WHY WE NEED MORE FINDINGS ON CANADIANS, HISTORY AND TECHNOLOGY

DR. STÉPHANE LÉVESQUE

Dr. Stéphane Lévesque is an associate professor of history education and Director of the Virtual History and Stories Lab, Faculty of Education, University of Ottawa. In 2011, he was visiting professor of digital history at Umea University in Sweden. His research focuses on students' historical thinking and consciousness, Canadian history, citizenship education, and new media and technology in education. He is a board member of the Virtual Museum of Canada, Canada's History Society and The History Education Research Network/Histoire et éducation en réseau (THEN/HiER), a past advisory board member of the Historica Foundation, past president of the Citizenship Education Research Network and co-chair of the Teaching History interest group of the American Educational Research Association.

At every level of society, technology has radically altered how we think and behave, how we communicate and make "friends," how we shop and find a partner, and how we learn and make sense of the world in which we live. In the last 18 years, Internet connection/users have increased from 412 million to 3.4 billion worldwide.[1] In the same period, the number of mobile-phone subscribers, measured as the number of users per 100 persons, rose from 12 to over 98! As technology continues its widespread advances in our modern lives, well-established institutions such as schools have to adapt or run the risk of soon being obsolete and replaced. History education is no different. The Association for Canadian Studies (ACS) survey results on adult Canadians and technology (see page 25) offer useful findings that I will analyze in two ways: what the results tell us, and what they don't tell us — as well as what we urgently need to know.

WHAT THE ACS SURVEY RESULTS TELL US

Today's younger generation (not only the "millennials," but the entire 18-34 cohort) is the most technologically dependent group of all Canadians and most likely to feel helpless without technology (helpless without Internet: 58% for 18-24; 61% for 25-34; helpless without smartphone: 60% for 18-24; 64% for 25-34). This group is also most likely to use

1 Julia Murphy and Max Roser (2018), "Internet," Published online at OurWorldInData.org. Retrieved from: https://ourworldindata.org/internet [Online Resource].

such technologies for functioning and orienting themselves in their daily life: booking appointments, getting around the city, searching key history dates, archiving information and passwords, and so forth. These results are consistent with other findings and serve to show that Canadians – young Canadians in particular – are not different or outliers in this regard. They have eagerly embraced the digital revolution that has swept the Western world.

Second, the younger generation is most likely to believe that they "do not need to remember as much as they used to," thanks to technology (74% for 18-24; 82% for 25-34). Again, these findings completely make sense when thinking that today's users have access, from the tips of their fingers, to an exponentially growing number of sources and sites of information that provide instant access to information for memory and life purposes. As Stanford University's Sam Wineburg aptly puts in his latest book: Why learn history when it is already on your phone?[2] The obvious correlation here is the high dependence of this group on technology for googling and archiving information and their strong feeling of helplessness without technological devices at their disposal. Technology is clearly part of their 21st century survival toolkit!

Third, this sense of technological dependence among this group also affects how they value technology as being "smarter than people" (78% for 18-24; 84% for 25-34), and also use social media more frequently to find information on Facebook (55% for 18-24; 67% for 25-34), Twitter (26% for 18-24; 22% for 25-34), and LinkedIn (13% for 18-24; 18% for 25-34). Interestingly, this group also relies more extensively on Facebook than Wikipedia (38% for 18-24; 40% for 25-34) to find information online. This finding is significant. It confirms that young Canadians are far more likely to read about the world from social media platforms than from the most popular web-based free encyclopedia. Unlike traditional websites, social media provide people with instant user-generated content within communities of subscribers. Social media also allow users to curate other content to share among their networks. This new approach to information gathering and sharing requires serious attention and has led to what is now known as the "filter bubble effect" – the situation in which an algorithm selectively guesses what information a user would like to see based on information about the user and his/her network.

Interestingly, survey results suggest that frequent Wikipedia users are more likely to read about Canadian history (39%), which I suspect is related to another variable: literacy. Indeed, Canadian history is still highly studied, published and consumed through traditional print sources (books, articles, magazines) and standard modes of representations, such as essays and other evidence-based narrative, that tend to uphold encyclopedic sources of information, whether they are print or online. Social media, on the contrary, deliver sound bite information in instant, dynamic tweets and posts that require additional digital literacy skills still largely ignored in history circles.

WHAT WE NEED TO KNOW

If the ACS results offer new evidence on the links

2 Sam Wineburg (2018), *Why Learn History (When It's Already on Your Phone)*, Chicago, University of Chicago Press.

between history, technology, and Canadians, they are largely silent on *what* Canadians, young and adult, consume on the Internet or through their mobile devices. We know that social media are replacing traditional sources of information, particularly print sources, but *what* users consume and how they read and evaluate these sources is still unclear. SHEG, the Stanford History Education Group, has done extensive research on how young Americans make sense of online information. Their results are alarming: barely 10% of school participants could correctly evaluate websites (including "fake news") and discover the real organization behind these sites, and over 70% believed that sponsored content from oil-companies was more reliable than newspapers because, as one participant put it, "it's easier to understand with the graph and seems more reliable because the chart shows facts right in front of you."[3] "For every important social and political issue," SHEG director Joel Breakstone and his colleagues write, "there are countless groups seeking to gain influence, often obscuring their true backers. If students are unable to identify who is behind the information they encounter, they are easy marks for those who seek to deceive them."[4]

Equally problematic, many schools and teachers continue to teach history and literacy as if the Internet did not exist or as if it worked just like traditional print media. Various small-scale studies have shown how online visuals and hypertextual sources of information cannot be read vertically like a traditional print source with author, references and footnotes. In the same way, learners need to be more discerning consumers of search engine results. Many trust that Google puts the most reliable sources at the top of its search results – what we have elsewhere called the "Google reflex."[5] Unfortunately, we lack comprehensive data on Canadian classrooms and history teachers in particular. We have limited knowledge of how well elementary and high school history classes are preparing students for the 21st century information world.

Organizations such as MediaSmarts have been created to help Canadians and educators develop "digital literacy" – a set of skills needed to use, understand and create information in the digital world. What these organizations have uncovered is the impact of technology on our practical lives. The digital age presents us with unprecedented problems when it comes to searching for information about the past and the present and making sure that such information is trustworthy. Where our first problem used to be getting information, what is more difficult today is filtering out what we need from what we don't. The health of Canadian democracy depends on citizens' access to reliable information to make informed decisions, and increasingly the Internet is where people go to look for it.

Equally unclear from the survey is the link between

3 Joel Breakstone, Sarah McGrew, Mark Smith, Teresa Ortega, and Sam Wineburg (2018), "Why we need a new approach to teaching digital literacy," *Phi Delta Kappan* 99 (6), 27-32; Sarah McGrew, Teresa Ortega, Joel Breakstone, Sam Wineburg (Fall 2017), "The Challenge That's Bigger Than Fake News," *American Educator*. Retrieved from: www.aft.org/ae/fall2017/mcgrew_ortega_breakstone_wineburg [Online Resource].

4 Joel Breakstone, Sarah McGrew, Mark Smith, Teresa Ortega, and Sam Wineburg (2018), "Why we need a new approach to teaching digital literacy," *Phi Delta Kappan* 99 (6), 32.

5 Stéphane Lévesque, Nicholas Ng-A-Fook, and Julie Corrigan, "What Does the Eye See? Reading Online Primary Source Photographs in History," *Contemporary Issues in Technology and Teacher Education* 14 (2), 101-140.

historical thinking and the Internet uses of history. Knowing that Wikipedia users are more likely to read history books or that the frequency of Wikipedia use does not significantly impact users' self-assessed knowledge of Canadian history is useful. But these results fail to account for Canadians' uses of history in the digital world.

Many institutions have eagerly embraced the digital revolution with its online archives, Facebook history groups, and augmented-reality apps for historical sites of memory. But these do not, in and of themselves, make informed citizens in the 21st century. Technology, as Kentaro Toyama of the University of Michigan School of Information puts it, "doesn't add a fixed benefit. Instead, it amplifies underlying human forces."[6] Amplification helps explain all sorts of human-technology interactions. It helps to explain why, for instance, widespread technology in university has led to innovative flipped classrooms and maker spaces for students, but also favoured the pervasive use of dreadful PowerPoint lectures by professors.

Applied to history education, amplification helps us understand what it might be possible to do with young Canadians. Organizations and people who are making a positive difference in the field are those who have been able to leverage technology as a tool to critically engage their students to use the Internet in intelligent ways (instead of ignoring it) through historical thinking — the disciplinary abilities to think critically about the past for present-day purposes. Adapted to the digital domain, I think that historical thinking can help develop useful habits of mind: grasping the significance of the past in shaping the present and the future; reading critically to discern between evidence and mere opinions; interrogating texts, posts and tweets, and corroborating sources; recognizing that all narratives about the world are constructed and open to criticism; negotiating a complex and uncertain world made up of multiple perspectives – some more warranted than others.

In these circumstances, I think a new set of questions could be asked in a follow-up survey with distinctive groups of Canadians, some of which are already part of large-scale post-secondary education technology assessment (ECAR studies).[7] These include:

- What tools/technologies do young and adult Canadians use to access information about the past?

- How often do young and adult Canadians access information about the past online/Internet? (daily, weekly, etc.)

- What strategies do young and adult Canadians use to evaluate the reliability or trustworthiness of an online source of information? (what makes people believe a source is trustworthy?)

- What is the trustworthiness of the following sources of historical information? (Wikipedia, museum exhibits, newspapers, Facebook, Twitter, Instagram, *Canadian Encyclopedia*,

6 Kentaro Toyama (June 2015), "Why Technology Alone Won't Fix Schools," *The Atlantic*. Retrieved from: www.theatlantic.com/education/archive/2015/06/why-technology-alone-wont-fix-schools/394727 [Online Resource].

7 See EDUCAUSE Center for Analysis and Research. Retrieved from: www.educause.edu/ecar [Online Resource].

genealogy websites, etc.)

• What role should technology play in school? (completely online, blended, face-to face?)

• What are the benefits/drawbacks of using technology in history education?

• What role could history play in developing digital literacy skills?

• Would people's interest in Canadian history be different if the subject was taught with technology?

CONCLUSION

These questions (and many others) could provide us with an additional window into young and adult people's engagement with history in the 21st century. In their national survey *Canadians and their Pasts*, Margaret Conrad, Jocelyn Létourneau and their colleagues came to the conclusion that "history plays a significant role for many people in providing meaning in this fast-changing world."[8] History shapes their historical consciousness; it acts like a moral compass for orienting their actions and situating themselves in time. What is currently missing is more comprehensive research on the growing and inevitable educational links between technology and history. Democracy, citizenship and the future of Canada demand no less.

8 Margaret Conrad et al. (2013), *Canadians and Their Pasts*, Toronto, University of Toronto Press, 160.