From „Humanities and Computing" to „Digital Humanities": Digital Humanities in Portugal with a focus on Historical Research
by Daniel Alves

The Digital Humanities do not (yet) exist in Portugal! As introductory statement for an essay on the state of Digital Humanities in Portugal, the phrase carries two risks. On the one hand, it might give the impression that in the Portuguese academy the Humanities are not connected with digital technologies, since these were not integrated into the methodological and epistemological framework of the Humanities disciplines. This idea, however, is not correct, and I believe that sufficient examples will be presented in this essay to demonstrate that Portuguese researchers do not lag behind in the international evolution of the field of Digital Humanities. Moreover, the statement is made in the context of an essay that looks at the progress made in recent decades from a very particular perspective, through the eyes of an historian. And in this case the risk is high because I will not only privilege a look at Digital History (though not exclusively), as this point of observation can lead to the temptation to draw conclusions about all Humanities through observation about developments of only one of its disciplines.

But the statement retains all its acuity if one focuses on a discourse analysis, on the appropriation of concepts and expressions of Digital Humanities that in other countries or linguistic areas have been circulating for years, or if we give attention to aspects of the institutional and formal integration of this new field. Again, talking about a „new" thing when one talks about „Digital Humanities", the term having been coined a decade ago[1], may seem odd. Even more so because I will assume that despite the fact that Digital Humanities as a coherent,

comprehensive and institutionalized disciplinary field in terms of its penetration in academia does not yet exist in Portugal, it is not possible to say that the interaction between the Humanities and the digital technologies is something recent or even negligible in the country. Rather, this interaction has already a decades-long history and is in good health, at least from my point of view.

With these brief remarks I have tried to provide clues to the way in which I will approach the issue of the transformation from „Computing for the Humanities" to „Digital Humanities" and the state of this transformation in Portugal, in 2014. In the following text I will develop three major aspects. The first is to draw attention to those who seem to have been the disciplinary fields where, despite everything, the Digital Humanities (in the broad perspective as will be regarded here) have asserted themselves in a more comprehensive manner. I think it is here that I run into greater risks, not only for what I have mentioned above, but certainly because a significant part, perhaps, of the achievements and of the researchers might have escaped the look that I sought to cast upon the past few decades, always influenced by my own experience and the work carried out in the field of History. But this can be considered as a work in progress and it is open to criticism and suggestions. A second point to note is that emphasis will be given to the main lines of development in the relationship between historical research and digital methodologies, resources and tools. Finally, I will try to make a brief analysis of what has been the Digital Humanities discourse appropriation in recent years, with very debatable data and methods for sure, because studies are still scarce and little systematic information is available that would allow to go beyond an introductory reflection.

Digital Humanities in Portugal: disciplines, methods and practitioners
I think it will not be far from the truth to declare that in Portugal, as indeed elsewhere, the interaction between the Humanities and the Digital is currently transdisciplinary. It will be difficult and perhaps

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[1] Susan Schreibman / Ray Siemens / John Unsworth (eds.), Companion to Digital Humanities. Blackwell Companions to Literature and Culture. Oxford 2004; Melissa Terras, Inaugural Lecture: A Decade in Digital Humanities, in: Melissa Terras' Blog, 27th May 2014. <http://melissaterras.blogspot.pt/2014/05/inaugural-lecture-decade-in-digital.html> (23.07.2014).

once more risky to define a specific discipline where the relevant use of digital technologies has been pioneering, compared to what was happening in the others. Overall, the first examples, individual cases of researchers' isolated efforts, can be observed since at least the late 1970s. However, at that time in Portugal, as around the world, incorporating the computer or computing in the work of the humanist was not easy, because technological advances still did not allow for a democratization of access to this „huge" machinery of electronic information processing. Examples from Philology, Linguistics, Archaeology or History, for example, were sporadic, very punctual. And on the whole, perhaps these were the areas where the need for an earlier „democratization" was more urgent.

Undoubtedly, the 1980s saw the use of the computer expand, both in terms of computational analysis of some corpora, or in the development of databases applied to historical or demographic studies, for example. Precisely one of the most dynamic areas since that time and where the interconnection between digital and research in the humanities has made a marked journey is from Philology and Linguistics[2], although only recently the term „Digital Humanities" has been associated with it, as evidenced by the 2013 edition of the volume „Património Textual e Humanidades Digitais [Textual Heritage

and Digital Humanities]". In the introduction, the editors of the book provide an analysis of the impact generated by the encounter between Philology and the digital. They say that „if it is true that the discussion about the status of this recent domain and, specifically, the impact of the technology transfer to the scope of Philology still remains open, it is undisputed that the Digital Humanities require multidisciplinary teams", and that represents more than a mere „transfer of computer tools to the field of the Humanities".[3]

Still, according to the same authors, in the case of the study of the Portuguese language „the Digital Humanities made meaningful progress thanks to projects like the *CIPM - Corpus Informatizado do Português Medieval*[4] [Computerized Corpus of Medieval Portuguese] (CLUNL), the *DICIweb – Corpus Lexicográfico do Português*[5] [Portuguese Lexicographical Corpus] (Universidade de Aveiro/CLUL) and the *P.S. Post Scriptum – Arquivo Digital de Escrita Quotidiana em Portugal e Espanha na Época Moderna*[6] [Digital Archive of Everyday Writing in Portugal and Spain in the Early-Modern Era]"[7], but there are active projects from at least 1988, such as the *CRPC - Corpus de Referência do Português Contemporâneo*[8] [Contemporary Portuguese Reference Corpus].

These projects also show what has been a trend inside the academic community that integrates the digital in their research projects, whether in the field of Philology and Linguistics, in Literary Studies or in Art Studies: the production and online availability of digital text archives. In the area of language studies there are several projects dedicated to creating digital archives of texts (ancient documents, correspondence or literary texts). An example, in addition to some of the

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[2](Rogéria Cruz, A informática linguística e o futuro do português: elementos para a definição de uma política nacional em Portugal, in: Ciência da Informação 15 (1986), pp. 27–32; Stephen R. Parkinson / António Emiliano, Encoding Medieval Abbreviations for Computer Analysis (from Latin–Portuguese and Portuguese Non-Literary Sources), in: Literary and Linguistic Computing 17 (2002), pp. 345–360; Maria Helena Pinto Novais Paiva, Os gramáticos portugueses quinhentistas e a fixação do padrão linguístico: contribuição da Informática para o estudo das relações entre funcionamento, variação e mudança. Doutoramento, Porto 2002; Evelina Verdelho, Filologia, Linguística e Informática: trabalhos em tempo de mudança, in: Maria Helena Paiva / Ana Maria Brito / Olívia Figueiredo / Clara Barros (eds.), Linguística Histórica e História da Língua Portuguesa. Actas do Encontro de Homenagem a, Porto 2004, pp. 397–411; António Emiliano, Tipo medieval para computadores: uma ferramenta informática para filólogos, historiadores da língua e paleógrafos, in: SIGNO: Revista de la Historia de la Cultura Escrita 15 (2005), pp. 139–76; Rita Marquilhas / Iris Hendrickx, Manuscripts and Machines: The Automatic Replacement of Spelling Variants in a Portuguese Historical Corpus, in: International Journal of Humanities and Arts Computing 8 (2014), pp. 65–80.

[3]Maria Filomena Gonçalves / Ana Paula Banza (eds.), Património Textual e Humanidades Digitais: da antiga à nova Filologia, Évora 2013, pp. 4–5).

[4]<http://cipm.fcsh.unl.pt/>, active since 1993 (23.07.2014).

[5]<http://clp.dlc.ua.pt/Projecto.aspx> (23.07.2014).

[6]<http://ps.clul.ul.pt/index.php> (23.07.2014).

[7]Maria Filomena Gonçalves / Ana Paula Banza (eds.), Património Textual e Humanidades Digitais: da antiga à nova Filologia, Évora 2013, p. 7.

[8]<http://www.clul.ul.pt/pt/recursos/183-crpc#history> (23.07.2014).

previously mentioned digital archives, is the project developed at the University of Minho, on *Tomaz de Figueiredo's Digital Archive*[9], coordinated by Idalete Maria da Silva Dias, or the project „*Nenhum Problema Tem Solução: Um Arquivo Digital do Livro do Desassossego* [No Problem Has a Solution: A Digital Archive of the Book of Disquiet]"[10] from the University of Coimbra coordinated by Manuel Portela.

In the confluence between digital technologies and Literary Studies, Portela has been one of the most dynamic researchers in incorporating the Digital Humanities' discourse, with publications and projects dedicated to electronic publishing and the creation of digital texts archives.[11] Also the studies by Pedro Barbosa on text created by computer, developed since the mid-1990s, are evidence of this link between text and digital technology, an activity that is currently developed by a broader team in the *Centro de Estudos em Texto Informático e Cibercultura* [Centre for Studies in Computerized Text and Cyberculture], at University Fernando Pessoa.[12] Helena Barbas, at New University of Lisbon has also developed an effort to integrate digital culture into the Literary Studies and presents a multifaceted research path where, among other studies, one should highlight the work on digital storytelling and cultural heritage.[13]

In the more specific field of Theatre Studies one can cite the work of the *Centro de Estudos de Teatro* [Centre for Theatre Studies] at the University of Lisbon[14], in existence since 1994 and providing a regular online presence since 2000, with several digital archives and databases

Fig. 1: Tomaz de Figueiredo's Digital Archive (01.09.2014)

on Portuguese theater. Lastly, still under Literary Studies and exploring the connections between literature, landscape and environment, the project „*Atlas das Paisagens Literárias de Portugal Continental* [Atlas of Literary Landscapes of Mainland Portugal]"[15], coordinated by Ana Isabel Queiroz at New University of Lisbon, deserves to be highlighted. It is a relevant project for the interdisciplinary perspective, as well as the innovative combination of text analysis, relational databases and geographic information systems.

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[9] <http://www.tomazdefigueiredo.net/Projeto_Tomaz_Figueiredo/Tomaz_Arquivo/> (23.07.2014).

[10] <http://www.uc.pt/fluc/clp/inv/proj/ldod> (23.07.2014).

[11] See, for instance, <http://www.ci.uc.pt/diglit/DigLitWebRosto.html> (23.07.2014).

[12] <http://cetic.ufp.pt/index_eng.htm> (23.07.2014).

[13] Helena Barbas / Nuno Correia, Documenting InStory–Mobile Storytelling in a Cultural Heritage Environment, in: Luciana Bordoni / Massimo Zancanaro / Antonio Krueger (eds.), First European Workshop on Intelligent Technologies for Cultural Heritage Exploitation, Riva del Garda 2006, pp. 6–12.

[14] <http://www.letras.ulisboa.pt/cet-cet/731-cet> (23.07.2014).

[15] <http://paisagensliterarias.ielt.org/> (23.07.2014).

Fig. 2: Atlas of Literary Landscapes of Mainland Portugal (01.09.2014)

The entanglement of the Humanities with digital technologies in Portugal has not been limited to the digitization, analysis and academic publication of texts. Major steps forward have been taken in the areas of Intangible Heritage, Music and Dance, or Art History in recent years, using diverse technologies, with an emphasis on digital video and sound to preserve popular culture[16], in multimodal analysis about performing arts[17], on 3D reconstruction[18] or on historical modelling in virtual environment[19], of which the most recent and promising exam-

ple is undoubtedly what is being developed at the University of Évora about the city of Lisbon in the pre-1755 Earthquake.[20] Also in the field of simulation and the creation of so-called „serious games" interesting developments have taken place, as can be seen by the work done, for example, at the University of Coimbra[21] and at New University of Lisbon[22].

Digital Humanities and Historical Research: From early efforts to the Google era

History and Archaeology are no specific or unique cases within the general framework of the evolution of Digital Humanities in Portugal, at least with regard to the chronology of this evolution. The beginnings are also situated in the late 1970s and early 1980s, but it was the following decade that saw one of the major periods of development of the field in the Portuguese academia. There are however some peculiarities that justify an emphasis on these two disciplines, in particular concerning the methods used and tools adopted.

In 1983, the historian António Hespanha published the text „A micro-informática no trabalho do historiador [The micro-informatics in the work of the historian]".[23] In this essay he intended to make a balance (maybe precociously) about the use of information technology in teaching and research. Talking about major projects focused on technology and centralized resources, and about the use of computers mainly for statistical operations, in his opinion the 1980s promised

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[16] <http://www.memoriamedia.net/index.php/en> (23.07.2014).

[17] <http://tkb.fcsh.unl.pt/> (23.07.2014); Carla Fernandes / Stephan Jürgens, Video Annotation in the TKB Project: Linguistics Meets Choreography Meets Technology, in: International Journal of Performance Arts and Digital Media 9 (2013),pp. 115–34.

[18] Manuela Martins / Paulo Bernardes, A Multi-Disciplinary Approach for Research and Presentation of Bracara Augusta's Archaeological Heritage, in: Archeologia E Calcolatori XI (2000), pp. 347–57; Paulo Bernardes / Manuela Martins, Computer Graphics and Urban Archaeology: Bracara Augusta's Case Study, in: Advances in Computer Graphics in Portugal 4 (2004), <http://virtual.inesc.pt/aicg04/index.html> (23.07.2014); Lídia Fernandes / Paulo Sales, Teatro Romano de Lisboa: projecto reconstituição virtual, in: Revista Arquitectura e Vida 57 (2005), pp. 28–32.

[19] CHAIA-UE, Um novo objecto de estudo: a Lisboa pré-terramoto em mundo virtual, in: APHA Newsletter 2011.

[20] <http://lisbon-pre-1755-earthquake.org/> (23.07.2014).

[21] Joaquim Carvalho / Filipe Penicheiro, Jogos de computador no ensino da História, in: Ana Veloso / Licínio Roque / Óscar Mealha (eds.), Livro de Actas do VIDEOJOGOS 2009 – Congresso da Sociedade Portuguesa de Ciências dos Videojogos, Aveiro 2009, pp. 401–12.

[22] Helena Barbas / Nuno Correia, Documenting InStory–Mobile Storytelling in a Cultural Heritage Environment, in: Luciana Bordoni / Massimo Zancanaro / Antonio Krueger (eds.), First European Workshop on Intelligent Technologies for Cultural Heritage Exploitation, Riva del Garda 2006, pp. 6–12; Helena Barbas, Narrative Memory in Hyperfiction and Games, in: Aladdin Ayesh (ed.), GameOn' 2010: 11th International Conference on Intelligent Games and Simulation, Leicester 2010, pp. 85–91.

[23] António Manuel Hespanha, A Micro-Informática no Trabalho do Historiador, in: História e Crítica XI (1983).

an „information revolution" with more accessible computers and the dissemination of ready to use software packages.[24] Still, Hespanha felt the need to explain in his article in great detail the workings of computer language as well as the features and functions of the physical components of the „personal computer". In 1983, this machine was still unknown to the general public and was only recognized by a minority of researchers in the scientific community.[25] On asking what computers could do for historians or historians could get from a computer, Hespanha started with the obvious, the use of PCs in the statistical calculation. Through calculation and its complexification, enhanced by the PCs' computing power, historians started to have at their disposal a tool for analysis to perform operations previously impossible or too time-consuming and ultimately allow them to advance the „historiographical reasoning" to interpretative models based on „modeling and extrapolation". Hespanha admitted „some optimism" in his remarks, but pointed to a higher accuracy in the collection and systematization of historical data, forced by the dynamics of computing that ultimately would lead to an approach between History and the Social Sciences.[26] In 1985, Joaquim Carvalho sought to register similar conclusions, this time extended to the bulk of the Humanities.[27]

Probably resulting from this optimism, the first „Encontro sobre História e Informática [Meeting on History and Computing]" took place in 1988, organized by the Portuguese History Teachers Association. The second meeting was already organized by the Portuguese Association for History and Computing (APHI), at the University of Minho in April 1989. Enthusiasm for the novelty of the subject in Portugal was certainly responsible for the success of the initiative, which had „about 300" attendees, and was then classified as „one of the largest events of its kind in Europe."[28]

The APHI began publishing a newsletter, „O Boletim da Associação Portuguesa de História e Informática [The Bulletin of the Portuguese Association for History and Computing]" in March 1989, with Joaquim Carvalho of the University of Coimbra as one of the main driving forces. It capitalized on the enthusiasm regarding the intersection between historical research and computing which was then growing internationally, with the publication of the first volume of the journal *History and Computing* in the same year. The APHI was working as a branch of the *Association for History and Computing* in Portugal.[28]

That same year saw the publication of the book „Informática e Ciências Humanas [Computing and Human Sciences]" by Conceição Monteiro Rodrigues, with the collaboration of Carlos Alberto Trindade, a Computer Science Engineer. The author had been a pioneer in the application of computing to research methods in Archaeology in Portugal, with the publication of „A informática ao serviço da História da Arte e Arqueologia [Computing at the service of Art History and Archaeology]" in 1979, and by teaching a course on „Introdução à Informática Aplicada à História [Introduction to Computing and History]" in the New University of Lisbon in the early 1980s.[29] Her book from 1989 gave a portrait of the skepticism raging in the Portuguese academic community regarding the use of computing resources in the Humanities, but also a reflection on the mental changes and the new methods necessary for the integration of information technology in Humanities research. Already at that time she emphasized that in the application of computing to research methods in the Social Sciences and Humanities researchers needed to leave the comfort zone represented by the quantitative approach, and to focus increasingly

[24]António Manuel Hespanha, A Micro-Informática no Trabalho do Historiador, in: História e Crítica XI (1983), pp. 17–18.

[25]António Manuel Hespanha, A Micro-Informática no Trabalho do Historiador, in: História e Crítica XI (1983), pp. 18–24.

[26]António Manuel Hespanha, A Micro-Informática no Trabalho do Historiador, in: História e Crítica XI (1983), pp. 24–25.

[27]Joaquim Carvalho, Informática e Ciências Humanas, in: Revista Vértice 467 (1985). [28 Associação Portuguesa de História e Informática (ed.), Boletim da Associação Portuguesa de História e Informática, Vol. 2, Coimbra 1989, 2:4–5.

[28]Associação Portuguesa de História e Informática (ed.), Boletim da Associação Portuguesa de História e Informática, Vol. 1, Coimbra 1989, 1:3; 27.

[29]Maria da Conceição Monteiro Rodrigues, Informática e ciências humanas, Lisboa 1989, p. 7.

on the qualitative domain.[30] Again we see a clear line of confluence with international developments, such as the call to a „qualitative and quantitative revolution in the relationship between history and computing.“[31]

Another important element of the 1980s was the creation of software specifically designed for the work of the historian/archivist, as was the case with *Herodotus v1.00*, a program for the management of documents and data recovery, thought in the image of Manfred Thaller's *Kleio*;[32] The project *Herodotus* was based at the New University of Lisbon and was coordinated by António Hespanha.[33]

Despite all the initiatives and publications, the truth was that the application of digital technologies, was generally viewed with skepticism. In a 2011 interview António Hespanha recalled his admission to the Institute of Social Sciences in 1983: His team's „empirical research strongly supported by computational means" generated „mistrust" and was regarded as a „bizarreness".[34] Yet he assembled a team that gained research experience in handling large volumes of data, „represented in a homogeneous and regular way, searchable, comparable and reducible to great patterns in a matter of seconds".[35]

The use of databases, whether for serial, demographic or prosopographic studies, subsequently became a marked trend, with several teams in universities all over the country using these software tools in their research projects. To quote just a few representative examples one should mention the studies on parishes reconstitution coordinated by Norberta Amorim, at University of Minho[36]; work on disentailment in the nineteenth century carried out by Luís Silveira, at New University of Lisbon[37]; work on the Ancien Régime's society developed by Joaquim Carvalho, at the University of Coimbra[38]; or about the population in the first half of the nineteenth century equally by Luís Silveira.[39]

Norberta Amorim indeed pointed out in the early 1990s that the use of „micro-computer" technique, including databases, had promoted the evolution of her studies on the reconstitution of families as developed in the 1960s into a broader methodology of parishes reconstitution since the mid-1980s[40]. The fact that Amorim used the term „database" in quotes throughout an important article published in 1991 reveals just how new this technology was for the humanities' academic milieu at the time.[41] Even the researchers who did use these new digital tools showed some skepticism, pointing to the „convenience" of continuing to hold records in „notebooks (...) that operate

[30]Maria da Conceição Monteiro Rodrigues, Informática e ciências humanas, Lisboa 1989, pp. 9–10, 127–128.

[31]R. J. Morris, History and Computing: Expansion and Achievements, in: Social Science Computer Review 9 (1991), pp. 215.

[32]Associação Portuguesa de História e Informática (ed.), Boletim da Associação Portuguesa de História e Informática, Vol. 2, Coimbra 1989, 2:15–20; Onno Boonstra / Leen Breure / Peter Doorn, Past, Present and Future of Historical Information Science. Amsterdam 2004, pp. 26–27.

[33]Associação Portuguesa de História e Informática (ed.), Boletim da Associação Portuguesa de História e Informática, Vol. 1, Coimbra 1989, 1:3.

[34]António Manuel Hespanha, Entrevista a António Manuel Hespanha por Pedro Cardim, in: Análise Social 46/200 (2011), pp. 433.

[35]António Manuel Hespanha, Entrevista a António Manuel Hespanha por Pedro Cardim, in: Análise Social 46/200 (2011), pp. 439.

[36]Maria Norberta Amorim, Uma metodologia de reconstituição de paróquias desenvolvida sobre registos portugueses, in: Boletín de la Asociación de Demografía Histórica IX (1991), pp. 7–26.

[37]Luís Espinha da Silveira, Revolução Liberal e Propriedade. A Venda dos Bens Nacionais no Distrito de Évora (1834–1852), Lisboa 1988.

[38]Joaquim Carvalho, Comportamentos Morais e Estruturas Sociais numa paróquia de Antigo Regime (Soure, 1680–1720), Coimbra 1997.

[39]Luís Espinha da Silveira (ed.), Os recenseamentos da população portuguesa de 1801 e 1849, edição crítica, 3 vols., Lisboa 2001.

[40]Maria Norberta Amorim, Uma metodologia de reconstituição de paróquias desenvolvida sobre registos portugueses, in: Boletín de la Asociación de Demografía Histórica IX (1991), p. 7; Maria Norberta Amorim / Maribel Yasmina Santos / Antero Ferreira / Pedro Rangel Henriques / Fátima Rodrigues, Reconstituição de paróquias e formação de uma base de dados central, in: Congresso da Assosiação Portuguesa de Demografia Histórica: actas, Lisboa 2001, p. 60; also check a previous work by the same author where she made a first approach to the link between demography and „micro-informatics", Maria Norberta Amorim / Luís Lima, Demografia histórica e micro-informática: uma experiência sobre uma paróquia açoriana, in: Boletim do Instituto Histórico da Ilha Terceira XLIV (1986), pp. 191–209.

[41]Maria Norberta Amorim, Uma metodologia de reconstituição de paróquias desenvolvida sobre registos portugueses, in: Boletín de la Asociación de Demografía Histórica IX (1991), pp. 8–9.

as duplicates for the electronic records".[42] Still, the transition to the computer media were assigned a number of advantages related to the storage capacity and speed of information processing, easy searchability and automation of a set of processes that facilitated the historian's life.[43]

A few years later the quotes tended to disappear from the term „database" and the advantages of computerizing the research process were presented with greater clarity, in particular the ability to give a „new impetus to the work made with massive historical information" by „strengthening the scientific basis of the studies" developed and by „enhancing interdisciplinary research".[44] Due to the advancement of projects in historical demography, the „SEED, Sistema para o Estudo da Evolução Demográfica [System for the Study of Demographic Evolution]" became available.[45] In 2004, in an outline summary of what had been the development of the relationship between computer science and historical demography, João Antero Ferreira could declare that the trend of the last twenty years gave an „example of success".[46]

However, until the mid-1990s and with rare exceptions, the IT tools used in history projects were developed by engineers and computer technicians, often with no direct intervention from the humanists in

the critical process of building the computer model data, for instance, which today is considered crucial for the development of databases applied to Humanities projects.[47] One of the most significant exceptions corresponds to the works developed by Joaquim Carvalho, concerned not only with the use of computer resources to assist in the „effective [management of a] large amount of multivariate data", but essentially with the need to make these tools and methods „reusable". He also drew attention to the very process of developing the digital tools that would enable to shed light on the „internal logic of certain historical processes".[48] This work culminated in the *TimeLink* project, an online open source tool for analyzing prosopographical networks.[49]

The importance and relevance of digital resources available for historical research was widely acknowledged in the mid-1990s, and the potential of the Internet for the discipline was recognized.[50] Nevertheless, in 1997 the „historian with strong IT background" was still considered „rare".[51] And in addition to those already mentioned there were few researchers or even research teams that focused their research solely or at least largely on the use of digital tools and methods.

In 2005, „the building of databases" stood out as „the feature par excellence" of the „use of information technology for historical research".[52] Despite technological advances the use of these tools was designed almost exclusively to process „sources that have structured and serial information".[53] The wider dissemination of databases (also

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[42]Maria Norberta Amorim, Uma metodologia de reconstituição de paróquias desenvolvida sobre registros portugueses, in: Boletín de la Asociación de Demografía Histórica IX (1991), pp. 9.

[43]Maria Norberta Amorim, Uma metodologia de reconstituição de paróquias desenvolvida sobre registros portugueses, in: Boletín de la Asociación de Demografía Histórica IX (1991), p. 10.

[44]Maria Norberta Amorim, Informatização normalizada de arquivos: reconstituição de paróquias e historia das populações: um projecto interdisciplinar, in: Boletín de la Asociacón de Demográfia Histórica XIII (1995), pp. 141–143.

[45]And its latest version can be accessed at <http://www3.di.uminho.pt/~gepl/SEED/> (23.07.2014); Rafael Fernandes Félix / Fernanda Faria / Maribel Yasmina Santos / Pedro Rangel Henriques, XML na demografia histórica: anotação de registos paroquiais, in: Conferência da Associação Portuguesa de Sistemas de Informação, Coimbra 2002.

[46]João Antero Gonçalves Ferreira, Sistemas informáticos para análise de dados demográficos: uma abordagem histórica, in: Actas del VII Congreso Internacional de la ADEH, Granada 2004, p. 12.

[47]John Bradley, Silk Purses and Sow's Ears: Can Structured Data Deal with Historical Sources?, in: International Journal of Humanities and Arts Computing 8 (2014), pp. 13–27.

[48]Joaquim Carvalho, Comportamentos Morais e Estruturas Sociais numa paróquia de Antigo Regime (Soure, 1680–1720), Coimbra 1997.

[49]<http://timelink.fl.uc.pt/> (23.07.2014).

[50]Nuno Camarinhas, A História nos caminhos da Internet, in: Revista História XVIII (1996).

[51]Joaquim Carvalho, Comportamentos Morais e Estruturas Sociais numa paróquia de Antigo Regime (Soure, 1680–1720), Coimbra 1997.

[52]Nuno Camarinhas, Do manuscrito ao teclado: Os usos da informática na investigação histórica, in: História do Teatro e Novas Tecnologias, Lisboa 2005, pp. 3–4.

[53]Nuno Camarinhas, Do manuscrito ao teclado: Os usos da informática na investi-

due to the fact that history projects funded by the Portuguese Foundation for Science and Technology currently are usually expected to develop a database), the greater familiarity of researchers with these tools and also their growing versatility have allowed other forms of use, especially for non-structured information, a trend discernible by the projects presented at a recent workshop on „Bases de dados para as Ciências Humanas [Databases for Humanities]"[54] and in some published papers seeking to cross textual sources, databases and geographic information systems.[55]
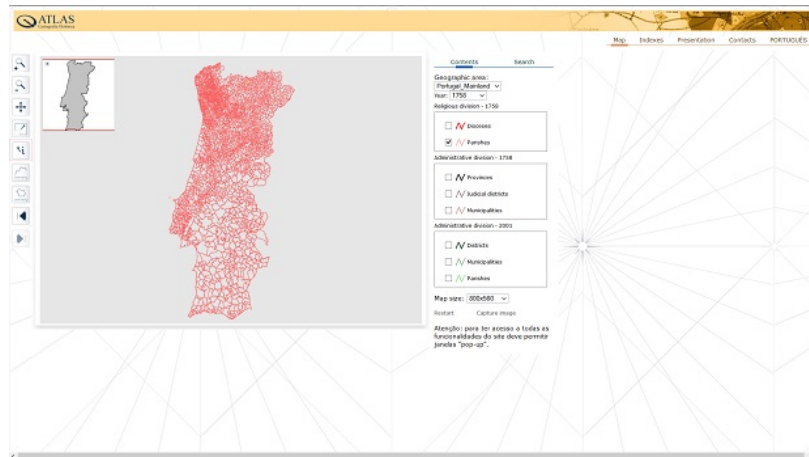

Fig. 3: Atlas of Historical Cartography (01.09.2014)

Associated with some of these projects that have privileged the use of relational databases and particularly with those who had a stark territorial component, the use of geographic information systems (GIS) has been developed from the mid-1990s. In this field a research team from

the New University of Lisbon, coordinated by Luís Silveira, has carried out pioneering work.[56] As can be observed for other countries, the beginnings of historians' involvement with GIS technologies lay in major projects to reconstruct the historic administrative county boundaries in an effort to create a basis to study the quantitative data collected in long temporal series. In Portugal, these efforts culminated in 2001 with the release of the site *Atlas, Cartografia Histórica* [Atlas, Historical Cartography][57], and today are accepted as a well-established area of research, with studies ranging from Urban History to Transnational History.[58]

The use of web-GIS for making historical research available was furthered by the website „Atlas Histórico Digital do Alentejo [Digital Historical Atlas of Alentejo]", a project today unfortunately only partially available through the Internet Archive.[59] More recently we can point out the work carried out under the *DynCoopNet* project[60] with the Portuguese team being coordinated by Amélia Polónia from University of Oporto.[61]

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gação histórica, in: História do Teatro e Novas Tecnologias, Lisboa 2005, p. 4.

[54] <http://www.cham.fcsh.unl.pt/teodosio/files/2013_wbd.pdf> (23.07.2014).

[55] For instance Daniel Alves / Ana Isabel Queiroz, Studying Urban Space and Literary Representations Using GIS: Lisbon, Portugal, 1852–2009, in: Social Science History 37 (2013), pp. 457–81.

[56] Luís Espinha da Silveira / Margarida Lopes / Cristina Joanaz de Melo, Mapping Portuguese Historical Boundaries with a GIS, in: Onno W. A. Boonstra / Geurt Collenteur / and Bart van Elderen (eds.), Structures and Contingencies in Computerized Historical Research, Hilversum 1995, pp. 245–52; Luís Espinha da Silveira, Território e poder. Nas origens do Estado contemporâneo em Portugal. Cascais 1997.

[57] <http://atlas.fcsh.unl.pt/> (23.07.2014).

[58] Luís Espinha da Silveira / Daniel Alves / Marco Painho / Ana Cristina Costa / Ana Alcântara, The Evolution of Population Distribution on the Iberian Peninsula: A Transnational Approach (1877–2001), in: Historical Methods: A Journal of Quantitative and Interdisciplinary History 46 (2013), pp. 157–74; Luís Espinha da Silveira, Geographic Information Systems and Historical Research: An Appraisal, in: International Journal of Humanities and Arts Computing 8 (2014), pp. 28–45.

[59] <https://web.archive.org/web/20120101065256>; <http://geowebserver.xdi.uevora.pt/> (23.07.2014).

[60] <http://www.dyncoopnet-pt.org/> (23.07.2014).

[61] Amélia Polónia / Amândio Barros / Miguel Nogueira, 'Now and Then, Here and There … on Business': Mapping Social/Trade Networks on First Global Age, in: Karel Kriz / William Cartwright / Lorenz Hurni (eds.), Mapping Different Geographies, Heidelberg 2010, pp. 105–28; Sara Pinto, Geographic Projections of a 16th Century Trade Network: New Meanings for Historical Research, in: Karel Kriz / William Cartwright / Michaela Kinberger (eds.), Understanding Different Geographies, Heidelberg 2013, pp. 203–14.

For the field of Archaeology, GIS is an area of well developed research, with the second half of the 1990s and the creation of the „Endovélico" system as a milestone. Since then GIS work has been carried out in all Portuguese universities and with very diverse thematic and temporal perspectives of analysis. Running the risk of leaving out relevant works for Digital Archaeology, I present only a few examples, pointing out the works developed by Manuela Martins, Marcos Osório, Jorge Freire or Miguel Nogueira.[62]

In History, the creation and online availability of digital archives has also generated much interest in academia, and examples of almost all universities and History research centres in the country can be used to illustrate this interest. To mention a few, there are the „Memórias Paroquiais 1758 [1758 Parishes' Descriptions]" at the University of Évora[63] coordinated by Fernanda Olival, the MOSCA project also at Évora[64], coordinated by João Freire and Paulo Guimarães[65] or the project „Portugal 14-18" at the New University of Lisbon, one of the first examples of using crowdsourcing to collect documents and memories, in this case about the First World War.[66]

In some recent works, the community of researchers linked to History and Archaeology felt the need to make a balance of the implementation of digital research methodologies in these two disciplines, although the

Fig. 4: Portugal 14-18 (01.09.2014)

main focus has been given to developments in international terms.[67] The exception to this scenario is the study of Maria Cristina Guardado and Maria Manuel Borges, dedicated exclusively to the Portuguese case[68], although more focused on trying to identify the centers and research projects where the area of Digital History has had more impact. From these studies we get the idea that Digital History and Digital Archaeology in Portugal today, as it occurred in the late 1980s, again appear to be in a new phase of importing paradigms, this time centered on the incorporation of the discourse of the Digital Humanities.

What we talk about when we talk about Digital Humanities in Portugal (version 2.014)

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[62]Manuela Martins / Paulo Bernardes, A Multi-Disciplinary Approach for Research and Presentation of Bracara Augusta's Archaeological Heritage, in: Archeologia E Calcolatori XI (2000), pp. 347–57 Marcos Osório / Telmo Salgado, Um Sistema de Informação Geográfica aplicado na Arqueologia do Município do Sabugal, in: Praxis Archaeologica 2 (2007), pp. 9–22; Migel Nogueira, Percurso metodológico para a implementação de um SIG em arqueologia mineira: breves reflexões, in: Carla Maria Braz Martins (ed.), Mineração e povoamento na Antiguidade no Alto Trás-os-Montes Ocidental, Porto 2010, pp. 179–87; J. Freire / J. Bettencourt / A. Fialho, Sistemas de Informação Geográfica na gestão do Património Cultural Subaquático: a experiência da Carta Arqueológica Subaquática de Cascais, in: 2as Jornadas de Engenharia Hidrográfica, Lisboa 2012, pp. 365–68.

[63]<http://www.portugal1758.uevora.pt/> (23.07.2014).

[64]<http://mosca-servidor.xdi.uevora.pt/projecto/> (23.07.2014).

[65]João Freire / Paulo Guimarães, Do Arquivo Histórico-Social ao Projecto Mosca, in: A Ideia: revista de cultura libertária 71–72 (2013), pp. 243–46.

[66]<http://www.portugal1914.org/> (23.07.2014).

[67]Danny Rangel / Nelson Almeida, A Arqueologia na Era Digital: Contexto e tendências, in: Revista Internacional de Humanidades 1 (2012), pp. 39–51; Danny Rangel, Do mundo digital às humanidades digitais, in: Techne 1 (2013), pp. 17–23; Daniel Alves, Introduction: Digital Methods and Tools for Historical Research, in: International Journal of Humanities and Arts Computing 8 (2014), pp. 1–12.

[68]Maria Cristina Guardado / Maria Manuel Borges, Digital History in Portugal: A Survey, in: Alexander Tokar et. al. (eds.), Science and the Internet, Düsseldorf 2012, pp. 43–58.

The attempt to claim a new field of research can be made through a more formal and institutional way, with the creation of centers and institutes focusing specifically on the development of new subjects or methodologies. One can rely on the elaboration of a distinct discourse, adapting and reconfiguring trends coming from the past or importing expressions, concepts, methods and problems of other disciplines or other academic communities, especially from abroad. Or, obviously, one can follow both paths parallelly. In the Portuguese case, the current trend seems to be the second strategy. I'm not saying this to argue that some of the aforementioned research centers or even others more focused on a digital/ computational perspective (e.g. the Instituto de Linguística Teórica e Computacional [Institute of Theoretical and Computational Linguistics])[69] cannot be integrated into what we now call Digital Humanities. To a large extent it is precisely in these centers that have arisen the very practice and discourse that tend to affirm the new field in Portugal. However, the process has been less systematic, more informal, and can only be detected by paying attention to other signs away from the formalism of institutions.

It is difficult to guarantee with absolute certainty who used the phrase "Digital Humanities" in Portuguese for the first time and when, and that might not be very relevant. However, it is clear that this use is already a first sign of the beginning of the transformation process from "computing for the Humanities" or "computing applied to Humanities" to the "Digital Humanities". Without absolute certainties, it is likely that the year 2010 was the turning point. There are several signs that point in this direction and they are visible either through teaching or research.

Helena Barbas, one of the researchers already mentioned above, has sought to stimulate the field of Digital Humanities at the New University of Lisbon at least since 2004 by offering free courses, several graduate and master courses. In the Literary Studies area she has proven a pioneer in the adoption of either a digital perspective to teach-

ing, or in the incorporation of designations that currently characterize the field. If in 2007 she introduced the master course „Literature and New Media", in 2010 she changed its name to „Digital Humanities".[70] From what we can ascertain this may have been the first time that the term „Humanidades Digitais [Digital Humanities]" came to be use in an official manner, in Portuguese, in the Portuguese academy.

But from what has been determined in an online survey of curriculum guides from several universities, the expression remains virtually absent, with one exception. At the University Fernando Pessoa „Teaching and Management of Education" department, there is currently a chair in „Ciência, tecnologia e humanidades digitais [Science, technology and digital humanities]". The course was created in 2009, but it gained the term „digital humanities" only in 2013. Nevertheless there remain other designations that although not incorporating the trendy expression, so to speak, may also be included in the field of Digital Humanities.

One example is the course on „Information Technology Applied to History", which is compulsory in the History degree at the New University of Lisbon, running since 2002; another is the master „Euromachs - European Heritage, Digital Media and the Information Society", created in 2008, at the University of Coimbra; or yet another the seminar „Digital Culture and Literature Studies", of the MA in Anglo-American Studies also in Coimbra and running since 2005. Obviously, all these examples and others who might join them, demonstrate that the field of Digital Humanities existed before the expression was assigned to it. Probably the field already existed and continues to exist whether the imported designation is used or not.

In research and academic publications the assertion of the discourse that incorporates the name or concept of „Digital Humanities" is also new and we cannot say, once again, that its use is very broad. A search done in the „Repositório Científico de Acesso Aberto de Portugal

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[69] <http://www.iltec.pt/eng/index.html> (23.07.2014).

[70] See <http://www.helenabarbas.net/> (23.07.2014).

[Portuguese Open Access Scientific Repository]" (RCAAP)[71], using the terms „digital humanities", „humanidades digitais", „digital history" or „história digital", shows that these designations only entered the Portuguese academic lexicon as of 2010 and even then in a very hesitant manner. The number of results obtained with a combination of all these keywords in all search fields available, including the full text of publications is very low (17 publications in thousands of references available) and is restricted to an even smaller number of researchers who were extensively involved in research in Humanities using Digital Technologies already before that date.[72] Perhaps even more significant is the fact that the expression „humanidades digitais" is used only four times in the keywords to classify the publications in the repositories, with the English equivalent appearing only in two other cases. A similar search carried out on PORBASE, the National Bibliographic Database[73] which aggregates the major national libraries highlights the absence of these expressions, whether the search is done in the subject or the title fields, which once again demonstrates that the appropriation of the discourse connected to this field of research in Portuguese academia is still very low.

There are obviously exceptions and the last two years have seen an increased number of references. The terms „computing to..." or „Informatics applied to..." still appear, but increasingly, at least within the group of researchers more involved in studies of strong digital component, the designation „Digital Humanities" tends to appear. See, for example, some works of Idalete Maria da Silva Dias, since 2012, with several communications in congresses on the theme of Digital Humanities: „Was heißt Digital Humanities/digitale Geisteswissenschaften eigentlich?" („O que são as Humanidades Digitais [What are the Digital Humanities]?") or „Repensar as Humanidades na Era Digital [Rethinking the Humanities in the Digital Age]", are two

examples. The author had done some communications already in 2008 on the same subject, but then using the expression „Humanidades e Tecnologias [Humanities and Technology]".[74]

There are also more recent and perhaps more symbolic cases of this appropriation of a new vocabulary to describe a practice already in use for a few decades, probably pursued now in order to give a new breath to the assertion of this field of research and teaching. This is visible in publications where the expression is used frequently, where it appears explicitly in the title[75], or even when it is used to formalize research lines with explicit reference to the field as the „Humanidades Digitais e Investigação Histórica [Digital Humanities and Historical Research]" thematic research line at the New University of Lisbon or the „Núcleo Património e Humanidades Digitais [Heritage and Digital Humanities Research Group" at the University of Coimbra.[76]

Finally a look at the world of blogging done through a Google search for „Humanidades Digitais" in the page title does not detect an abundant use of the designation. Apparently the first reference in a blog entry was made in 2010[77], and only a few more references can be found.[78]

In conclusion, we can say that Digital Humanities in Portugal are

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[71] <http://www.rcaap.pt/> (23.07.2014).

[72] Cases of Manuel Portela, Helena Barbas, Daniel Alves, Maria Filomena Gonçalves and Ana Paula Banza (these two authors in co-authorship).

[73] <http://porbase.bnportugal.pt/> (23.07.2014).

[74] Idalete Maria da Silva Dias, „As Humanidades e as Tecnologias de mãos dadas," in: I Fórum de Línguas e Literaturas Europeias subordinado ao tema A Literatura e o Humor, Universidade do Minho 2008; Idalete Maria da Silva Dias, „Tecnologias de Comunicação nas Humanidades," in: Seminário O Processo de Bolonha na Universidade do Minho. Orientações e Práticas, Universidade do Minho 2008.

[75] Maria Filomena Gonçalves / Ana Paula Banza (eds.), Património Textual e Humanidades Digitais: da antiga à nova Filologia, Évora 2013; Manuel Portela, 'Nenhum Problema Tem Solução': Um Arquivo Digital do Livro do Desassossego, in: MATLIT: Materialidades da Literatura 1 (2013), pp. 9–33; Danny Rangel, Do mundo digital às humanidades digitais, in: Techne 1 (2013), pp. 17–23.

[76] <http://www.uc.pt/iii/ceis20/grupos_investigacao/Nucleo> (23.07.2014).

[77] <http://goo.gl/KmIe9Y> (23.07.2014).

[78] <http://goo.gl/vrSWZ5>; <http://goo.gl/tT4MfV>; <http://goo.gl/sNkn3L>; <http://goo.gl/OsJ5BA>; considering that only one includes the expression in the title of the blog and not on the title of one of its entries, as in Dália Guerreiro's blog about „Bibliotecas e humanidades digitais [Libraries and digital humanities]", <http://bdh.hypotheses.org/> (23.07.2014).

in a period of transition. Taking into account the generic feature that is usually associated with this field – a strong link between research in the Humanities and the incorporation of methods and tools from Digital Technologies – then the practice and the practitioners of Digital Humanities in Portugal stem from the 1980s. On the one hand the Portuguese academic „mainstream" has never regarded this field favourably, yet it never failed to make its way – sometimes a rather individualistic way, without too many contacts and collaborations between researchers or research groups. On the other hand, the appropriation of a new, imported discourse has so far not assumed the character of an „overwhelming wave", much to the contrary. Nevertheless, recent developments show broad acceptance for the need to renew the affirmation of a perspective for research, practice, teaching and outreach that is increasingly interdisciplinary, collaborative and internationalized.
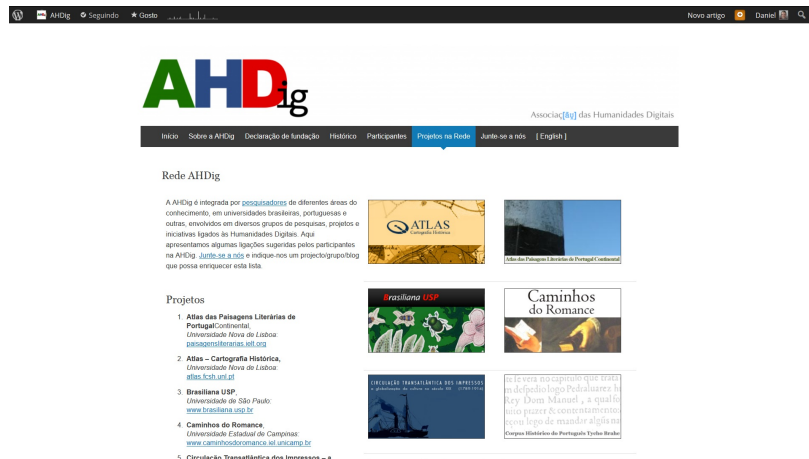

Fig. 5: Associação das Humanidades Digitais (01.09.2014)

In order to popularize this trend among the research community in the Humanities, a series of events and initiatives have taken place both in Portuguese and Spanish. Examples are the Portuguese and Spanish edition of the „Day of Digital Humanities" that took place for the first time in June 2013 („Dia das Humanidades Digitais 2013"[79] and for the second time in October 2014). It is also important to highlight the foundation of the „Associação das Humanidades Digitais [Association of Digital Humanities]"[80] in October 2013 that seeks to bring together researchers and research projects in this field in the Brazilian and Portuguese academic milieus.[81] A further indication of the popularity of Digital Humanities in Portugal is the fact that a recent study that sought to map Digital Humanities in Spanish and Portuguese put Portugal in the third place, after Spain and Mexico, in the number of researchers who currently identify as „digital humanists".[82]

Finally, the distinction between Digital Humanities and Digital History made in this article was more instrumental than indicative of the actual situation or desired. Digital History is an integral and very active part of the Digital Humanities just as History is part of the Humanities and Social Sciences. From my perspective, using Digital Humanities with its diversity of methods and potential for thematic richness in order to strengthen interdisciplinarity is a way of asserting the place and relevance of Digital Technologies in humanistic studies. Portugal, at the moment, is slowly walking this path and the recent impetus given by the introduction of the Digital Humanities discourse can be seen as a way to achieve that goal.

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[79] <http://dhd2013.filos.unam.mx/> (23.07.2014).

[80] <http://ahdig.org/> (23.07.2014).

[81] A communication on these trends and initiatives, as well as how they can represent the assertion of this new discourse in the field of Portuguese (and Spanish) Language, was presented at the Digital Humanities 2014 Conference at Lausanne.

[82] Elika Ortega / Silvia Eunice Gutiérrez, MapaHD. Una exploración de las Humanidades Digitales en español y portugués, in: Esteban Romero Frías / Maria Sánchez González (eds.), Ciencias Sociales y Humanidades Digitales Técnicas, herramientas y experiencias de e-Research e investigación en colaboración, La Laguna 2014, p. 111.