GETTING READY TO STUDY THE AGE OF ABUNDANCE

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Technological change is rapidly changing the historical record. Since 1996, organizations like the Internet Archive have been documenting the history of the Web and our digital selves; they have since been joined by most national libraries, universities and other cultural organizations. That embarrassing website you might have written in 1999? That angry tweet in 2011? That series of public Instagram photographs in 2016? All of that is becoming part of the cultural record that historians need to grapple with (for more see Milligan, 2019).

Historians have long had a close association with the documentary record; this relationship is being dramatically transformed in the digital age. While on the balance historians should be optimistic, they will also need new skills and competencies to deal with the problem of digital abundance. We need to understand the impact of web archives on writing about the past, but we also need to rise to the challenge presented by this new form of historical evidence by embracing interdisciplinary collaboration and encouraging our national memory institutions to digitally archive the lives of Canadians today.

WHY WE NEED TO CARE: THE 1990S ARE HISTORY

The historical record began to dramatically change in 1996 with the advent of widespread web archiving. In that year, the Internet Archive was co-founded by U.S. computer engineers and pioneering "digital librarians" Brewster Kahle and Bruce Gilliat. They understood that as people were living their lives online, these historical records were at risk of destruction (Kimpton and Ubois, 2006; Webster, 2017). National libraries also began to recognize these new sources and developed various programs to capture the material of their residents for future historical research.

Often when I make this point in public presentations, someone often objects: "The 1990s are not history." If we use historical parallels to see when events in the "past" began to be considered history, it is clear that this critique does not hold water. Can you imagine Canadian historian C. P. Stacey writing a book about Mackenzie King in 1976, twenty-six years after his death (Stacey, 1976)? Or Douglas Owram writing about Canada's 1960s in 1997 (Owram, 1997)? This is little different than a scholar today writing about the birth of the Web in the early 1990s, and soon after, the advent of the widespread World Wide Web in the mid-1990s.

This new historical record being preserved since 1996 differs dramatically from the previous one in three key respects: scope, speed and scale.

Scope in that this record includes many people previously not included in the print historical record. For the 2015 federal election, for example, our research team captured almost four million tweets from over 300,000 distinct users (Ruest and Milligan, 2016). In an election from the 1960s or 1970s, we use letters to the editors and other notices as proxies for public sentiment; now we have hundreds of thousands of users to explore firsthand.

Speed in that the record is made accessible quickly, in some cases the same day. Records from decades ago face understandable processing backlogs at archives, whereas if you use the "Save Page Now" function at the Internet Archive to preserve a site it can be saved and served to a user within an hour.

Finally, all of this happens on a massive scale. The Internet Archive has over 43,000 terabytes of content. None of this is a magic bullet giving a perfect view of the past; who uses the Internet and how they produce content on it is profoundly influenced by race, ethnicity, gender, class, rural/urban status, or beyond (see, for example, Haight et al., 2014) — but traditional historical records are also influenced by these factors.

Most scholars of the 1990s and later will find their studies shaped by web archives: political studies enriched by analyses of webpages, business by corporate webpages and discussions, military studies through discussion posts by soldiers deployed overseas, cultural studies by the everyday production and exploration of culture online. In short, our students will soon want to study the 1990s.... are we ready?

WE'RE NOT READY TO STUDY IT: THE ACADEMIC STRUCTURE

There are two main reasons why we are not ready. First, there is not yet the professional apparatus needed to mentor, train, and sustain a new generation of digital scholars. Imagine an eager student who wants to study digital culture in the 1980s or 1990s. Given that some of our undergraduate students today were born in 2001, this isn't too farfetched — some of the readers here might have studied the 1950s or 1960s in their own studies and were roughly the same distance from the event they tackled. What sort of training might they receive in their undergraduate education? At the undergraduate level, some universities have digital history courses. But these are individual courses, placed here and there in the curriculum, as opposed to larger programs of studies.

The problem becomes especially pronounced at the graduate level. In most humanities disciplines,

graduate education relies on an apprentice model: a student takes classes and writes a major paper or thesis under the supervision of a professor. Professors can often be expansive in the topics they study — an expert in 1950s labour unions might be able to supervise an exploration in 1970s social movements, for example — but they also need to leverage their expertise. Using sources from the 1990s, new students face two obstacles. First, they are working with a newer time period. While this is not in and of itself a barrier, coupled with the second factor – the new form of digital primary sources – the two issues combine to mean that it is very hard to find a graduate program that can support historical research into the 1990s.

What can we do? Canadian Studies offers one way forward. Interdisciplinarity is the only way we can rise to this challenge. A student working in this field may need to draw on a specialist in new media rhetoric from English, an institutional expert from Political Science, and a historian. Canadian Studies departments and centres have long supported research institutes and collaboration. This is exactly what we need to tackle this challenge.

THE IMPORTANCE OF WEB ARCHIVING AND LEGAL DEPOSIT IN CANADA

Even if we had the skills and abilities to use digital sources fruitfully, we also need to worry about the availability of Canadian sources. The preservation of born-digital content is one of the major challenges of our age. To underscore the problem, imagine a book sitting on a shelf. Barring catastrophe, if you come back to that shelf 20 years later, the book and content will still be intact and readable. Now imagine a website. If nobody pays the server fees, the content disappears unless it has been actively captured by a web archive.

Digital preservation needs active intervention, and crucially, we need to try to get a broad representative scope of the Canadian web in order for historians and other scholars in the future to understand the state of the world today. The crafters of the *Library and Archives Canada Act* (2004) had foresight on this front (Milligan and Smyth, 2018). Library and Archives Canada has power under section 8(2) to take "a representative sample of the documentary material of interest to Canada that is accessible to the public without restriction through the Internet or any similar medium." Similarly, it defines publication expansively, noting that it "may be in any form, including printed material, on-line items or recordings."

Library and Archives Canada does fantastic work: the Government of Canada Web Archive (http://webarchive.bac-lac.gc.ca/?lang=en) provides access to federal records, as well as thematic collections relating to, for example, the commemoration of the First World War, the Truth and Reconciliation Commission, or the Olympic Games. Yet these thematic web collections are no replacement for large-scale collection of the Canadian web domain more broadly. In countries such as the United Kingdom, France, Denmark and others, national libraries have been empowered through their legal deposit powers to capture this material. Meeting this challenge could be one way to steward cultural resources for the next generation of historians.

CONCLUSION

Web archiving is not a common word, even within the halls of an academic history or Canadian Studies

department. Yet if we are to understand how Canada and Canadians have lived in the period since 1996, these born-digital records will lie at the heart of future studies. Academics need to be ready, and our national memory institutions need to continue their great work to steward, shepherd and preserve this great amount of information.

REFERENCES

Haight, Michael, Anabel Quan-Haase, and Bradley A. Corbett. "Revisiting the Digital Divide in Canada: The Impact of Demographic Factors on Access to the Internet, Level of Online Activity, and Social Networking Site Usage." *Information, Communication & Society* 17, no. 4 (21 April 2014): 503–19.

Kimpton, Michele, and Jeff Ubois. "Year-by-Year: From an Archive of the Internet to an Archive on the Internet." In Web Archiving, 201–12. Berlin: Springer, 2006.

Milligan, Ian. *History in the Age of Abundance? How the Web is Reshaping Historical Research*. Montreal & Kingston: McGill-Queen's University Press, in press for 2019.

Milligan, Ian and Tom J. Smyth, "Studying the Web in the Shadow of Uncle Sam: The Case of the .ca Domain," in *The Historical Web and Digital Humanities: the Case of National Web domains,* eds. Niels Brügger and Ditte Laursen. Routledge, in press for 2018.

Owram, Douglas. *Born at the Right Time: A History of the Baby-Boom Generation*. Toronto: University of Toronto Press, 1997.

Ruest, Nick and Ian Milligan. "An Open-Source Strategy for Documenting Events: The Case Study of the 42nd Canadian Federal Election on Twitter." *Code4Lib Journal*, 32, April 2016.

Stacey, C. P. *A Very Double Life: The Private World of Mackenzie King*. Toronto: Macmillan, 1976.

Webster, Peter. "Users: Technologies, Organisations: Towards a Cultural History of World Web Archiving." In *Web 25: Histories from 25 Years of the World Wide Web*, ed. Niels Brügger, 175–90. New York: Peter Lang Publishing, 2017.