Digital Humanities and Low Countries Culture

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The beginning of the virtual world may seem like prehistory today, yet it was only 1990 when Tim Berners-Lee invented the World Wide Web. His vision was to build a digital global brain in an interactive information sharing community, which would overcome the obstacles of the real world, in particular physical distance, time zones, geographical barriers, national borders, and differences of language and culture.

By 1995, when I first went online at University College London (UCL), myriads of websites were out there already, offering instant access to any subject under the sun. Every day, millions of people around the world were sharing more information than all the world's encyclopedias and dictionaries together. Growth has been explosive ever since, and today personal computers, laptops and tablets are everywhere; so too are mobile phones, the social media and an ever-growing array of intelligent apps – all part of a constantly innovating digital architecture which connects us to anything anywhere anytime.

Just a mouse click away, this virtual world constitutes an incredibly rich resource. And so far, humankind has shown itself remarkably versatile in handling this new domain. Our fingertips, eyes and brains have adapted; and learning today is increasingly driven by playful exploration and peer interaction via the social media. Facebook's impact - with its 1.3 billion users, from very many, very different cultures, who are nonetheless in direct contact everyday – is massive, generating instant global trends, new forms of understanding and cooperation, sharing games, blogs and videos as well as the fierce debates that mark the fault lines of modern global culture. In the process, WiFi has become a basic necessity of life, and the original notion of an information superhighway has morphed into a vehicle serving many other purposes – infotainment, glamour and hype; spreading values, improving logistics, as well as increasing online sales; piracy, identity theft, plagiarism and other fraud; cyber attacks, encryption, war games, and global surveillance of people's behaviour and private lives. And today, with the arrival of virtual reality, its new visualizations and other sensory experiences, the next step may be upon us.

All this, however, has not come about without some rather costly learning curves – witness how the ambition to have the domain of Dutch government and administration fully digitised from 2017 has run into serious problems.

New defence computer systems are not fit for purpose; newly developed digital systems for social security are causing enormous cost overruns; and about half of all Dutch primary schools do not have a proper internet connection. The lesson being learnt the hard way here is of the basic need to put every effort into designing properly working and cost effective systems for the public domain, which actually deliver the required services and meet the interests of both society and its citizens.

Digital humanities for Low Countries culture

Within the domain of arts and culture, the field of digital humanities (DH for short) was defined recently by Jane Winters, the new Professor of Digital History at the Institute of Historical Research in London, as 'applying digital tools and methods to humanities research and coming up with new and interesting

ways of doing things as a result' – a deceptively simple formula for a whole new world of investigative and imaginative possibilities.

Digital humanities began in Italy in the late 1940s, when the Jesuit father Roberto Busa (1913-2011) pioneered the use of the computer for text searches in the massive works of St Thomas Aquinas. Busa´s *Index Thomisticus* ran to fifty-six printed volumes in the 1970s, was then issued on CD-ROM in 1989, followed by a web-based version in 2005. Today, many universities have a centre for digital humanities, where people are delivering new courses, handbooks and research, and sharing their results through scholarly publications and discussion of innovative ideas and best practice on the relevant online platforms, such as *Debates in Digital Humanities*, the *Digital Humanities Quarterly* (DHQ), *Digital Scholarship in the Humanities* (DSH), and the *Journal of Digital Humanities*.

A major new development in the Netherlands is the construction of a digital research infrastructure for the humanities called CLARIAH (i.e. **C**ommon **L**ab **R**esearch **I**nfrastructure for the **A**rts & **H**umanities). This four-year project, launched in June 2015 and directed from the Huygens Institute in The Hague, is carried out by a nationwide consortium which brings the digital capacities of the humanities research institutes, universities and research councils together with those of the National Archives and the Royal Library, as well as the immense audiovisual collections of the museums and *Beeld en Geluid*, in the media park at Hilversum. In Flanders, meanwhile, there is the active research community DHu.f which, based in Antwerp with a link to the Huygens Institute, brings together a wide range of research groups in Flanders and beyond, working on Low Countries literature, visual poetics, medieval and archaeological studies, computational psycholinguistics and translation.

Big data is the key word here. As in Britain, where the UK Web Archive of the British Library holds some 2 billion resources today, so CLARIAH´s focus will be on large scale collections, in particular in the three fields of social and economic history, audiovisual media studies, and text and language studies.

In language studies, the Nederlab project for the study of structure, variation and change in language builds on the expertise gained in several earlier projects which are now coming together: the Language Portal for the linguistic investigation of Dutch, Frisian and Afrikaans; the linguistic databases of the Institute for Dutch Lexicology and the CLARIN project for innovative language resources; as well as the Endangered Languages Archive (TLA) at the Max Planck Institute for Psycholinguistics in Nijmegen, which preserves the vanishing voices and oral cultures of some 120 very endangered languages from around the world. In 2015, this archive was the first digital-born heritage site to gain official recognition in UNESCO´s Register of the Memory of the World.

Meanwhile, in the field of history, many major collections have already been or are being digitised, archival records held in the huge colonial archives of the Dutch East and West Indies Companies (VOC & WIC), the Dutch Prize Papers in the British National Archives in Kew, and centuries of Dutch shipping data on the Baltic trade in the Sound Toll Register in Copenhagen. Over the coming years the immense Amsterdam City Archives, with their 20 million documents from 1656 till the present (of which so far only 7% has been digitised), will become available in digital form. Together with the ongoing digitisation of many other important archives, in Antwerp, in New York, in Cape Town, India, Indonesia and Japan, this will provide a far wider empirical basis for research,

and will revolutionize – in scale, in depth and in detail, through visualization as well as by analytic, theoretical and experimental modelling - our understanding of Low Countries history and culture.

Handling data of such diversity and magnitude will require the use of advanced digital tools for cross- and multidisciplinary research. Very useful in this respect is the historical-geographical infrastructure of the HISGIS project of the Fryske Akademy. Working with the University of Amsterdam, the National Institute for Cultural Heritage (RCE) and the National Land Register (Kadaster), HISGIS is building a digital geographic grid covering all of the Netherlands down to the individual plot, digitised to an accuracy of within one metre. Feeding unlimited ranges of historical information of any kind into this infrastructure makes it possible to undertake totally new kinds of research into correlations between, and modelling of, the available data. One result of this has been the painstaking reconstruction of how, through centuries of *impoldering* in the Middle Ages, the Frisian monasteries continuously expanded their land holdings - thus laying the foundation for the wealth and power of Fryslân, with its own stadholder, as an independent province within the Dutch Republic, with its own language, Frisian, today available in Google Translate. When, next, HISGIS links up with the historical databases mentioned above, this will make it possible to investigate both the general patterns and the detailed workings of the important Frisian contribution to the maritime, economic and political history of the Netherlands.

Impact: issues and expectations

Going beyond the projects just mentioned we can see how the digital revolution is already having a massive impact on the humanities.

At a practical level there are implications, priorities and decisions to be taken on what to retain in our archives, libraries and museums - plus how and where to store it, and for how long, but also, what to forget and discard,

Holland House Library,
London,
September 1940

and why. It also matters for what purposes we build our infrastructures, what technologies are adopted, and what practices will develop - of collaboration in harvesting and sharing of data; of protocols on sustainability, security and re-trievability of digital data; of rules on plagiarism and privacy. Useful guidelines are set out in the new National Strategy for Digital Heritage, drawn up in 2015.

A crucial issue here, which goes well beyond humanities research and di-rectly affects Dutch international publishers such as Elsevier and Brill, is: What principles to adopt for the world of information? Should it be fair trade or free trade? The free trade view is that information is a matter of enterprise, business and profit, of copyright, property rights, money and patents. The al-ternative is to start thinking from the viewpoint that knowledge and information is a common good which belongs to all mankind, and that international shar-ing offers a better way forward. Brill now offers open access solutions at all levels of publication, while Dutch academics are campaigning actively for fair open access for humanities publications. For a wider perspective on this is-sue – working on the principle that information and discoveries should benefit everyone on the planet, especially in the field of education, languages, cultures and society – there is UNESCO with its Information for All Programme (IFAP) and its Recommendation on Universal Access to Multilingual Cyberspace.

As for the impact of DH, the CLARIAH infrastructure is expected to become a major instrument for accessing and exploring Dutch culture, its heritage, arts and humanities. Just as in the Dutch Golden Age, when the microscope made possible all kinds of new discoveries, so today DH is bringing new ways of do-ing research, with vast new capacities for modelling, pattern analysis, experi-mental data manipulation and theory testing. These new techniques and the discoveries they produce will generate new vistas for humanities research, in any field within the arts, humanities and social world that we may be interested in, from abstract art and nomadic literature to Sumerian medicine.

Much more is at stake here than just technical innovation. As Peter Burke sees it, we are witnessing a great leap forward, from the *Encyclopédie* in the

eighteenth century to our *Wikipedia* of the twenty-first. Back in the eighteenth century, as we know from Robert Darnton, the biggest bestsellers produced by the pirating international publishing industry were books with forbidden information, often combining philosophy and pornography. Today, what we find on the internet is that sex is the biggest magnet; and developments are driven by curiosity, imagination and desire, by freely sharing information and knowledge, as much as by competition, power politics, fear, greed, and the human hunting instinct.

In this wider perspective, DH can be expected to engender very significant new potentialities in the cultural field, in music, in art, in museums, in entertainment and heritage, in the media, in literature, in publishing and in our everyday lives. And as we are delving more deeply into the virtual world of meaning, sound, image, values and imagination, new ventures will arise to enhance our capabilities with ingenious apps in order to help us realize Prospero's dream, connecting us to a million *Midsummer Night's Dreams*, and going far beyond the wildest imaginings in the science fiction of Edgar Allan Poe and Jorge Luis Borges.

The contribution from digital humanities

The question, then, is not whether the digital revolution will transform the humanities, but rather how. So what should we expect of digital humanities in the near future?

Here, it may be of some use to take a look at the policies and strategies we have in place for this digital future. At the national level, the Netherlands now has its Agenda for Science, while at the European level there is the agenda of Horizon 2020. In both these agendas, however, the humanities have been allocated a rather minor position, with some pious words about creativity and about their possible societal relevance. But the dominant issues in those agendas are health, food, mobility, business, industry and cutting edge innovations in sciences and technology. As a consequence, crucial policies and standards risk being defined without sufficient input from the humanities.

They do have a contribution to make though. Of basic importance is the insight that however big our data, and however massive and powerful our research tools, in the end we will always need the high level skills of close reading - such as the deciphering and decoding of very heterogeneous document material; weighing its relevance, truthfulness and significance; engaging in linguistic and lexicographic analysis; together with critical interpretation and an assessment of what is its point in a historic or other context. To my mind, therefore, what we really need to develop in digital humanities are innovative techniques and methodologies for close reading, building on the skills of philological examination that have been developed in centuries of humanities scholarship, as they are being practised today by a scholar such as Franco Moretti in his essays on *Distant Reading* (2013).

A step further would be to consider the increasing symbiosis and interaction between, on the one hand, digitally enhanced humans and, on the other hand, humanised robots. The size, scope and complexity of the information around us are constantly increasing, so the question arises: How do we manage? Are we really still in control, as users, designers, organisers and builders of our

information systems? Or, are we becoming mere extensions of those systems, subject to their rules and the way in which they are structured? Here, to help us out, robots are becoming increasingly necessary. Everywhere today new technologies are being developed and adapted specifically to deal with human beings, such as the provision of care for humans by robots, which is presently being introduced in Singapore. The corollary is to humanise and socialise these robots so they can adequately engage with us. In his Paris laboratory, Pierre-Yves Oudeyer (2006) is doing just that, by giving his robots language, and the freedom to try and develop, through playful interaction, the necessary basic mechanisms of vocal mimicry, language play, metaphor and poetry. In my view, cross-over phenomena, such as human enhancement through smart apps and with intelligent robots that can handle language and communication, are a very important theme for digital humanities to explore.

A humanist perspective

Michel Foucault may have predicted the end of the humanities, but today DH, the digital revolution and the virtual world are offering a new beginning.

In the process, our humanities research and how this is being done will undoubtedly be transformed. What will not change, however, is the age-old question: What about us humans? In this respect, the significance of digital humanities is that they offer new ways of investigating our many and very diverse human faculties, talents, endeavours, ambitions and desires, our own mental makeup, along with our cultural heritage, languages, storytelling, literature, imagination, and so on.

Today, these issues are as fascinating, and as difficult to understand and to resolve, as they have ever been. But they matter immensely for our understanding of human nature, and for the future of humankind. It is our common humanity which, in the end, is the deepest wellspring of our disciplines. So what I expect we will see is how the humanities will go on reinventing themselves, as they have always done - and as they are doing again today, in the era of digital humanities. ■

FURTHER READING

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PLATFORMS, COMMUNITIES AND DEBATES

Debates in Digital Humanities – www.dhdebates.gc.cuny.edu/debates
Digital Humanities Quarterly (DHQ) – www.digitalhumanities.org/dhq
Digital Scholarship in the Humanities (DSH) – www.dsh.oxfordjournals.org
Fair Open Access for Humanities Publications – www.openlibhums.org
Frontiers in Digital Humanities – www.journal.frontiersin.org/journal/digital-humanities
Journal of Digital Humanities – www.digitalhumanities.org

DIGITAL HUMANITIES FOR LOW COUNTRIES CULTURE

www.brill.com – Brill Online Books, Journals, Newsletters in the Humanities
www.clariah.nl – CLARIAH – Common Lab Infrastructure for the Arts & Humanities
www.delpher.nl – full text search engine Dutch books, journals and newspapers
www.dighum.uantwerpen.be – DHu.f (Digital Humanities Flanders)
www.dbnl.org. – Digital Library of Dutch Literature
www.edata.nl – *E-Data & Research*, online DH-newsletter of DANS (KNAW)
www.hisgis.nl – Historical-Geographical Information System NL (HISGIS)
www.nederlab.nl – Nederlab
www.taalportaal.org – Linguistics of Dutch, Frisian and Afrikaans
www.openlibhums.org – making Open Access in the Humanities a reality
www.unesco.nl/memory-world-programma-en-comite – Documentary Heritage NL