

## Discovering the Past: Engaging Canadian Students in Digital History.

Dr. Stéphane Levesque

University of Western Ontario

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### Abstract

This paper deals with the impact of current digital technology revolution on history education. Based on four developments engendered by this revolution (liberalization of historical knowledge, intensification of digital archives, web-based communication, and active computer-based learning), it argues that digital history has the potential to offer powerful tools for inquiry-based learning in the classroom. The Virtual Historian, a newly created web-based program, is used as an example of the potential impact of such technology on students' historical learning.

### Introduction

The title of the teaching history symposium, "History Alive! Old Sources, New Technology," is of profound relevance and significance to contemporary history education. On the one hand, it reflects the recent evolution in information technology and historical scholarship. For over a decade now, historians and history educators have been dealing with computer-related changes that have had an important impact on their work. One only has to think of the latest possibilities to research, produce, and publish on a wide range of subjects for large audiences all around the world; something virtually impossible until the digital age when only *érudits* in the field could afford to do so. "Low barriers to publications," U.S. historian John Kee (2002) rightly argues, "have resulted in an amazing proliferation of digital history sources..." (p. 2).

On the other hand, the title of the symposium exemplifies a far-from-revolutionary predicament that has affected history education for decades, that is, how to make use of new developments to engage students in meaningful historical inquiry. Consider, for example, historian Chad Gaffield's analogy from sports which illustrates his own schooling experience. "In the history courses I took in school in the 1960s," Gaffield (2001) observes, "we read about history, talked about history and wrote about history; we never actually did history." "If I had learned basketball in this way," he goes on, "I would have spent years reading the interpretations and viewpoints of great players, watching them play games, and analysing the

results of various techniques and strategies. Instead, though, I was soon dribbling a basketball and trying to shoot it into the hoop after just a few instructions. In my history courses, by contrast... I began in earnest to play the sport only at the doctoral thesis level" (p. 12).

The current "digital history" innovation (Kee, 2002), based upon the investigation of the past using electronically reproduced sources, has sparked a renewed interest in engaging students actively in authentic performances, that is, in "playing the game." Unlike the previous initiatives and developments, digital history might, this time, offer some realistic hopes and expectations. At least four (4) reasons can account for this optimistic observation on the present and foreseeable future of history education.

### **Why digital history?**

1. First, digital history has liberalized access to and use of history. Until not so long ago, a relatively small number of "experts," essentially professional historians, archivists, curators, and dedicated history teachers and writers, had the time and opportunity to access and search archival materials and then produce historical knowledge - usually in the conventional form of books and articles. The result was an almost complete domination of historical knowledge production and dissemination by established authorities in the domain. With the advent of the Internet and new digitization technologies, not only are historical publications and productions more readily available to the masses in electronic format, but an increasing number of previously disregarded amateurs, genealogists, teachers, and even students have developed significant interests in the study of their past (see Rosenzweig, 2000; ACS, 2005). In this sense, liberalization has gone hand in hand with the decentralization of knowledge and access to information.

2. Closely related to this liberalization is the remarkable intensification of digital archival activities in Canada, largely driven by U.S. avant-garde approach to online archives and libraries (see, for instance, the Library of Congress' American Memory project <http://memory.loc.gov/ammem/>). Since the 1990s, the technology allowing for scanning and publishing sources in electronic format has had an enormous impact on the access, search, retrieving, and use of primary and secondary sources. From personal desktop computers, it is now possible to search, acquire, and even manipulate numerous sources and artifacts originally stored in repository sites located at thousands of kilometers away from the users. While the number of digital sources available remains relatively low compared to the total amount of physical records, it is nonetheless possible to have access to millions of megabytes of information, including more than 9500 Canadian periodicals and books at the Library and Archives Canada alone. Many provincial archives, museums, and local historical sites have also engaged in the process of making available online parts of their collections (see, for instance, the McCord Museum of Canadian history [www.mccord-museum.qc.ca](http://www.mccord-museum.qc.ca)).

Equally interesting, the current digitization of archival records has not only benefited users of museum and archival sites, it has also rendered available online many private collections that had not been archived yet. Amateur historians, genealogist associations, as well as families, trusts, small organizations, regiments and even schools do possess valuable sources of information but rarely have the financial means or resources to create official repositories and catalogues. Since the 1990s, the web has reduced significantly the costs associated with the design of exhibits. The web has also virtually eliminated the traditional barriers to publication and dissemination - with all the potential pitfalls of such low-cost electronic production and delivery. The "Pier 21" national historical website from Nova Scotia ([www.pier21.ca](http://www.pier21.ca)) and the

"Virginia Runaways Project" in the U.S. ([www.virtualjamestown.org](http://www.virtualjamestown.org)) are emblematic illustrations of this new transformation in digital archival activity.

3. Third, the digital history developments have, intentionally or not, rendered history more friendly and communicative. By virtue of their digital formatting and design, historical sources are easier to search and locate and, by extension, more rapidly and effectively manipulated and used than original ones (Spaeth and Cameron, 2000). Computer-literate users can, for example, creatively download, copy, and paste various sources from museum or archival websites (including sounds, videos, and 3D artifacts) directly into their own documents from the simple click of their computer mouse, without all the annoyances of traditional research. Similarly, the combination of digital history with electronic communication allows for greater and faster exchanges of information between users (Larson, 2005). Students, for instance, are now able to establish networks with colleagues and historians/teachers in other locations based on a variety of topics and subjects of interest (see, example, H-Net [www.h-net.org](http://www.h-net.org)). These socio-educational networks, as Kee (2002) argues, "are enabling students and historians to communicate and interact in ways never before possible" (p. 4).

4. Finally, and perhaps more importantly for educators, digital history has the enormous potential of promoting and enhancing the active learning and doing of history. As long as history education was defined in terms of delivering and mastering an agreed-upon master-narrative, traditional lectures and textbook readings seemed appropriate to cover the past. Yet, with the new "constructivist learning paradigm" (Milman and Heineck, 1999) of the last decades, the focus has shifted from behaviorism to complex acts of meaning- and sense-making. Teachers are no longer expected to deliver a self-evident nationalist story that needs to be memorized and regurgitated. Instead, the goal is now to assist or "coach" students in their learning and practice of history. "Teaching for understanding," as Wiggins and McTight (2005) convincingly observe, "must be closer to coaching than professing, especially when we look at the flow of learning activities and what they require of the teacher (p. 250). Both educators' and students' roles have changed drastically.

In history, this revolution in cognitive development and pedagogy has advanced the goal of those, like Gaffield, who believe in learning by doing. Digital history has great potential because of the kind of things it presents to users. Unlike classroom textbooks, encyclopedias or worksheets, digital history provides students with multiple, authentic historical sources (print, audio, video, and artifactual) at very low cost. Perhaps more interestingly, digital history puts students in the virtual context and shoes of apprentice historians investigating aspects of the past. Because digital history is not structured, like textbooks, around the delivery of an official narrative (the so-called "coverage"), students are more directly and actively involved in some forms of historical inquiry, and thus engaged in discovering the past with all the historical, critical, and sourcing abilities (or habits of mind) required to do so (Hicks, Doolittle & Ewing, 2004).

### **Is doing digital history "natural"?**

Saying that digital history can support students' understanding and practice of history is not to say, however, that when confronted with authentic digital sources from multiple perspectives, students will intuitively perform the tasks demanded or arrive at sophisticated forms of thinking (VanSledright, 2004). As cognitive psychologist Sam Wineburg (2001) has convincingly revealed, historical thinking is an "unnatural act." To become more expert in the

domain, students must be guided and encouraged in their performance. And, so far, it is fair to claim that schools have been largely ineffective in their ability to teach the "unnatural" thinking of historians (Gardner, 1991), preferring instead to reinforce the dominant ways of thinking already ingrained in students' mind.

Many teachers have presented, not necessarily without reasons, their reservation for adopting an inquiry-based learning model using computer technology. Digital history can be perceived as overwhelming, creating an overload of disconnected and mismatched information from the web. Empirical studies on the subject reveal mixed responses from teachers and students who have employed digital history, notably in the form of WebQuests (Milson, 2002; Lipscomb, 2002; Milson & Downey, 2001). On the one hand, students often adopt what might be called a "path-of-least-resistance" (Milson, 2002, p. 344). Instead of reading critically the sources, they intuitively scan the materials for quick and easy solutions or, more problematically, simply ask colleagues for the "right" answers. On the other hand, digital history can detract history teachers from prescribed curriculum objectives and content standards, thus leading them to a sense of practical irrelevance in the classroom. Related to this last point, a recent U.S. study also reveals that technology training and access to computer resources have a direct impact on the type of digital instruction employed by teachers (Friedman, 2006). Those who have direct access to technology, as well as adequate computer training, tend to use digital history more repeatedly and effectively than those who do not.

Despite these limitations, growing evidence suggests that not only can students learn to do history, but the practice of such guided historical investigations and ability to "think unnaturally" about the past lead them to more nuanced and sophisticated understanding of the issues at hand (see Shemilt, 1987; Voss and Wiley, 2000; Yeager and Doppen, 2001; and VanSledright, 2002). Students who have been exposed progressively and repeatedly to historical practice have developed a more acute sense of critical thinking and historical ownership. They are more self-responsible for their learning and also more likely to understand what historical narratives entail and mean to them.

But how do we, as educators, successfully engage students in digital history? This question is extremely relevant given the growing number and influence of electronic sources and media on students' ideas. One of the key issues for teachers is, in fact, the lack of time and adequate educational information on what is available for designing successful inquiry-based history lessons.

### **What is the Virtual Historian?**

The Virtual Historian ([www.virtualhistorian.ca](http://www.virtualhistorian.ca)) is one example of a program designed to help teachers engage their students in the critical study of the past using computer technology. Initially developed at the University of Western Ontario, with a grant from the Western Innovation Fund, the Virtual Historian is meant to support active learning and doing of Canadian history by assisting teachers and students in shared performances. The Virtual Historian team, made up of computer and media information technicians, research assistants and myself, has for goal the development of an authentic experience in web investigation using the most advanced technologies in programming. The Virtual Historian is centred on four key principles of web-based, server-client programs:

1. First, the subject of study (the "content") is organized in ways that are intended to promote "inquiry" and "discovery." Each investigation (the case) is supported by Canadian curriculum

objectives and framed around essential and topical questions at the heart of the subject (dealing with second-order thinking concepts such as continuity/change, empathy, and moral judgment). The approach taken is inquiry-based and the various steps and answers to be developed are meant to enhance historical and critical thinking about rich, complex, and significant issues in Canadian history. For example, the case on "World War II and the Dieppe Raid" looks at the still contested success and strategic importance of the raid for Canada and the Allies: useless slaughter or necessary lesson for D-Day landing?

2. Second, all cases are prearranged for teachers and students (in both official languages). Primary and secondary sources necessary for the investigation are all included in the program (with translations when necessary), with authentic digital copies in high resolution for sourcing, reading, and even printing option. Additional sources and web links are also included for students, particularly at the senior levels, who wish to engage in further research on the question. Supplying students with historical sources may seem artificial to professional historians well-acquainted with the critical study of masses of conflicting and sometimes unconvincing sources. But our own experience, notably during the pilot phase with elementary and secondary students in Ontario, suggests that this type of digital investigation is pedagogically valuable, particularly with students unfamiliar with the nature of historical research. Furthermore, this approach is more time-effective, and thus easier to plan for teachers, than open inquiries on the web. A major problem with WebQuests is, in fact, the overwhelming nature of the information available and the poor reliability of the research tools and source findings. While the Virtual Historian presents a limited number of sources for each case (between 5 to 17 depending on the case and grade level), the selected sources always comprise multiple perspectives and multi-modal learning materials (print, audio, video, and graphic). In the Dieppe Raid case, for example, students are presented with British, Canada, and also German sources of information. These sources include print documents (official reports, memos, newspapers, and personal accounts), visuals (maps and photographs), audio files (historical music), and finally audio-visuals (newsreels).

3. Third, the ultimate goal of the Virtual Historian is *not* to provide an exciting experience in virtual reality but rather to enhance students' historical understanding and practice. Cases available (e.g., Plains of Abraham, Halifax Explosion, The Person's Case, October Crisis) are meant to introduce students to the complex and also provisional nature of historical scholarship through a scaffolding set of inquiry steps. Each authentic source offers a perspective on the issue, and interactive sourcing questions guide students in source identification, attribution, contextualization, and corroboration. Part of the problem with students' negative experience with digital history is the lack of guidance or guided performance. It is completely unrealistic and unworkable, as Bain (2000) observes, to believe that disciplinary research can mechanically "be transplanted to a body of novices" (p. 335).

4. Finally, the Virtual Historian presents an inclusive web-interactive environment, which, we hope, facilitates web navigation, computer use, and historical investigation. Unlike typical html-based websites (such as WebQuests), the Virtual Historian is a server-client program providing users access to all the bundled functionalities (copy, paste, save, retrieve, print, etc.) on any desktop or laptop machine connected to the web. This new approach to computer programs, also currently developed by Microsoft and IBM, facilitates access inside and outside the school environment, eliminates desktop program installation (from CD, DVD, etc.), offers constant support and upgrades to users, and finally draws on students' computer literacy skills (spatial and iconic skills, visual attention, communication).

## Conclusion

Twenty-first century history educators find themselves at a turning in history. Over the course of the twentieth century, several historians and educators such as Gaffield were shocked by the traditional delivery approach to history teaching. Instead, they proposed to turn teachers into "coaches" who assist students in their experience of the "game." Current and new computer technologies alone cannot turn a bored history student into a professional historian, not even into an amateur historian. As long as educators will look for simple, magic formula to teach their subject, we should not be surprised to find mixed findings on the role of technology on students' historical learning. While there are still many unanswered questions about the impact of technology on history education, some trends seem to emerge. First, computer technology can help history educators only if such technology supports their philosophy of history education. In other words, digital history is likely to improve students' learning if teachers already have a clear conception and design of what it means to teach for historical thinking. Second, and related to this, educators need to have both regular access to and training in computer technology. If most schools in Canada have computers connected to the web, not all teacher use or know how to use digital history technology. Third, despite students' familiarity with computer technology, too often the path they adopt in digital history is based on poor historical research skills. It is thus necessary to assist students in every step of their investigation if educators wish to develop sophisticated understanding and competencies. Finally, like any sport, the development of meaningful performance must be both gradual and sustained. It is unrealistic to believe that students can magically become more expert if they only "do history" sporadically.

Much of the discussion on computer technology in Canadian history education has focused on the plethora of resources available to users. Yet, we urgently need to look at how we can more effectively use this technology to improve students' learning. We have no empirical or experimental studies in the field looking at the impact of digital history on Canadian students. As Spaeth and Cameron (2000) conclude, "the use of the computer is no longer the issue" (p. 341). What is at issue now is what we, as history educators, want to do with the computer.

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Stéphane Levesque is an Assistant Professor of History Education at Faculty of Education, University of Western Ontario. He can be reached by email at [slevesqu@uwo.ca](mailto:slevesqu@uwo.ca).

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