

BUILDING A DIGITAL HISTORY OF CANADA

Introduction

We were delighted when the CHA Bulletin invited us to write a brief description of our electronic history project, *Canada, Confederation to Present*. The project has consumed our lives for the better part of the last three years. It has been a fascinating time, requiring us to meet challenges we never contemplated when we began our history careers. In addition to learning the obvious technical and design skills, we have had to become adept at fundraising in a mixed public-private environment and at business and project management. Although work on *Canada, Confederation to Present* is not yet complete, we are already gratified by the results. We believe that Canadians can look forward to having a new digital historical text that may be the most advanced of its kind anywhere in the world.

Description

So what is *Canada, Confederation to Present*? It's a CD-ROM/Web publication, suitable as a textbook/reader in colleges, and universities and as a reference work for high schools and the general public. In brief, the CD will feature original articles from more than 150 leading historical scholars from all parts of the country (writing in French and English), thousands of archival images, dozens of specially created maps and graphs, almost 30 minutes of sound and film (including French and English CBC and NFB footage), and virtually unlimited interactive opportunities. For purchasers of the CD, World Wide Web support will provide downloadable, digital versions of all articles (minus the multimedia), multimedia not found on the CD, and interactive resources. But part of the Web site will also be open to the general public, providing annotated links to important Canadian history Internet sites and, if we can find the money, six interactive timelines made up of more than 700 event descriptions of 100-300 words (these timelines also appear on the CD).

The English-language version of *Canada, Confederation to Present* will be published in 1999. Work on a French-language edition (to be completed in early 2000) has already commenced. Work on a spin-off CD, targeting the public school market, will commence in 1999. Work on the companion *Pre-Confederation* project, *Canada, Prehistory to Confederation*, has now started.

So much for the advertisement.

The Potential of Multimedia History Publications

Why are we creating this project? Since early in our careers, we have been fascinated by the implications of computers and the new communications media for communicating and teaching history. In the last few years, that fascination has led us to create *Past Imperfect* (the first journal in Canada published using

Xerox's Docutech system, based on a digital rather than a paper proof copy), a Western Canadian history course taught entirely over the Internet, and a senior undergraduate course that teaches students the conceptual and computer skills they need to use successfully the new computer media to research, study, and communicate history. These experiences led us to believe that digital technology might help to overcome some of the limitations inherent to print histories.

The emergence of social history in the 1960s broke the consensual understanding of Canada's past that had rested on the twin pillars of political and economic history. The new approaches and subject areas that academics have since explored have immeasurably enriched understandings of our history, while spawning specialised subdivisions of the discipline; women's history, native history, labour history, urban history, ethnic history, religious history, political history, cultural history, intellectual history, and on and on. If consensus is gone, new challenges have emerged. How can we as historians communicate this rich diversity of specialised knowledge within an interpretative framework that promotes understanding? Indeed, with increasing specialisation, how can we communicate with one another? Synthesis has become more difficult and students and the general public have complained of getting lost in a wealth of detail, of struggling to understand the context of the individual strands of Canada's past. To help us out when we teach, we expect our textbooks to do much more than previously, to provide a basic framework while also covering specialised fields of study. Of course, historians working in these new fields emphasize a wider range of types of primary data (such as the artifacts of material culture), so we also expect our texts to convey more of these materials to students. But paper histories are bound in terms of the amount and types of material they can contain; they are also best approached in linear fashion which admittedly has advantages but also disadvantages. A textbook cannot reasonably be longer than 600 to 800 pages without becoming too expensive to ship and somewhat daunting to students. The author must remain focussed on a single narrative line, glossing over or ignoring large amounts of specialised material, or risk the book becoming unwieldy. The reader may at once be confused by the bewildering amount of text presented, disappointed that certain topics are covered so briefly, and frustrated by an inability to locate desired information.

How can multimedia publications help to overcome the limitations of print textbooks? They offer significant advantages in terms of the greater amount of historical material they can contain (our CD will be the equivalent of six large textbooks), the types of data they can present (images, sound, film, original documents), the ways in which users can access these materials (using menus, hyperlinks, various index and search features), and

interactivity (interactive images and graphs, self-testing quizzes, etc.). They can even be taken into a classroom and used for classroom presentations by instructors and assignments by students (thus introducing the novel concept of removing a textbook from the mandatory backpack).

In planning our CD project, we sought to introduce one additional advantage: ranging expertise. On the history side, Rod Macleod (University of Alberta) chairs a 13-member editorial board that oversees the creation of the historical materials for this CD. The other members are Kerry Abel (Carleton University), Robert Bothwell (Trinity College, University of Toronto), Phil Buckner (University of New Brunswick), Margaret Conrad (Mount Saint Vincent University), René Durocher (Université de Montréal), Chris Hackett (University of Alberta), Bob Hesketh (University of Alberta), Jim Miller (University of Saskatchewan), Wendy Mitchinson (University of Waterloo), Nicole Neatby (University of Prince Edward Island), Jean-Claude Robert (Université du Québec à Montréal), Rick Szostak (University of Alberta). The editorial board collaborated electronically for several months leading up to a marathon session in Edmonton in September of 1997 to select the topics they wanted to see covered and the authors they wanted to write them. The board deliberately set out to create a mixture of established and emerging scholars, of overviews of existing bodies of work and cutting edge research. The editors review each paper as it comes in, ensuring that academic publishing standards are met. We have had a tremendous response from the scholars we have asked to participate. Although receiving only a minimal honorarium, they have been enthusiastic about the scholarship of the project and the potential of multimedia for communicating Canadian history. On the multimedia side, Academic Technologies for Learning Production Studio at the University of Alberta is providing our project with high-level technical expertise in such areas as multimedia authoring, graphics design, instructional design, and curriculum development. If this project turns out to be as successful as we believe it will be, our hardworking editors (particularly Rod Macleod) and authors and the professional staff of the ATL deserve much of the credit.

Challenges of Multimedia History Publications

The promise of multimedia seemed worth the effort, but we know we would encounter enormous problems if we wanted to create a first-rate historical resource. Here, we will discuss three of the major challenges we have faced.

First Challenge: Building the Required Skills

The first challenge seemed to us to be to retain control over the creative process when dealing with computer specialists, curriculum design experts, and publishers, in order to ensure that the end result would be as effective a tool for communicating Canadian history as possible. A collaborative project of this

scope can only be realised through the combination of an extensive array of skills. Particularly with multimedia, the quality of the final project is apt to be the lowest common denominator of understanding achieved among the key participants: the point at which the various technical and academic experts can communicate and understand one another's objectives. If the project is driven too much by technical or business concerns then the history can be lost or garbled. If the project is driven by historians who don't have any appreciation for what is technically or financially possible, then opportunities for communication can be squandered or lost altogether. To prepare ourselves, before this project ever began we worked part-time for two years, upgrading computer skills, studying existing projects, and experimenting with design options.

Since the project began, we have continued to upgrade these skills, often with the assistance of the ATL. The ATL staff, in turn, has increasingly come to understand what we are trying to achieve, in essence upgrading their understanding of the historical process. This rewarding and truly collaborative process has significantly raised the lowest common denominator of our communication.

Second Challenge: Building the Business Case and Raising the Money

Building a multimedia history is an expensive project. A digital textbook, even one incorporating as much original research as ours, does not fit the criteria of most academic funding sources. There are also few business models to show how it can be done through private investment, particularly in the relatively small market for Canadian academic history. To succeed, we had to come up with a business case scenario that would create public and private investor confidence. We consulted business experts, completed a small business course, and created our own multimedia company, Chinook Multimedia Inc., to build and manage the project. We also learned to cast aside our academic reserve (you may have noticed that we are not shy about acclaiming the value of this project). For our efforts, we have received tremendous support from the University of Alberta, Prentice Hall (which helped to fund development but has since left the project), and the Department of Canadian Heritage. While there is never enough money for us to relax, we have assembled a large enough budget to reach most of our goals; we watch our pennies and spend perhaps one-quarter of our time trying to raise additional funds.

Third Challenge - Designing to Take Advantage of Digital Media

When we started working on *Canada, Confederation to Present*, there were a number of historical CDs already on the market, but they were basically conversions of existing books into CD format. The text and structure had remained the same and some multimedia materials and interactive elements had been

added to justify the conversion. Such works still retain the inherent limitations of text. The information is confined in terms of scope and difficult to access, and the multimedia is frequently inserted with little thought as to its pedagogical value or potential. These publications have, with a couple of exceptions, done little to enhance the reputation of CD textbooks.

Our third challenge then was to design a functional interface for the CD that took advantage of what was technologically possible yet was also simple to use. Our early design drafts have long since given way to more sophisticated menu structures, thanks partly to the ATL's assistance, but the basic ideas that underlay those drafts have remained. In brief, we have created two distinct menu structures. One menu gives the user access to the CD's six interpretative narratives (Politics and Economy, Society and Culture, Native Peoples, Women, Regional Dynamics, and an overarching interpretative Synthesis), composed of 25 overview articles. The narratives are at the heart of the CD. Each has its own internal chronology and a topical structure dictated by the subject matter. Topics in different narratives sometimes overlap allowing the user to view the same topic from different perspectives; in these cases, hyperlinks will take the user from one narrative to another when appropriate. Each narrative also includes links to the case studies, which are detailed examinations of more than 125 of the major topics discussed in the narratives.

The second menu gives the user access to functions that can enhance exploration of the CD's historical materials, ranging from an interactive timeline for each narrative (emphasising chronology and fact base), to various search mechanisms, to tools for organising the CD's resources to suit the user's needs.

At the same time we tried to provide the user with interactive learning opportunities that also showed what the technology can do. The compare-timelines feature, for instance, allows the user to compare events from two different timelines or even to compare different parts of the same timeline. This tool will help students to understand how different events are important depending on the narrative and how the same event may be viewed differently in different interpretative narratives. The 'Presentation' feature will enable the user to select, organise, save, and display the CD's resources. Employing this feature, a college instructor or a student can create a separate presentation for any lecture or assignment and then, using a computer projector screen or television monitor with an adaptor, display the results right in class. Or, to name but one more interactive feature, a user can zoom in and pan across dozens of rare panoramic photos, ranging in subject matter from streetscapes of major Canadian cities, to harvest and lumbering scenes, to a Saint-Jean-Baptiste day celebration, to an Indian parade at the Calgary Stampede.

Conclusion

Although still six months from completion, Canada, Confederation to Present is already a remarkable success given the remarkable support it has received from the community of scholars, the University of Alberta, and the Government of Canada. We believe that Canada, Confederation to Present will place Canada in the forefront of the development of digital histories worldwide, a position we hope to build on in future iterations of this project and additional projects.

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