

Reflections on Research Processes in the Digital Age



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Foreword

“A series of unique and personal snapshots of research in the digital age”

The Paris IAS offers a rare opportunity for advanced researchers to share insights and compare perspectives across disciplines. In our recent discussions, one common theme emerged: the rapid change in the kind of research we do, and the way we do it, due to emerging digital research technologies. Informal discussion with IAS colleagues revealed a wide range of benefits, transformations, but also risks and costs of these digital revolutions in the research process. We decided to collate the commentaries of current IAS fellows from several disciplines, to provide a series of unique and personal snapshots of research in the digital age.

The contrasts between disciplines, and even between individual researchers in the same discipline, are striking. In some fields, digital toolkits have enabled dramatic progress in both quantity and quality of research. In other fields skepticism reigns, and researchers fear that digitally-mediated information overload will discourage traditional thoughtful scholarship. In some fields, the digital age has simply changed the way that people answer the accepted key research questions. In other fields, digital methods have changed the questions that researchers ask. Moreover, digital research methods have themselves become an object of research. The IAS fellows' comments demonstrate the power but also the diversity of the digital transformation of research processes and research agendas.

We offer these perspectives largely unedited, as examples of the impact of the digital age on the research process. We hope they will stimulate useful self-reflection by scholars and students across all disciplines. They can also offer a useful comparative document for understanding similarities and differences between disciplines in research methods, theories and agendas.

Patrick Haggard, Gretty Mirdal
November 2016

“La numérisation, un pilier essentiel de mes travaux”



Cheikhmous Ali

University of Strasbourg

Archaeology

Project: *Patrimoine syrien : Que faire des objets antiques hors contexte ?*

La numérisation des documents, pour les mettre à disposition des chercheurs, des centres de recherches et du public est **un pilier essentiel de mes travaux**, notamment pour ce qui concerne la destruction du patrimoine en temps de conflit.

A titre d'exemple, nous venons de publier un rapport concernant la destruction d'une mosquée à Alep qui date du 14^e siècle.

“Une infrastructure logicielle pour ancrer les archives dans l’espace”



Pascal Bastien

University of Québec
at Montréal

History

Project: *Sociabilités
urbaines et engagement
politique à Paris au
18^e siècle*

L'univers numérique est un territoire dont les historiens de l'époque moderne (early modern), sans doute plus particulièrement les historiens francophones, se méfient beaucoup. Après avoir été les pionniers de l'histoire quantitative dans les années 1970, le chiffre et l'ordinateur ont disparu avec le paradigme marxiste qui les avait rendus si nécessaires. Évidemment ce portrait est caricatural, mais il peut tout de même rendre compte, dans une certaine mesure, de la timidité avec laquelle les outils informatiques et numériques sont utilisés avec prudence par la recherche en histoire moderne et pourquoi, surtout, cette formation paraît largement absente des cursus académiques en sciences humaines et sociales, dans le Québec francophone comme dans une large partie des universités françaises.

Mon “investissement” dans le numérique s'inscrit en deux temps. D'une part, je viens d'initier très modestement [une école d'été en méthodes numériques pour les historiens](#), en collaboration avec mes collègues de l'Université de Paris 1 Panthéon-Sorbonne. Ces formations visent simplement à introduire et à familiariser les participants aux outils à leur disposition et, surtout, à en comprendre les utilités, les avantages et les pièges.

En un second temps, ma recherche actuelle entend élaborer, avec l'équipe qui a pu mettre en place [cfregisters.org](#), une infrastructure logicielle pouvant géo-localiser, à Paris en 1770-1790, les archives de l'information (presse clandestine et officielle, gazetins de police, correspondances, journaux intimes, propriétaires et locataires des immeubles, etc.). Comment identifier les espaces de production des informations ? Comment suivre leur adaptation et leur diffusion ? Comment identifier les acteurs sociaux et institutionnels qui y sont reliés et comment reconstituer, enfin, des communautés d'informés partageant des sensibilités et des identités politiques particulières ? Toutes les archives peuvent être ancrées dans l'espace : l'infrastructure logicielle sur laquelle nous travaillons présentement pensera la profondeur des dynamiques sociales et des mouvements d'opinion par l'espace et dans l'espace, où les relations ne sont plus strictement pensées par le nom des acteurs (microstoria et études des réseaux en histoire sociale) mais par l'espace concret et matériel où ils se déplacent.

“There’s a real danger to shifting entirely online”



Jennifer Boittin

Pennsylvania State
University
History

Project: *Ecrire l'intime :
La vie privée, les
circulations, le genre et
les droits dans l'Empire
français, 1914-1945*

On the one hand, as a historian, I have greatly benefited from the capacity to take photographs within some (but not all - in Cambodia, for example, photographs are forbidden) archives, because I can return to documents years after I first consulted them, share them with other colleagues who work on similar topics, and so forth. However, since I wrote a first book without being able to take any photographs whatsoever, I also know that there are disadvantages. For example, how do I pursue a lead in the archives if I only discover that lead six months later as I'm sitting at my desk in Pennsylvania? How do I think all my sources together if I'm not sitting in the archives and reading them in a very concentrated fashion over the course of a few weeks? On the one hand, I am aware that each of the PDFs I've created from photographs of archival dossiers has been a very useful example of how the digital humanities can benefit me and my graduate students in their research. On the other, I am also quite aware that even though I'm a touch typist on both US and French keyboards, and routinely edit entire dissertations on a screen, I still think most clearly (and edit most clearly) with pen and (sometimes very old) paper.

I also think, as a humanist, that **there's a real danger to shifting entirely online**, because it means that scholars could (potentially) work on a geographic space without ever having visited it. When it comes to preservation, **what does it mean to shift an entire archival or library collection online?** Does that archive or library and the community it creates among researchers then cease to exist? What about the people (after all, the humanities are about people) who work for those institutions? So digitization can lead to the democratization of research for those who do not obtain financial support for their research (and of course most historians have never experienced the time period they study) but it also has the potential to separate scholars from the people and geographic spaces at the heart of their topics, and especially when researching non-Western regions, I find this deeply problematic. In short, personally I continue to debate (often with myself!) the pros and cons of digital technologies, while recognizing the benefits they provide every day.

Focusing upon the digital also creates the potential for collaboration, especially in the

humanities (which have tended in the United States to focus upon individual research). For example, I'm working on a film mapping project with colleagues in German and Comparative Literature with whom I might never, otherwise, have coauthored an article. Yet I don't at all consider myself to be as conversant in digital technologies as many of the other fellows at the Paris IAS and perhaps my greatest concern at my own institution has been the **extraordinary institutional pressure humanists and social scientists have faced to do something, anything really, "digital"**. Many of us have sat in countless meetings over the course of the past few years in which we were asked pointedly: are you doing something digital? Could you figure out how to do something digital? Anything? This has fed acrimonious and sterile debates, because people feel that they are being forced into a research agenda instead of developing one naturally.

There has also been the question of how to define the digital humanities, or how to explain what they can do that other forms of humanities cannot do (which appears to be the most consistently asked question).

And finally, there is the rather odd question of teaching with digital technologies. We are told that our students are completely conversant in a digital world. That has been my experience with some but not all students. When using technology in the classroom, I find myself having to devote several sessions to teaching my students how to use those technologies, leading me to wonder if we don't overestimate how much our students are steeped in the digital - and some have clearly stated they would rather just read a book than figure out how to geotag a building in Paris to create a map!

So I think the most useful thing we can do, when thinking about digital technologies, is to think about ways to create a more seamless use of them, one that would not be imposed, but rather naturally applicable within certain scholarly (or pedagogical) situations. I think that from a purely practical perspective, **sharing knowledge and fostering collaboration are at the heart of what these technologies can offer us all in an ideal form.**

“A helpful check and balance”



Philip Bullock

Oxford University
Literature and
Musicology

Project: *The Poet's
Echo: Art Song in
Russia, 1730-2000*

I'm very much a late-comer to the possibilities of digital technologies, other than exploring library catalogues, taking pictures in archives, and downloading PDFs of articles from various institutional repositories. My current project might, were I braver and more adventurous, incorporate new technologies and big data: a history of Russian song from 1730 to the present day could surely be presented in the form of a database that one could tag, map and mine. And as I'm interested in developments of print culture from the eighteenth century onwards, it would seem fitting to explore the circulation of cultural capital from a comparable modern vantage point.

Yet the relationship between quantitative and qualitative is one that I've still to work through fully, and I'm very aware that the mere presence of material in a library or archive offers scant evidence for how that material was used, understood or even ignored by my historical antecedents. Big data would allow me to offer a new and very uncanonical history of the genre that interests me, but I would need to find other ways to assess and understand the resulting narrative.

But even if I don't employ digital technologies in any imaginative way in my own work, merely being aware of the challenges that they pose constitutes **a helpful check and balance** when it comes to both my hypotheses and how I go about answering them. And in my teaching, too, an awareness of big data is **a useful tool in provoking my students**. Oxford's undergraduate curriculum is very traditional and canonical, so putting a copy of Franco Moretti's *Distant Reading* or *Graphs, Maps, Trees* in their hands, and asking them to think about both what and how we read, can be one way of involving them in an urgent contemporary critical debate about taste and value.

My final observation is one related to language and belonging. **Digital technologies seem to promise a vision of knowledge that cuts across national boundaries and canons** (such as the often very arbitrary divisions that structure the traditional library), and I'm very susceptible to this utopian instinct. But how can we be sure that they are, at the same, properly respectful of otherness and alterity, of local differences and identities, and that they don't just quantify or survey their subjects, but allow them to have a voice of their own?

“We have gained much, but perhaps we have lost something too”



Duncan Gallie

Oxford University

Sociology

Project: *Social*

Inequalities at Work:

A Comparison of

France and Britain

In my own field – the sociology of work - most research until the 1970s was based upon case studies, involving either in-depth interviews or participative observation. This provided a rich account of patterns of belief and behavior in diverse communities and a fertile source of hypotheses about sources of variation and directions of change. It was not always clear what procedures allowed checks on the accuracy of the researchers’ accounts. But the main drawback was that it was difficult to know how far such findings could be generalized. Scholars often used case studies to make general statements, for instance in my field about the impact of new technologies on work conditions, but the accumulation of contradictory evidence based on different studies raised significant doubts about the validity of such claims.

From the 1980s, there was a marked growth in the use of surveys to provide a more representative picture and to assess the structural sources of differences in practices and experiences. There also has been a radical transformation over the last twenty years in our capacity to analyse such data – partly because of the increased speed and capacity of computing but also because of the

development of much more sophisticated statistical techniques. **The complexities revealed by these new analyses overturned much of the received wisdom in the discipline.** To give just one example, it turned out that most case studies had been based in highly unionized work settings, whereas these constituted only a minority of workplaces and showed very different patterns of social interaction from non-unionised settings. The creation of representative national data sets also made possible considerable advances in cross-national comparison, because it became possible for the first time to identify reliably significant differences between countries in patterns of behaviour. Finally, it opened up the possibility of large-scale longitudinal studies that provided a much better basis for establishing causal effects over time - for instance the impact of work conditions on later health outcomes.

So we have gained much from the arrival of the digital, but perhaps we have lost something too. Survey research can never capture the rich texture of individuals’ experience of their societies and it has difficulty dealing with the inter-relatedness of institutional features at the local level.

The information to be collected has to be decided in advance and there is no possibility of taking advantage of the ongoing interaction of the researcher with the individual or communities studied to explore explanations for emerging findings. To my mind, there remains a strong case for keeping a strong tradition of qualitative case study research, alongside the growing research community using large-scale data analysis.

“Research less tied to specific centres or places”



Carlos Gonçalves

University of São Paulo
History of science
Project: *Mathematical Knowledge in Administrative and Economic Practices: countable and metrified dimensions of life in the region of the Diyala, Ancient Mesopotamia*

I carry with me a library with a very large quantity of PDF documents. This is in fact two libraries, one for history of science, the other for Assyriology. One interesting point is that their histories are quite different. The history of science collection has been collected by a now retired professor of mine. It is the result of individual work mainly, with all the files almost perfectly identified and a catalogue with all titles. The other, the Assyriology collection, has been produced collectively through the efforts of many young colleagues and it contains a great deal of publications in the field, including tons of out of print items, as well as journals very difficult to obtain (end of the 19th, beginning of the 20th).

All in all, it might be possible to speak of something like an ecosystem of PDFs nowadays, but I know that the idea has to be better developed. What is the path that a file makes in the digital universe? Which copies of itself does it leave behind? Who are the persons and institutions that allow all these process to happen?

There is a second point that is of interest to the discussion. Some colleagues in the field of Assyriology estimate that there are at least half a million of clay tablets from Ancient Mesopotamia nowadays in the museums. In a collective effort, we have been trying to collect as much information as we can about every single one of these pieces in a number of databases. At the moment,

the one that has more information is maintained by Oxford, Berkeley and the Max Planck Institute, the Cuneiform Digital Library Initiative, CDLI for short. In the long run, there will be photos, handcopies, transliteration, etc., of all these tablets online. It is an essential tool in my research, but also extremely useful when I teach Akkadian.

As a consequence, **research could become less tied to specific centres or places**. One can do research in Assyriology in places where there are not Assyriological libraries, and so on. Before PDFs and the Internet, in such places it was a very complex task to give students even the basic training in the field.

By making research more accessible, digital resources will get different people engaged and this will break the inbreeding that characterises some areas of knowledge. New ideas and approaches may arise, motivated by local questions and other disciplinary encounters.

“I would like to see big data also being used to test our existing theories”



Patrick Haggard

University College
London

Neuroscience

Project: *Bodily building
blocks of subjectivity*

redress psychology's historic bias towards western, educated, industrialised, rich, democratic (WEIRD) societies.

On the other hand, the digital revolution is not (yet) able to tell us much about the neural and physiological mechanisms that underlie behaviour. A click on a mobile phone app may be the product of a specific evaluation and decision taking place somewhere in the brain. To truly understand human thoughts and behaviours, we need to know more about the mechanisms that produce them, as well as the patterns of behaviour itself. At the moment, the digital revolution is giving us richer ways to study behaviour outside the lab, but **we still need lab studies** to tell us how the nervous system generates our behaviour.

The new digital technologies are changing the way people do research in psychology. For example, many research projects now contain an element of experience sampling, or large-scale digital data, to provide a comprehensive description of human behaviour. Traditional cognitive psychology research data is routinely collected through Amazon Mturk at a **speed, volume and cost-efficiency that were unimaginable a few years ago**. Other studies treat mobile phone usage patterns, keywords in Facebook posts etc. as behavioural data. This is a rich source, even when data is aggregated and anonymised, but often it is just used for data mining. **I would like to see big data also being used to test our existing psychological theories**. If a theory is really important, perhaps it should make predictions at the scale of our everyday actions with a phone or browser.

Digital methods could also be used to advance cross-cultural and transcultural psychology: mobile phone penetration is high in many areas of the world that are culturally quite different from the rich world environments where academic psychology is done. **Digital technologies should be used to**

“Digital technologies have become ubiquitous in my work”



Simon Macdonald

European University

Institute

History

Project:

*Cosmopolitanism in
eighteenth-century*

*Europe: concepts,
networks and practices*

Much of my research relates to eighteenth-century Britain, study of which has been reshaped since the early 2000s by the existence of one online database in particular, ‘Eighteenth-Century Collections Online’ (ECCO), and to a lesser extent by a second and more recent arrival, the Burney Collection of eighteenth-century newspapers. These databases, based on earlier microfilming efforts, provide online access, and possibilities for full-text searching and PDF downloading, to great swathes of the world of print in Britain (and beyond) during the 1700s. Further digitisation projects have extended these efforts into the nineteenth century and beyond.

Scholarly critiques of these resources have noted, among other things, **the illusion of complete coverage** they offer, and the ways in which students now encounter this field of study through digital filters (whose existence they do not always recognize). Plus, the great expense of these paid-for subscription resources makes **access opportunities all the more uneven**. On this score, it’s worth noting that France’s ‘Gallica’ database is gradually accumulating a similar online resource for French-language published material, across several centuries, and including many manuscripts to boot: but this, unlike ECCO, is freely available to anyone with online access. Meanwhile, digitization efforts for Italian-

language published material from the eighteenth century, on which I have also worked, remain far less extensive: yet there are now a number of smaller-scale such resources.

So these then are some of the ways in which **digital technologies have become ubiquitous in my work, albeit in latent rather than blatant ways**. Like Carlos, I have a very large archive of PDFs, and of course not just of primary materials downloaded from online databases. Like many historians now, as Sean notes, I have tens of thousands of digital photographs of manuscript items I have consulted during my archival research, and this has downsides as well as upsides.

“Focusing too much on the tools and not enough on what we’re using the tools to study”



John MacFarlane

University of
California, Berkeley
Philosophy

Project: *An expressivist
account of vagueness*

Methods in my field (philosophy) have not been much affected, except in the obvious ways (we use computers to write, share our work, and communicate).

There are some exceptions. Off the top of my head:

- Scholars of ancient Greek philosophy have benefitted from the *Thesaurus Linguae Graecae*, which digitized most of the ancient Greek texts we have, decades ago. As a graduate student I found it exciting that I could instantly check a commentary’s claim that (for example) a certain term was only used three times in the whole Aristotelian corpus!

- [The Stanford Encyclopedia of Philosophy](#) is a continuously updated online encyclopedia which is by far the most comprehensive reference resource in analytic philosophy. It is freely available to everyone.

- Recently there has been more work in so-called “experimental philosophy,” which uses online surveys and methods of social psychology to “test” philosophical thought experiments.

My reaction to the recent hype around Digital Humanities is mixed. **While I certainly think we should use all the tools we have, I worry about the effects of focusing too much on the tools and not enough on what we’re using the tools to study.** I think it would be a pity if, instead of turning out scholars in the traditional mold who are deeply steeped in history, literature, art, and philosophy, we started turning out experts in geomapping, R, or topic modeling with a side interest in humanistic topics. But, since Digital Humanities is not having much impact on my field, I’m not really in a position to assess the risk of this happening.

I do some open-source programming on the side, with a particular interest in making tools for academic writing and publishing. My main project in this area is [pandoc](#), a document format converter. I find it sad that so much of the content we academics write appears in journals or edited volumes that are extremely expensive and generally not available except to people at elite universities. So I’m interested, generally, in helping to develop better models for academic publishing.

“Technology is about life and death”



Felicia McCarren

Tulane University
Performance studies
Project: *Planting
Dance: Natural and
cultural history of
gender in Performance*

For me technology is about life and death. **New technologies have redefined what is life and what is death for us as researchers and authors.**

But first, I think we should historicize: why do we forget that earlier technologies (even if they do not qualify as “technology” in today’s terms) changed lives, changed work, re-ordered the world? I learned in my China course that it was China, not the US, that invented modernity! (and France in other courses...)

The digital pond that we are already swimming in is constituted by a new generation of users. They expect it to work for them and they are making it work. A few years ago, **I realized that a text is not a text for my students unless it appears on a screen.** I also realize that motherhood (now that my son is a teenager) is a file transfer protocol.

Why do we think our work lives on after us-- in a library or in our students? Does digital technology change that, and if so, how? After the death of the author, a half-century ago, **are we now convinced that technology stabilizes or solidifies something both in life and after?**

“Scientizing” psychology”



Gretty Mirdal

Director of the
Paris Institute for
Advanced Study
Psychology

The field of psychology has gone through several “paradigmatic shifts” since the 1950s, meaning that the grand theories and research methods that have been dominant in the discipline, (e.g., psychoanalysis, phenomenology, behaviorism, cognitivism, social constructionism, Marxist/critical theory) have changed throughout the years, leading to deep reorganizations, to new disciplinary configurations, and even to an implosion of psychology as a unitary discipline... One could argue that such a shift in the dominating approach might be occurring presently, and to my mind, this is mainly due to the impact of digital technologies.

Theory and method being interrelated, the dominant theory dictates the questions to be asked in research, and the method, in turn conditions the answers that feed back into the theory. There are many examples of such circles becoming vicious, leading to sterile repetitions of research which only aim at justifying one’s own position. On the positive side, the digital seems to have broken such vicious circles, through several means, e.g.:

- by not only introducing new research methods, (e.g., quantitative digital text analysis even in traditionally qualitative research, such as in psychoanalysis), but in urging an integration of methods from the natural sciences, more precise empirical data, greater systematization, more evidence-based practice, in short in **“scientizing” psychology**;
- by **opening up for, until then, unavailable data** (including big data), also those contradicting one’s more or less rigidified world view;
- and by **giving access to patterns of thought from other disciplines**, and even creating new cross-disciplinary ones, e.g. cognitive science, neuroscience, psycholinguistic, psychoaesthetics, and the like.

On the negative side, the digital has sometimes led to the belief that even very complex psychological phenomena can, and even should, be “measured”, and there is a tremendous pressure to do so in order to get published in prestigious journals, which in turn reduces the object of study to a meaningless and minor question. In “scientizing” psychology, which to my mind is a very positive thing, we have at times forgotten that, as the saying goes, *“Not everything that counts can be counted, and not everything that can be counted counts”*.

“There are problems with the digital”



Michael Nylan

University of
California, Berkeley
History

Project: *Logics of
legitimacy' in the
Documents classics
of ancient China*

From my own point of view, **there are problems with digital** (by which I mean “big data” and reliance of libraries on digital resources): chiefly, it privileges the modern; it privileges the Anglo-American; its methods for deriving statistics are often opaque, if not worse; and so far, in America at least, the “cloud” has not been anything but environmentally friendly (contrary to assumptions).

“We all do ‘digital research’ whether we want to or not”



Warren Sack

University of California,
Santa Cruz
Digital humanities
Project: *Decoding
digital democracy*

For me, **the digital is environmental or at least infrastructural**. So, a query like “what is the impact of digital technologies on research” is akin to a question like “what is the impact of clean water on research?”; or, “what is the impact of highways and motorized vehicles on research?” We can imagine a world without these things and we can imagine personally doing without particulars (e.g., a particular make of car) but it is not under the control of the individual researcher, or even an entire field to do without environmental or infrastructural underpinnings.

My point? **We all do “digital research” whether we want to or not**. The question then is how, in research, do we interrogate these conditions of the digital? Some prefer not to and, responding as a specialist, that seems fine to me. There is plenty to do without worrying about computers!

Others, in their research, will want to isolate that which is dependent and that which is independent of the digital. This seems simpler for those of us who employ digital tools because there are no analogous non-digital tools. But, what if you are editing ancient manuscripts on a computer?

Or, you are recording and listening to music on a computer? Or, you are collaboratively writing a book with colleagues using Google Drive? Is the digital of only secondary importance, perhaps just a technology of convenience? I would argue not.

But, I argue from a specific genealogy of media studies that can be called grammatological (concerned especially with writing practices). From this perspective, the state of knowledge changed when, for instance, ancient Greece shifted from an oral culture to a culture of writing. Knowledge changed again when printed texts became the norm in Europe (and well before that in China). And, now that we do most of our reading, writing, listening, recording, watching, and editing on computers connected through networks, knowledge has changed again.

But, how do we measure that? How do we perceive that? How do we understand that? **We are the fish swimming in a digital ocean. In my opinion, if we want to interrogate the digital, we need to devise new methods for leaping out of the water, if even only for a second, to make the familiar strange.**

“Produce more data of higher quality and relate them to one another more fruitfully”



Isabel Sanchez

University of Bordeaux
Montaigne

Archaeology

Project: *Cultural*

identities during the

Late Antiquity. The

Episcopal territory at

the beginning of the

medieval landscapes

In the last years archaeological methods and the **ways for recording historical data are changing thanks to the development and application of new digital technologies**. Research in archaeology combines a range of archaeological data, which involve many disciplines in order to provide information and new comparable data to reach specific objectives. The application of geomatic technologies in fieldworks makes it possible to **produce more data of higher quality and to relate them to one another more fruitfully**. All information processing is performed and evaluated after fieldwork. The methodological design places a great importance on the standardised quantification and documentation of findings to be studied. The research tools include: 1) Database in order to manage diverse range of information. (2) Excavation and stratigraphic methods and field equipment. (3) Terrestrial laser scanning. (4) Geographical Information Systems.

“At some point the quantitative changes become qualitative”



Sean Takats

George Mason
University
Digital humanities
Project: *Tropical
Medicine as
Enlightenment
Colonialism: Digital
Research and
Collaboration*

Wherever we might imagine ourselves to be on the analog/digital spectrum, **we're all conducting research, disseminating our work, and teaching in radically different ways because of new media.** To the extent we've considered the implications of this shift, it has largely been through the lens of convenience or expedience: it appears easier to download and read a PDF, to use a word processor, to analyze data or take notes digitally than to do it any other way. But of course there are profound if unexamined implications here: today it seems utterly unremarkable to maintain a personal archive of thousands of research articles and gigabytes of evidence. But how does it affect your workflow when you're carrying around your own research library everywhere you go?

At the risk of oversimplifying, **at some point quantitative changes become qualitative**, and nowhere is this more evident in the discipline of history than in the practice of archival research. Just ten years ago digital photography (conducted by individual researchers) was an exceptional practice in archives and libraries. Archives were places where researchers went to find, read, and take notes. Today they are centers of digitization. The vast majority of archival researchers now spend their days photographing entire folders/cartons/series/fonds — orders of magnitude more records than in the past — during their visits to the archives

and only examine what they have captured after the fact. How do you formulate and address research questions when you now have 24/7 access to a personal digital archive that may take years simply to read? What happens when these personal archives are federated and shared, and can be consulted at a distance along with archival institutions' own digitized materials? **How far upward and outward will disciplinary benchmarks of sufficiently convincing evidence shift?**

I hasten to add that documenting the effects of technology on our work and **making the best of this new landscape isn't necessarily the same as advocating for the digital**, though it often feels like it. The emergence of the «digital humanities» has fueled a debate that's as acrimonious as it is sterile, centered less on medium and methods and more on funding and institutional infrastructure. But quite apart from this debate, historians have already fully committed to entirely new methods of collecting and consulting evidence: how much this will ultimately transform historical scholarship remains an open question.

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