
Digitized Newspapers as Everyday Interdisciplinarity: The Transformation of Historical Scholarship

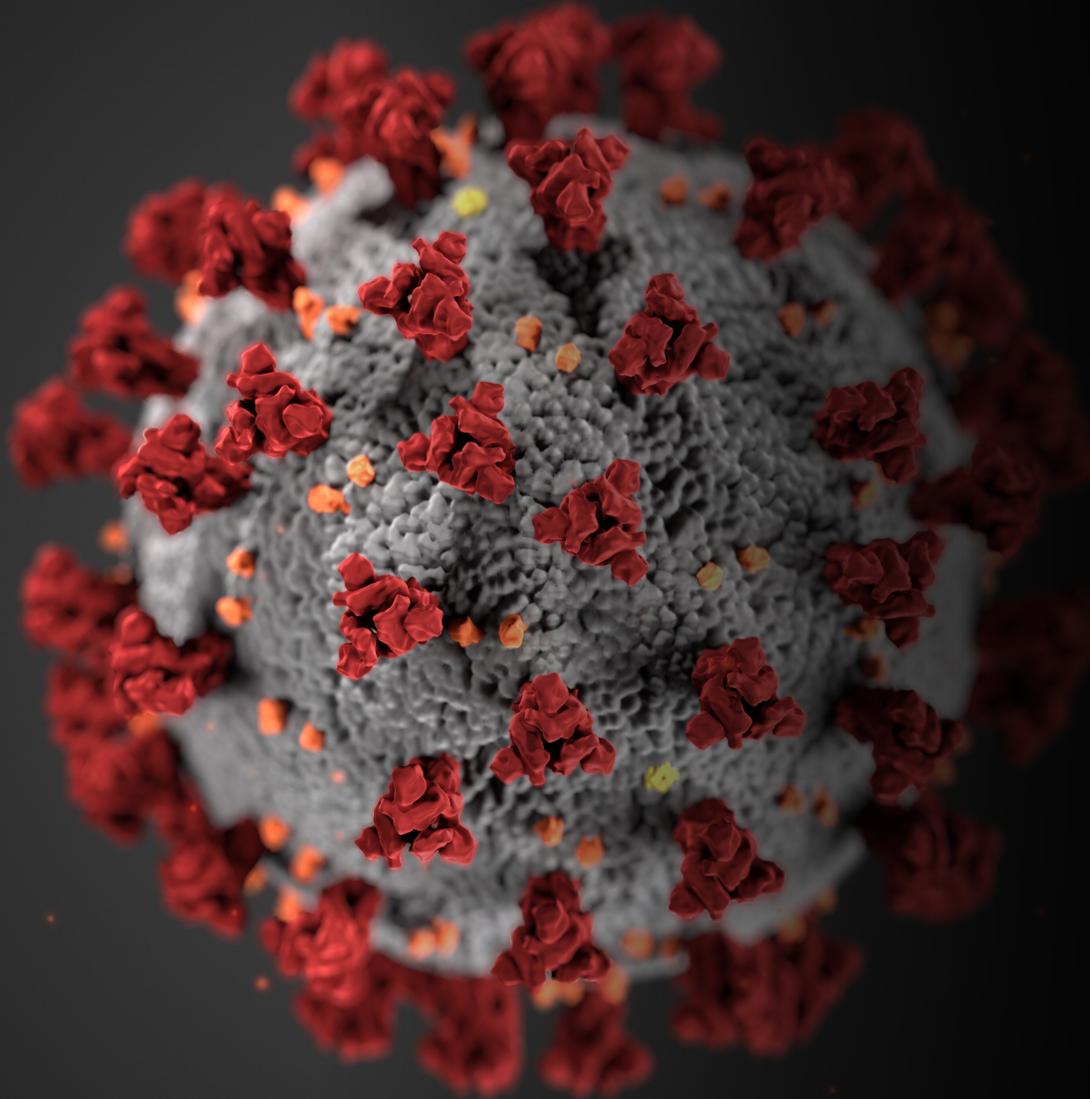
Ian Milligan

University of Waterloo, Canada





All historians are
digital historians



**COVID is
accelerating
but not
inventing
trends**



How historians imagine how they work

- Literature review, finding historiographical problem
- Identifying primary sources
- Analyzing primary sources
- Writing
- Revision
- Preliminary presentations (conference, article)
- Finished publication (dissertation, book)

How historians *really* work

- Literature review, finding historiographical problem (**shaped by digitized/non-digitized secondary resources**)
- Identifying primary sources (**online finding aids**)
- Analyzing primary sources (**doing keyword searches in databases that you barely understand of documents that you don't know provenance of**)
- Writing/Revision/Publishing





We know archives transform historical work...

- We are often vaguely cognizant of the role that archives play in shaping our histories, but we still tend to treat them as “neutral and unproblematic reservoirs of historical fact.” (Walsham)
- Archivists and historians share common origins, but we have diverged
- “Any visit by a historian to an archival institution is now an exercise in interdisciplinarity.” (Blouin and Rosenberg, *Processing the Past*)

A close-up photograph of a hand holding a black magnifying glass over a laptop keyboard. The magnifying glass is positioned over the keyboard, and the text is overlaid on the lower-left portion of the image. A solid green horizontal bar is located at the bottom of the image.

Just as archives mediate the past, so to do the workflows that we use in the digital age.

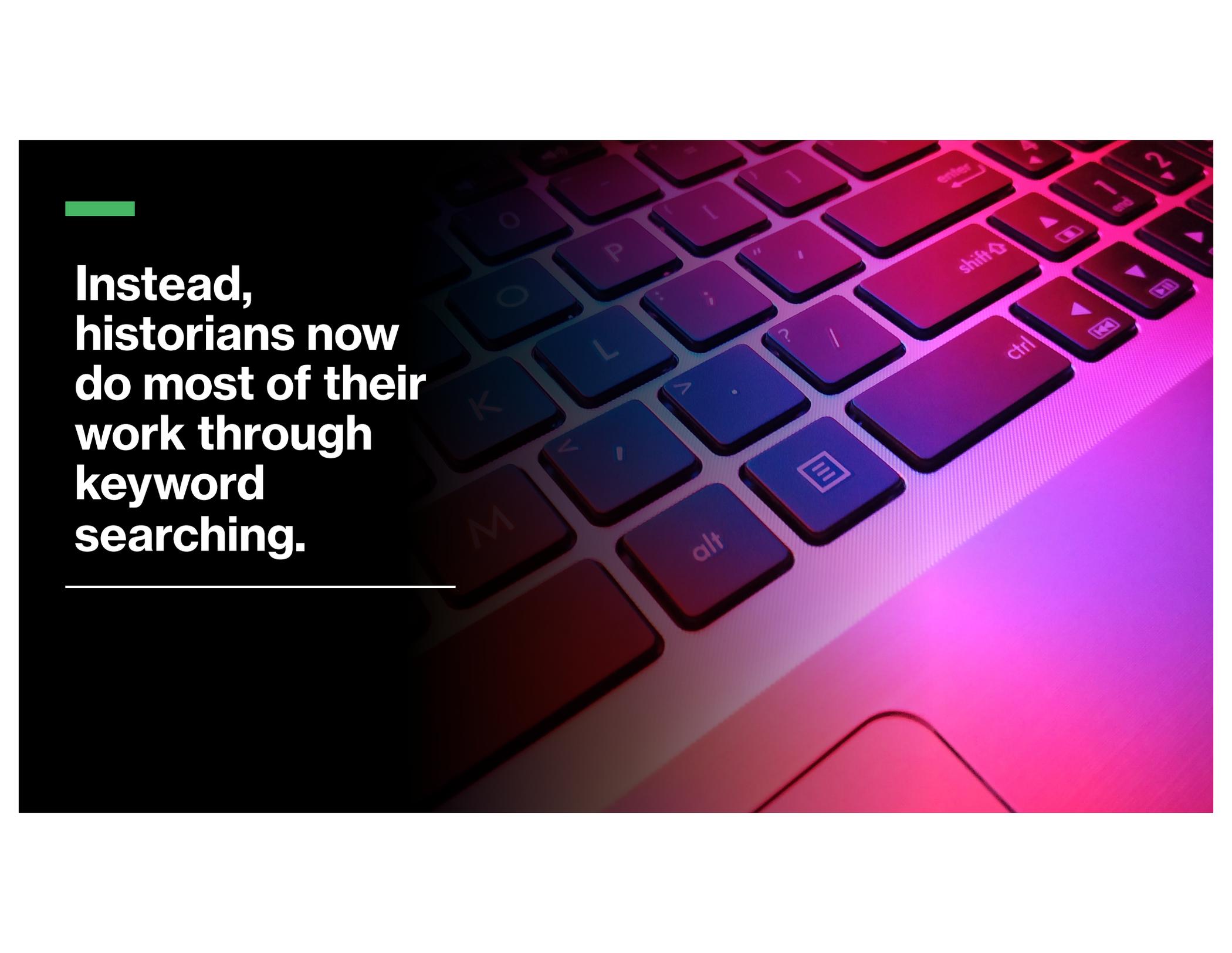
So, is using a digitized newspaper an exercise in interdisciplinarity?



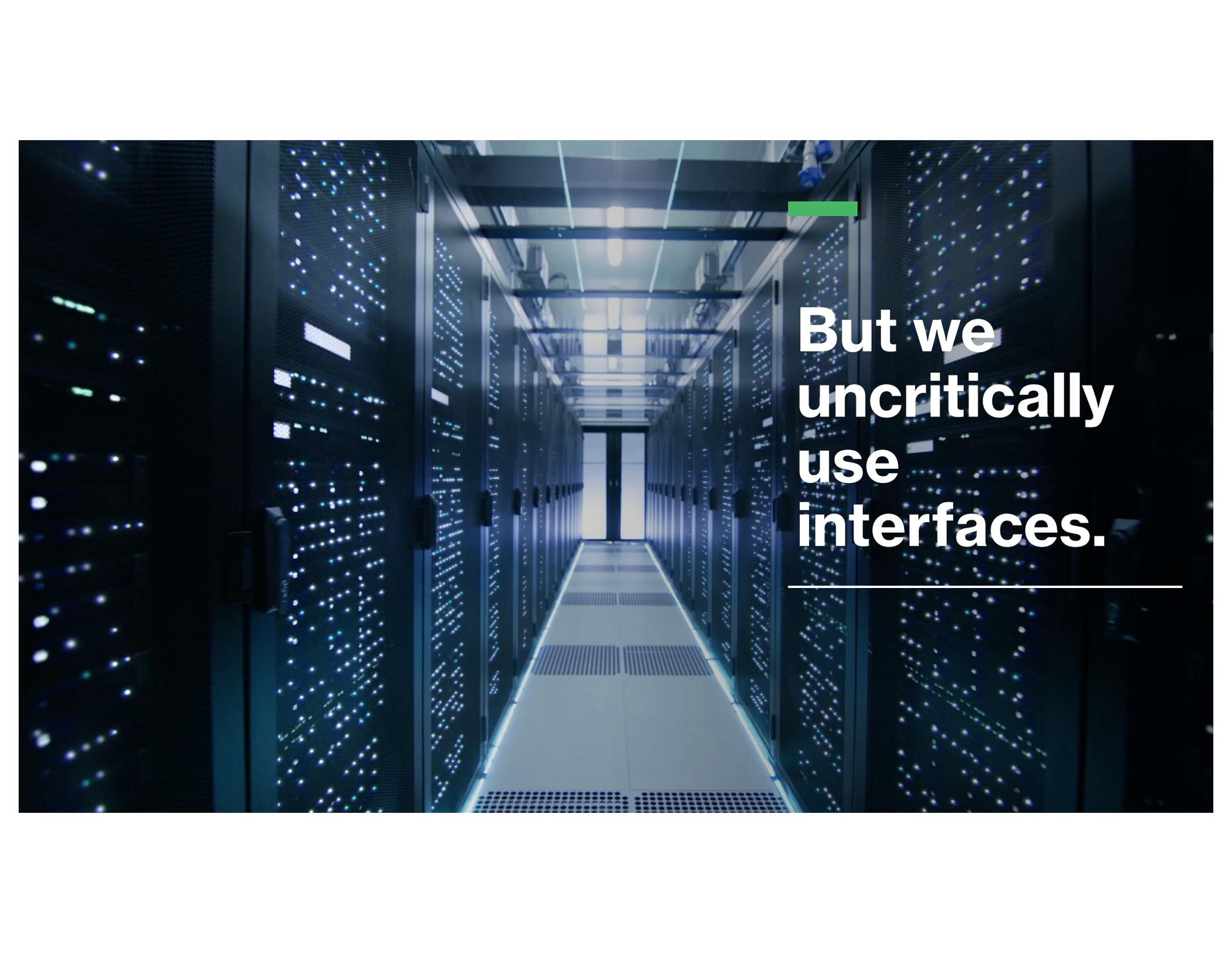


How did historians previously use newspapers?

- Microfilm reels
- Sit in a dark basement, crank forward through pages looking for relevant documents
- Time consuming, boring (good chance to listen to music)
- But you learn a *lot* about context
 - i.e. a global event that happens, the tenor of advertisements, the relative placement of columnists or articles.



**Instead,
historians now
do most of their
work through
keyword
searching.**



**But we
uncritically
use
interfaces.**

Let me use a Canadian example.

search-proquest-com.proxy.lib.uwaterloo.ca/hnptoronto/star/advanced/8F8...

ProQuest UNIVERSITY OF WATERLOO

ProQuest Historical Newspapers: Toronto Star

Basic Search Advanced Search Publications | Change databases

Your search for Kingston AND Roosevelt found 0 results.
Please modify your search and try again. Search tips

Advanced Search Command Line Recent searches Field codes Search tips University of Waterloo Library

Kingston in Anywhere

AND Roosevelt in Anywhere

Add a row

Publication date: Specific date range...

Start August 18 1938

End August 24 1938

Search Clear form



Choose an issue to view

1938

✓ December

November

October

September

July

June

May

April

March

February

January

Dec 31, 1938

View issue

Issue content

Select 1-30

Page 1

1 Toronto

[Details](#)

[Search within this issue](#)

0-1971); Toronto, Ontario [Toronto, Ontario]30 Ju



Missing

- For some reason, August 1938 is missing (the 1 September 1938 issue has reference in the “letters to the editors” about articles written in the past week, so there were apparently issues)
- Crucially, you wouldn’t know that if you just did keyword searches.
- This was the first month I went looking for, because of FDR, what other gaps are there?

Other limitations of search that historians may not know of

- The text that is being searched is created using **optical character recognition**, or OCR
 - ProQuest's implementation stems from *Pages of the Past*, an innovative project that saw the *Toronto Star* the first fully digitized newspaper in the world
 - But it's a commercial platform, so correcting OCR is difficult
 - Doesn't catch line-break hyphenation
 - **Cutting-edge OCR would have best-case scenario of 98%; even that leads to 50 incorrect characters on an average page of 500 words; word accuracy would be around 90%**

Skimming is nearly impossible

The screenshot shows a web browser window displaying the ProQuest Historical Newspapers: Toronto Star search results page. The page is accessed via a proxy URL from the University of Waterloo. The search results are filtered by 'In title' and show 4 publications. A 'Publication date' filter is active, showing a bar chart for the range 1894-2010 (decades). The search results list three publications with their respective full text and citation/abstract coverage periods, publishers, and places of publication.

ProQuest
UNIVERSITY OF WATERLOO
Access provided by

ProQuest Historical Newspapers: Toronto Star

Basic Search | Advanced Search | Publications | Change databases

Publication Search

In title Search

4 publications

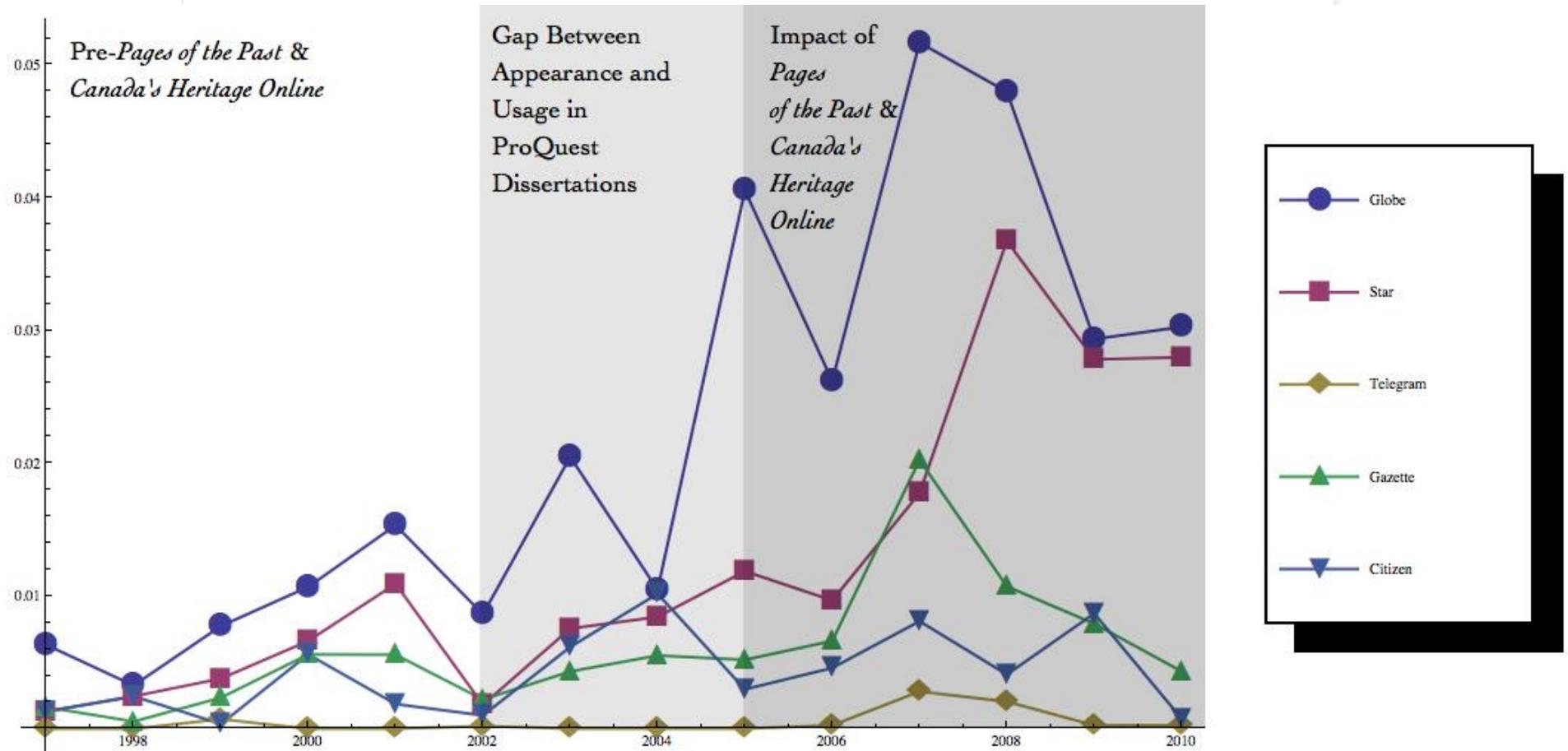
View summary | View title only

- 1 Evening Star (1894-1900); Toronto, Ontario Full text available
Full text coverage Jan 2, 1894 - Jan 24, 1900
Citation/Abstract coverage Jan 2, 1894 - Jan 24, 1900
Publisher Torstar Syndication Services, a Division of Toronto Star Newspapers Limited
Place of publication Toronto, Ontario
- 2 Toronto Daily Star (1900-1971); Toronto, Ontario Full text available
Full text coverage Jan 25, 1900 - Nov 5, 1971
Citation/Abstract coverage Jan 25, 1900 - Nov 5, 1971
Publisher Torstar Syndication Services, a Division of Toronto Star Newspapers Limited
Place of publication Toronto, Ontario
- 3 Toronto Star (1971-2009); Toronto, Ontario Full text available
Full text coverage Nov 6, 1971 - Dec 31, 2009
Citation/Abstract coverage Nov 6, 1971 - Dec 31, 2009
Publisher Torstar Syndication Services, a Division of Toronto Star Newspapers Limited
ISSN 0319-0781



**And
digitization is
uneven**

In Canada





In other words

The more something is digitized the more it is used (i.e. the *Toronto Star* and the *Globe and Mail* are used far more than before; the *Toronto Telegram* is almost never used)

The mediation of a source impacts its use

The Impact of this Medium Shift

- We now interact primarily through keyword search (i.e. the system forces us more or less to do this)
- We don't fully understand the construction of this database.
- The text is inaccessible to do transformative digital scholarship with.
- **Yet we still cite it all the same: Pages of the Past, ProQuest, Clipping File, Microfilm; yet each system dramatically impacts our work and the way we understand the source.**



If using an archive is an exercise in interdisciplinarity, perhaps we should think of using online platforms the same way?



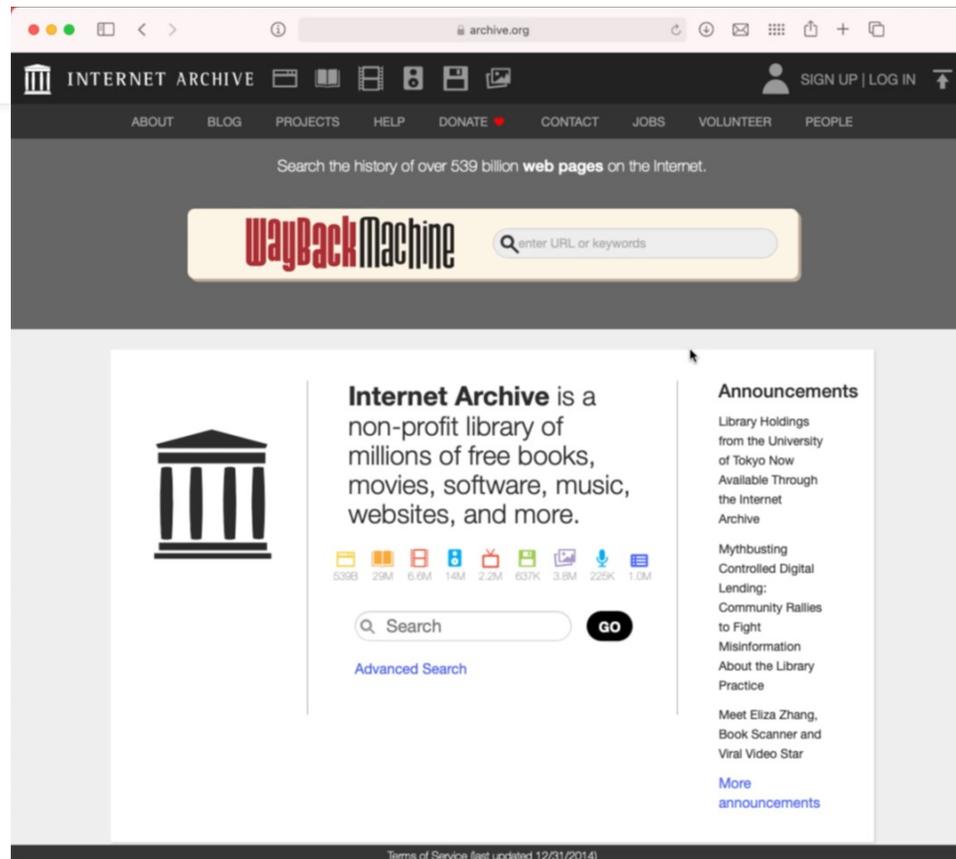
So what can we do?



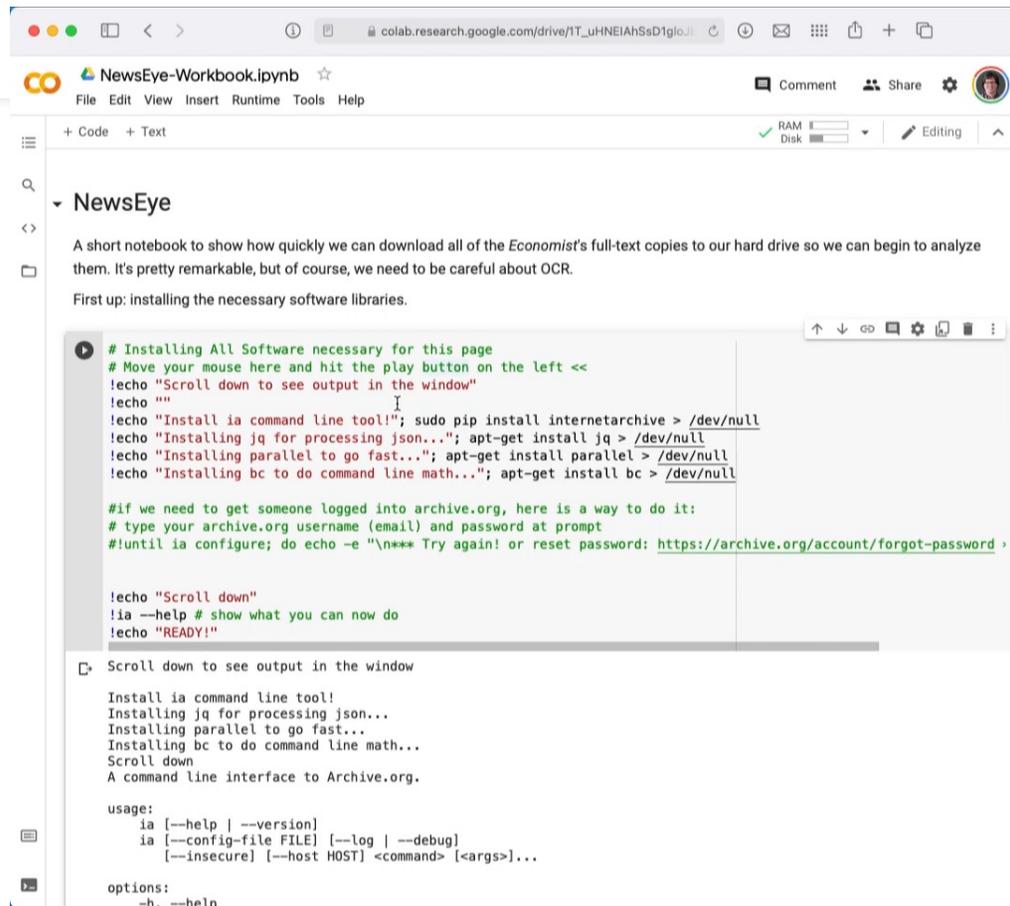
Come to the NewsEye Conference!



Embrace Open Platforms and Tools



Embrace Open Platforms and Tools



The screenshot shows a Jupyter Notebook interface in a web browser. The notebook is titled "NewsEye-Workbook.ipynb" and contains the following content:

NewsEye

A short notebook to show how quickly we can download all of the *Economist's* full-text copies to our hard drive so we can begin to analyze them. It's pretty remarkable, but of course, we need to be careful about OCR.

First up: installing the necessary software libraries.

```
# Installing All Software necessary for this page
# Move your mouse here and hit the play button on the left <<
!echo "Scroll down to see output in the window"
!echo ""
!echo "Install ia command line tool!"; sudo pip install internetarchive > /dev/null
!echo "Installing jq for processing json..."; apt-get install jq > /dev/null
!echo "Installing parallel to go fast..."; apt-get install parallel > /dev/null
!echo "Installing bc to do command line math..."; apt-get install bc > /dev/null

#if we need to get someone logged into archive.org, here is a way to do it:
# type your archive.org username (email) and password at prompt
#!until ia configure; do echo -e "\n*** Try again! or reset password: https://archive.org/account/forgot-password >
```

!echo "Scroll down"

!ia --help # show what you can now do

!echo "READY!"

Scroll down to see output in the window

```
Install ia command line tool!
Installing jq for processing json...
Installing parallel to go fast...
Installing bc to do command line math...
Scroll down
A command line interface to Archive.org.

usage:
  ia [--help | --version]
  ia [--config-file FILE] [--log | --debug]
  [--insecure] [--host HOST] <command> [<args>]...
```

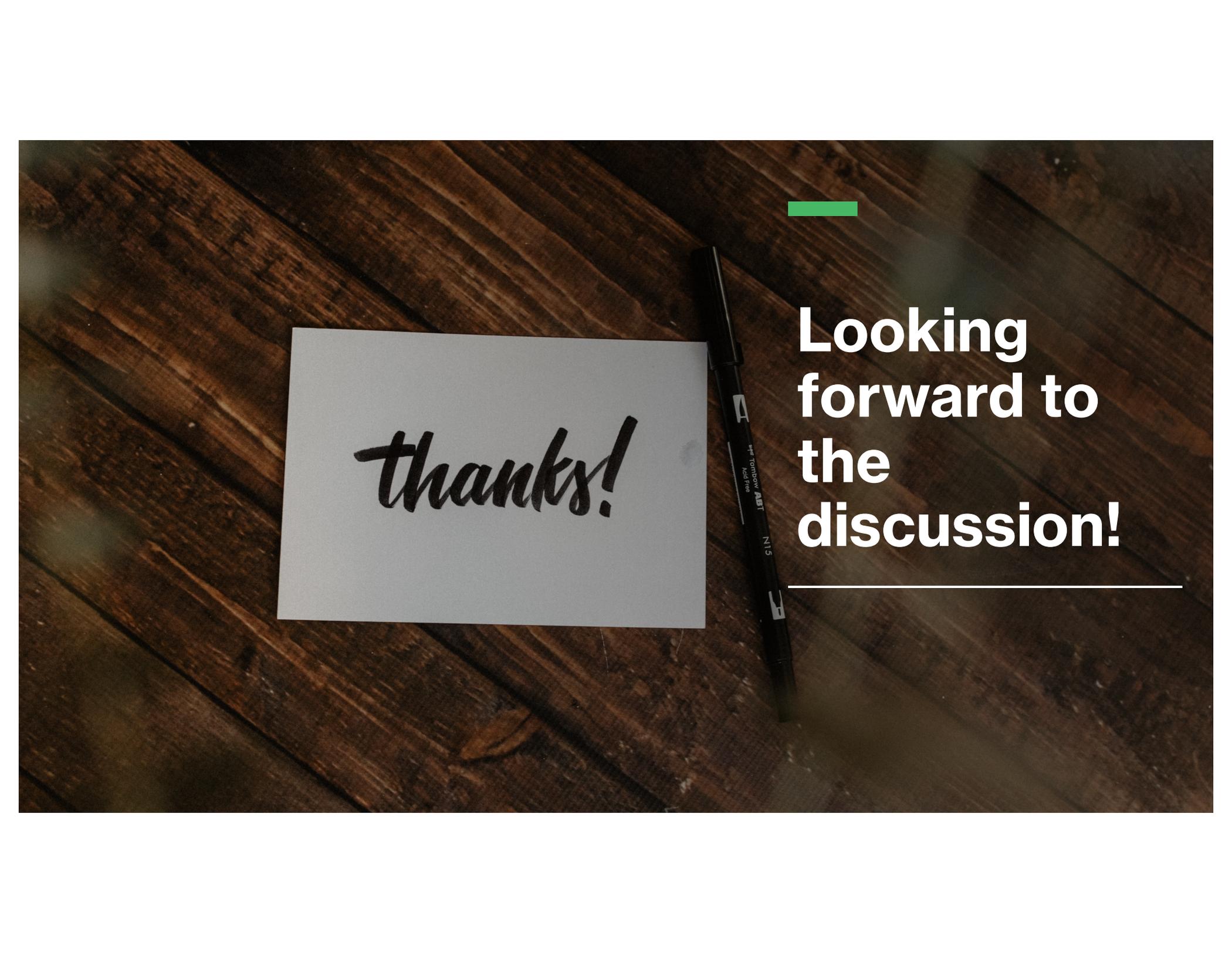
options:

```
-h, --help
```



What does this mean?

- If working with an archive we don't really understand is an "exercise in interdisciplinarity," **isn't working with a newspaper that we don't really understand one too?**
- **Open platforms as much as possible** (I know copyright is a thing!)
- **Finding ways to translate knowledge;** I think historians can get hit by a blast of the obvious when they realize that they need to think about their platforms. But they rarely do.

A photograph of a wooden surface with a white sticky note and a black marker. The sticky note has the word "thanks!" written in black cursive. The marker is black with white text that reads "Tomlinson / A&T N15".

thanks!

**Looking
forward to
the
discussion!**
