Learning by “playing”:

ENGAGING STUDENTS IN DIGITAL HISTORY

ABSTRACT

Computational developments of the last two decades have had an enormous impact on education. From Internet, through to hypermedia, wireless computers and smart boards, teachers now have access to a plethora of technological tools to teach their subject and engage their students. Yet, until recently very little was designed specifically for history educators. This article presents an overview of current developments in digital history. It suggests that unlike previous initiatives, the study of the past with hypermedia and computer programs can help achieve the goal of authentic, inquiry-based learning.

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Introduction

There is a growing body of studies suggesting that students learn best history when they are actively engaged in investigating authentic, meaningful problems of the collective past using disciplinary history tools. Inquiry-based learning would provide students with opportunities to apply and transfer historical knowledge in personal, novel ways. Using a powerful analogy from sports, Chad Gaffield (2001) recently argued that teaching students to think like an historian must be closer to “coaching” than “professing”. Students, he observed, must be “coached while they try to dribble, pass and shoot the historical ball” (p. 12). From this perspective, the acquisition of substantive knowledge of the past (facts, dates, events) becomes only a prerequisite to meaningful historical understanding in the same way basketball or hockey players need some knowledge of the game (rules, strategies, statistics) to be able to perform and ultimately become skilled at it.

Because of the kind of material, tools, and support structure that such historical performances require, many past initiatives to teach students to “play history” have not been widely accepted or adopted. The recent transformations in computer technology and hypermedia are now regarded as a possible solution to classroom inquiry-based learning. Digital history in particular offers new hopes to all those like Gaffield interested in teaching as “historical coaches”.

Four reasons can account for the present optimism in history education. First, the study of the past using electronically accessible sources and hypermedia has, voluntarily or not, liberalized access to and use of history. Until not so long ago, only a small number of “experts” had the time and opportunity to access archival materials and produce historical knowledge. 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 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. In this sense, liberalization has gone hand in hand with the decentralization of knowledge and access to information.

Closely related to this liberalization is the remarkable intensification of digital archival activities. Since the 1990s, the technology allowing for scanning and publishing sources in electronic format has had an enormous impact on the access, retrieving, and use of primary and secondary sources. From personal computers, it is now possible to search, acquire, and manipulate masses of records and artifacts

originally stored in repository sites located at thousands of kilometers away from the users. While the number of sources available online 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).

Equally interesting, the current digitization of sources 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, genealogists, as well as families, trusts, regiments, and schools do possess valuable records and relics but rarely have the financial means and resources to create official repositories and catalogues. Since the 1990s, the web has reduced significantly the costs associated with the design of exhibits. In fact, it has 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) and the "September 11 Digital Archives" (http://www.911da.org) are emblematic illustrations of this new transformation in digital archival activities.

Third, digital history has rendered the study of the past 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. Computer-literate users can, for example, creatively download, copy, and paste various sources (including sounds, videos, and 3D artifacts) directly into their own productions 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. Students are now able to establish networks with colleagues and professionals based on a variety of topics and subjects of interest (see H-Net www.h-net.org and Blogs such as http://digitalhistoryhacks.blogspot.com). These socio-educational networks, as Lee (2002) argues, "are enabling students and historians to communicate and interact in ways never before possible" (p. 4).

Finally, and perhaps more important for educators, digital history has the enormous potential of promoting and enhancing the active learning of history. As long as history education was defined in terms of delivering a master-narrative, traditional lectures and textbook readings seemed appropriate. Yet, with the new constructivist learning paradigm, the focus has shifted from behaviorism to complex acts of meaning- and sense-making. Both educators' and students' roles have changed drastically. Digital history has great potential because of the kind of things it offers users. Unlike classroom textbooks, encyclopedias or worksheets, digital history provides students with multiple, authentic historical sources (print, audio, video, and artifactual) in a computational mode already familiar to them. More interesting, digital history puts students in the virtual shoes of apprentice historians investigating aspects of the past. Because digital history is not structured around the delivery of an official story, students are more directly and actively involved in historical inquiry and form of "dialectic reasoning" – that is, the ability to study and entertain multiple perspectives on an issue (Brush & Saye, 2006).

Is playing 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 students will intuitively perform the tasks demanded or arrive at sophisticated forms of thinking. As Sam Wineburg (2001) has convincingly revealed, historical thinking is an "unnatural act." To become more expert, 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.

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 present mixed responses from teachers who have employed digital history, notably in the form of WebQuests. Students often adopt a "path-of-least-resistance," scanning the material for quick and easy cut-and-paste answers (Milson, 2002). 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 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 students can learn to do history and that the practice of such guided investigations and ability to "think unnaturally" about the past lead them to more nuanced and sophisticated understanding of the issues at hand. 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 teachers successfully engage students in digital history?

According to recent studies and technological initiatives in the field, success appears to be related to at least three factors: (1) the nature of the task, (2) the connection to students' interest and development, and (3) the supporting structure of the learning tool. First, to be meaningful and enduring, investigation must not revolve around trivial issues in history (e.g., Who fired the first shot at Lexington Green?). Instead, they must engage students in significant problems at the heart of history, which historians might have already studied at length but do not have a self-evident answer (e.g., Was Prime Minister Trudeau' decision to invoke the War Measures Act in 1970 justified?). One strategy is to view history and curriculum guidelines synoptically so as to reveal "bid ideas" that can be converted into meaningful problems.

Second, the power of historical investigations resides not only in the task to perform but in their ability to spark interest and promote uncoverage. Too often learning activities developed in textbooks deal with problems that are either too complex for students to resolve in class (do not recognize students' inexperience and lack of necessary resources) or too simplistic for deep understanding of a complex issue (focus on trivial tasks). The investigations should be such that they build on students' prior knowledge and effectively lead them to inquire and make sense of important issues that they do not understand yet or appreciate their significance in history – and for themselves. Writing an argumentative essay on Trudeau's controversial decision, for example, requires the design of an engaging and intriguing mise-en-scène around French-English relations, citizenship rights and freedoms, and domestic terrorism with supporting sources and scaffolds.

Finally, and perhaps more important, because this active form of learning requires different cognitive abilities than those developed in traditional history lectures, it is unworkable to believe that inexperienced students will instinctively undertake disciplinary inquiries when given opportunities to do so. As with any sport, combined instruction-practice and guidance (such as scaffolds) are necessary to help novices develop their own expertise. As Robert Bain (2006) observes, "students' preinstructional habits [are] deeply ingrained, not easily replaced even by authentic disciplinary activities" (p. 106). Transplanting disciplinary inquiries into history classrooms is, therefore, unrealistic unless teachers revise and adapt such investigations by employing a variety of pedagogical tools and support structures such as: appropriate search engine and websites, interactive documents (with summaries, hyperlinks), multimodal and multiple perspective sources of information on the issue (print, visual, audio, video), and reading and writing strategies. Students, even at the senior level, have great difficulties reading primary sources, comparing perspectives, weighing significance, and empathizing with predecessors. Teachers must therefore train students to think like historians and not simply "observe them from the computer bench". And this, in turn, implies having access to and being familiar with computational technologies in the field.

Digital history programs, such as the newly created Virtual Historian (www.virtualhistorian.ca) in Canada and the PIHNet (http://pihnet.org) in the U.S., will not replace teachers or magically turn bored students into professional historians. It is totally illusory to put such pedagogical aspirations in the hands of computer programmers and web designers. Rather, teachers must view digital history as a powerful learning tool for engaging students into what it means to practice history. But like any sport, the development of meaningful performance must be both gradual and sustained. It is unlikely that students will become more expert if they only get to play history sporadically. Although there is much we need to know about the role and impact of computational technology on students' historical learning, one thing is increasingly clear: teachers reluctant to use such technologies do it at their own peril. The use of the computer in the classroom, as Donald Spaeth and Sonja Cameron (2000) put it, "is no longer the issue" (p. 341). What is at issue is what teachers want to do with it.

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