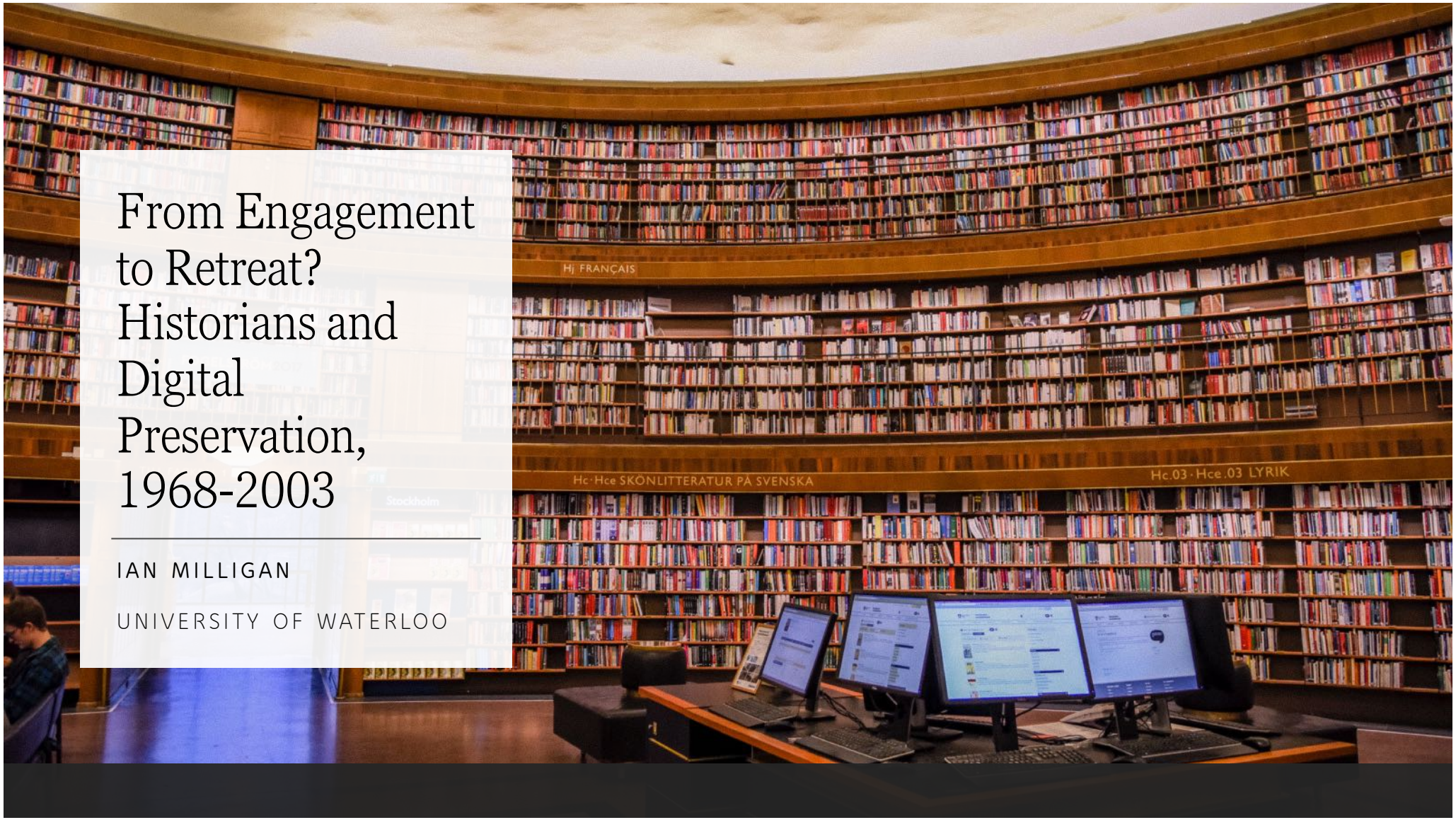


From Engagement to Retreat? Historians and Digital Preservation, 1968-2003

IAN MILLIGAN

UNIVERSITY OF WATERLOO

Plan for the Talk

Introduction

- History of Digital History
- Framing it with my broader project
- Archives and Interdisciplinarity

Electronic Records in the 1960s and 1970s, and Historians

Historians in the Wilderness (1980s and 1990s)

The Digital Dark Age

Conclusions

The History of Digital History

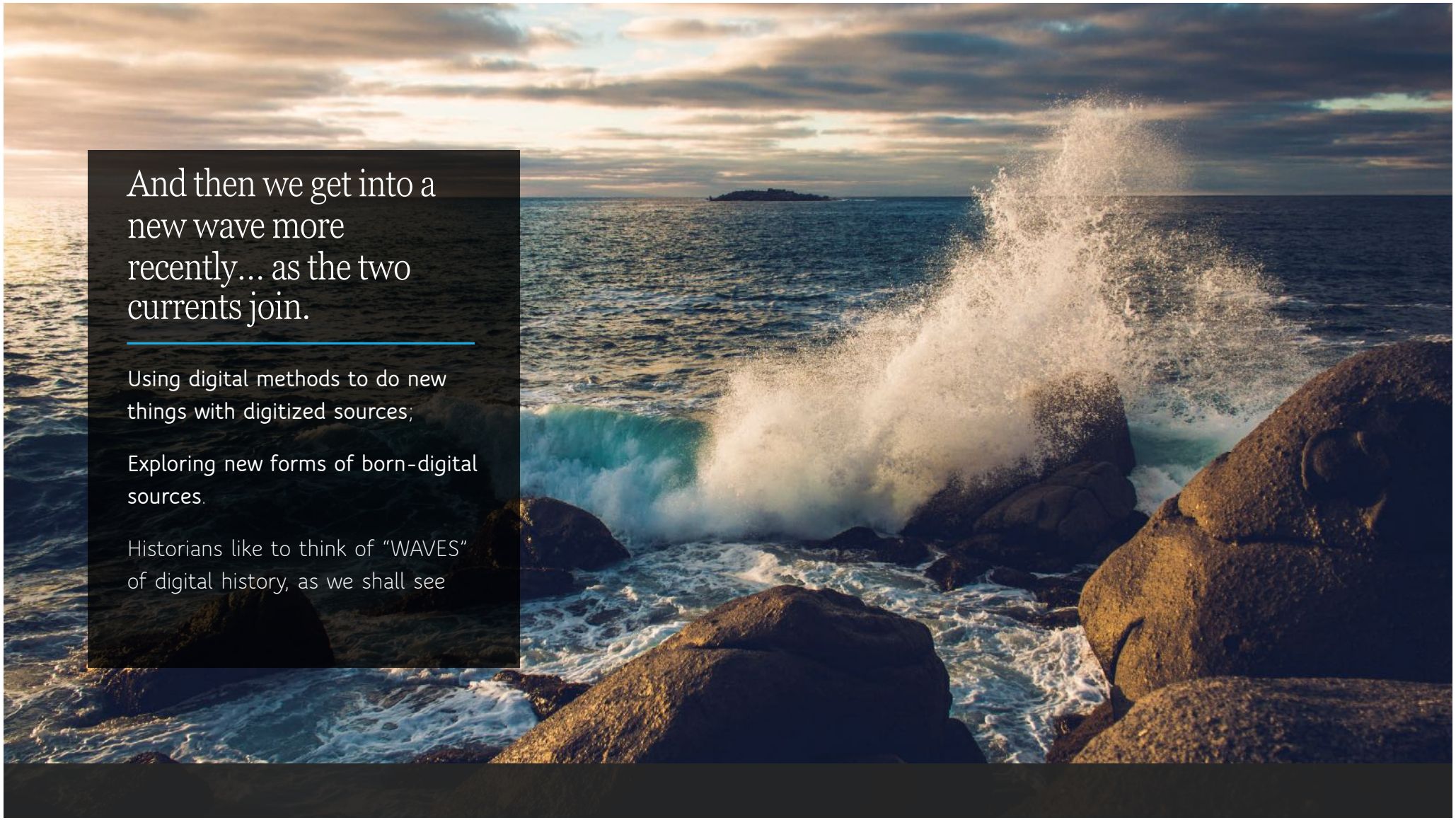
Histories of the digital humanities and digital history often get conflated together

In terms of "digital history," we have two competing lineages:

- **Quantitative history/Cliometrics**: The 1970s "when history last had a quantitative turn" (Guldi and Armitage); hit its peak with Fogel/Engerman's *Time on the Cross*; perhaps some resurgence in more recent days (Cliodynamics)

- **Public History/Digital Humanities**: New forms of outreach, engaging with the public in new ways, "Valley of the Shadow"

I think to that we can add a third, of **historians grappling with new forms of source material** (from tabular records to text).

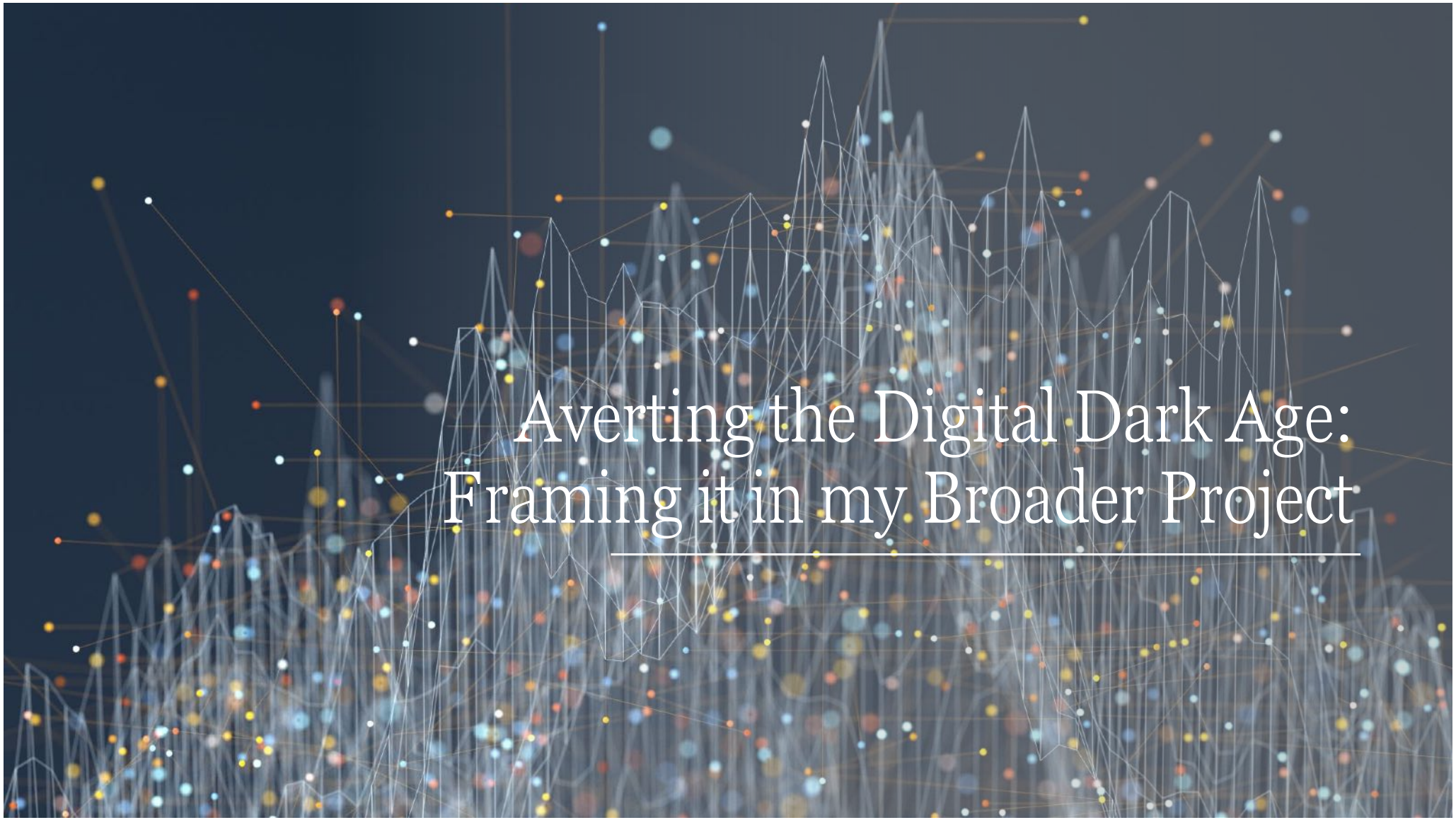


And then we get into a new wave more recently… as the two currents join.

Using digital methods to do new things with digitized sources;

Exploring new forms of born-digital sources.

Historians like to think of "WAVES" of digital history, as we shall see



Averting the Digital Dark Age: Framing it in my Broader Project

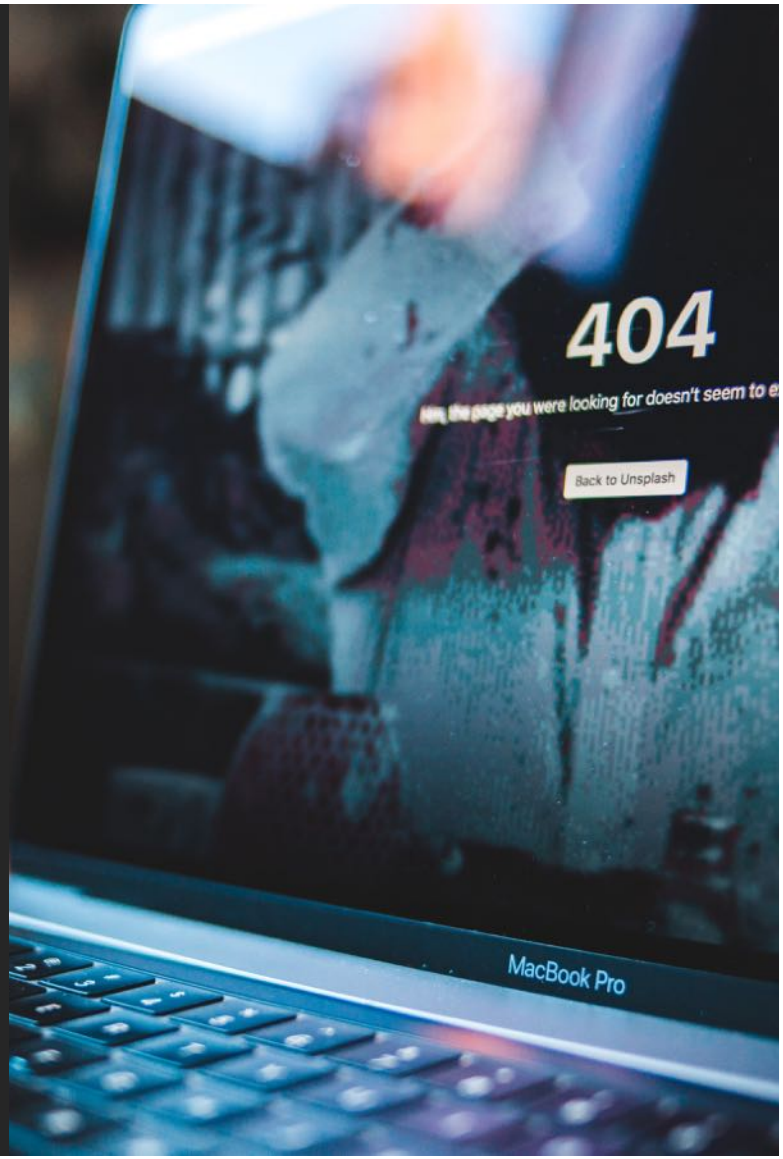
Networked Communication As a Specific Challenge

The **ephemerality of the Web, a growing medium**

- **2,500 websites** (1994); **250,000** (1996), **1,000,000+** (1997)
- Poof. A server fee not paid; a student graduates from an institution; a crash – priceless cultural information being lost.

By 1996, clear that this won't just be a few disappointed geeks, but could collectively imperil western culture.

The 404 warning was an evocative symbol that the web was in peril.



The Importance of Understanding how Archives are Constructed

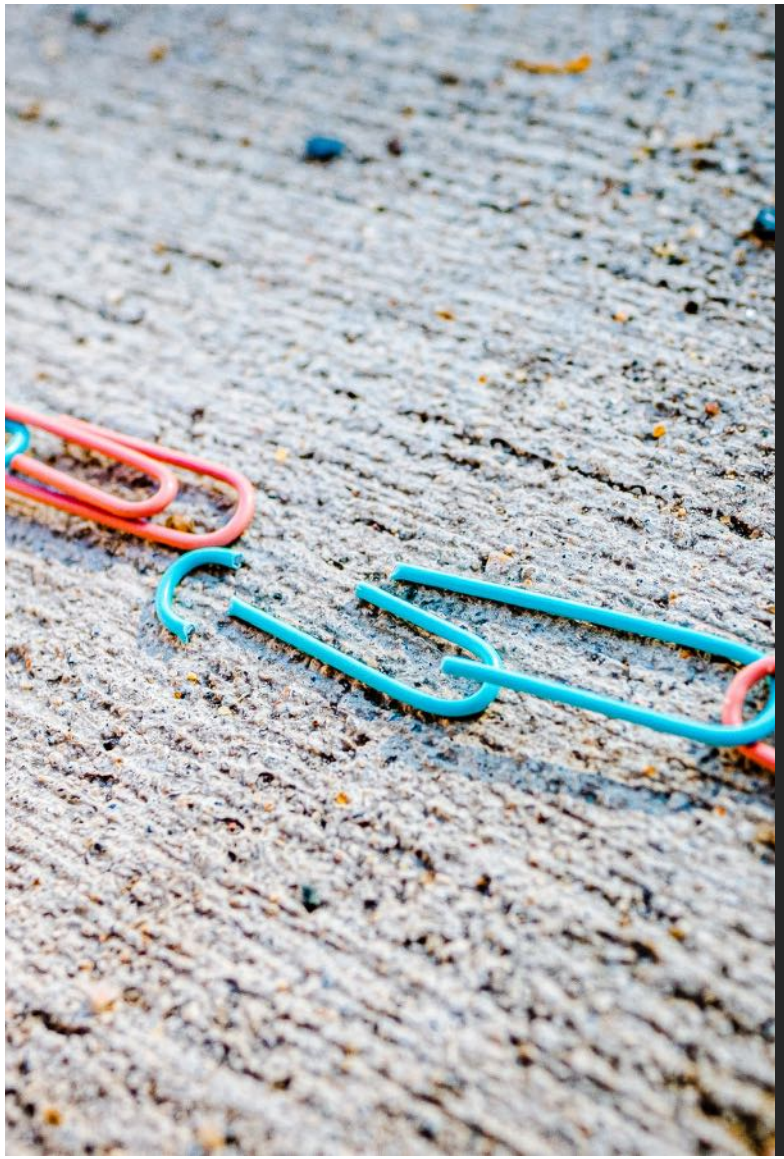
Why do I care about the history of archives?

Historians are expert users of archives, but archivists **co-create** historical knowledge through their selection, arrangement, and description of archival content.

If in the 1920s, archival theory was defined by custodialism – archivists as stewards or "handmaidens" of historical content – by the 1970s **post-custodialism** understood the activist role of archivists to transform and shape the record.

Digital abundance accelerated this transformation.

Yet historians still sometimes act as if the archival role is custodialist (they should all read Terry Cook).



Historians + Archives

"Any visit by a historian to an archival institution is now an exercise in interdisciplinarity." (Blouin and Rosenberg, 2011)

By the 1970s, an increasing divorce between historians and archivists professionally.

Historians often want to preserve **everything,** especially with the social and cultural turn.

Archivists operate in a scarcity economy and must make decisions. How much **ephemera** to keep? What is **ephemera?**

Research Questions

What did the intellectual ferment look like that made the development of web archiving possible?

What did historians and other stakeholders think about digital records, and how did they contribute to the conceptualization of this medium shift?

For this talk..

Looking primarily at how historians engaged with new and emerging forms of digital records, esp. those created on networks.

Sheds new lights on the early history of computational historians, as well as how historians engaged during a critical medium shift.

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The 1960s and 1970s

The Third Wave of Computational History

When do you think the third wave of computational history was?

- One hack (**Milligan, 2012**) described it as the phase of history defined by cloud computing, increasing storage, and increasing computational power (following a first wave of quantitative histories and a second wave of H-Net/GIS/etc. in the 1990s)

The Third Wave of Computational History

As early as 1970, historians thought they were in the **third wave** of computational history

Robert Swierenga, 1970: "the effect of the computer on the study of history, whether desired or not, is inescapable."

- First wave: 1930s punch card users
- Second wave: 1950s or 1960s scholars studying historical demography

Computers and the Humanities established in 1966, and the idea that the profession might undergo wholescale transformation in the 1970s was increasingly widespread

Therefore, during 1960s/1970s electronic records conversations, historians were avid participants!

Electronic Records in the 1960s

Government and corporate electronic records were growing

At the same time, historians were fruitfully approaching the census and other records through the prism of demographic history

They began to saw the potential of what if this tabular data was preserved in tabular format; imagine what you could do if you didn't have to wrangle the data in the first place? **What would that mean for future historians?**

1968 Conference on the National Archives and Statistical Research

Historians, archivists, sociologists concerned both with digital records but also how all the digital records being created by the US government in the 1960s would be accessible to future historians.

- DATA DELUGE WARNING
  - "Our records since World War I far exceed in volume all earlier records in the United States" (Fishbein)
  - "vast quantities of data" (James B. Rhoads)

A call for machine-readable data for future historians.

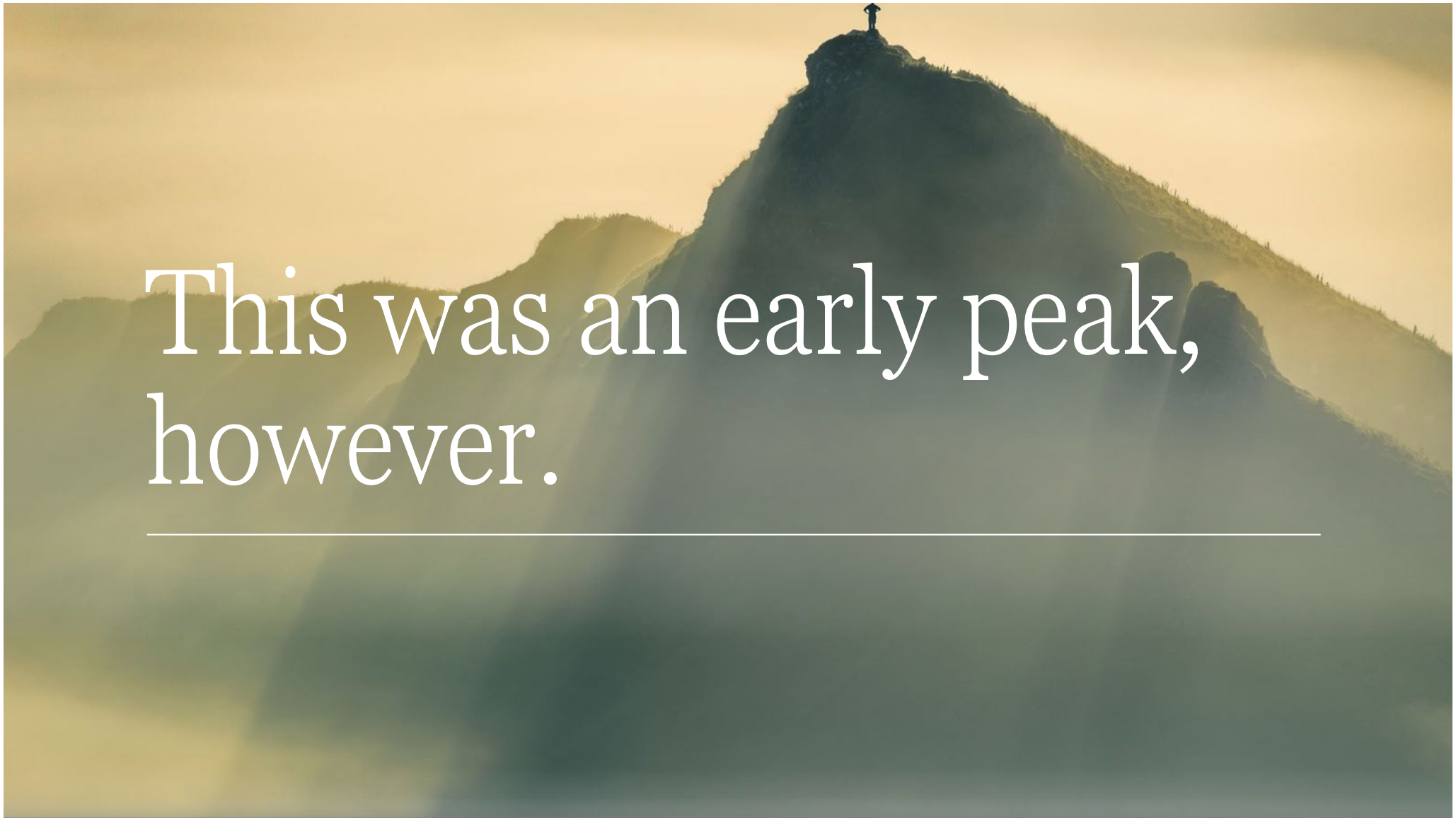

Conference on the National Archives and Statistical Research, Washington, D.C. 1968.

NATIONAL ARCHIVES CONFERENCES

The National Archives and Statistical Research

EDITED BY
MEYER H. FISHBEIN

OHIO UNIVERSITY PRESS
ATHENS, OHIO

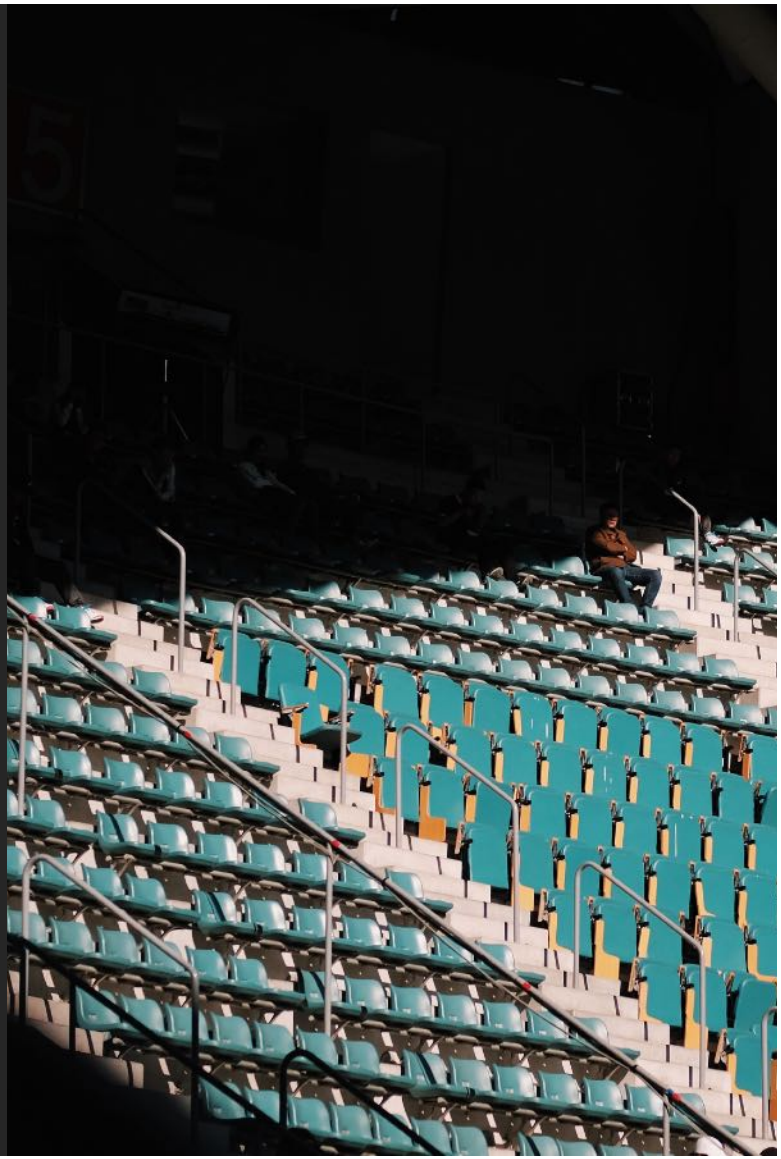

This was an early peak,
however.

1970s Decline

Time on the Cross

Le Roy-Ladurie's 1968 claim that "the historian of tomorrow will be a programmer, or he will not exist"

Shift from quantitative methods to social history meant that historians became disconnected with path-breaking digital projects



By the late 1970s/early 1980s, quantitative history had been eclipsed.

And with it, interest in electronic records (seen as niche and quantitative; the purview of a small number of "social science historians").

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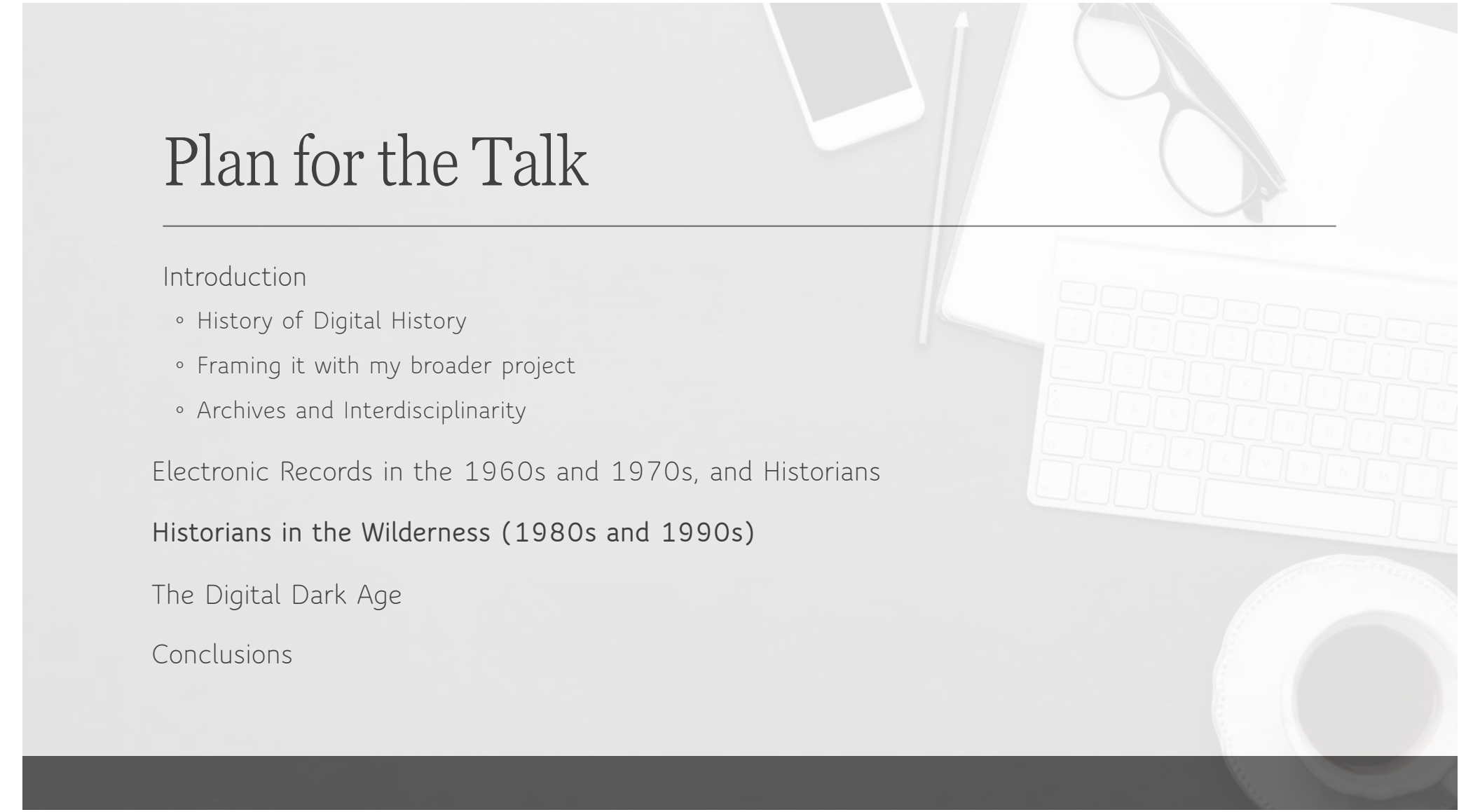


The Rise of Digital Records in the 1980s

Governments

- Begin to use e-mail; until 1989 in the United States, considered "transient" documents, only routinely archived if they were printed.

Corporations

- Transactions, financial records, correspondence

Physical Storage Media

“But her emails…”

The first major e-mail scandal was arguably the **Iran-Contra e-mail scandal**

22 November 1986: Lt. Colonel Oliver North deleted 750 e-mails; his boss another 5,000+.

- The PROFS (Professional Office System): Ironically, no “delete all” function so they spent days hitting delete on every single message.

Tower Commission finds the deleted files during its investigation

At the end of the Reagan administration, National Security Archive (nonprofit organization) launches a lawsuit to ask for its e-mails; lawsuit won and Federal Records Act is expanded to cover them

Electronic Records

Will clearly transform **record keeping** and **archives**

Archival field begins to ask:

- What are surrogates for telephone conversations and what are enduring?

- What should be selected?

- How to ensure their long-term preservation?

In a field of scarcity, selecting something meant not selecting something else.

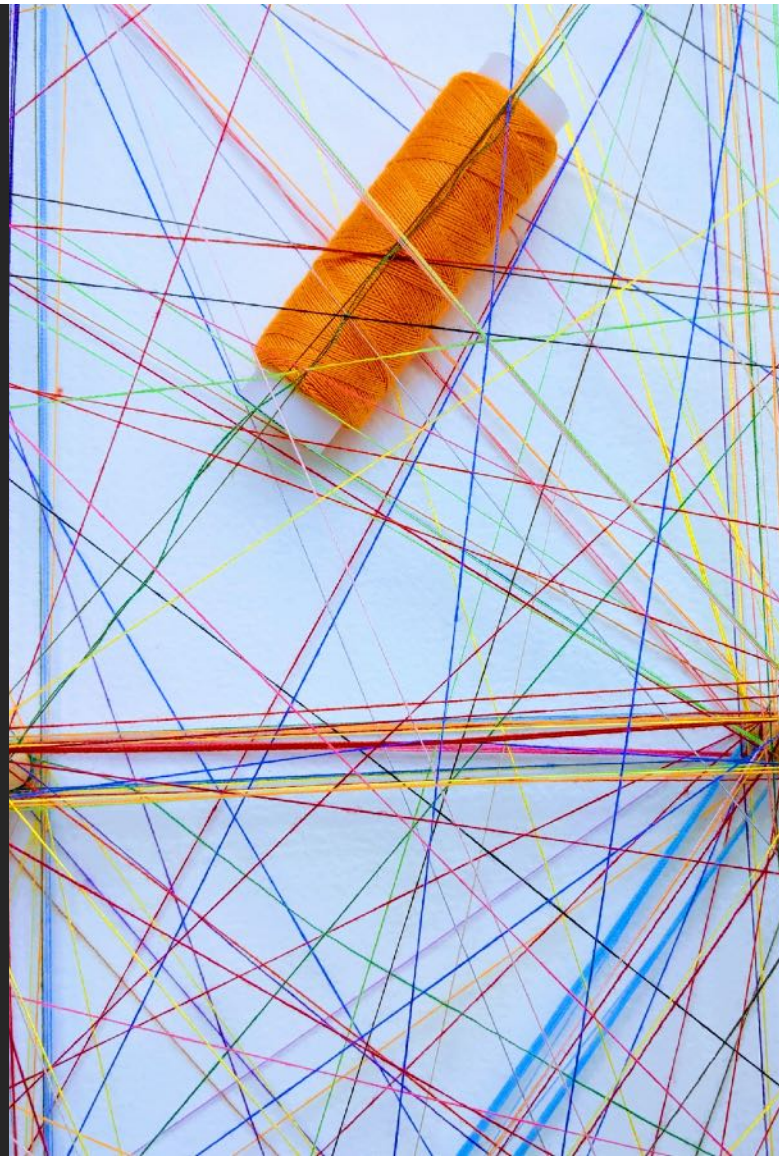
Networked Communication Brings Special Concerns

Hyperlinks present the biggest issue around networked communication, primarily once the Web is present but even forms of electronic literature before that

When is a document complete?

If you grab a document, but not the links, have you grabbed it?

But then, if you grab the document, and all the links, scale problems begin to appear.

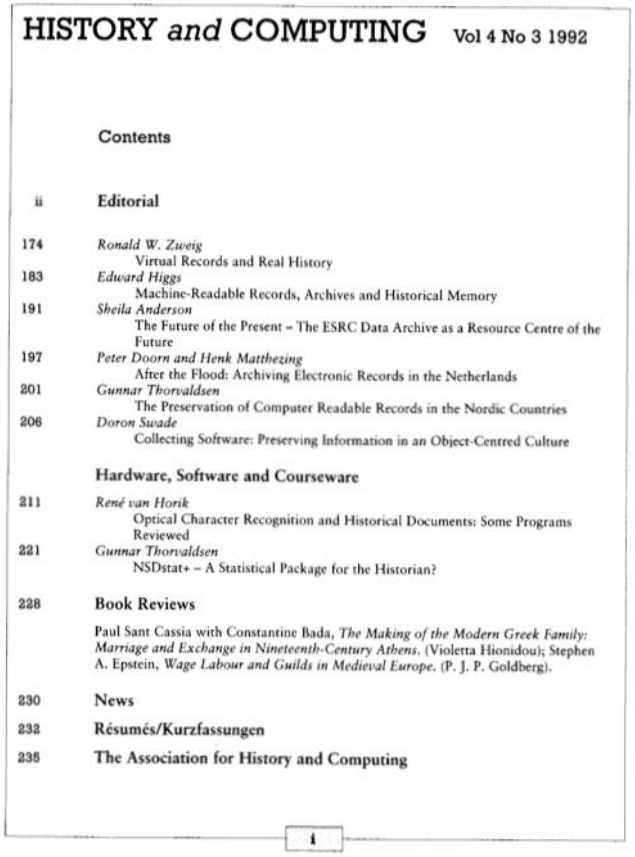


This Couldn't Have Come at a Worse Time for Interdisciplinary Engagement w/ Historians

Historians had been around in the 1960s/1970s, shaping the first conversation.

But with the rise of networked communication and the web, a conversation emerged around its preservation. **Where were the historians?**

Let me be fair. A few social science historians, primarily economic historians, remained engaged.



HISTORY *and* COMPUTING Vol 4 No 3 1992

Contents

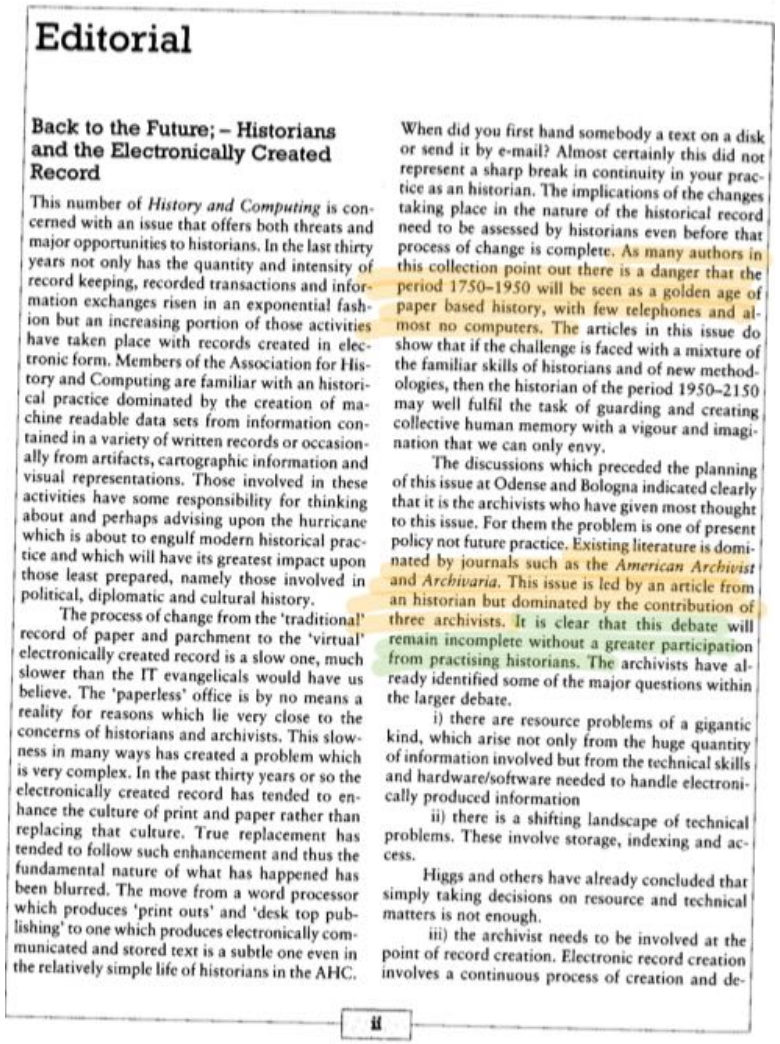
History and Computing

Vol. 4, no. 3 on electronic records

Ironically, never digitized; making finding it during a global pandemic difficult (thanks to ILL!)

Edited by R. J. Morris, an expert on 19th century class formation

Wondered what the 1990s record would look like in 50 years.



Editorial

Back to the Future; – Historians and the Electronically Created Record

This number of *History and Computing* is concerned with an issue that offers both threats and major opportunities to historians. In the last thirty years not only has the quantity and intensity of record keeping, recorded transactions and information exchanges risen in an exponential fashion but an increasing portion of those activities have taken place with records created in electronic form. Members of the Association for History and Computing are familiar with an historical practice dominated by the creation of machine readable data sets from information contained in a variety of written records or occasionally from artifacts, cartographic information and visual representations. Those involved in these activities have some responsibility for thinking about and perhaps advising upon the hurricane which is about to engulf modern historical practice and which will have its greatest impact upon those least prepared, namely those involved in political, diplomatic and cultural history.

The process of change from the 'traditional' record of paper and parchment to the 'virtual' electronically created record is a slow one, much slower than the IT evangelicals would have us believe. The 'paperless' office is by no means a reality for reasons which lie very close to the concerns of historians and archivists. This slowness in many ways has created a problem which is very complex. In the past thirty years or so the electronically created record has tended to enhance the culture of print and paper rather than replacing that culture. True replacement has tended to follow such enhancement and thus the fundamental nature of what has happened has been blurred. The move from a word processor which produces 'print outs' and 'desk top publishing' to one which produces electronically communicated and stored text is a subtle one even in the relatively simple life of historians in the AHC.

When did you first hand somebody a text on a disk or send it by e-mail? Almost certainly this did not represent a sharp break in continuity in your practice as an historian. The implications of the changes taking place in the nature of the historical record need to be assessed by historians even before that process of change is complete. As many authors in this collection point out there is a danger that the period 1750–1950 will be seen as a golden age of paper based history, with few telephones and almost no computers. The articles in this issue do show that if the challenge is faced with a mixture of the familiar skills of historians and of new methodologies, then the historian of the period 1950–2150 may well fulfil the task of guarding and creating collective human memory with a vigour and imagination that we can only envy.

The discussions which preceded the planning of this issue at Odense and Bologna indicated clearly that it is the archivists who have given most thought to this issue. For them the problem is one of present policy not future practice. Existing literature is dominated by journals such as the *American Archivist* and *Archivaria*. This issue is led by an article from an historian but dominated by the contribution of three archivists. It is clear that this debate will remain incomplete without a greater participation from practising historians. The archivists have already identified some of the major questions within the larger debate.

i) there are resource problems of a gigantic kind, which arise not only from the huge quantity of information involved but from the technical skills and hardware/software needed to handle electronically produced information

ii) there is a shifting landscape of technical problems. These involve storage, indexing and access.

Higgs and others have already concluded that simply taking decisions on resource and technical matters is not enough.

iii) the archivist needs to be involved at the point of record creation. Electronic record creation involves a continuous process of creation and de-

History and Computing

"There is a danger that the period 1750-1950 will be seen as a golden age of paper based history, with few telephones and almost no computers."

"It is clear that this debate will remain incomplete without a greater participation from practising historians."

But big questions:

- What to preserve?
- Do we need to preserve mainframes so that future users can experience electronic documents *as they were*?
- What's a document in an age of networked or hyperlinked comms?

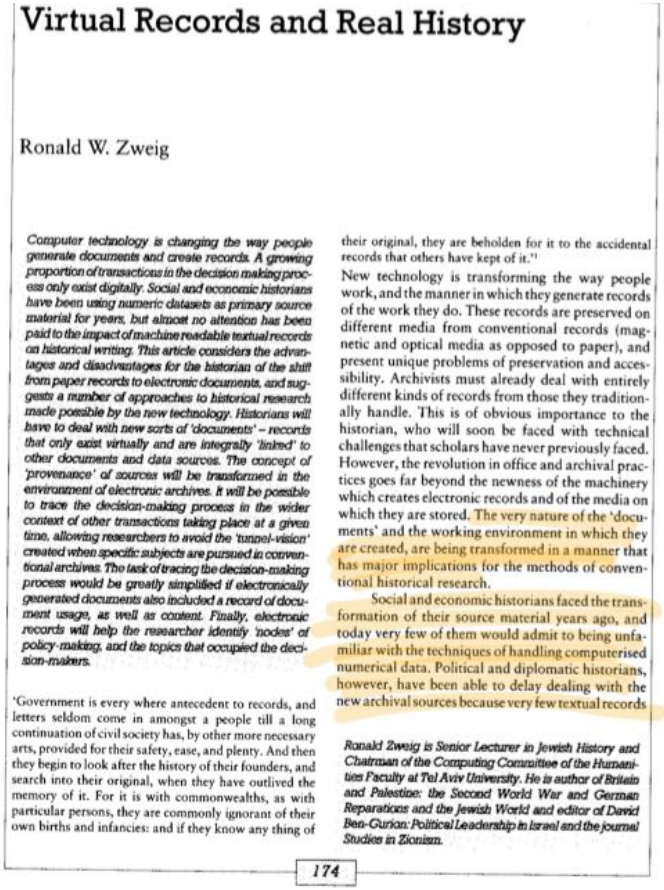
“Virtual Records and Real History”

Ronald W. Zweig, a political/diplomatic historian

“This situation is quickly changing as the first machine-readable textual records deposited in archives are being opened to research.”

But positive too: digitized records would enable “sophisticated search and retrieval techniques.”

Keyword searching too many results, but “if they are combined with an understanding of linguistic equivalences, proximity and Boolean searches, and other techniques used in text retrieval, it will be possible to control the results of a search and to improve its quality.”



Virtual Records and Real History

Ronald W. Zweig

Computer technology is changing the way people generate documents and create records. A growing proportion of transactions in the decision making process only exist digitally. Social and economic historians have been using numeric datasets as primary source material for years, but almost no attention has been paid to the impact of machine readable textual records on historical writing. This article considers the advantages and disadvantages for the historian of the shift from paper records to electronic documents, and suggests a number of approaches to historical research made possible by the new technology. Historians will have to deal with new sorts of 'documents' – records that only exist virtually and are integrally 'linked' to other documents and data sources. The concept of 'provenance' of sources will be transformed in the environment of electronic archives. It will be possible to trace the decision-making process in the wider context of other transactions taking place at a given time, allowing researchers to avoid the 'tunnel-vision' created when specific subjects are pursued in conventional archives. The task of tracing the decision-making process would be greatly simplified if electronically generated documents also included a record of document usage, as well as content. Finally, electronic records will help the researcher identify 'nodes' of policy-making, and the topics that occupied the decision-makers.

'Government is every where antecedent to records, and letters seldom come in amongst a people till a long continuation of civil society has, by other more necessary arts, provided for their safety, ease, and plenty. And then they begin to look after the history of their founders, and search into their original, when they have outlived the memory of it. For it is with commonwealths, as with particular persons, they are commonly ignorant of their own births and infancies: and if they know any thing of their original, they are beholden for it to the accidental records that others have kept of it.'[1]

New technology is transforming the way people work, and the manner in which they generate records of the work they do. These records are preserved on different media from conventional records (magnetic and optical media as opposed to paper), and present unique problems of preservation and accessibility. Archivists must already deal with entirely different kinds of records from those they traditionally handle. This is of obvious importance to the historian, who will soon be faced with technical challenges that scholars have never previously faced. However, the revolution in office and archival practices goes far beyond the newness of the machinery which creates electronic records and of the media on which they are stored. The very nature of the 'documents' and the working environment in which they are created, are being transformed in a manner that has major implications for the methods of conventional historical research.

Social and economic historians faced the transformation of their source material years ago, and today very few of them would admit to being unfamiliar with the techniques of handling computerised numerical data. Political and diplomatic historians, however, have been able to delay dealing with the new archival sources because very few textual records

Ronald Zweig is Senior Lecturer in Jewish History and Chairman of the Computing Committee of the Humanities Faculty at Tel Aviv University. He is author of Britain and Palestine: the Second World War and German Reparations and the Jewish World and editor of David Ben-Gurion: Political Leadership in Israel and the journal Studies in Zionism.

Did want to underscore this early and sophisticated approach to computational history.

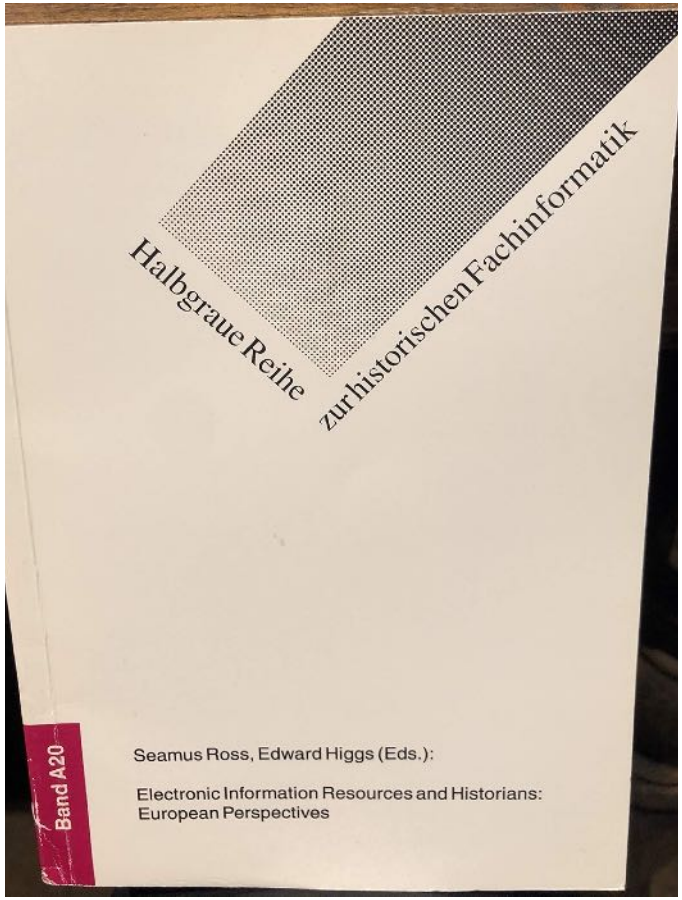
(ironically lost due to not being digitized..)

Electronic Information Resources and Historians (1993)

Another volume lost to the inaccessibility of print volumes.

Ed. **Seamus Ross** (Assistant Secretary of the British Academy) and **Edward Higgs** (Association for History and Computing), proceedings from a 1993 conference

Hopeful notes: "The sheer quantity, diversity, and rich quality of the electronic information resources .. would seem to indicate that the preservation of the information in electronic form could provide historians with a better opportunity to understand our period than the paper records alone could ever do." (Ross)



One of the first to identify the double-edged sword of digital records.

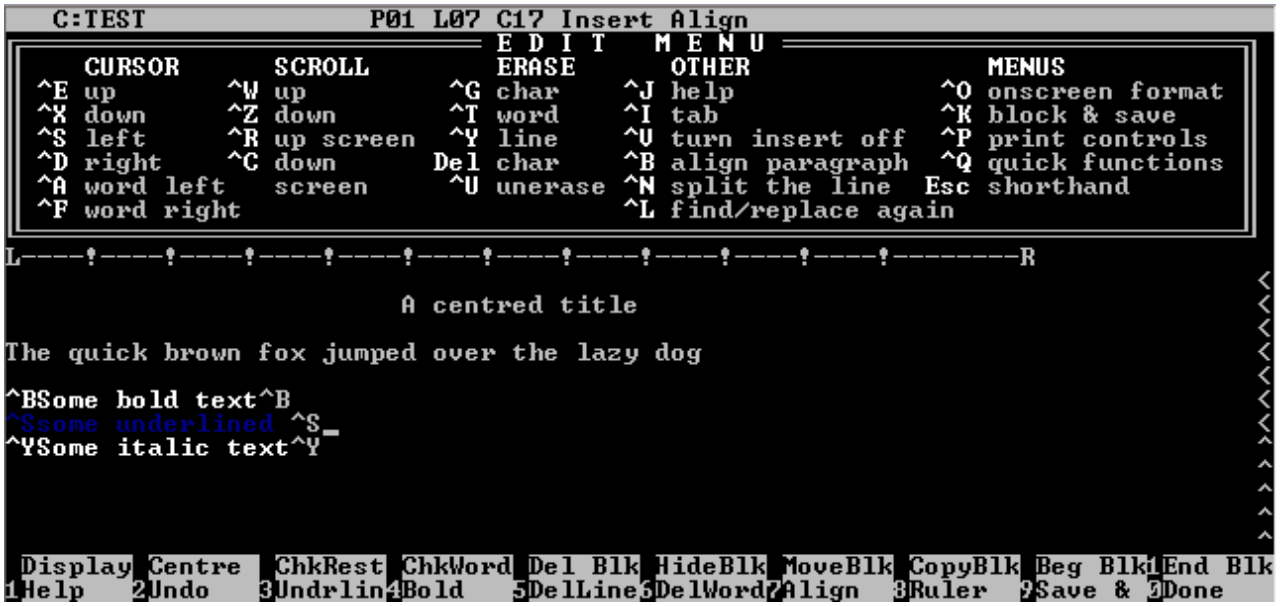
This “age of electronic records,” as Ross understood it, could swamp “future historians with vast amounts of digital information [that might] impede their research as they attempt to navigate through it.”

Drawing on these earlier lineages

Kevin Schürer (demographic historians), harkening back to earlier computational histories

Worried about information overload: "Consequently, given current trends in computer-usage, surely it is not all some pervasive technophobia that has caused historians to start sounding the alarm bells in warning."

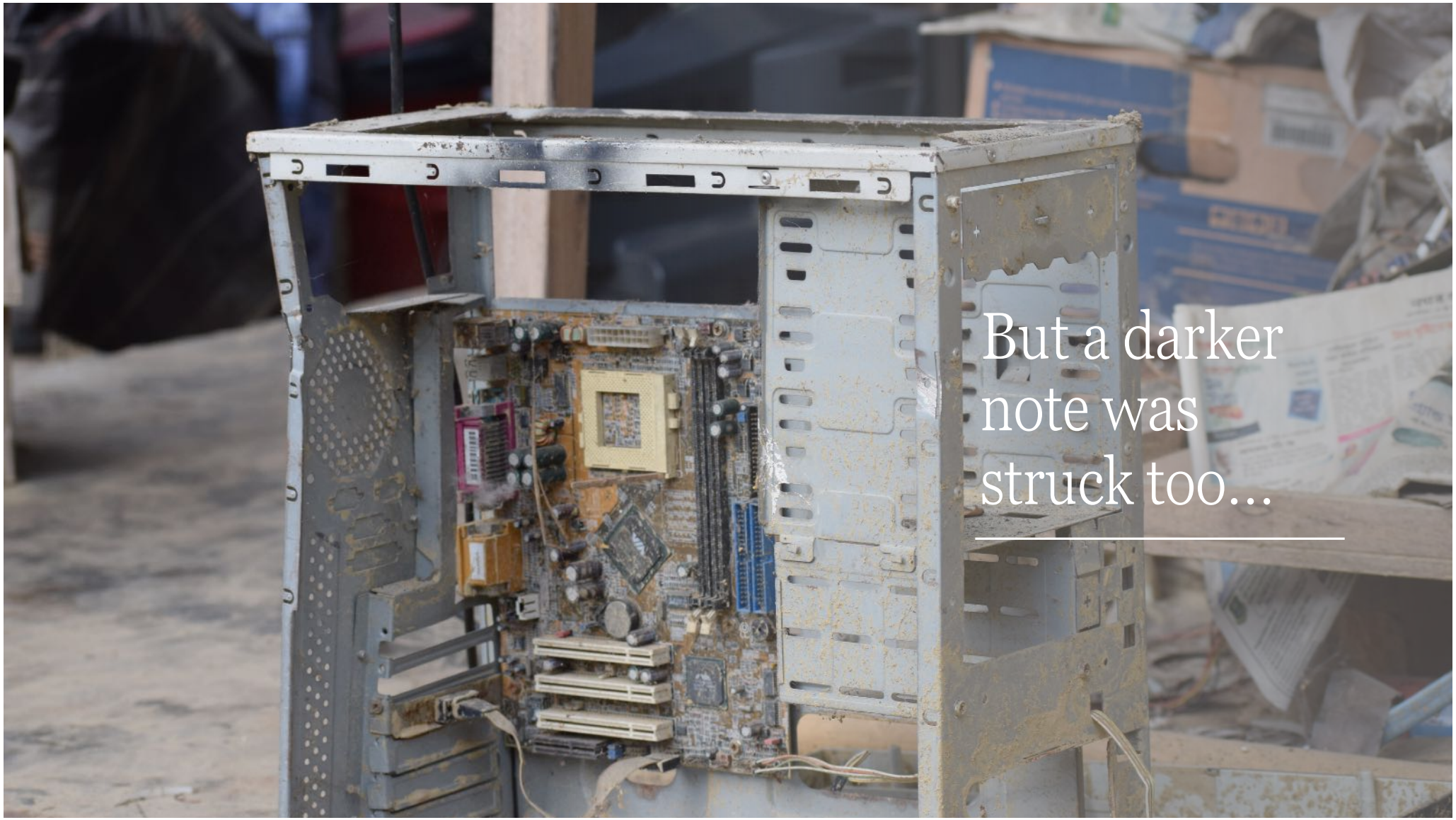
Felt that approaches might be more akin to paleography; reconstructing old software, like DNA analysis or radio-carbon dating

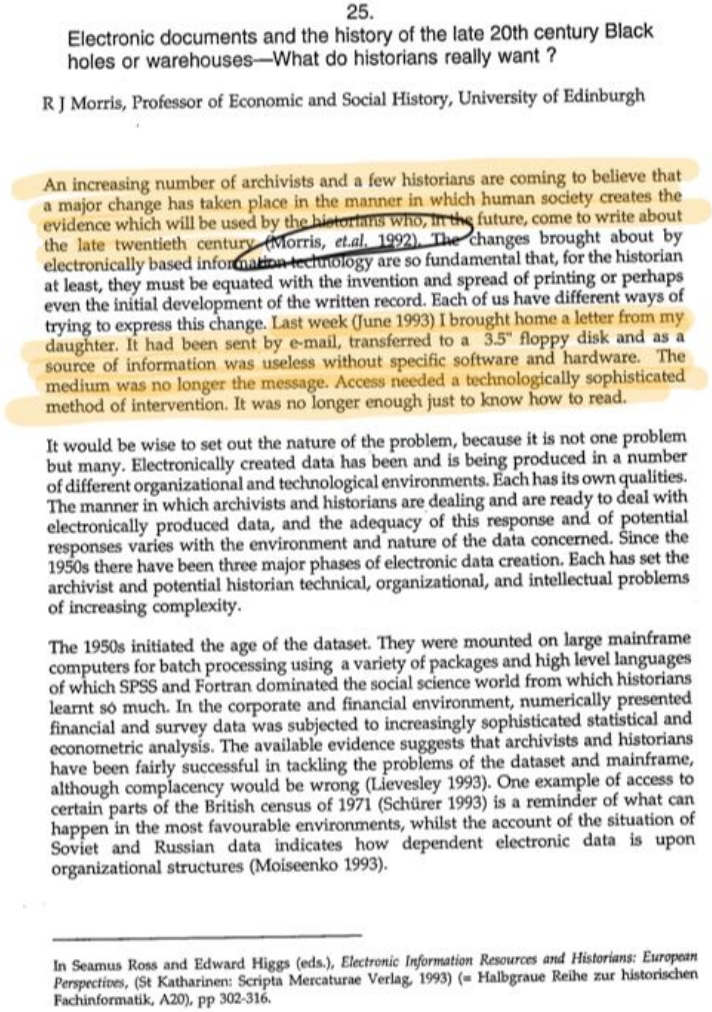


But even the prospects of everyday records

Diarists, novelists, intellectuals and word processors – how would drafts be considered?

How would hypertextual information be saved – all of it? What about the stuff that a document links to?


But a darker
note was
struck too…



25.

Electronic documents and the history of the late 20th century Black holes or warehouses—What do historians really want ?

R J Morris, Professor of Economic and Social History, University of Edinburgh

An increasing number of archivists and a few historians are coming to believe that a major change has taken place in the manner in which human society creates the evidence which will be used by the historians who, in the future, come to write about the late twentieth century (Morris, *et.al*, 1992). The changes brought about by electronically based information technology are so fundamental that, for the historian at least, they must be equated with the invention and spread of printing or perhaps even the initial development of the written record. Each of us have different ways of trying to express this change. Last week (June 1993) I brought home a letter from my daughter. It had been sent by e-mail, transferred to a 3.5" floppy disk and as a source of information was useless without specific software and hardware. The medium was no longer the message. Access needed a technologically sophisticated method of intervention. It was no longer enough just to know how to read.

It would be wise to set out the nature of the problem, because it is not one problem but many. Electronically created data has been and is being produced in a number of different organizational and technological environments. Each has its own qualities. The manner in which archivists and historians are dealing and are ready to deal with electronically produced data, and the adequacy of this response and of potential responses varies with the environment and nature of the data concerned. Since the 1950s there have been three major phases of electronic data creation. Each has set the archivist and potential historian technical, organizational, and intellectual problems of increasing complexity.

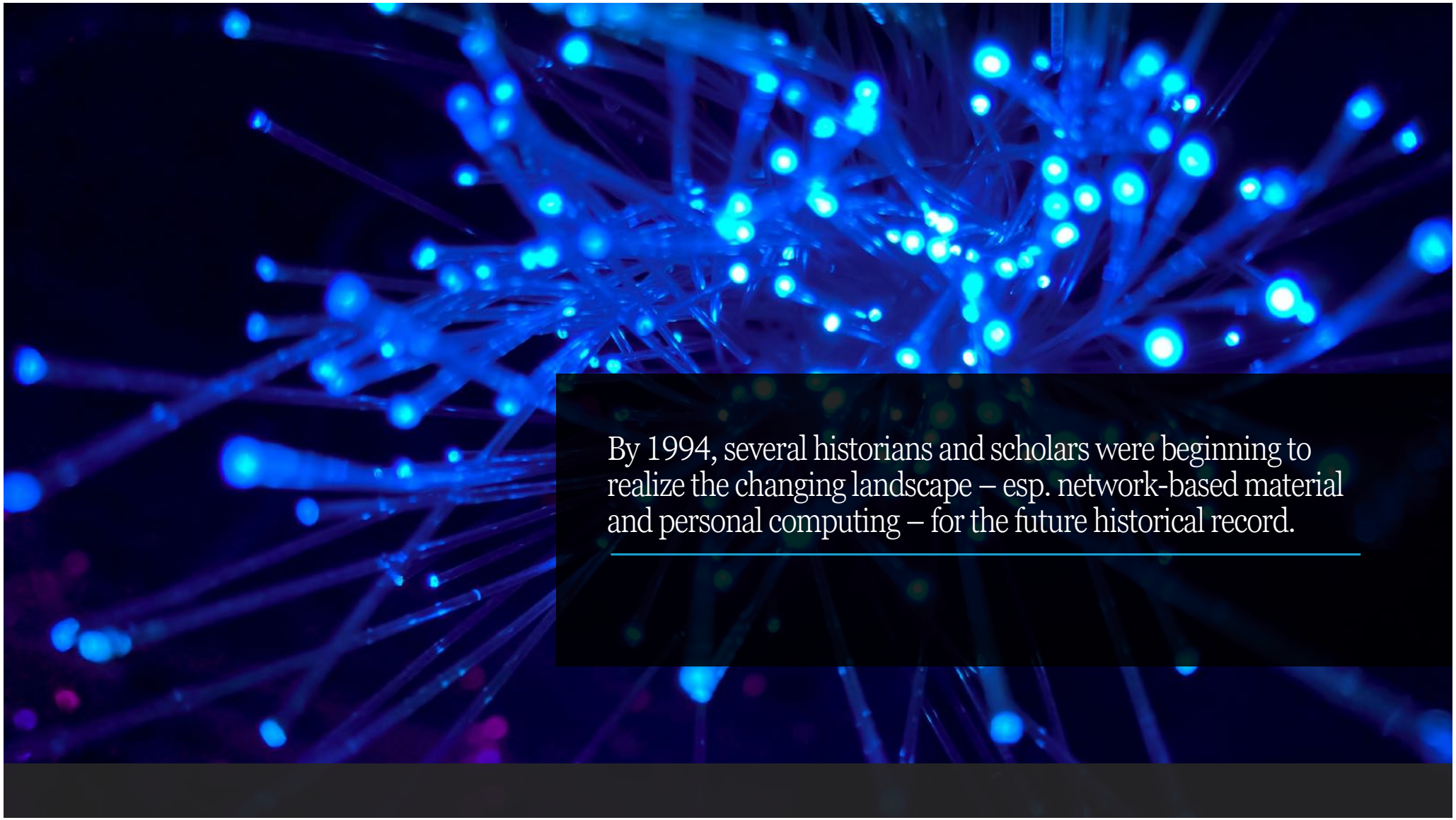
The 1950s initiated the age of the dataset. They were mounted on large mainframe computers for batch processing using a variety of packages and high level languages of which SPSS and Fortran dominated the social science world from which historians learnt so much. In the corporate and financial environment, numerically presented financial and survey data was subjected to increasingly sophisticated statistical and econometric analysis. The available evidence suggests that archivists and historians have been fairly successful in tackling the problems of the dataset and mainframe, although complacency would be wrong (Lievesley 1993). One example of access to certain parts of the British census of 1971 (Schürer 1993) is a reminder of what can happen in the most favourable environments, whilst the account of the situation of Soviet and Russian data indicates how dependent electronic data is upon organizational structures (Moiseenko 1993).

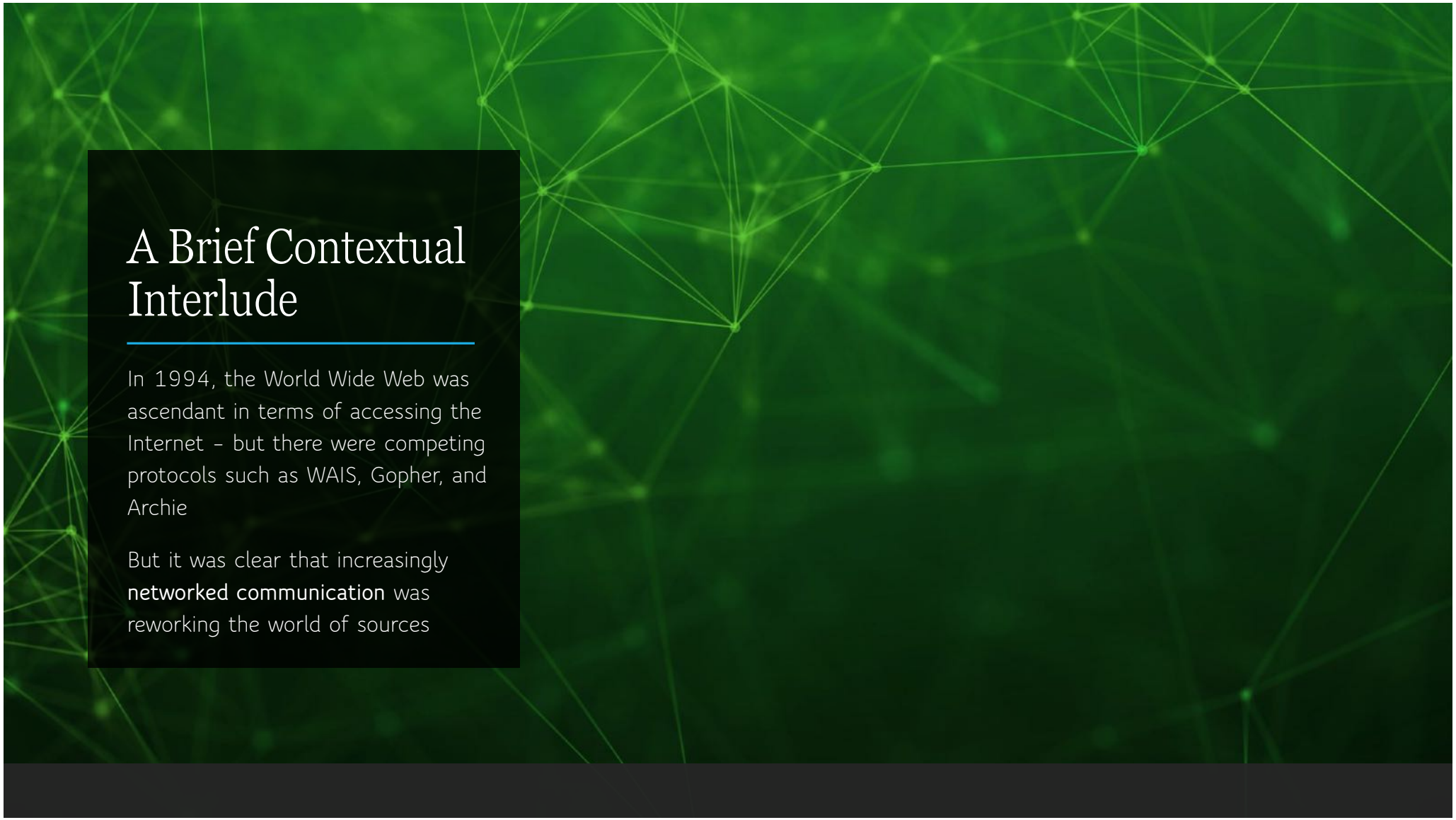
In Seamus Ross and Edward Higgs (eds.), *Electronic Information Resources and Historians: European Perspectives*, (St Katharinen: Scripta Mercaturae Verlag, 1993) (= Halbgraue Reihe zur historischen Fachinformatik, A20), pp 302-316.

The Age of the Network Heralded Loss

R. J. Morris (*History and Computing* editor) worried:

The age of the network is by far the most imposing of the problems faced … it is not clear we even have the intellectual concepts needed to talk about the issues we faced. The meaning of simple ideas like document, text and context, of provenance and sequence fall slowly and inelegantly apart


By 1994, several historians and scholars were beginning to realize the changing landscape – esp. network-based material and personal computing – for the future historical record.


A Brief Contextual Interlude
In 1994, the World Wide Web was ascendant in terms of accessing the Internet – but there were competing protocols such as WAIS, Gopher, and Archie
But it was clear that increasingly networked communication was reworking the world of sources

1994: *Networking in the Humanities*

Stephanie Kenna and Seamus Ross convening a conference on preservation, access, digitization, electronic publishing, and organizational impacts

Introduction:

- "How will networked communications and scholarship be archived? Who should have access to the archive? What levels of documentation should be retained and how should it be generated? What standards of data encoding, compression, and storage media should be used? Who will finance the preservation? What criteria for selection will be used? … Are email messages more akin to oral communication that textual sources?" (Ross)

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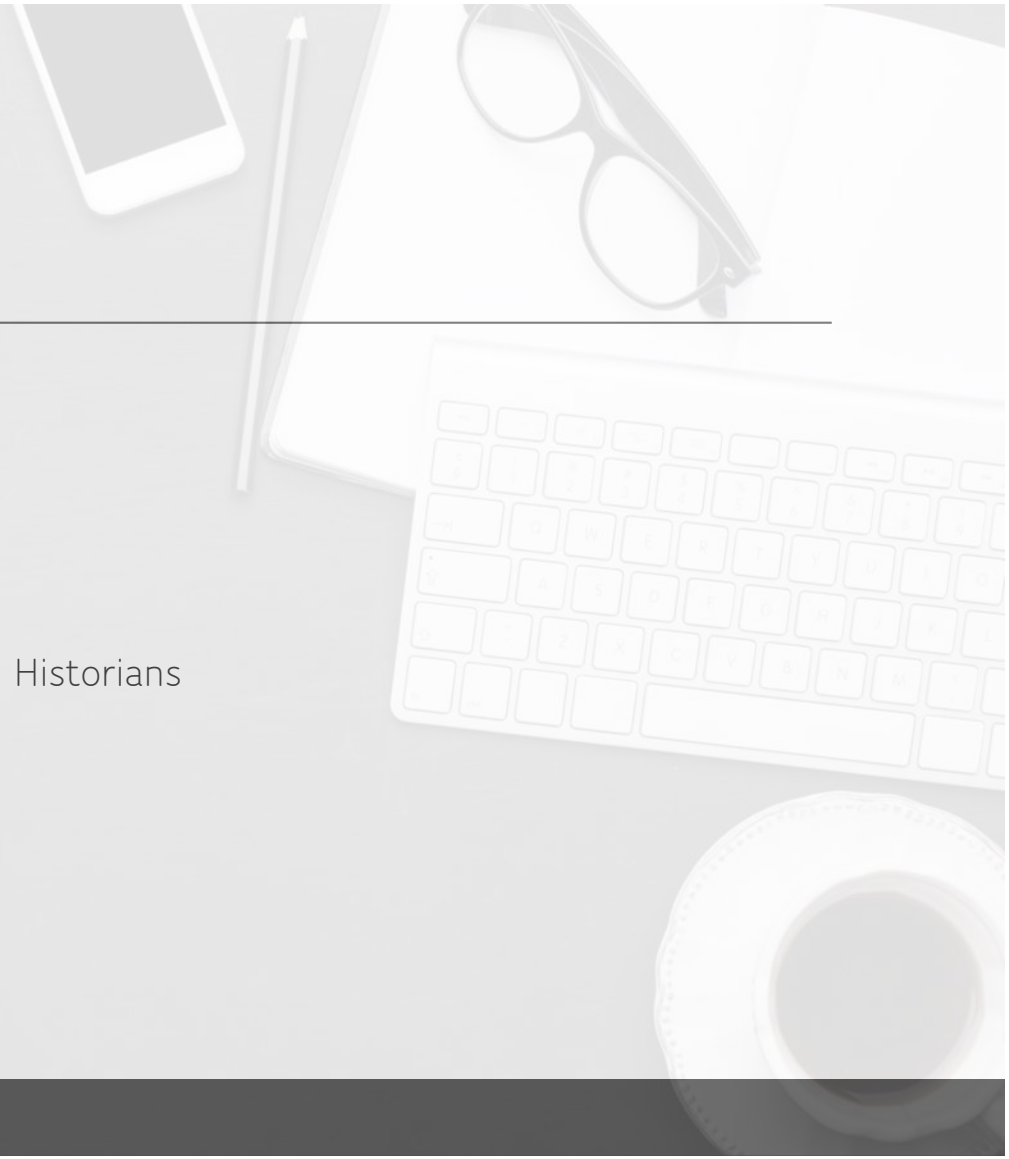


Enter the Digital Dark Age

A Spectre Was Haunting Libraries by the mid-1990s

"The digital medium is replacing paper in a dramatic record-keeping revolution." (Jeff Rothenberg, 1995)

"… a time bomb." (Margaret Hedstrom, 1997)

"Being digital means being ephemeral … it will likely fall to librarians and archivists, the monastic orders of the future, to ensure that something of the heady days of our 'digital revolution' remains for future generations." (Terry Kuny, 1997)

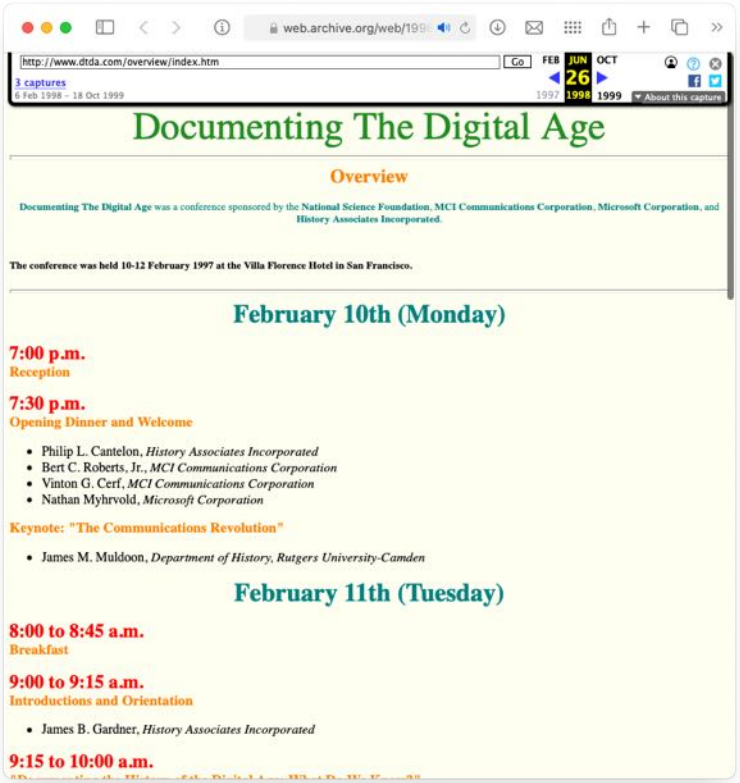
"We can read the technical correspondence from Galileo … we have no way of finding the technical correspondence [of the digital age]." (Stewart Brand, 1998)


But with this explosion of interest in a “digital dark age,” what was happening with the source conversation?

Librarians and archivists were on it

As more individuals, informal work groups, and 'virtual' communities use networks to communicate, carry on discussions, and conduct business, archivists will need to understand these forms of communication as well as they understand the use of electronic systems in more traditional organizations. (Margaret Hedstrom)

But historians began to disappear from the conversation.



Documenting the Digital Age (1997)

Organized by **History Associates**, with support from NSF, MCI, and Microsoft

A laundry list of significant speakers:

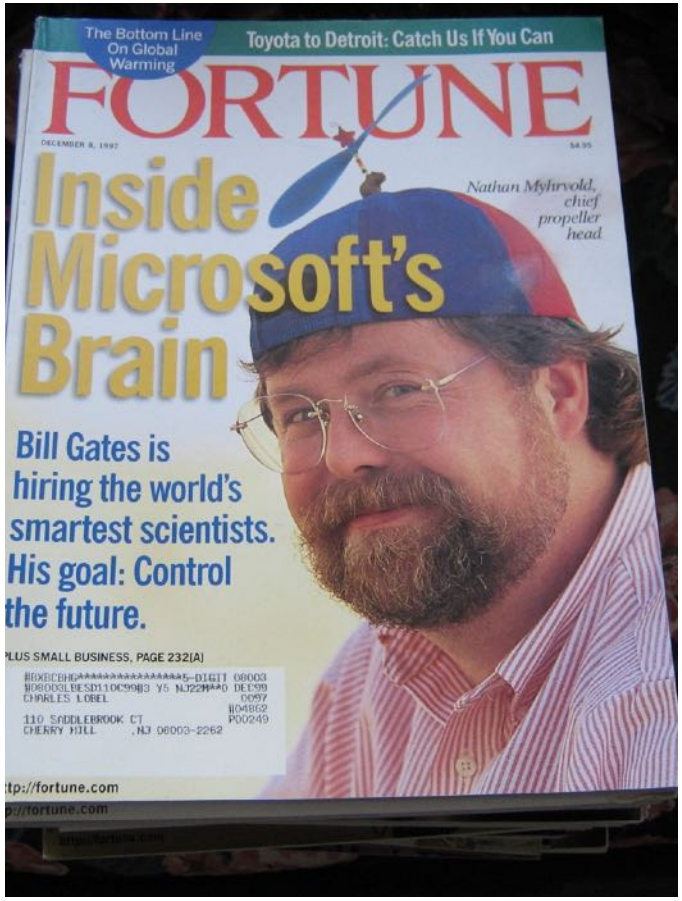
- **Nathan Myhrvold**, Microsoft CTO, who had helped to kickstart web archiving with his "Save the Web" memo in 1996
- **Brewster Kahle**, who had founded the Internet Archive in 1996
- **Donald J. Waters**, director of the Digital Library Federation
- **Margaret Hedstrom**, a University of Michigan information science professor
- **Vint Cerf**, Senior Vice-President of Technology Strategy

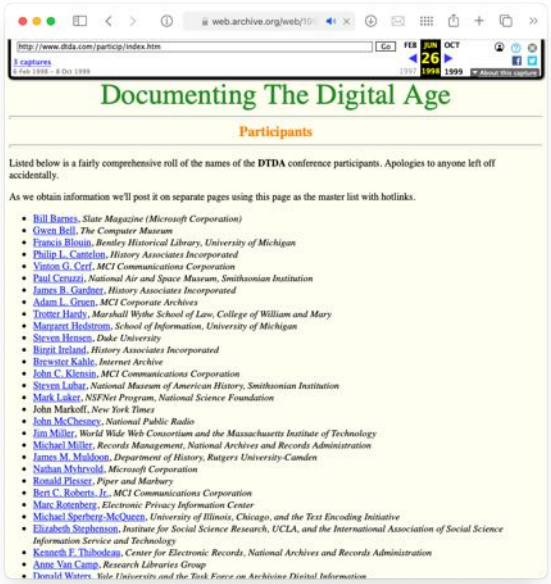
The interdisciplinary turning point of industry, libraries, archives, and a few historians.

Documenting the Digital Age (1997)

Myhrvold noted that the Internet is "becoming a key method for communication and the dissemination of documents and ideas"; a revolutionary shift in publishing.

- "These properties make the Internet a tremendous information resource. Technological trends suggest that the Internet will get a variety of new capabilities over time, such as the ability to easily deal with high quality video. The Internet is about all you could ask of an information resource.
- Except one thing: the Internet is not naturally archival."





Documenting The Digital Age

Participants

Listed below is a fairly comprehensive roll of the names of the **DTDA** conference participants. Apologies to anyone left off accidentally.

As we obtain information we'll post it on separate pages using this page as the master list with hotlinks.

- Bill Barnes, *Slate Magazine (Microsoft Corporation)*
- Gwen Bell, *The Computer Museum*
- Francis Blouin, *Bentley Historical Library, University of Michigan*
- Philip L. Canfield, *History Associates Incorporated*
- Vinton G. Cerf, *MCI Communications Corporation*
- Paul Ceruzzi, *National Air and Space Museum, Smithsonian Institution*
- James B. Gardner, *History Associates Incorporated*
- Adam L. Gruen, *MCI Corporate Archives*
- Trotter Hardy, *Marshall Wythe School of Law, College of William and Mary*
- Margaret Hedstrom, *School of Information, University of Michigan*
- Steven Hensen, *Duke University*
- Birgit Ireland, *History Associates Incorporated*
- Brewster Kahle, *Internet Archive*
- John C. Klensin, *MCI Communications Corporation*
- Steven Lubar, *National Museum of American History, Smithsonian Institution*
- Mark Luker, *NSFNet Program, National Science Foundation*
- John Markoff, *New York Times*
- John McChesney, *National Public Radio*
- Jim Miller, *World Wide Web Consortium and the Massachusetts Institute of Technology*
- Michael Miller, *Records Management, National Archives and Records Administration*
- James M. Muldoon, *Department of History, Rutgers University-Camden*
- Nathan Myhrvold, *Microsoft Corporation*
- Ronald Plesser, *Piper and Marbury*
- Bert C. Roberts, Jr., *MCI Communications Corporation*
- Marc Rotenberg, *Electronic Privacy Information Center*
- Michael Sperberg-McQueen, *University of Illinois, Chicago, and the Text Encoding Initiative*
- Elizabeth Stephenson, *Institute for Social Science Research, UCLA, and the International Association of Social Science Information Service and Technology*
- Kenneth F. Thibodeau, *Center for Electronic Records, National Archives and Records Administration*
- Anne Van Camp, *Research Libraries Group*
- Donald Waters, *Yale University and the Task Force on Archiving Digital Information*

Documenting the Digital Age (1997)

Arguably this kind of gathering wouldn't be repeated for another fifteen years

Documented the shortcomings of the current approach well and helped to fuel efforts happening in archiving around the world.

But where were the historians?

- A few there: MCI's Corporate historian, James Garnder with History Associates, an opening keynote by James Muldoon (Rutgers) on communications.

But the envisioned future users were not present in the conversation.

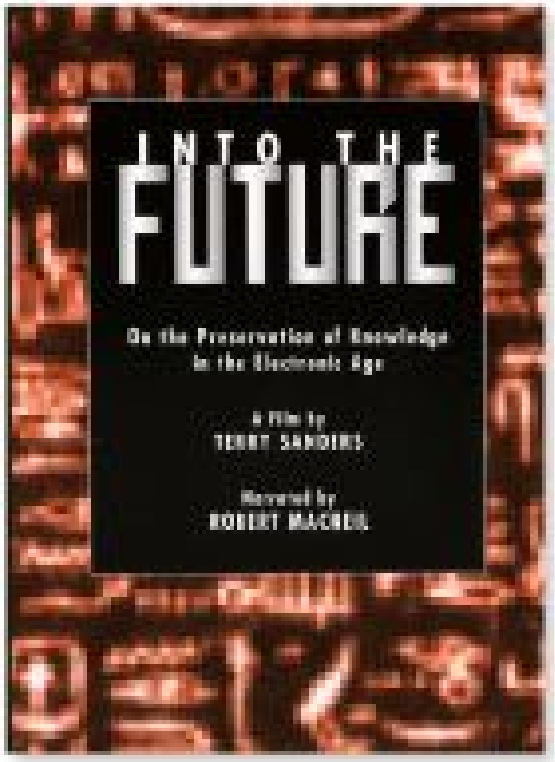
Into the Future (1997)

PBS Documentary on digital preservation and the web

Enthusiastically received – reviews by librarians and archivists noted that it was commonplace knowledge by this point in their field

Making the point emphatically:

- The sheer quantity of digitized information, and the dynamics of an evolving computerized world, create complex problems. One of the most serious is that we pay little attention to preserving electronic writings for the long term, to making sure that important and irreplaceable work will be saved and be available not just for our own use, but for generations to follow. What's increasingly at risk is survival into the future of recorded knowledge, the survival of collective memory, the core of civilization, the human record



Indeed, we almost must flash forward to 2003 to see the conversation continued!

Rosenzweig's "Scarcity or Abundance"

Introduced the problems to historians

- Feared about the breakdown of the traditional archival system
- A call to arms
- "If the past is to have an abundant future, historians need to act in the present."

Significance of a publication in the *American Historical Review* cannot be discounted!

Forum Essay

Scarcity or Abundance?
Preserving the Past in a Digital Era

ROY ROSENZWEIG

On October 11, 2001, the satiric *Bert Is Evil* web site, which displayed photographs of the furry Muppet in Zelig-like proximity to villains such as Adolf Hitler (see Figure 1), disappeared from the web—a bit of collateral damage from the September 11th attacks. Following the strange career of *Bert Is Evil* shows us possible futures of the past in a digital era—futures that historians need to contemplate more carefully than they have done so far.

In 1996, Dino Ignacio, a twenty-two-year-old Filipino web designer, created *Bert Is Evil* ("brought to you by the letter H and the CIA"), which became a cult favorite among early tourists on the World Wide Web. Two years later, *Bert Is Evil* won a "Webby" as the "best weird site." Fan and "mirror" sites appeared with some embellishing on the "Bert Is Evil" theme. After the bombing of the U.S. embassies in Kenya and Tanzania in 1998, sites in the Netherlands and Canada paired Bert with Osama bin Laden.[1]

This image made a further global leap after September 11. When Mostafa Kamal, the production manager of a print shop in Dhaka, Bangladesh, needed some images of bin Laden for anti-American posters, he apparently entered the phrase "Osama bin Laden" in Google's image search engine. The Osama and Bert duo was among the top hits. "Sesame Street" being less popular in Bangladesh than in the Philippines, Kamal thought the picture a nice addition to an Osama collage. But when this transnational circuit of imagery made its way back to more Sesame Street–friendly parts of the world via a Reuters photo of anti-American demonstrators (see Figure 2), a storm of indignation erupted. Children's Television

This article has benefited greatly from the generous and astute comments of a number of friends and colleagues: Joshua Brown, Michael Grossberg, Deborah Kaplan, Gary Kornblith, Michael O'Malley, Kelly Schrum, Abby Smith, James Sparrow, Robert Townsend, and four anonymous readers for the *American Historical Review*. My thanks also to Laurel Thatcher Ulrich and Pat Denault of the Charles Warren Center at Harvard University for providing the congenial setting in which most of this was written.

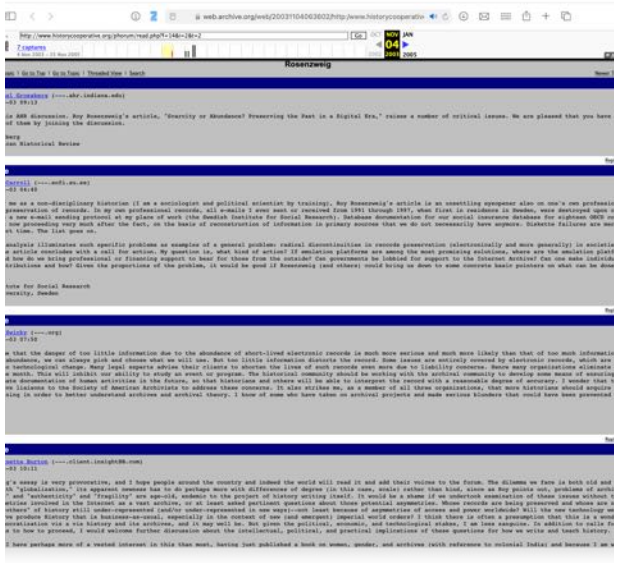
[1] Greg Miller, "Cyberculture: The Scene/The Webby Awards," *Los Angeles Times* (March 9, 1998): D3. On Ignacio, see the interview "Dino Ignacio: Evil Incarnate," in Philippine Web Designers Network, *Philweavers*, www.philweavers.net/profiles/dinoignacio.html; Buck Wolf, "Osama bin Muppet," *ABC News*, www.abcnews.go.com/sections/us/WolfFiles/wolffiles190.html; "Media Killed Bert Is Evil," http://plaza.powersurfr.com/bert/, viewed online April 15, 2002, but unavailable as of July 4, 2002; Peter Hartlaub, "Bert and bin Laden Poster Tied to S.F. student," *San Francisco Chronicle* (October 12, 2001): A12; Gina Davidson, "Bert and Bin: How the Joke Went Too Far," *The Scotsman* (October 14, 2001): 3.

Rosenzweig's "Scarcity or Abundance"

The online discussion – promised to be part of the article of record but lost in the transition from HistoryCooperative.org to Oxford University Presses – was supposed to foster conversation.

Only a dozen authors, twenty-two posts. In January, so start of the term; but also not as much engagement as they were hoping.

Rosenzweig actively participated, stressing the importance to work *now*.



Were historians coming back? (Not quite yet, but the foundation and opening was there)

What had happened?

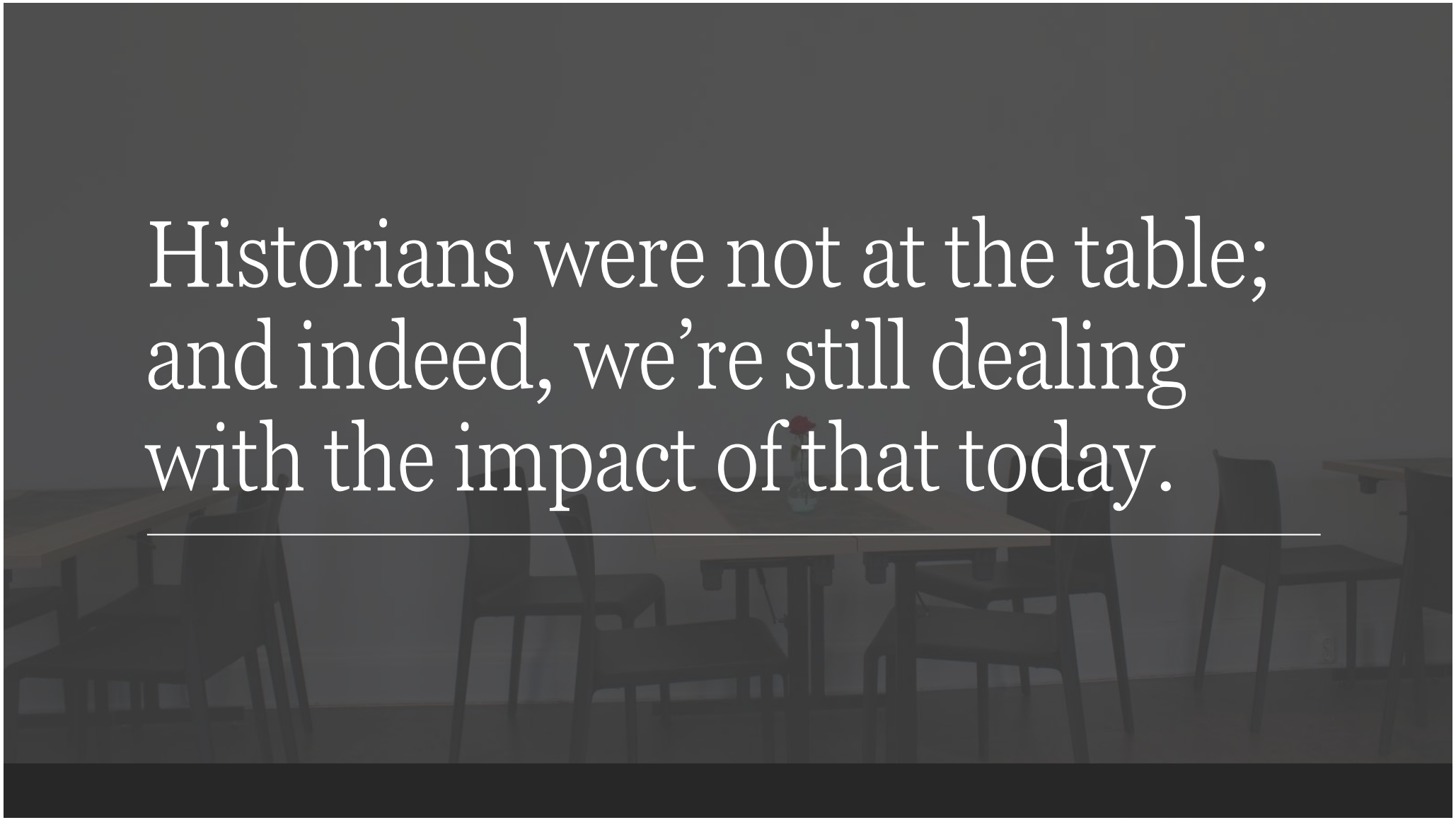
1960s/70s engagement paints a picture of what could be done if there was more engagement.

Early generation: R.J. Morris, Stephanie Kenna, Seamus Ross, etc. looking at historians and their engagement.

By mid-1990s to 2000s, we saw historians largely disappearing from the conversation.

United Kingdom drove the conversations that remained; perhaps due to North American digital historians focusing on public history?

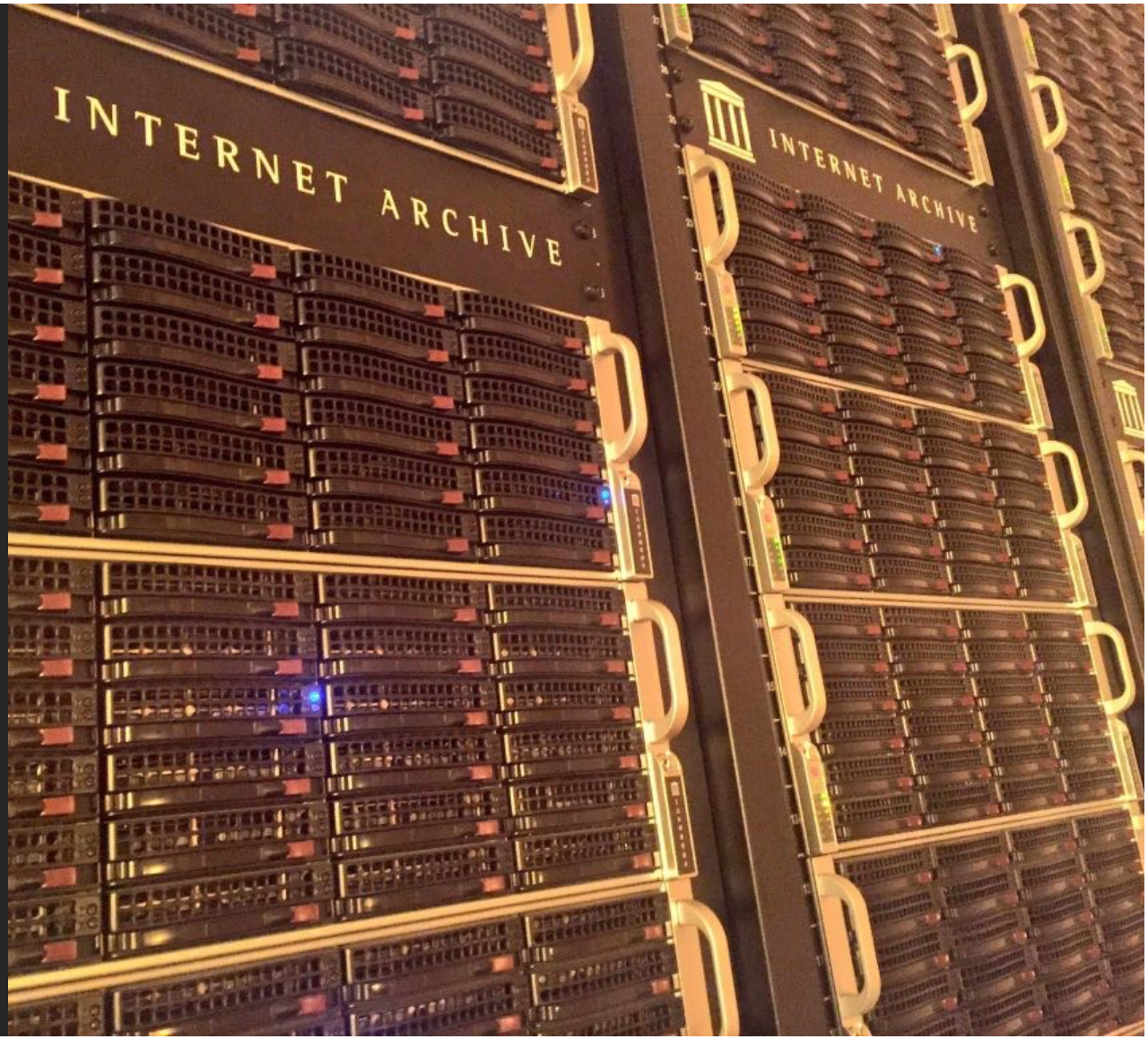
A cultural consensus had emerged by 1997 in favour of digital preservation, but historians were not at the table.


Historians were not at the table;
and indeed, we're still dealing
with the impact of that today.

Yet it all helped to build a consensus…

So that by *Into the Future* and *Documenting the Digital Age*, the value of digital preservation and web archiving was broadly accepted across the information professions.

This would help lay the foundation for the Internet Archive's long-term sustainability, the subject of another talk!



Thanks, and looking forward to your thoughts and questions.

Thanks to my funder for this project:

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