



HAL
open science

Islamic Studies and the Digital Humanities. Introduction

Antoine Perrier, Clément Salah

► **To cite this version:**

Antoine Perrier, Clément Salah. Islamic Studies and the Digital Humanities. Introduction. *Revue des Mondes Musulmans et de la Méditerranée*, 2024, *Islamic Studies and the Digital Humanities*, 156, 10.4000/130g0 . hal-04872098

HAL Id: hal-04872098

<https://hal.science/hal-04872098v1>

Submitted on 7 Jan 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Pre-print de Antoine Perrier, Clément Salah «Islamic Studies and the Digital Humanities», *Revue des mondes musulmans et de la Méditerranée*, vol. 156, n°2, 2024, p. 25-40.

Disponible en Openaccess : <https://journals.openedition.org/remmm/22002>

Islamic Studies and the Digital Humanities. Introduction

Methods and practices linked to the development and use of digital tools (commonly known as Digital Humanities, or *humanités numériques* in French)¹ – including techniques for digitising documentary resources, online databases, indexing resources available on the Web, automatic data collection, text extraction and enrichment – are revolutionising the production of scientific knowledge.² Islamic Studies have not been left behind: the proliferation of online documentary corpora, access to millions of digitised books in Arabic, but also in Persian, Syriac, Berber and Turkish, and the new ground represented by the Internet itself have opened up many new possibilities. This issue of the *Revue des mondes musulmans et de la Méditerranée* offers a first methodical exploration of the consequences of the integration of Digital Humanities in the field of Francophone Islamic Studies, without claiming to be exhaustive. By placing our study on several levels, this thematic issue explores both the practice of Digital Humanities within Islamic Studies and the changes this trend has brought about in the production of scientific knowledge in the region, particularly in France. Bringing together historians, art historians, archaeologists, sociologists, anthropologists, ethnographers and archivists, the seven contributions in this issue provide the first elements of an overview of the research currently being carried out using Digital Humanities in the specific context of Islamic Studies.

This context is not always decisive, and this field of study is fraught with more general questions that concern all the humanities and social sciences. However, there are still a number of special features – primarily relating to the languages of the region (written in non-Latin alphabets and less widely available than Western languages on the Internet), the major inequalities in digital access in the region and the growing difficulties of travelling to the region – which sometimes give added importance to online resources that can make up for, if not replace, the lack of on-site surveys. The contributions in this special issue provide an

¹ The actual definition of Digital Humanities is the subject of debate. For an overview of these debates, see Gold, 2012.

² The authors would like to thank Mercedes Volait for her invaluable proofreading and constant encouragement in bringing this issue to life.

example of this, highlighting the innovative methodologies and resources used by researchers from different disciplines. Far from limiting itself to a purely technical inventory of new tools, this issue offers a reflection on the consequences of the digital revolution on the methods and objects of the human and social sciences practised in the region. The purpose of this introduction is to provide a brief overview of the institutional framework and the literature already devoted to Digital Humanities in the Islamic Studies.

In the English-Speaking World, a First Methodological Reflection

Here we understand Digital Humanities to mean all the methods and practices ranging from the creation of websites or databases to the digitisation of data (texts, but also images or sounds), their processing with computer tools (text extraction, lexicometry, etc.), the graphic representation of networks, the monitoring of the re-use of texts or the recovery and analysis of metadata produced on the Internet. All these approaches rely on digital tools. The aim of this review is not to provide an exhaustive overview of the research that has been or is currently being carried out using Digital Humanities tools, especially as a white paper on the subject was published a few years ago (Volait and Lucas, 2020), but rather to highlight the reflections of researchers in this field on the integration of these tools and the changes they are bringing about in research on Islamic Studies.

English-speaking researchers were the first to approach the relationship between Digital Humanities and Islamic Studies from a reflexive angle. Though reflections on the use of Digital Humanities go back a long way, it was not until the late 2010s that a series of initiatives emerged to raise more systematic questions. In 2017, Elias Muhanna, Professor of Classical Arabic Literature and Medieval History at Brown University (Rhode Island, USA), edited a first synthesis in English (Muhanna, 2017). Bringing together ten articles, *The Digital Humanities and Islamic & Middle East Studies* addressed some of the major themes of Digital Humanities, including issues relating to digitisation, visualisation, text mining, databases, cartography and e-publications. By aiming to be relatively accessible to a non-specialist audience, i.e. researchers who do not necessarily use digital tools or those who use them but do not work on Islamic Studies, the book emphasised both in its form and in its conclusions the fact that research carried out using Digital Humanities does not necessarily require advanced knowledge of computer science. The contributions in *The Digital Humanities and Islamic & Middle East Studies* pointed out that most research begins with software that is already in widespread use. Finally, the authors noted that, contrary to certain presuppositions, Digital Humanities do not offer solutions to all scientific questions and cannot replace human intervention. Finally, they demonstrated that the Middle East is just as affected by digital transformations as the rest of the world.

Almost concomitantly with the publication of the synthesis edited by E. Muhanna, Cornelis van Lit, a medievalist historian at the University of Utrecht (Netherlands), transformed what

was originally a blog into an online scientific journal devoted to the use of computer technologies in fields of research described in English, now or in the past, as *Oriental: The Digital Orientalist* was thus born in 2018.³ Noting that the technological and institutional challenges are common to all these fields, *The Digital Orientalist* aimed to bring together specialists in the Muslim worlds (working on the Maghrib, the Middle East, Africa and Asia) as well as specialists in other Asian societies and cultures (China, India, Nepal and Japan). The journal thus joined the trans-regional dynamics found in other specialisms, in particular *The Digital Classicist*,⁴ *The Digital Medievalist*⁵ and *The Digital Humanist Initiative*.⁶

In addition to the publication of an initial synthesis and the creation of a journal devoted to Digital Humanities applied to Islamic Studies, networks of researchers, particularly in Medieval History and Islamology, have been organised in the United States and Europe. Within this framework, the Islamicate Digital Humanities Network (IDHN),⁷ created in 2019, set itself the primary goal of federating a community of researchers interested in exploring and creating digital tools or computer analysis techniques in the fields of Islamic History, Literature and Law. To this end, it organised a number of online conferences, some general, others devoted to specific themes, such as the one focusing on hadith studies in January 2021,⁸ followed in January 2023 by one on Shia hadith and law.⁹ In addition, the IDHN helps disseminate information and share interdisciplinary expertise by maintaining an up-to-date list of tools, databases and other resources. It aims to fulfil a watchdog role in a context where technologies are evolving very rapidly, while providing a forum for discussion and critical reflection. Its website also offers a series of resources, albeit fairly limited, as well as recordings of all the workshops organised.

Alongside these collective and general reflections, some researchers have proposed more detailed analyses of a particular method, practice or implication of the integration of Digital Humanities into research on Islamic Studies. Broadly speaking, four main themes have occupied English-speaking researchers: (1) digitisation, (2) databases and their visualisation,

³ <https://digitalorientalist.com/about/>. See also van Lit, Morris and Cevik, 2020.

⁴ <https://www.digitalclassicist.org/>.

⁵ <https://journal.digitalmedievalist.org/>.

⁶ <https://caiml.org/dighum/>. See also Werthner et al., 2024.

⁷ <https://idhn.org/>.

⁸ <https://www.youtube.com/watch?v=vxVJHi3Ckm8/>.

⁹ <https://www.youtube.com/watch?v=h6UjhgJIsVE/>.

(3) the principles of reusing and remote reading of texts¹⁰ and (4) the Internet as an object of study.

The specialists began by examining the upheavals brought about by the use of digital tools in the reading and analysis of sources, particularly manuscripts. Manuscripts are the subject of a large number of projects leading to the publication of large corpora of texts, used by all the disciplines concerned (Codicology, History, Art History, Literature, Philosophy, etc.). The analysis and automatic recognition of handwritten documents (hereafter referred to as HTR, for Handwritten Text Recognition) have thus become the almost obligatory first step in many projects that have benefited from the mass digitisation policy of heritage institutions in the Western world over the last twenty years or so, and more recently in the regions studied. Cornelis van Lit highlighted the paradigm shift in manuscript disciplines in his *Among Digitized Manuscripts: Philology, Codicology, Paleography in a Digital World* (van Lit, 2020). In line with certain conclusions drawn in the collective work edited by E. Muhanna, van Lit shows in particular that the Digital Humanities in no way oppose the methods and aims of the classical humanities (Philology, Codicology and Palaeography in particular) but produce new objects (the digitised manuscript, for example) which imply new protocols for description and study. While Digital Philology is not opposed to its classical predecessor, both have to acknowledge the major upheaval brought about by the arrival of digital techniques. However, the contribution of digital techniques is not limited to manuscript disciplines.

The integration of computer tools into the field of historical studies has enabled researchers to exploit data more rapidly and systematically. From the 1970s onwards, the application of prosopographical methods to historical studies of the medieval and premodern periods proved particularly conducive to the analysis of Arabic historical-biographical literature (*ṭabaqāt*), offering a new perspective on these sources.¹¹ Since then, numerous databases have emerged – first the Netherlands Ulama Project under the direction of Monique Bernards and John Nawas in the 1990s, followed by the Onomasticum Arabicum in France¹² and the Prosopografía de los ulemas de al-Andalus in Spain.¹³ Researchers have continued to reflect on the challenges of using statistical methods to write the history of Islam (see, for example, Bulliet, 1970; Romanov, 2017), between practical case studies and general illustrations. These initial uses made it possible to put forward significant hypotheses regarding the pace and geography of Islamisation in the early centuries of Islam and, through the visualisation of scholarly networks, the large-scale evolution of their organisation.

¹⁰ The term is disputed, but it refers to the reading of large corpora using computational techniques.

¹¹ See in particular Bulliet, 1972; Chamberlain, 1994. For the French-speaking academic field, see Van Rentherghem, 2015.

¹² <https://onomasticon.irht.cnrs.fr/>.

¹³ <https://www.eea.csic.es/pua>.

Digitisation, on the one hand, and the emergence of major databases, on the other, have enabled researchers to work through vast bodies of classical texts at a new speed and in the service of cross-disciplinary research. As textual repositories have become increasingly vast, a “distant reading” of sources has developed.¹⁴ This has led to an inescapable break with the past, brought about by Digital Humanities. However, researchers, mainly historians, insist that technology is no substitute for human work, and that it brings not only new advantages but also its share of problems. The presence of large online corpora must not give the illusion of a whole without questioning the criteria used in their building; similarly, massive calculations sometimes merely confirm, at the cost of long efforts, already-known findings from scientific literature. As in the case of Islamic legal literature, the creation of controlled corpora and the implementation of high-performance tools to address classic questions can lead to results that sometimes confirm established facts, but also correct others (Lange et al., 2021).

While digital technology is often used to answer classic questions (philological, historical, literary, etc.), it also creates new fields and new types of investigations. The data produced on the Internet, and in particular on social networks and platforms, has been the subject of a great deal of work, although it has not yet reached the density of methodological reflection proposed within manuscript disciplines. Tunisia and Egypt were the first to emerge as privileged fields for the contemporary sciences (Contemporary History, Political Science, Sociology) to make the Internet and its uses an object of study in its own right, particularly in the study of post-2011 revolutionary movements.¹⁵ More generally, the Arab world is an ideal field in which to reflect on “digital archiving” and the conservation of heritage at risk in the face of conflict, study inaccessible areas from a distance or safeguard the memory of political events that take place partly online (Bayoumi and Oliveau, 2020).

Lastly, the state of the literature and the direction of research reveal that the Arabic language is at the centre of the analysis of the relationships that have developed between Digital Humanities and Islamic Studies, for reasons that are partly due to the vast attention on the Internet given by religious and non-religious actors alike to digitised resources of the Islamic scriptural heritage, as well as to the deep commitment of specialists in classical Islam or Islamology. This centrality is also due to the active policy of the Gulf States in this field, although Turkey, for example, has played an equally central role in recent decades, with the early digitisation of the Ottoman archives providing an illustration and food for thought for specialists (Gratien et al., 2014). While digital technology is thus helping to alter the linguistic balance within the Islamic Studies, several contributions in this issue demonstrate the cross-

¹⁴ On the concept of “distant reading”, see Moretti, 2005; Moretti, 2013; Jockers, 2013. For an example of distant reading applied to the Muslim worlds, see Romanov, 2017, where the author explores the rise and decline of tribes and toponyms based on a computational analysis of one of the largest Arabic biographical dictionaries, the *Ta' rīkh al-islām* of Shams al-Dīn al-Dhahabī (d. 748/1348).

¹⁵ For an overview focusing on the Middle East (Egypt, Jordan, Kuwait), see Wheeler, 2017. For Tunisia, see in particular Lecomte, 2013 or Zayani, 2015. For Egypt, see in particular Sakr, 2013; Faris, 2013.

cutting nature of the questions raised by Digital Humanities in other spaces. The work carried out by the French scientific community in recent years also illustrates the need for a common perspective among all specialists.

In France, a New Institutional Impetus and New Challenges for Collective Research

Although most of the innovation in the scientific field comes from the English-speaking world, the French scientific community working on Islamic Studies has recently made a major effort to catch up in this area. This effort has been at the crossroads of two structuring priorities of public research policies over the last two decades: areal studies and support for the “digitisation of the world” (Ruggiu, 2021). From 2017 onwards, the management of the Groupement d’Intérêt Général – Moyen-Orient et Mondes Musulmans (GIS-MOMM, i.e. Middle East Muslim Worlds Scientific Interest Group) dedicated a priority project to Digital Humanities, entrusted to Mercedes Volait, with the support of postdoctoral students including Noémie Lucas.¹⁶ Under their aegis, a white paper was published to complement the first assessment of Islamic Studies published in 2014 under the coordination of Catherine Mayeur-Jaouen (Mayeur-Jaouen, 2014).¹⁷ It offered a valuable snapshot of the state of the field and of Digital Humanities projects, in a necessarily shifting landscape, focusing on textual data and scholarly disciplines, in fact, ahead of the use of digital tools (Volait and Lucas, 2020). Since then, an overview of the same uses for contemporary sciences (sociology, anthropology, political science, etc.) has yet to be provided.

The results of this survey are mixed: putting digital resources online is one of France’s strong points thanks to the development of digitisation policies and high-performance storage tools – with the caveat that these are essentially funded by external instruments supported by projects and not by the institutions’ own resources, which are inadequate, posing the problem of the sustainability of digital achievements. This advantage is also due to the commitment of a number of key players in the field, including the Maison Méditerranéenne des Sciences de l’Homme (MMSH), the Institut de Recherche sur l’Histoire des Textes (IRHT), the InVisu laboratory, and libraries such as the Bibliothèque Universitaire des Langues et Civilisations (BULAC) and the Bibliothèque nationale de France (BnF). Abroad, the three French research institutes in Beirut (IFPO), Cairo (CEDEJ) and Istanbul (IFEA) have pursued equally proactive policies. However, automated work on Arabic texts was still in its infancy in 2020, which was also due to the lack of Arabic literary studies in France. Finally, all the initiatives in the field still lacked coordination and the scientific activity lacked visibility on an international scale. Some of the recommendations made in this report have had rapid effects:

¹⁶ The latter two were interviewed by the issue’s coordinators, who would like to thank them warmly for the interview which appears at the end of this volume.

¹⁷ The report is available online: <http://majlis-remomm.fr/livre-blanc>.

the Huma-Num DISTAM consortium¹⁸ has helped unite a community of specialists in area studies (Muslim worlds, Asia, Africa) around digital issues, and tools for the automatic recognition of Maghribi Arabic have been developed within the GIS-MOMM by two successive programmes,¹⁹ as part of a debate on Arabic manuscripts and digital technology.²⁰ A major training component has helped familiarise part of the scientific community with these issues, in the absence, for the time being, of specialised Bachelor or Master's degree courses in areal studies.²¹ Lastly, a final report was published on automatic recognition techniques for handwritten (HTR) and printed texts (Optical Character Recognition, OCR) (Lucas, 2022).²²

In this new context, a number of issues are being discussed by researchers, engineers and librarians from the world of research in the various forums that now bring them together, particularly within the DISTAM consortium. We would like to provide a brief overview to introduce the initial elements of a collective reflection, which is the focus of this issue. Faced with the considerable resources now offered by digital tools, researchers are attracted by the dual temptation of exhaustiveness and speed, with the risk of scattered efforts or ill-conceived research protocols that are ultimately counterproductive. This is why the need to coordinate efforts and instruments is particularly marked in the Digital Humanities.

First and foremost, the French scientific community is subject to a legal framework that sets out a number of requirements, compliance with which is now essential for the allocation of public funding for project-based research. The Law for a Digital Republic of 7 October 2016, followed two years later by a National Plan for Open Science, requires researchers to open up and freely share their data and scientific publications. This obligation aims to introduce transparency into an IT world that is heavily dominated by economic or corporatist logics,

¹⁸ DISTAM stands for Digital STudies Africa, Asia, Middle East. See the Consortium's *Hypotheses* notebook: <https://distam.hypotheses.org/>

¹⁹ The "Khaṭṭ Mağribī" programme, coordinated by Noémie Lucas and Antoine Perrier, organised two hackathons to transcribe manuscripts in Maghribi Arabic at BULAC with a view to developing an Arabic HTR tool (see the interview at the end of the issue).

²⁰ This led to the organisation of a [spring school](#) on Digital Humanities and these manuscripts, the videos of which are available online. See: <https://digimagh.hypotheses.org/194/>.

²¹ A few examples: [training days](#) on editing and publishing Arabic texts with digital technology in December 2020 (all the recordings are available on the GIS-MOMM YouTube page, see: <https://www.youtube.com/@gismomm777/videos>), [other days](#) on studies on the Maghrib and digital technology in March 2021 (see also the GIS-MOMM YouTube page) or the CNRS [DIGITAL AREA](#) national training action in November 2021 (see: <https://www.gis-reseau-asie.org/evenement/une-action-nationale-de-formation-en-humanites-numeriques-pour-les-etudes-areales>).

²² For the research notebook on Digital Philology see: <https://philaranum.hypotheses.org/>. The report on OCR and HTR techniques for handwritten Arabic is available online: <http://majlis-remomm.fr/72481>.

through the widespread use of a FAIR data format.²³ It also serves to strengthen the links between society and the scientific community, by making the work of public research accessible to all. This type of approach is also designed to raise the international profile of French research and to combat the privatisation drive, which is particularly strong in the English-speaking world and restricts access to publications through expensive portals. For studies on Muslim worlds, the guarantee of openness is all the more precious at a time when many regimes in the region are imposing surveillance or censorship on the Web. It is also important in the context of “poorly endowed languages” in these areas, i.e. those for which there is a smaller amount of online data. Yet their massive presence is essential for improving the tools that support their processing, from translation to lexicometry, and even for the use of instruments that will be or already are systematically associated with funded research. Researchers must therefore familiarise themselves with new types of publications to share their data – such as the datapaper, which presents this data in an editorial format – or include a data management plan in each research project.

Open data is directly linked to the central issue of how it is preserved, stored, displayed and indexed on the Web. While public infrastructures such as Huma-Num offer researchers a range of solutions for depositing their data securely and enriching it to make it more visible,²⁴ the question of its durability is an urgent one in a digital environment where Web pages have a short lifespan. This need goes beyond the simple issue of storage and raises the question of the public infrastructures available to guarantee security,²⁵ as well as that of research funding methods. Project-based funding, which generally makes it possible to produce large quantities of data, does not always provide the human resources or digital infrastructure needed to guarantee the long-term accessibility of the data, which then runs the risk of disappearing or being swallowed up in the depths of the Web.

These issues are not specific to Muslim World Studies and affect the entire field of humanities and social sciences. Certain difficulties are nevertheless more pronounced at times, for example when it comes to establishing a common language within projects. The use of languages written in a non-Latin alphabet, variations in transliteration and onomastics bring additional challenges to the imperative need to align repositories, in other words, to classify data using the same vocabulary, in order to guarantee access and prevent duplication.²⁶ The

²³ FAIR stands for *Faciles à trouver, Accessibles, Interopérables et Réutilisables* (i.e. “Easy to find, accessible, interoperable and reusable”).

²⁴ <https://www.huma-num.fr/>.

²⁵ The Centre Informatique National de l’Enseignement Supérieur (CINES), which offers these guarantees, does not make the data visible and accessible.

²⁶ Reflections on these alignments are at the heart of the Mistara project (“Arabic onomastics and metadata for Arabic-script languages in online repositories”), which has kept a *Hypotheses* notebook: <https://mistara.hypotheses.org/>.

digital description of archives, images and digital publications becomes an additional language to be added to the many languages already used in the Muslim worlds – this language also calls for a major standardisation effort on a national scale and more generally within the global scientific community. This is in line with the need for better coordination between professions that are too often separated by French institutions, such as researchers, librarians and engineers, whose division of tasks is being rethought by Digital Humanities. The many projects that have been developed in this field have shown that digital tools are no longer a subsidiary instrument designed to answer scientific questions that have been worked out in advance and independently; even if they are not an end in themselves, they need to be integrated from the outset into the creation of a project and the development of issues in a concerted manner between professions. Integrating digital potential into the very early stages of research, particularly doctoral research, still requires the widespread introduction of Digital Humanities teaching in degree courses, including in language departments or specialised courses such as Islamology. This is still rare, with remarkable exceptions such as the *École des Chartes*.²⁷

In France, digital resource portals and tools for signposting resources are multiplying, including in the field of Muslim worlds, thanks to area portals such as the one on the Maghrib,²⁸ blogs, journals or research notebooks for funded projects, which are themselves becoming research results²⁹ or online resource portals.³⁰ French archives and libraries have also taken the step of gradually digitising their resources, making them available for consultation (Open Access) and putting finding aids online.³¹ In this respect, North African and Middle Eastern countries are following a similar path, with particularly dynamic heritage policies leading to the increasingly massive digitisation of texts and, more rarely, images, although this does not mean they are also made them freely accessible online. The meeting devoted to Digital Humanities at the *Insaniyyat Tunis 2022 Forum* (Bendana et al., 2023) demonstrated the vitality of these concerns in North Africa, from Morocco to Egypt, with two essential impulses provided by heritage institutions, specifically libraries, and universities

²⁷ The only French university to offer a Master's degree in digital humanities and social sciences.

²⁸ <https://etudsmaghrebines.cnrs.fr/>

²⁹ Take, for example, the entries in the ANR SHAKK's "Lexique vivant de la révolution et de la guerre en Syrie" (Syria: Conflicts, displacements, uncertainties): <https://syria-lexicon.pubpub.org/>.

³⁰ For example, BINA (<https://bina.bulac.fr/s/bina/page/welcome>), the BULAC's digital library, hosts digitised manuscripts, some of which are grouped into sections, such as those from the [TariMa project](https://bina.bulac.fr/s/tarima/page/welcome) on the Maghrib (<https://bina.bulac.fr/s/tarima/page/welcome>), the [Perséide Athar](https://athar.persee.fr/) (<https://athar.persee.fr/>), or the Bibliothèque nationale's [Bibliothèques d'Orient](https://www.bnf.fr/fr/bibliotheques-dorient) portal (<https://www.bnf.fr/fr/bibliotheques-dorient>). Digital resources on the Maghrib and the Middle East can also be found on broader platforms such as [Biblissima](https://portail.biblissima.fr/) (<https://portail.biblissima.fr/>).

³¹ Efforts made by the Archives nationales de la France d'outre-mer and the Archives diplomatiques to make finding aids and digitised resources available online.

and, in particular, Tunisian universities, where digital training is gradually developing.³² At the same time, the Web is viewed with suspicion by authoritarian regimes which monitor this prime forum for protest. There are still no assessments to be made of the breakthrough and the specific features of the digital transition in the Muslim world, or to measure its consequences for a possible rapprochement between the countries of the North and those of the South. While some platforms that make resources available in the languages of the region – mainly in Arabic – or sites that are themselves entirely in Arabic, such as the [al-Maktaba al-Shāmila](#) text library,³³ bring together researchers from all over the world, the digital divide and the disparity in funding also run the risk of widening gaps between scientific communities.

The 2020 white paper underlined the fact that, despite real investment by the French scientific community, “digital technology is nevertheless seen primarily as a medium rather than as a vector for profound methodological transformation” (Volait and Lucas, 2020: 94). Specialists in the Muslim worlds sometimes tend to give a cautious welcome to digital changes that are reminiscent of old threats: the online availability of resources in vernacular languages resurrects the temptation of a distant Orientalism, which separates the reading of texts from fieldwork (Jomier and Warscheid, 2018: 314) and focuses the former on an arbitrary selection of manuscripts available online, since the owners of rarer texts willingly digitise their documents in order to preserve them, without making them accessible online.³⁴ The disciplines of scholarship, while distinguishing themselves in the use of Digital Humanities, also harbour a great deal of resistance, defending the conviction that machines will not replace the human hand in editing and reading texts, and that an overview of gigantic digitised corpora will not replace the patient study of an entire text. While no specialist is naive enough to believe that one method will completely replace the other, the seduction of faster reading, with apparently more spectacular results, is a danger. What is still missing from the turning point implied by Digital Humanities is a reflection on the global rearrangement of knowledge, society and technology, in a perspective close to that of Bruno Latour, a reflection that might perhaps be able to avert these concerns. Just as printing did not always represent an immediate break in the nature of the works produced in the Arab world (for example in Morocco: Abdulrazak, 1990), nothing yet predicts that the massive digitisation of textual resources will change their production or encourage their circulation throughout the world. Similarly, digital archiving is not always a means of reducing inequalities between North and South but may, on the contrary, exacerbate them (Husaini and Maingraud-Martinaud, 2024). The ambivalent nature of these changes does not make them any less important, but they still need to be thought through. By making a very modest contribution to this debate, the articles in this issue demonstrate the fruitfulness of approaches that are both committed to and critical of the use of Digital Humanities.

³² A case in point is the Raqmyat project, mentioned in the interview at the end of this issue.

³³ <https://shamela.ws/>.

³⁴ See, for example, Voguet, 2018.

Contributions to the Issue, Examples of Scientific Uses of Digital Humanities

Like the review carried out by Mercedes Volait and Noémie Lucas, the contributions in this issue come mainly from disciplines close to texts or from specialists who are at least thinking about archiving issues. With the exception of the article by Véronique Ginouvès and Ibrahim Moussa, they reflect the state of the proposals received and the progress, certainly provisional, of this area of the disciplines in relation to sociology or political science, which are scarcely represented here. However, historian Sophia Mahroug's contribution demonstrates the interdisciplinary nature of thinking on the digital age. The issue as a whole also highlights the importance of collective research for Digital Humanities, since they are often supported by projects funded by the Agence Nationale de la Recherche (ANR), the European Research Council (ERC) or the GIS Collex-Persée. The diversity of professions is also striking and is reflected in these papers, most of which were written by several people: professional calligraphers and art historians, sociologists and archivists, historians and archivists or librarians. They provide a relatively faithful representation of the diversity of corpora regarding Digital Humanities: images (V. Thérouin et al.), texts (A. Perrier), sounds (V. Ginouvès and I. Moussa) and corpora that are natively digital or available only on the Internet, in the case of Iran (N. Pashkeeva et al.; S. Mahroug). Although essentially limited to areas in the Maghrib or Middle East and providing no representation of important disciplines in these fields such as Arabic literature, they offer an initial landscape – if not representative at least illustrative, we hope – of the scientific uses of Digital Humanities within this field.

The authors were tasked with setting out a critical protocol for their use of digital tools. This naturally began with problems of a technical nature or, in other words, questions posed by researchers to technologies. The way in which data is organised and, above all, enriched with an appropriate vocabulary, both as an instrument and as a result of research, runs through several articles: finding the right category of descriptors for Arabic calligraphy (V. Thérouin et al.) or for archives available on the Web (N. Pashkeeva et al.), modelling a database to make it both interoperable and adapted to the specific needs of a research project, defining the most appropriate vocabulary for text mining (A. Perrier). Authors have to adapt to languages that tend to confine the diversity of a society or its representations to a closed list of words. The very format of archives is questioned by articles that discuss the successive transition from analogue to microfilm and digitisation (M. Jebahi; V. Ginouvès and I. Moussa), a transition that must be accompanied by a contextualisation that is essential to the understanding of a collection, a constant concern of archivists. The question of format is all the more pressing in these fragile times, when a Web page can disappear at any moment and must be archived in an appropriate format (S. Mahroug). Examples of the use of tools, which do not dwell on their technical dimensions, can be found in the Dublin Core language, Calfa's HTR technologies and platforms such as Omeka.

The contributions, on the other hand, go into greater depth on the scientific results, which can be divided, schematically, between discoveries resulting from the excavation or new organisation of already existing data and the contribution of new sources through the use of digital technology. In the first category, the recent ability to process large bodies of data, spread out over space, time or genres, makes it possible to explore calligraphies far removed from a canonical centrality in favour of the genre of “frontiers” (V. Théroutin et al.). Differences and common languages can be identified through text mining in sources from different regions or genres, within modern Morocco for example (A. Perrier). Automatic text extraction from manuscripts preserved in France facilitates access to texts that have often already been published locally but are unavailable in digital format. This format also enables documents to be rediscovered. This is the case for sound archives, the digitisation of which makes it possible to “make [voices] heard again”, voices of individuals, subjects of anthropological surveys in Niger, or the anthropologists themselves (V. Ginouvès and I. Moussa). The presence of natively digital data, or data available exclusively on the Internet for want of other institutional archives, makes it possible to reconstruct the sociology of an inaccessible armed corps, such as the Revolutionary Guards (S. Mahroug), or to document the history of revolutionary violence in Iran by countering official accounts (N. Pashkeeva et al.). In the Iranian case, the Internet is the place where pre-existing archives are stored, offering an alternative place of conservation to state institutions.

In all cases, the articles do not allow themselves to be misled by the false clarity of archives that are available but decontextualised, sometimes manipulated or problematic (N. Pashkeeva et al.; S. Mahroug), and are aware of the limits of a distant reading of sources, to the detriment of an exhaustive reading (A. Perrier). These limitations do not, however, discourage the use of new techniques combined with old ways of reading. Moreover, these can be found in the historians’ analysis of sources, regardless of their format, or through an ethnographic approach (N. Pashkeeva et al.), and the search for “clues” (S. Mahroug) is just as satisfying on the Internet as in more traditional archives. In the same vein, other contributions place the digital leap into a longer history of archiving and preservation techniques, tracing the break – perhaps more decisive than the digitisation of the world of the last two decades – back to the widespread use of computers in the 1980s (M. Jebahi; V. Ginouvès and I. Moussa).

Finally, the articles in this issue highlight a number of particularities of areal studies. The ways in which Arabic script is processed precede the excavation of texts or the description of calligraphy, even though the research takes place in a context, as Noémie Lucas points out, in which Arabic is less and less seen as a “poorly endowed” language. The particularities raised in these articles are more deeply rooted in the very context of the African, North African or Middle Eastern societies studied. The post-2011 sequence, or more specifically post-1979 in the case of Iran, runs through the contributions, although they do not return to a form of “digital determinism”, initially enthusiastically intended to explain the Arab springs in terms of the Internet and social networks (S. Mahroug). The development of transitional justice in Tunisia, in the same way as in Morocco, has given a new impetus to archiving and digitisation

(M. Jebahi), where the digital also responds, in its place, to a “need for history”. In the case of sites closed down by war or authoritarian regimes, digital technology has become indispensable as it replaces the need to visit the site.

Online resources are presented in all their ambivalence in terms of bringing countries in the North and South closer together, a process complicated by the high levels of tension in some of these regions. The Web is a space where the voices of those opposed to regimes determined to deny them access can be heard alongside stories manipulated by governments. It is also a scarce resource in countries such as Niger (V. Ginouvès and I. Moussa), some of which are predominantly rural and have uneven Internet access. The critical apparatus and description languages give pride of place to European languages, particularly English, which a significant proportion of the region’s populations is unable to read. These contributions also show, however, that there are areas for dialogue, through forms of partnership and cooperation around computer techniques in Tunisia (M. Jebahi) or in the use, by French researchers, of resources located in the Maghrib, such as those of the King Abdulaziz al Saoud Foundation, which are rich and easily accessible online (A. Perrier). Faced with sensitive issues, such as the restitution of archives in formerly colonised countries, digitisation makes it possible to transform material produced in a colonial context by giving it new uses (V. Ginouvès and I. Moussa), repatriating at least one copy of the archives (M. Jebahi) or imaging a time when the physical presence of documents would no longer be an issue, and heritage is now digitally accessible and shared. By offering some specific food for thought to studies on the Muslim worlds, the critical assessment of the coordinators of research projects on Digital Humanities becomes a means of reflecting on the current, rapid transformations of the professions in the humanities and social sciences in general.

Bibliography

ABDULRAZAK Faouzi, 1990, *The Kingdom of the Book: The History of Printing as an Agency of Change in Morocco between 1865 and 1912*, PhD thesis, Boston University.

BAYOUMI Hala and OLIVEAU Sébastien, 2020, “Digital archiving in the Arab world: Assessment and challenges”, *Égypte/Monde arabe*, 22, p. 13-20.

BENDANA Kmar, HMED Choukri, PERRIER Antoine and VALLET Éric, 2023, “‘Tunis, capitale des sciences humaines et sociales’. Retour sur le Forum Insaniyyat Tunis 2022 : les conditions d’un partenariat scientifique Nord-Sud”, *L’Année du Maghreb*, 30.

BULLIET Richard, 1972, *The Patricians of Nishapur. A study in medieval Islamic social history*, Cambridge, Harvard University Press.

BULLIET Richard W., “A Quantitative Approach to Medieval Muslim Biographical Dictionaries”, *Journal of the Economic and Social History of the Orient*, 13(2), p. 195-211.

CHAMBERLAIN Michael, 1994, *Knowledge and social practice in medieval Damascus, 1190-1350*, Cambridge, Cambridge University Press.

FARIS David, *Dissent and Revolution in a Digital Age: Social Media, Blogging and Activism in Egypt*, New-York, I.B. Tauris.

GOLD Matthew K., 2012, *Debates in the Digital Humanities*, Minneapolis, University of Minnesota Press.

GRATIEN Chris, POLCZYŃSKI Michael and SHAFIR Nir, 2014, "Digital Frontiers of Ottoman Studies", *Journal of the Ottoman and Turkish Studies Association*, 1(1-2), p. 37-51.

HUSAINI Sa'eed and MAINGRAUD-MARTINAUD Cyrielle, 2024, "Asymétries transnationales dans l'archivage de l'activisme", *Critique internationale*, 102(1), p. 121-143.

JOCKERS Matt, 2013, *Macro-analysis: Digital methods and literary History*, Urbana, University of Illinois Press.

JOMIER Augustin and WARSCHEID Ismail, 2018 "Pour une islamologie historique", *Annales. Histoire, Sciences sociales*, 73, p. 311-316.

LANGE Christian et al., 2021, « Text Mining Islamic Law », *Islamic Law and Society*, 28, p. 234-281.

LECOMTE Romain, 2013, "Expression politique et activisme en ligne en contexte autoritaire. Une analyse du cas tunisien", *Réseaux*, 181, p. 51-86.

LUCAS Noémie, 2022, "OCR/HTR et graphie arabe. Les manuscrits arabes à l'heure de la reconnaissance automatique des écritures", *Cahier du GIS Moyen-Orient et mondes musulmans*, 3.

MAYEUR-JAOUEN Catherine, 2014, *Livre blanc des études françaises sur le Moyen-Orient et les mondes musulmans*, white paper, GIS Moyen-Orient et mondes musulmans, 2020.

MORETTI Franco, 2005, *Graphs, Maps, Trees: Abstract Models for a Literary History*, London, Verso.

MORETTI Franco, 2013, *Distant Reading*, London, Verso.

MUHANNA Elias (ed.), 2017, *The Digital Humanities and Islamic & Middle East Studies*, Berlin-Boston, De Gruyter.

ROMANOV Maxim, 2017, "Algorithmic Analysis of Medieval Arabic Biographical Collections", *Speculum*, 92, p. 226-246.

ROMANOV Maxim, 2017, "Toward Abstract Models for Islamic History", in MUHANNA Elias (ed.), *The Digital Humanities and Islamic & Middle East Studies*, Berlin-Boston, De Gruyter.

RUGGIU François-Joseph (ed.), 2021 *Les études aréales*, Paris, Athéna.

SAKR Laila Shereen, 2013, "A Digital Humanities Approach: Text, the Internet, and the Egyptian Uprising", *Middle East Critique*, 22(3), p. 247-263.

VAN LIT Cornelis, 2020, *Among Digitized Manuscripts: Philology, Codicology, Paleography in a Digital World*, Leiden-Boston, Brill.

VAN LIT Cornelis, MORRIS James H. and CEVIK Deniz, 2020 "A Digital Revival of Oriental Studies", *Revue de l'Institut des langues et cultures d'Europe, Amérique, Afrique, Asie et Australie*, 39, [online] <https://doi.org/10.4000/ilcea.10327>.

VAN RENTHERGHEM Vanessa, 2015, *Les élites bagdadiennes au temps des Seldjoukides. Étude d'histoire sociale*, Damas-Beirut, Institut français du Proche-Orient.

VOGUET Élise, 2018, "Travailler sur les manuscrits du Touat : expérience de recherche dans les bibliothèques privées (*khizānāt*) du Sahara algérien", in LAROQUE Claude (ed.), *La peinture et l'écrit au Moyen-Orient, supports et tracés*, Paris, HiCSA.

VOLAIT Mercedes and LUCAS Noémie, 2020, *Vers la science ouverte ? La transition numérique et la recherche sur le Moyen-Orient et les mondes musulmans en France*, white paper, GIS Moyen-Orient et mondes musulmans, 2020.

WERTHNER Hannes et al., 2024, *Introduction to Digital Humanism. A Textbook*, Cham, Springer.

WHEELER Deborah L., 2017, *Digital Resistance in the Middle East: New Media Activism in Everyday Life*, Edinburgh, Edinburgh University Press.

ZAYANI Mohammed, *Networked publics and digital contention. The politics of every life in Tunisia*, New-York, Oxford University Press.