we have found in archaeology for a long time, where digital methods, such as GIS and 3D modelling, have been topics of teaching and research in archaeological departments. This is a development that may continue, and may work well also for other humanities disciplines. If the digital component is different from discipline to discipline it may even be the best option.

However, it has been argued strongly that there is a core set of competences needed by everyone involved in digital humanities, no matter which is their main discipline - if they indeed have one, which is a question I will return to below. What would this set consist of? I will look at examples of study programmes from four different countries [15], starting with one from an English department, taught by the very same young scholar who is mentioned in [14], namely, the Emory University (USA) course English 389 Introduction to Digital Humanities taught by Brian Croxall. Based on the idea that humanities are already digital, he asks if we can:

- i) use the computer to do something only it can do?
- ii) read every book published in the 19th century?
- iii) visually break down and compare the language in two volumes of poetry?
- iv) lay out a novel in geographical space?
- v) find out what it would mean to read a book as a distributed crowd [16]?

At Jadavpur University in India, a one-year postgraduate Diploma Course in Digital Humanities and Cultural Informatics covers the following topics as presented below.

- Transformation of the study of the humanities by digital technology as a critical and reflective component of DH is at the heart of the proposed course.
- 2. Digital record-keeping and data processing, engage with new forms of textuality.
- 3. Practical skills in electronic archiving, processing, editing and presentation of cultural material.
- 4. Train students to apply principles of textual, editorial and communication theory to technical situations [17].

One of the long-standing digital humanities institutions is the Department for Digital Humanities at King's College London in the UK. Their MA in Digital Humanities has the following twofold aim.

1. To develop a critical understanding of digital technologies and research in the arts and humanities.

2. To teach a set of practical computational skills which enable the creation of digital resources and which can also open up exciting professional perspectives for students [18].

Finally, at the Lehrstuhl für Digital Humanities at the Universität Passau in Germany, the following modules are included in the bachelor level digital humanities certificate.

- Digital humanities basics: overview and the basics of information technology.
- 2. Digital humanities methods: digitisation of cultural heritage, computer assisted information analysis and processing, scholarly communication in the digital age.
- Digital humanities models: modelling of cultural heritage data and information, digital cultures of know-ledge [19].

The discussion below will clarify some common denominations for these seemingly diverse topics. But I will mention one fundamental point already here: they all imply a combination of analysing things and making things. While the humanities have always focused on the production of texts, we see here an extended practice of creating. The main novelty for the humanities is not only the making, but also to use the process of making as a method for developing critical thinking. This is the case of critical modelling in digital humanities, whether that label is used or not. So even when digital humanities competence is to be taught to historians, literates, musicologists, or art historians, there will be a core of similar competence which it will often make sense to teach together for students from several disciplines. Thus, to establish a digital humanities department may be a good choice even if the goal is to add digital components to the educations for a number of different groups of students.

There are also good reasons to keep this teaching and research within the arts and humanities faculties and not as part of computer science. While the latter may work in some cases, only some of the digital humanities competences are covered by what is normally taught in computer science, and more importantly: similar topics are taught in different ways. One obvious example is the use of mathematics in undergraduate teaching of programming. This makes sense for the students usually enrolled in computer science also when their main disciplines are other ones, as the disciplines traditionally served by computer science all expect their students to have certain skills in mathematics. Some parts of computer science are in themselves based on mathematics and the students need to understand it. But other parts only uses mathematical examples because they are convenient. Teaching in digital humanities are developing and using other types of examples than the mathematical ones often used in computer science education.

Further, computer science tends to be solution oriented in its approach. When modelling is taught, it is to show students how to solve modelling problems. This is in line with what Mahr calls the leading question of computer science. Note

that [20] is a translation of a German article using the term *Informatik*, which in Germany denotes what in English is usually called *Computer science*. In the English version of the article, however, the term was translated to *Information science* as seen in the quote:

In information science, this leading question, which forms the standard of all disciplines of engineering, presupposes the situative context of systems development. It runs:

Does the system S comply with the requirements for its application?

Probably no serious activity exists in information science which does not in some way imply a kind of systems development, whether such development is just conceived of in general or whether it becomes concrete. [20, p. 365-366].

This is surely not about hiding complexity from students of computer science. But the goal oriented approach is different from heuristic modelling in digital humanities. Also in digital humanities many cases are found where models are created with a specific purpose, to solve a specific problem, such as modelling a text in order to display it in a web browser. Sometimes digital humanities is about creating software tools and can hardly be distinguished from computer science. However, the discipline of digital humanities also includes a significant amount of modelling as a tool to explore and ponder on questions, where the models created are just side effects of the intellectual process [21]. To simplify more than just a bit: as a humanities discipline, the focus of digital humanities is rather on asking questions than to develop solutions.

Similar differences between digital humanities and computer science are common. I will mention but one more here. The results of digitisation, such as a scanned image of a manuscript page or a digital photography of a painting, are examples of representations. Also when one creates a transcription of a manuscript page or creates a three dimensional digital model of a statue the results are representations of the originals. But will these four creations be representations of the same kind? In order to study this in digital humanities we use the long tradition of studying representation, in literature, art, intermedia studies, semiotics, and beyond. These traditions give us tools and understanding needed for the exploration of digital representations. But not only that: what is learned will then enable us to enrich the traditional humanities disciplines. Digital representations may not in themselves revolutionise semiotics, but they give additional forms and examples to ponder on.

In my opinion, these two examples, modelling and representation, show digital humanities as something more than an auxiliary discipline. While both modelling and representation are used and studied in many disciplines, digital huma-

nities has its own specific take on these forms of knowledge. I believe there is a need for digital humanities per se, that is, not only candidates with a main subject and the digital in addition, but with digital humanities as their main discipline. They will be able to work as experts in interdisciplinary teams, functioning as interpreters between information scientists and humanists, while at the same time adding their own special competences.

The combination of deep humanities understanding and a mastery of computer science thinking and programming in one person opens up for a technique of rapid hermeneutical circles where questions and computational implementations to explore them goes hand in hand [22]. Such combinations are nothing new in the history of humanities research. A theoretical musicologist will also be able to play the music she or he is studying in order to try out things. Experimental archaeology is an important tradition. And any textual scholar knows how to write texts, even if they may not do creative writing. Being a programmer is not the only way of being a digital humanist, but it is surely an important one. And there are different ways of being programmers and different levels of expertise.

4. Topics and conflicts

The previous sections have described digital humanities from the top, so to speak. The discipline has been described as a coherent, if many faceted and changing area of research and teaching. But the last few years have also seen a growing concern about aspects of digital humanities as it is practiced. One core question is if we should establish borders around digital humanities as a discipline by identifying what falls outside of digital humanities, or rather keep the tent as open as possible.

While an open tent is a nice metaphor, it is important to remember that if use of a computer is the only criterion, then the open tent turns into a house with neither walls nor roof. Then digital humanities will just be the same as humanities. While this is a possible position, it is not one I support, as the previous sections will have made clear. One key aspect with much work in digital humanities is interdisciplinarity. For some, digital humanities may be little more than an excuse to do cross-disciplinary work. I do not really see this as a problem, but the same issues of having some sort of walls remains. Use of computers is in itself is not enough, even if it happens in an interdisciplinary context.

But even if not a criterion in itself, the question of tools is still an important topic of discussion. Tool development has been an important part of digital humanities since the early days and critical reflections on the tools we use have been with us all the time. So has the opposite view: that tools are just tools and how we use them is more important. One specific example is the use of XML (and previously SGML) to represent texts. While such formalisms are claimed to restrict

what can be expressed when encoding texts, it has also been claimed that the restrictions can be overcome, if necessary by clever work-arounds. Thus, XML is still used in the main standard for text encoding in the humanities, TEI. What is clear is that we need a variety of tools for different purposes and in order to work on different research topics. As mentioned above: it may be good to be a programmer in order to solve problems there and then. And the ability to make tools represents a strength: just being the passive consumer of tools may be closely connected to a role as marginalised, and one road to de-marginalisation is to take more active control over one's tools [23].

There are many levels of possible interaction with the tools applied in digital humanities, from use via understanding, modification, making, to conceptualisation. The border between humanities in general and digital humanities will be somewhere beyond use: everybody use tools but not everybody understand, modify, make, or conceptualise them. The issue is complicated by the fact that there is not linear development. One can conceptualise a tool without being able to make it, and some developers claim they are not able to use the tools they make.

We all have different skills, and we all have additional skills beside the strict curriculum based ones. Being able to code is one additional skill. A humanities researcher may or may not have it. A historian who is also a war gamer has a certain set of knowledge and skills, an anthropologist who grew up as a reindeer herder knows certain things from the inside, and a humanities researcher who is also a programmer knows techniques, methods and has skills which are potentially useful for her or his work.

Tools are created by humans and can be changed. Sometimes they are very hard or even impossible to change, but some tools can be changed easier than we tend to think. Early in 2013, Melissa Terras complained in a twitter message about the fact that in TEI, the two codes for sex were 1 for male and 2 for female. Thus, Simone de Beauvoir was indeed the second sex. By April the same year this was changed by the TEI Council [24]. In the communities we are part of mutual respect between people with different skills and different abilities is of central importance when we work together [25]. Criticising is a central point in this, but also knowing, or being open to be taught, what is the most useful way to criticise in order to be heard and to make change. There are systems to handle problems such as the one above in TEI, but they must be used and understood. Critical questioning is a necessary starting point in this process of coming to know, and also to make changes.

Some attempts have recently been made towards categorisations which may help us understanding better the issues involved and why some critique is met by a puzzled lack of understanding by many old timers in the digital humanities. Digital humanities types I and II were suggested by Stephen Ramsay as a way of explaining an experienced lack of com-

munication [26] as presented below.

- I. A community of people around TEI, ALLC, ACH, CCH from the early nineties, with roots back in time. This is the tradition of humanities computing, which is multi-disciplinary and connected to a set of practices. Building things is a key aspect of this tradition.
- II. The recreation of the humanities itself after some technological event horizon. This is a type of humanistic inquiry that in some way relates to the digital, where the main point is to understand things.

The tool building tradition used to be the major force, whereas the critical aspects have grown significantly the last few years. Marjorie Burghart's three orders of digital humanities offers another structure of explanation which may add important perspectives to the discussion [27].

- 1. Laboratores: those who work. They are interested in practical aspects leading to concrete results.
- Bellatores: those who fight. They defend digital humanities, politically and intellectually. The focus is on giving digital humanities their own separate disciplinary status and providing academic careers.
- Oratores: those who pray. These are non-practising believers interested in the phenomenon. They are enthusiastic, but not involved in any practical aspects of digital humanities.

We see how these two classifications can not only explain some of the critical discussions connected to digital humanities but also reflect on the double or even triple nature of the discipline as it was seen above based both on curricula and on prizes and bursaries. Digital humanities is a many faceted area, but that does not make it impossible to describe and understand it contextually. Such an understanding must also be based on the material foundations for what we do, on basic enablers and hinderances such as resources, languages and cultures.

The tension between the info rich and the info poor has been with us for a long time, with information technology playing a double role. While it is surely an area where penetration to a large extent follows traditional lines of wealth and poverty, the use of online information by first nation organisations is an interesting alternative example [28] addressed contemporary by, among others, David Golumbia [29]. This should be an important area for engagement by the digital humanities community. But the problems faced when we try to develop a truly international digital humanities community goes beyond traditional post-colonial issues, as the discussion the the Global Outlook SIG of ADHO clearly shows [30]. For people with no funds to go to international conferences the networked information, to the degree it is open and available given the bandwidth issues still limiting access in parts of the world, is even more important than among the more wealthy parts of the community.

Languages are important. How can we be truly multilingual? Some approaches, such as accepting papers in multiple languages for conferences, turns out to be difficult in that it tends to lead to ghettoisation. Translating the call for papers for the annual Digital Humanities conference is important work which is done year by year by volunteers. But the issues go beyond languages in a narrow sense. There are differences in writing styles and scholarly arguments which give many non-native English speakers added problems in addition to the language itself.

I have no simple solutions to such problems, but the discussion goes on in many areas. Within ADHO it is a focal point not only in the committee for Multi-Lingual and Multi-Cultural issues [31] but also in other areas such as the Awards Committee. Why are so many of the bursary applications submitted by participants from countries with English as an official language? Why are the percentage of male submitters higher than female? Again we face problems which has no simple answers but where the community tries to work together to improve the situation.

It is claimed that digital humanities represent the revenge of positivism, that work such as Moretti's threatens critical literary theory by replacing explicit awareness of our theoretical presuppositions with uncritical neo-positivism [32]. While the argument may seem convincing, and while there are methods used in digital humanities which may seem positivistic, this is far from the full story. One counter-example is represented by the creation of database systems in museum informatics in the 1980s and 1990s. The traditional method was to read through source texts and enter the information which seemed adequate by the project team in a normalised form. This was based on an implicit idea of knowing the truth. The process led to a loss of links back to the original textual descriptions and thus a loss in scholarly reproducibility. In The Documentation Project in Norway, which was a multi-disciplinary digitisation project, the scholarly thinking which is fundamental to what is now called digital humanities led to a different approach, based on the tradition from digital scholarly editing. SGML, and later XML, were used to encode the texts of the museum catalogues, and then information was extracted from the encoded texts to the database. Thus the links back to the original sources were kept available from the databases [33]. As observed in [34], "The main contribution from the text encoding community to culture heritage information systems was the basic understanding of texts, also seemingly neutral texts describing the real world, as culturally situated" [34, p. 37]. Such understanding can also come out of applying digital humanities methodology.

Conclusion

With the development towards a truly international digital humanities community, issues of cultural and language diversity, which has always been with us, become critical. How can we keep an integrated area of digital humanities while opening up for the diversity of languages and research cultures? We are no longer a marginalised crowd sticking together in small groups; we are rather, if not dominant, then at least visible. A novel position of strength can be a challenge for groups who have traditionally seen themselves as marginalised.

I see the fact that digital humanities is now under attack as a sign of strength and basically a good thing. Some issues people have with digital humanities are clearly based on misunderstandings, but others, including some critical approaches to digital humanities from the postcolonial and feminist side, are well worth listening to. Technology is not culturally neutral, but neither are XML and TEI hidden vehicles of anglo-american imperialism. In order to find useful critical positions between these two extremes it is important to see the political potential of technology.

A similar example, which has a much longer history of critical discussion, is map technologies. Cartography has been, and still is, a power system used by empires, political as well as commercial. But it is also used by the marginalised as part of their strategies. Working in digital humanities is not about being leftish or indeed any kind of -ish. But the tools we use have a political potential which is there whether we acknowledge it or not. Any scholar, digital or not, in the humanities as well as beyond, need a critical approach to what they are doing. So do we.

I believe that digital humanities cannot be defined, but the discipline can be exemplified and encircled, as this article represents an attempt to. Such encirclement is not neutral, and it is important to keep the critical discussions going. It is also important to base the discussions on the real state of the art, which this article is also an attempt to present.

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- 5. Many of the themes and discussions touched upon below is widely discussed on the web as well as in articles and books. I will only cite my direct sources. For wider overviews of the literature, I will point the reader to the following online resources as good points of departure, focusing on English language resources because this article is written in English:
 - arts-humanities.net: guide to digital humanities & arts, http://www.arts-humanities.net/, accessed 2014-03-03;
 - Digital Humanities Now, http://digitalhumanitiesnow.org/>, accessed 2014-03-03;
 - Doing Digital Humanities A DARIAH Bibliography, https://www.zotero.org/groups/doing_digital_humanities_-_a_dariah_bibliography/items, accessed 2014-03-03;
 - Digital humanities group in Zotero, https://www.zotero.org/groups/digital_humanities/items, accessed 2014-03-03;
 - For a post-colonial perspective om digital humanities, see DHPoco, http://dhpoco.org, accessed 2014-03-03.
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- 18. http://www.kcl.ac.uk/prospectus/graduate/index/name/digital-humanities/alpha/d/header_search/, accessed 2014-03-03.
- $19. \quad \verb|\cluster| < http://www.phil.uni-passau.de/die-fakultaet/lehrstuehle-professuren/rehbein/studium/zertifikat-dh.html>, accessed 2014-03-03.$
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- Øyvind Eide. Sequence, Tree and Graph at the Tip of Your Java Classes. // In: Digital Humanities 2014, Lausanne, Switzerland, July 8-12, 2014. Book of abstracts. P. 151-152.
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