INTRODUCTION

SEEKING A MIDDLE GROUND FOR HISTORY BETWEEN DIGITAL DELIGHT AND DREAD

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Randy Boswell is an associate professor at Carleton University's School of Journalism and Communication. He holds an M.A. in Canadian Studies and is a long-time Ottawa journalist who developed a unique national history news beat with the Ottawa Citizen and Postmedia News. He has recently published academic studies on aspects of Canadian environmental and archaeological history, but continues to produce stories about the past for wider audiences. These include a 2016 article for Rolling Stone magazine revealing the true origins of Elvis Presley's breakthrough hit *Heartbreak Hotel*, and a 2017 feature for CBC News titled "Solving the Mystery of the NHL's First Game."

For a journalist and writer of popular history, these are pretty exciting times. Background information that used to take many hours or even days to compile can now be gathered online in mere minutes. Instead of roaming library shelves, interviewing experts or semi-randomly scrolling through microfilm of 19th-century newspapers, I can instantly, directly and efficiently tap remarkably rich veins of research through Google Books, newspapers.com, biographi.ca (that's the digital version of the wonderful *Dictionary of Canadian Biography),* thecanadianencyclopedia.ca and, yes, the much-mocked but incredibly useful Wikipedia. Then there's Library and Archives Canada's amazing web portal to so much of the country's digitized documentary heritage, including countless historical photographs and other vintage images. Toss in a few other treasure troves — the Virtual Museum of Canada, canadiana.ca, ancestry.ca, archive.org — and it's no exaggeration to say that, today, the nation's and even the world's history is essentially at my fingertips.

But there are caveats to consider in this seemingly boundless universe of digital delights for history-minded citizens. Some of the above-mentioned resources are not available for free, so a prof with an annual research allocation has a distinct advantage over millions of other people when it comes to accessing subscription-based, high-quality, online historical material. There's a worrisome murkiness, too, about the way Google searches direct all of us to certain websites using algorithms we know are constructed to serve advertisers first and knowledge-seekers second. And while social media networks offer many benefits to users, the way they shape our worldviews through filter bubbles and echo chambers — ultimately providing warped pictures of reality, past and present — imposes a new kind of responsibility on "netizens"

to be wary of what they're absorbing online.

Apart from all that, there are genuine concerns about the yet-unknown, still-evolving impacts of the digital revolution — from hyper-fast computers to super-smart phones to nascent commercial applications of Artificial Intelligence like the ever-helpful Siri or Alexa — on our cognitive capacities, our habits of mind, our inter-personal relationships.

In this edition of *Canadian Issues/Thèmes Canadiens*, our contributors examine a wide range of these phenomena — encompassing both the exhilarating and the disquieting — and consider the potential implications for the way we learn about history. How will the seemingly transformative technologies that abound in the early 21st century reshape the way we perceive the past, the way we recall its landmark moments and lessons, the way we communicate and critique our collective heritage?

More specifically, we asked our contributors: How is technological change altering our relationship with history? While the digital revolution has enabled greater access to historical resources and knowledge, there is a growing awareness that the same new tools that enhance our capacity for information storage, retrieval and communication — all widely available to consumers — are challenging traditional ways of remembering, researching and presenting the past.

An assumption underlying this publication is that the impact of technologies on the teaching and learning of history and other related disciplines is an area of inquiry that merits considerably greater attention. An August 2018 survey by Leger Marketing commissioned by the Association for Canadian Studies — its results explored in detail in ACS president Jack Jedwab's submission in these pages — reveals that seven in 10 Canadians agree that, "with the Internet and technology, they don't need to remember as much as they used to." The survey results point to several other areas where technologies affect the relationship between memory, knowledge and interpretation, all of which are critical to the way we learn about history and related subjects.

To further stimulate thinking about these issues, the ACS and Historica Canada co-hosted a one-day forum in Toronto on Nov. 14, 2018 on the theme "Technology, Memory and History", an event attended by most of the contributors to this volume.

Forum participants were welcomed by Dr. Guy Berthiaume, Librarian and Archivist of Canada, and excerpted here is part of the address he gave in which he discussed the LAC's strategy to be "*open* to new technologies, *learn* about new tools for uncovering our past, and *listen* to our clients and partners" as the Ottawa-based institution navigates the opportunities and challenges of the digital age.

Education professor and neuroscientist Dr. Rob Cassidy, director of Concordia University's Centre for Teaching and Learning, argues that the advent of disruptive digital technologies, which can alleviate the mental burden of remembering mere facts about history, could herald an ambitious new era in history education in which "higher-order thinking skills" — including an enhanced ability to scrutinize and challenge inherited narratives —

gain priority over rote learning.

Dr. Jaigris Hodson, associate professor in the College of Interdisciplinary Studies at B.C.'s Royal Roads University, presents the case that today's historians must "work to ensure that people have access to an accurate, complete, and diverse history in an age of algorithmic filtering" — an era dominated by the corporate interests of online knowledge gatekeepers.

Dr. Stéphane Lévesque, an associate professor of history education and Director of the Virtual History and Stories Lab at the University of Ottawa, argues the need for much more research into and analysis of the intersections between technology and the learning of history. A key goal for educators, he states, must be "to leverage technology as a tool to critically engage their students to use the Internet in intelligent ways."

While wary of the potential pitfalls of technology's impact on historical thinking, U.S. scholars Moysés Marcos and Benjamin C. Storm conclude in their essay that society should be able to leverage the tools of digitization, Artificial Intelligence and other advances to achieve a net positive outcome. "Greater access to information and data should improve human understanding of things," they state, "and thus improve what we know and what we can know from and about 'history' and ourselves."

To University of Waterloo historian Ian Milligan — author of a forthcoming book titled *History in the Age of Abundance? How the Web is Transforming Historical Research* — the technological leaps of the digital age have brought about unprecedented opportunities for historians but also previously unknown challenges. Figuring out first how to effectively preserve and then how to access and interpret the unfathomable number of documents being produced daily since the dawn of the Web era has emerged as an urgent priority for the discipline of history, he argues.

Deborah Morrison, president and CEO of Experiences Canada and former president of Canada's History Society, expresses concern about the distracting and alienating effects of technology among youth. But she also asserts that the "value and relevance of teaching history has never looked brighter" — as long as the emphasis shifts more to the development of critical thinking, media literacy and other skills vital to living in a digital age. "How our history is taught remains the biggest risk," she warns.

Dr. Nancy Salay, an associate professor in the Department of Philosophy and the School of Computing at Queen's University, explores the paradox of a data-rich world in which the ability to transform information into wisdom seems increasingly rare. "We have the potential today for more information than ever before and this availability certainly makes us smarter," she observes. "But as we spend our time mining for data, we are missing the opportunity to *learn*, to make deep conceptual connections."

Anthony Wilson-Smith, president of Historica Canada, takes stock of the strengths and weaknesses of technology as a force for enhancing historical education and knowledge. On the whole, he argues, the Internet has liberated and allowed the mass dissemination of "vast troves of information" — and helped Historica itself reach exponentially larger audiences with online incarnations of its famous *Heritage Minutes* and *The Canadian Encyclopedia*.

But citing the major gaps in high-speed Internet access across Canada, and other inequities and drawbacks that have come with the modern explosion of online information, he concludes that society needs to remain as clear-eyed about the pros and cons of technology as it does about the achievements and failings of history itself.