



INTRODUCTION

Digital Humanities and History A New Field for Historians in the Digital Age

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This book is a compilation of the contributions to the symposium on 'Contemporary history in the digital age' held in Luxembourg on 15 and 16 October 2009. Two institutions worked together to set up the event: the Centre virtuel de la connaissance sur l'Europe and the Master's in Contemporary European History of the University of Luxembourg.

As Marianne Backes and René Leboutte explain in their preface, each of these institutions – the CVCE as a result of its core mission and the Master's programme via a study of the practices of students, teachers and researchers – has discovered how widespread the use of digital resources and, more specifically, digital humanities has now become in contemporary history. Until now, contemporary history has tended to remain somewhat on the sidelines with regard to the use of digital resources. Historians of the contemporary are actually in a comfortable position: they have enough archives to work from, but without the mass of documents becoming more than they can work through alone or in a team, provided the topic of research is properly defined and identified and the historian is capable of drawing up a strategy for selecting from these archives.

This situation, however, is likely to change for historians of the contemporary and to set the pattern for digital developments in the discipline of history and the humanities as a whole. With the digitisation of existing archives and the advent of huge quantities of 'born-digital' primary sources – just think of the large numbers of e-mails which were probably exchanged in the years leading up to the accession of ten

European countries to the European Union in 2004 – contemporary history will have to start using new tools. Ten or twenty years from now, it is conceivable that some of our work will rely solely on digital sources. Ideally, if we are to be ready in time, the tools we will have to use then need to be designed now.

What this book aims to do, through contributions which describe positive and negative experiences, set people thinking about the job of the historian in the digital age and take stock of new tools available to historians and the ways they can be used, is firstly to serve as an introduction to historians wondering about digital technology, and, for our more experienced colleagues, to share experiences that they will find useful.

The second object of the book is to be part of the digital humanities and digital history movement. Digital humanities, which is a highly structured discipline in English-speaking countries, is also to be found in Europe, as the contributions to this book show: most of their authors are from mainland Europe. These proceedings seem to us today to be part of a rising tide of awareness of digital humanities in Europe which continued in Paris in May 2010,¹ then in Florence² (March 2011) and Lausanne³ (November 2011), and which has led to the emergence of national associations for digital humanities, as, for example, in Italy in May 2011. Some series of seminars – like the French-Italian ATHIS workshops⁴ – shows the vitality of digital humanities in Europe.

These endeavours have continued, as the 2009 symposium was the first of a series called Digital Humanities Luxembourg (DHLU).⁵ A second symposium was held at the Abbaye de Neumünster in Luxembourg City in March 2012, together with a THATCamp,⁶ followed in September by a similar event in Paris; Europe is now wondering whether a special transnational association needs to be set up.

6 URL: [http://luxembourg2012.thatcamp.org/].

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At THATCamp Paris 2010, which culminated in the drafting of a Manifesto for the Digital Humanities. URL: [http://tcp.hypotheses.org/].

² THATCamp Florence. URL: [http://www.thatcampflorence.org/].

³ THATCamp Switzerland. URL: [http://switzerland2011.thatcamp.org/].

^{4 &}quot;Ateliers du programme ATHIS", Ménestrel portal, URL: [http://www.menestrel.fr/spip.php?rubrique619]. Proceedings published in Genet, J.-P., et Zorzi, A., Les historiens et l'informatique. Un métier à réinventer, Rome, École Française de Rome, 2011.

URL: [http://www.digitalhumanities.lu/].

From Humanities Computing to Digital Humanities

What are digital humanities? If we are to believe Google's Ngram Viewer, the expression first appeared in 1994. Its popularity grew at the turn of the new millennium and its use became widespread with the publication of A Companion to Digital Humanities⁸ in 2004. As the term emerged – defining a new discipline through the transformation of an old one, 'humanities computing' – there were many who wondered what exactly it meant.

A broad and fairly simple definition would be as follows:

The digital humanities is an area of research, teaching, and creation concerned with the intersection of computing and the disciplines of the humanities. Developing from an earlier field called humanities computing, today digital humanities embrace a variety of topics ranging from curating online collections to data mining large cultural data sets. Digital Humanities currently incorporates both digitized and born-digital materials and combines the methodologies from the traditional humanities disciplines (such as history, philosophy, linguistics, literature, art, archaeology, music, and cultural studies) with tools provided by computing (such as data visualisation, information retrieval, data mining, statistics, computational analysis) and digital publishing.9

This definition, taken from the English-language version of Wikipedia, was drawn up by some of the best-known names in digital humanities. 10 It emphasises some of the characteristics of digital humanities: the interdisciplinary aspect, the methods and the tools. It implies a firm orientation towards the practical. There is only a brief reference, though, to the earlier concept of humanities computing.

The switch from humanities computing to digital humanities is important for two reasons. The first is that it reminds us that the use of information technology in the humanities does not just date from the publication of A Companion to Digital Humanities but goes back to the

The Google Ngram Viewer is a tool devised to measure the use of a term in the corpus of Google Books and compare it with the use of other terms. Despite some methodological limitations – starting with the fact that it is very difficult to know the exact scope of the Google Books corpus – this tool is very useful for tracing the history of a term. URL: [http://books.google.com/ngrams].

Schreibman, S., Siemens, R., Unsworth, J. (ed.), A Companion to Digital Humanities, Oxford, Blackwell, 2004, URL: [http://www.digitalhumanities.org/companion/].

Wikipedia contributors, 'Digital Humanities' in Wikipedia, the Free Encyclopedia, Wikimedia Foundation, URL: [http://en.wikipedia.org/w/index.php?title=Digital humanities&oldid=490013689] (1 May 2012).

By using the tab 'View history', we can see that contributors to the article include John Unsworth (Chicago), Lou Burnard (Oxford, TGE-Adonis) and Seamus Ross (Toronto). The article was created by Elijah Meeks from Stanford.

very origins of information technology. As early as 1949, the Italian Jesuit Roberto Busa, who wanted to create an index to the work of Saint Thomas Aquinas, met Thomas J. Watson, the founder of IBM. *Big Blue* sponsored the project, which came to fruition in the 1970s and is now available for consultation online. ¹¹ Thus, very early on, the use of IT in linguistics revolutionised that discipline.

In France, where the first supercomputers arrived in the mid-1950s, historians, in particular, began using them almost at once. As far back as 1959, François Furet and Adeline Daumard were discussing the possible uses of the computer.¹² In 1961, the first systematic study using what was then called *mécanographie* or data processing came out; the term *informatique* for information technology was not invented in French until the mid-1960s.¹³

The use of information technology in history was then to benefit from the upswing in quantitative economic history, when it was found that the supercomputers of the 1960s and 1970s – calculators which took up a whole room and had to be programmed using perforated cards – were ideal tools for processing data. It was in that period that Emmanuel Le Roy Ladurie wrote his famous prophecy: 'Either the historians of tomorrow will be programmers or there won't be any historians left.' ¹⁴

However, the way IT is used in history and, more widely, in the humanities and social sciences nowadays is far removed from the ways it was used in the 1960s and 1970s.

The practical conditions in which researchers using information technology in those days operated were very different, what with the cost of hiring the computer, perforated cards, and the risks associated with the cards being mishandled or wrongly prepared. In particular, the things computers could do then were very much more restricted than what we can demand of them now. There have been two specific stages in the development of computers which have changed the ways they are used in the humanities and social sciences and which have made the use of them much more widespread.

The first stage was at the end of the 1970s, with the spread of personal computers, especially the first Commodore PET (1976) and Apple II (1976) models. The introduction and then the spread of graphic

Furet, F., Daumard, A., 'Méthodes de l'Histoire sociale: les Archives notariales et la Mécanographie', *Annales ESC*, Vol. 14, No. 4, 1959, p. 676-693.

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The *Index Thomisticus* is available on-line. URL: [http://www.corpusthomisticum.org].

Garelli, P., Gardin, J.-C., 'Étude par ordinateurs des établissements assyriens en Cappadoce', Annales ESC, Vol. 16, No. 5, 1961, p. 837-876.

Le Roy Ladurie, E., *Le territoire de l'historien*, Paris, Gallimard, 1973.

interfaces (Apple Macintosh in 1984 and Microsoft Windows in 1985) and the associated software (especially spreadsheets and databases) popularised and greatly facilitated the use of computers in the humanities and social sciences and in many other fields. What had been difficult, lengthy and expensive in the 1960s and 1970s became considerably easier to do in the 1980s, particularly because errors were easier to correct

The second stage dates back to the end of the 1980s, and particularly from the mid-1990s, with the rise of the Internet in the first instance, and then that of one of its applications, the Web. It really began to take off, however, in the decade starting in 2000, with the expansion of the possibilities offered by the Web, an expansion sometimes designated by the expression Web 2.0, which is referred to in this book.

There has been no end to the possibilities opened up by IT which researchers in the humanities and social sciences have explored. In parallel with the uses of quantitative digital technology in economic history, textual analysis has continued to develop. As key elements in humanities and social science research, texts – especially through the contributions of linguists – have been central to the concerns of such uses of information technology. In the 1980s, for example, the first version of the TEI was created (in 1987). The aim was to 'develop, maintain, and promulgate hardware- and software-independent methods for encoding humanities data in electronic forms'. The establishment of the TEI and the release of the first Guidelines (TEI P1) were a response to the need for standards specific to the humanities and social sciences and common standards from one project to another.

The advent of desktop computing was also a period of fragmentation and segmentation. The ephemeral nature of some applications, operating systems (Windows, Mac and others) which could not intercommunicate, proprietary formats which were barely compatible with each other, and developments in hardware – especially data storage equipment – all put the outcome of research projects at risk.

Yet the emergence of the Internet and the Web, the nature of which is to connect computers together and to be compatible between systems, has increasingly made it possible to overcome that segmentation. With desktop computing, it also makes computers a required presence in every aspect of the day-to-day lives of researchers, from searching for sources to publishing the results of their work.

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[&]quot;TEI: history", URL: [http://www.tei-c.org/About/history.xml] (December 2012).

Web 2.0, Digital Humanities and Digital History

'It is true that tools do not make science, but a society that professes to respect the sciences should not ignore their tools ...'¹⁶ – it is this assertion by Marc Bloch which interests us when it comes to stressing the contribution made by the texts presented here to this information technology that is being applied to the world of the humanities and history in particular.

At the moment we are certainly confronted with drastic – and dramatic – changes in the relationship between computing, technology and the communication of historical content on the Web. History as a science is based on an explicit methodology, sources, critical analysis and interpretation of those sources, and debates on the scholarly work of historians. Those fundamentals are not altered by the rise of what is now widely known as 'digital history', a specific field within digital humanities. Since 2004-2005, however, historians using the Web have had their daily work transformed more than in the previous ten years by Web 2.0-type digital technologies, which have recently shaken up some of the traditional ideas on historiography and the working methods of history teachers and researchers.

The desktop computer, the laptop, the handheld computer and the mobile phone are new items that have crept into the range of tools historians use in their day-to-day activities to support scientific work and scholarly communication. As a group of historians at King's College and the Institute of Historical Research in London pointed out in their report on British research into the use of the Web by historians, ¹⁷ the footnotes in academic works with hyperlinks as well as the quotations themselves often come from digital resources that have radically altered the way in which historians work nowadays.

In discussing the changes in historical discourse in the age of digital technology, in its present form and for the sake of convenience referred to as Web 2.0, we aim to consider the changes in certain professional concepts rather than the technology itself or the relationship between digital history and digital humanities. The current digital revolution is similar to what happened when printing was invented in the Renaissance period. It opens up a new age of science and communication in the field of the humanities and social sciences, whose tools and practices, and

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Bloch, M., Apologie pour l'Histoire ou métier d'historien, Paris, Armand Colin, 1974, p. 67.

Bates, D., Nelson, J.L., Roueché, C., Winters, J., Wright, C., Peer Review and Evaluation of Digital Resources for the Arts and Humanities Final Report and Recommendations, London, 2006, p. 9, URL: [http://www.history.ac.uk/sites/history. ac.uk/files/Peer review report2006.pdf].

consequently specific methods, have undergone radical changes. With digitisation, historians are forced to reconsider the very epistemological and theoretical concepts they use to define their work. Heuristic questions, too, are drastically altered in a digitised world that is constantly changing: the alteration of content and contexts is a concept that historians are not yet ready to accept.

What we might now call the 'digital turn' in history as part of the wider digital humanities field has created uncertainty as to the durability of sources, their digital life and the ability to 'reproduce' them in the same form over a period and thus verify a previous analysis referring to them.

So far, though, it is the methods used by historians – their practices – that have been most altered, if it is assumed that research and critical access to documentation are an integral part of the actual writing and teaching of history. In fact, the fundamental revolution in information and communication technologies in the digital age has had an impact on the work of historians well beyond their critical relationship with their sources.¹⁸

A recent analysis of the current changes in the work of historians in the digital age¹⁹ underlines how the instability of digitised texts is now an ongoing problem for digital historians. This shift to constantly changing, fluid texts²⁰ has led to the examination, mainly by librarians and archivists rather than by historians themselves, of new concepts for the description of digital documents, new forms of conservation and permanent long-term access.²¹ Thus historians are – often passive – witnesses

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Noiret, S., 'Informatica, storia, storiografia: la storia si fa digitale', in *Memoria e Ricerca*, No. 28, 2008, p. 189-201, and 'The Historian's new Workshop', in Porciani I., Raphael, L. (ed.), *Atlas of European historiography: the making of a profession 1800-2005*, Basingstoke, Palgrave Macmillan/European Science Foundation, 2010, p. 69.

¹⁹ Iacovella, A., 'Les TIC peuvent-elles dire l'histoire?', in *Humanités numériques*, Vol. 1: *Nouvelles technologies cognitives et épistémologiques*, Paris, Hermes Science Publications, 2007, p. 33-51.

Minuti, R., Internet et le métier d'historien: réflexions sur les incertitudes d'une mutation, Paris, PUF, 2002, p. 72-75.

Guercio, M., 'I documenti informatici' in Pavone, C. (ed.), *Storia d'Italia nel secolo ventesimo. 3. Strumenti e Fonti*, Rome, Ministero per i beni e le attività culturali, Dipartimento per i beni archivistici e librari, Direzione generale per gli archivi, 2006, p. 36, URL: [http://www.archivi.beniculturali.it/DGA-free/Saggi/Saggi_88.pdf]. For a European survey on digital preservation: Angevaare, I., 'A future for our digital memory: permanent access to information in the Netherlands', *English-language summary, Report of the Dutch National Digital Preservation Survey*, 2009, URL: [http://www.ncdd.nl/en/documents/Englishsummary.pdf]; Angevaare, I., 'Taking Care of Digital Collections and Data: "Curation" and Organisational Choices for Research Libraries', *LIBER Quarterly 19*, No. 1, 2009, p. 1-12, URL: [http://liber.

to the creation of new instruments (software, databases) and new methods (communication, reading, publication), which link their daily work to computing activities for the humanities; but sometimes, on the contrary, they actively create their computing applications and, in doing so, they enter the field of digital humanities. For historians, these instruments and methods go beyond what is common to digital humanities. within the framework of what is known as 'digital history': a field, a method (even, in some cases, a sub-discipline) known in Frenchspeaking countries as histoire numérique (a term that differs from the term in use in other Romance-language countries).²² The new dependence on digital information and documentary knowledge found in virtual spaces and requiring 'machines' and programmes to be viewed – whose long-term survival librarians and archivists are trying to ensure – is not traditionally part of the baggage of humanities specialists. Thus these new 'digital' epistemological practices and analytical tools create a need for collaboration and for a new transdisciplinary knowledge, requiring historians to recognise and understand the methods and tools of computer specialists and vice versa.

Are Transdisciplinarity, Fluidity of Information and Insecure Authorship a Challenge for Digital Humanities?

The fluidity of digital documents, their reproducibility and the ease with which information can be published on the Web enhance two of the advantages of printing – mass circulation and the possibility of referring to numerous works/resources and thereby comparing knowledge – but they also mean that texts and documents, unlike printed material, have no long-term stability. The Web allows knowledge to be revised anywhere and at any time, and seriously destabilises its organisation²³ and the professional groups that traditionally had ownership of it. Digitisation destabilises all forms of authority and opens the debate to anybody wishing to participate. It forces people to explain what was previously implicit, and places knowledge in an unstable environment that makes it difficult to refer back to sources and origins. Does information on the

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library.uu.nl/index.php/lq/article/view/7948]. For an American survey on digital preservation, see *Sustainable economics for a digital Planet: Ensuring long term access to digital information, Final Report of the Blue Ribbon Task Force on Sustainable Digital Preservation and Access*, February 2010, URL: [http://brtf.sdsc.edu/biblio/BRTF Final Report.pdf].

The common core of the digital humanities was recently emphasised in France with the *Manifesto for the Digital Humanities*, April 2010, URL: [http://tcp.hypotheses. org/318].

See preface by Brossaud, C., Reber, B., Humanités numériques: Volume 2, Socioinformatique et démocratie cognitive, Paris, Hermes Science Publications, 2007.

Web become legitimate only when it is open to debate and no longer simply because it is based on explicit sources belonging to a specific context?

Thus, as their documentary and critical methods are being transformed, historians are having their authority, often their academic authority as sole possessors of true scientific knowledge, undermined with the emergence of historical discourse from every sector of society: 24 as Roy Rosenzweig so aptly put it, 'everyone [is] a historian'. 25 The active presence of digital history means that the traditional concept of authorship – the author as originator of a text, of ideas, or a person who can be referred to in a dialogue and to whom certain arguments can be attributed, etc. – no longer applies on the Web. 26 In fact, digital writing tools, especially in the Web 2.0 environment, are available to everyone, sometimes to a whole group of people, and it is often no longer possible to attribute arguments to a specific individual. This is even truer when dealing with the analytical approach and the new digital tools created in the field of digital humanities.

Individual authors of a historiographic essay are sometimes subsumed into groups. Often primary sources are no longer connected to the material that gave them meaning and validated them in context. So one of the major problems in the digital world is undoubtedly the individualisation of meaningful contexts, what philologists call the history of text and document representation, and this remains a central issue for the digital humanist. For Jerome McGann, who voices the distrust many intellectuals feel towards unstable digital information, only scientific digitisation that respects non-digital contexts and is seen as part of the history of the material production of a document is scientifically valid. For this expert in the history of texts, literature and poetry who is directly involved in the creation of digital archives meeting such scientific criteria, ²⁷ few of the digital library projects currently being developed

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For an examination of the different approaches to history, from amateurism to publication, see Zorzi, A., 'Linguaggi storici e nuovi media', Storia e problemi contemporanei, No. 29, 2002, p. 161-169.

Rosenzweig, R., Afterthoughts: Everyone a Historian, URL: [http://chnm.gmu.edu/survey/afterroy.html], comment on Rosenzweig, R.; Thelen, D., The Presence of the Past. Popular Uses of History in American Life, New York, Columbia University Press, 1998, URL: [http://chnm.gmu.edu/survey/index.html].

Weissberg, J.-L., 'L'auteur et l'amateur dans le mouvement de fluidification-réception-production', in Guichard, É. (ed.), Comprendre les usages de l'Internet, Paris, Editions Rue d'Ulm, 2001, p. 73-81.

McGann supervised the digital publication of the complete works of Dante Gabriel Rossetti, *The Rossetti Archive*, URL: [http://www.rossettiarchive.org/], and is collaborating on the project for the philological publication of 19th-century literary sources, *NINES*, URL: [http://www.nines.org/].

come up to these required standards, while the explosion of commercial digital operators such as Google and other monopoly actors will lead to cultural disaster in the long run.²⁸ Furthermore, born-digital sources embedded in websites are even less likely to withstand examination in specific and stable contexts that allow experience and quotations to be 'reproduced'.

Hence there is a need to reconstruct critical apparatus and scientific historical methods to take account of the Web, the medium that is cannibalising all others and allowing knowledge to be disseminated in every form. As a consequence of the digital revolution in progress in all disciplines, we are offered new libraries, new sources, new forms of teaching and learning, new ways of writing history. We are faced, above all, with new ways of reporting history and, in contemporary history, with new forms of identity representation and memory construction.

Furthermore, because of technical choices regarding digitisation, we need a 'political' and disciplinary commitment to history which also entails long-term choices on the accessibility of history content in digital archives and on the Web. Should we opt for open source software that benefits historians, and similarly open access to scholarly digital libraries, in order to promote free access to the publication of historians' intellectual output? This radical redefinition of the role of technical and professional intermediaries, who stand between the producers of historiographic texts – historians – and their 'consumers/readers', revolutionises the role of publishers. These traditional intermediaries between authors – who sometimes now produce their digital work jointly and are often widely scattered – and their readers now face serious challenges. In the material world of books, traditional publication mechanisms allowed authors to be paid for the publication of the results of their research, but today's digital publications do not vet offer clear and stable mechanisms of financial compensation for an intellectual work.

In the digital world, a redefinition of the interaction between historical knowledge and other professional skills has also raised the question of the new digital tools used in the digital humanities workshop. A major issue nowadays is who will develop these tools. William J. Turkel and Alan MacEachern, for instance, have a fairly simple answer to that question: if historians do not develop their tools themselves and embrace the goals of digital humanities, they are in danger of having

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McGann, J., 'Our textual history. Digital copying of poetry and prose raises questions beyond accuracy alone', in *Times Literary Supplement*, 20 November 2009, p. 13-15; McGann, J., *Radiant Textuality: Literature after the World Wide Web*, New York, Palgrave, 2001, and 'Culture and Technology: The Way We Live Now, What Is to Be', in *New Literary History*, No. 1, 2005, p. 71-82.

methods forced on them that are not compatible with their practice.²⁹ But it is extremely rare for historians to develop their 'tools' themselves, in the form of open source software, in order to manage digital history issues as efficiently as possible. Nevertheless, the Web requires direct involvement by historians, and they have to experiment, if not independently then with the help of digital humanists or by taking on the role of digital humanists themselves. Web-based research and publication, and new Web-based teaching methods, can only be promoted if this new network formed by different professionals is tested.

The Italian Enlightenment historian Rolando Minuti published *Internet et le métier d'historien* after his innovative experience with ELI-OHS³⁰ and Cromohs. I Minuti draws several conclusions. A community of interest – a new network society – is emerging around the Net, focusing on the central concern of historians, that is, verifying their sources within their new 'habitat'. He also draws attention to the split between sceptics and enthusiasts on the relationship of historians with the Internet: digital history is no longer a choice, but is part of modern historical practice. Finally, he points out that the Net entails the creation of new forms of primacy, between countries, between institutions and between researchers, which are altering the traditional balance on the international academic scene.

If these developments in the historian's craft – which were observed when the Web was first set up and when humanities computing became digital humanities – are understood, it will be easier to control the radical changes affecting the most personal and traditional aspects of history: the attribution of texts and documents to their authors, the authentication and validation of content, and the use of new critical instruments and programming tools with due regard to the most recent changes in Web 2.0 as an evolution of the digital humanist laboratory.

The Need for an Awareness of the Importance of Information Technology

In order to take part in the current debates on the methodological and epistemological aspects of relations between digitisation, digital history and digital humanities, we are presenting some of the contributions to the 'Contemporary History in the Digital Age' symposium held in Luxembourg on 15 and 16 October 2009 and organised jointly by the

Cromohs, URL: [http://www.cromohs.unifi.it/].

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Turkel, W.J. and MacEachern, A., The Programming Historian, 1st ed. NiCHE: Network in Canadian History & Environment, 2007-08. [http://niche-canada.org/programming-historian].

ELIOHS, Electronic Library of Historiography, URL: [http://www.eliohs.unifi.it/].

University of Luxembourg and the CVCE. The papers in this book are divided into four sections: digital infrastructures and Web 2.0; resources and tools; methods and writings; the digital environment.

The range of subjects covered will give readers with little experience of digital history a broad overview of the activities and issues involved in the field today and the challenges it presents, the most significant elements of which we have attempted to elucidate above. Experts already familiar with the subject and with digital humanities will no doubt have a clearer appreciation of the dynamism of this emerging 'subdiscipline' of digital history. We hope that this publication will help to unite Web enthusiasts and sceptics at least around one idea: that the foundation of our discipline, on the Web and elsewhere, remains a prerogative of our critical faculty.

In the light of this brief historical survey of digital humanities, this book is intended for researchers in the humanities and social sciences, especially historians of the contemporary world who are either practising digital humanities without realising it or are curious about this new field and looking for hints as to the uses they could make of it.

We hope that historians of the contemporary, and others, will be made clearly aware of the contributions that digital humanities can offer and the advantages it can bring to their practice of history and to the future of 'making history'.