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Preserving Canada's Memory:

Developing a strategic approach to digital preservation

Final Report
September 2013



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The Public Policy Forum is an independent, not-for-profit organization dedicated to improving the quality of government in Canada through enhanced dialogue among the public, private and voluntary sectors. The Forum's members, drawn from business, federal, provincial and territorial governments, the voluntary sector and organized labour, share a belief that an efficient and effective public service is important in ensuring Canada's competitiveness abroad and quality of life at home.

Established in 1987, the Forum has earned a reputation as a trusted, nonpartisan facilitator, capable of bringing together a wide range of stakeholders in productive dialogue. Its research program provides a neutral base to inform collective decision making. By promoting information sharing and greater links between governments and other sectors, the Forum helps ensure public policy in our country is dynamic, coordinated and responsive to future challenges and opportunities.

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Acknowledgements

To ensure a coherent approach to preserving and accessing our country's documentary heritage, we need better cooperation among governments, archives, libraries, and private sector organizations. By engaging in dialogue with organizations from different sectors, Library and Archives Canada is positioning itself as a policy leader among Canada's memory institutions. As a result, we believe that all stakeholders will be better positioned to identify common opportunities and challenges.

On behalf of Canada's Public Policy Forum and our partners, I wish to thank the individuals and organizations who participated in our Halifax, Edmonton, Montreal and Toronto roundtable discussions. The findings of this final report are based on their contributions and insights into how we might best preserve, share and access Canada's documentary heritage in a digital era.

I wish to thank my team at the Public Policy Forum, including James McLean, Project Lead, Natasha Gauthier, Director of Communications and Dianne Gravel-Normand, Senior Project Administrator.

Our goal is to spark a broader discussion about some of the processes, tools and issues that will need to be considered as we seek to make our country's collective history accessible to future generations. All individuals and organizations who work to preserve Canada's memory should be encouraged and applauded.



David J. Mitchell
President and CEO
Canada's Public Policy Forum

With thanks to our roundtable hosts:



1. Project overview

Over the past year, Canada's Public Policy Forum, with the support of Library and Archives Canada (LAC), has convened leaders from the private, public and non-profit sectors to discuss how Canada's memory institutions might best identify, preserve and share our documentary heritage in a digital age. We organized roundtable discussions in Halifax, Edmonton, Montreal and Toronto to identify how memory institutions (archives and libraries) might develop a collaborative network to establish consistent practices across sectors, and identify new technologies to preserve and disseminate information. A list of questions that guided our roundtable discussions can be found in *Appendix A*.

Participants from several different sectors shared their insight on key policy questions, including:

- What kinds of information and documents should memory institutions preserve?
- What tools might be used to share this documentary heritage with Canadians?
- Should all information be made public?

Despite differences of opinion, there was consensus that LAC has an important role to play in coordinating the modernization of how Canadians preserve, share and access their history.

This report reflects the roundtable participants' opinions and explores some of the key themes, case studies and issues worthy of further examination by leaders in all sectors. We also identify some of the most common challenges, and potential solutions, for archivists, librarians and other professionals who preserve information.

2. Introduction

Few roundtable participants disputed the need to shift the business of libraries and archives towards digitization and digital collections. In fact, this shift is already well underway. The internet and social media have provided a voice to billions of people around the world, allowing anyone with basic literacy to produce, disseminate and acquire information. This 21st century information revolution has also facilitated the quick flow of education, health and social programs to citizens. As Canadians and others seek to learn more about themselves and their communities, digital tools are becoming the most common means for achieving this task.

This is truly an exciting era for Canada's archivists, librarians and other information professionals. With the influx of new communication platforms and storage tools, such as cloud computing, experts now have access to innovative technologies that can be used to document and share our country's collective memory.

However, the rising influence of digital communications has also created challenges for the institutions that preserve Canada's heritage. In the current global economic climate, participants raised concerns about whether memory institutions will continue to have the necessary resources to acquire, preserve and provide access to exploding volumes of digital information. Creating databases that can store even a small subset of all available digital information would require substantial effort and investment. When considering options to reduce costs and remain sustainable, archivists and librarians may need to explore new methods and partnerships outside of their traditional approaches and disciplines.

Furthermore, determining whether to store new forms of communication, including blogs, emails and tweets, and how to make them accessible to future generations, poses additional challenges. The speed with which technology changes and becomes obsolete means that leaders can never be sure which digital tools will remain accessible or relevant for future generations. For example, tools and platforms that were popular only a few years ago, such as *MSN Messenger* and *MySpace*, have more recently fallen into disuse among many young consumers and producers of data.

Another key task will be for archivists and librarians to maintain the authenticity of documents in digital formats. The ability to consult original texts and accurate representations of historical events is critical for understanding our society, laws and history. Today, anyone can effectively be their own publisher; it will be important for Canada's memory institutions to understand the influence of new technologies on their traditional roles, especially relative to the authority and authenticity of information.

The findings of this report seek to address these challenges. As archivists and librarians try to bring historical records into the digital era, it will be important to understand the potential opportunities, partnerships and tools required to preserve Canada's memory.

3. Acquisition and sharing of digital information

One of the key challenges is whether to save everything, or to devise a process to identify and preserve information that is deemed to be "valuable". When participants discussed the best options for capturing an accurate digital representation of society, there was a clear divergence of opinion on how to proceed.

Reasons for preserving only a representation of the historical record

Faced with large amounts of available data, important information can be lost or hidden in the mass. Participants noted that organizations are often overwhelmed by the abundance of information, and that by attempting to save everything, we in fact save nothing.

Recognizing that not all information is of equal value, some experts are advocating in favour of a representative, rather than a complete, documentary record. Most archives, libraries, museums, businesses, non-profit organizations and foundations would find the cost and space required to store massive volumes of information prohibitive.

There are also hidden costs involved in storing information, including updating computer software and training personnel. While warehousing information has become

less expensive, learning how to access, use, search and digitize records is costly, especially when users must continually adapt to changing technologies.

Some participants suggested democratizing the process of preserving information. Using digital tools, such as online forums and analytical applications, might be effective ways to identify what information the public thinks is important. For example, participants suggested that stakeholders might try to preserve information that can primarily be shared through peer-to-peer services, “liked” on Facebook or tweeted. This decentralized approach to archiving could allow the general public to help choose what kind of information gets preserved. By tracking updates and trending topics, some participants suggested that librarians and archivists could actually begin shifting towards “popular curation”. The public debate on what to preserve would then be more democratic and evolutionary.

“Memory institutions have been too passive and haven’t built collaborative linkages with private sector organizations or the public. Technology is one way to do this more effectively”

-Roundtable participant

Reasons for preserving the “complete” historical record

While participants expressed support for the idea of preserving only important or popular information, there was also general agreement that this approach would restrict the historical record. Citing the importance of capturing context as well as content, some participants expressed concern that preserving only a snapshot of information could deny future generations the ability to truly understand the present-day context.

Over the past decade, blogs and digital communications have given Canadians new tools for expression. Although some may consider popular communications like Twitter and Pinterest mundane, not including them in Canada’s documentary history could make it difficult to appreciate the true nature of the internet in society, as it exists today.

Some roundtable participants suggested that preserving all of Canada’s digital history is not only possible, but would have the added benefit of allowing posterity to help

determine the quality and importance of the preserved content. Today, it is impossible for anyone to accurately determine what information will be valuable many years from now. One participant offered an interesting case study to highlight this point:

At the University of Alberta, geologists recently analyzed rock samples retrieved from an oil and gas exploration site in northern Alberta. The samples had been sitting in the university archives for decades, with little perceived value. The geologists discovered that the specimens contained kimberlite, a mineral that often indicates the presence of diamonds. According to this roundtable participant, this realization, and the potential discovery of a diamond field in northern Alberta, might not have been possible if the rocks had been discarded with the belief that they were of no value.

Roundtable participants also discussed how partnerships with technology companies, academic institutions and governments might allow Canada's cultural institutions to expand the amount of information that could be acquired, preserved and shared. By distributing the responsibility for preservation across multiple sectors, archives and libraries may be able to focus on fundamental or niche topics, while allowing others, including private and non-profit organizations, to collect, maintain and share information in other areas. Canada's memory institutions could take the lead on certain categories of information, and also help standardize processes to identify important information and guide those who are seeking to preserve data in other sectors.

4. Preservation: carefully addressing the issues

One way to improve information access would be to create a searchable, crowd-sourced portal that could pool disparate information from across sectors into one accessible source. This kind of single-window interface would serve four key objectives:

- provide stakeholders with a tool to access and search through large quantities of information;
- provide an easy way for anyone to contribute to Canada's documentary heritage by sharing their own content;

- pool information from across sectors, offering a more comprehensive record of Canada's past; and
- better position private sector leaders to learn about the interests of Canadians, allowing them to achieve one of their main objectives – knowing their customers.

Over the past decade, there have been numerous examples where these types of crowdsourcing tools have been used to improve and expand on existing historical collections. The National Library of Australia, the California Digital Newspaper Collection and others have encouraged citizens to review and correct electronically translated books, images, maps and other historical documents. Since 2008, public users have corrected tens of millions of historic records using the National Library of Australia's *Trove* database.

As well as developing public crowd-sourcing tools, it might also be worth considering how to better use social media applications which are already good at engaging Canadians of all ages. The task of determining what to preserve is often complicated by a lack of appreciation on the part of the public for how the historical record shapes public policy, community connections and our country's evolving narrative. Effective communication is an important first step in generating more awareness and popular support. Platforms like *Twitter* and *Facebook*, for example, could provide new avenues for institutions to connect with Canadians, and to better engage with citizens.

"At no other time in history has the medium truly been the message."

-Roundtable participant

In taking advantage of social media and other applications, it will be important to remember that discussion topics in these forums tend to be driven by popular news stories and change quickly. One roundtable participant noted social media conversations need to be a two-way street.

As technologies improve front-end search capacity, it may be possible for archivists and librarians to categorize the content of their holdings with only modest changes to traditional methods. It is becoming easier for individuals to self-categorize their own

data – adding tags and hashtags to blogs, video uploads and tweets that make information more accessible.

Challenges in sharing and access

Of course, the use of digital and social media tools can present its own set of challenges for our memory institutions, including:

1. Many Canadians do not have access to digital tools. For example, some senior citizens, persons with disabilities, low income Canadians and those living in remote or rural communities may not have access to online tools to preserve, access and share information. Bridging Canada's many demographic groups and engaging those with limited access to computers or mobile devices will be important.
2. All sectors share an interest in optimizing their content for search engines. With billions of websites now competing for peoples' attention and business, organizations are looking for ways to improve the discoverability of their information, and enhance their online presence. To stay relevant, organizations need to appear early in search results. They need to use social media in ways that catch peoples' attention. And they need to make it easy for users to access pertinent, well-designed information.

“Libraries and archives, like the private sector, will need to think outside the box to reach a more digitally connected population.”

-Roundtable participant

3. Organizations have access to an overwhelming variety of technologies, applications and platforms to manage and share information. Using different systems poses challenges related to interoperability, and can make it difficult to share or provide access across sectors.

4. Memory institutions often struggle to describe content in ways that make it easily accessible to users. Popular terms change with each generation, making it difficult to categorize content and design programs that include both new and past terminology and descriptions.
5. Finally, developing global standards and pioneering new digital applications to house and disseminate data could create a new industry for Canada. Participants cited the increasing popularity of genealogy webpages and historical search engines as proof that a multi-sector heritage database could produce economic and cultural benefits.

“As Canadians, we have an opportunity to be global leaders in the preservation of our cultural and national heritage, repurpose existing programming to fit the internet, protect copyright laws, and provide valuable consumer access.”

-Roundtable participant

Other methods for connecting with Canadians

Physical library and archival facilities provide a level of service that can be lost when people communicate exclusively via computers. Along with digital service models, consideration could also be given to creating stronger links between memory institutions located in regions across Canada. A pan-Canadian network of cultural and heritage institutions could serve to increase connections with, and between, Canadians. Such a network could also teach citizens how to preserve and share their information, and encourage a greater understanding of the importance of preserving our heritage.

Privacy and ethical issues

Many of Canada's companies and foundations have developed their own archives. In particular, financial institutions and media organizations hold records that document key economic and social events that have shaped our country's history.

For users seeking access to these sources, privacy, legal and ethical issues can present barriers. The private sector often wishes to profit from its content, and may be averse to sharing this information for free with public institutions. Therefore, it may be beneficial for archivists and librarians to work to establish closer relationships with the private sector, with the goal of providing broader access to these data on behalf of Canadians.

Guaranteeing authenticity

Another question considered how, where everyone can self-publish, Canada's memory institutions can guarantee the authenticity of content acquired from a wide variety of sources? One participant offered an interesting perspective, noting that the more something is shared, the more authenticity it acquires. Of course, this represents a completely different perspective than that of traditional archival and library approaches.

Participants also cited the news media's growing reliance on viewer-submitted videos and tweets as proof that social media is becoming a more credible source for reporting and data-sharing. Citizens are sharing real-time, eyewitness updates on natural disasters, military conflicts, and other events where traditional media may have only limited or delayed access.

Some participants suggested that stakeholders should continue to preserve original copies of documents after they have been scanned and placed on the internet. For instance, books that were once owned or signed by historical figures can have financial, cultural, and intrinsic value and should therefore be preserved.

5. The case for collaboration across sectors

All sectors of society have an interest in working together to preserve and share Canada's documentary heritage. Converting oral and written history into digital media, as well as determining which technologies to use, and how best to connect with citizens, are common issues that governments, businesses and the voluntary sector face every day. By working in collaboration, stakeholders from different sectors could leverage skills and best practices to meet their objectives.

Developing common standards could also help organizations address sector-specific challenges. For example, according to one roundtable participant, as job turnover increases with generational change in most sectors, it is more difficult to develop and maintain subject-matter expertise. Learning how to better collect, preserve and share institutional memory will be necessary to provide context and direction for new staff during periods of rapid change. This is of particular concern to Canada's archives and libraries.

As discussed above, private sector organizations and foundations are also a great source of historical information. Many businesses, especially those that are significant collectors of their own history, are interested in developing programs that allow them to better visualize data and search through large quantities of information. There are promising opportunities for collaboration with memory institutions to mine this rich content.

Deciding how to share information on the important role played by non-profit organizations in Canada was noted as a significant challenge. Foundations provide a valuable service to their communities, but often lack the capacity or knowledge of how to share their histories with Canadians. One roundtable participant underscored the need to improve the digitization of records and history in order to ensure that the contributions from the non-profit community are also included in the historical record.

Addressing these kinds of challenges will require the development of networks to facilitate collaboration among Canada's various sectors. Participants agreed that only by working together will government, business and non-profit organizations be able to leverage their expertise in ways that help resolve common and sector-specific challenges.

6. Library and Archives Canada's role in developing a multi-sectoral network

LAC as a leader in multi-sector collaboration

For a variety of reasons, memory institutions, businesses and non-profit organizations have not yet created strong links across their sectors. Participants agreed that LAC could play a role coordinating multi-sector networks that share information, establish common procedures and develop user-friendly, publicly-accessible digital tools to make preservation and access to information easier. Through such a network, stakeholders could address key policy challenges of acquisition, authenticity, dissemination and privacy.

Memory institutions may be well positioned to help other sectors filter information and provide context.

Intelligent, thoughtful curation is a vital and valuable service that memory institutions such as LAC could offer to multi-sectoral partners. In an era when millions of tweets, blogs and emails are produced daily across a broad range of platforms, filtering information and providing context are critical. In this sense, the expertise of memory institutions may be more relevant than ever.

“LAC’s greatest value add will be to filter information, provide context and facilitate multi-sector collaboration in the preservation and sharing of information.”

-Roundtable participant

7. Conclusion

Canadians need to work together more effectively to help identify what information should be preserved and how it might be shared. Private, public and non-profit organizations are all discovering that resolving key challenges around authenticity, acquisition and accessibility is becoming increasingly important as more of our country's documentary record is digitized.

Participants at our roundtable discussions across Canada agreed that digitizing information should be encouraged so that archived information can be effectively preserved and, when appropriate, made more accessible.

A combination of new digital tools (including social media) and physical infrastructure will be required to deliver an effective strategy to engage Canadians in all regions and demographic groups.

Efforts to preserve Canada's history in a digital format should also be multi-sectoral and focus on identifying common principles and applications. By collaborating to make more information available to citizens, memory institutions will be better positioned to provide an accurate record of Canada's documentary heritage.

Appendix A: Roundtable discussion questions

1. Determining whether to store new forms of communication is a key question that archivists, librarians and historians are attempting to resolve. What digital information (i.e. emails, blogs, tweets, etc.) should our memory institutions preserve? What information do you believe is important to preserve and share with future generations?
2. Canada's 2,400+ libraries and 800+ archives are also looking for new ways to store and make available this country's digital and digitized history. LAC has begun digitizing some of Canada's documentary heritage and placing it on websites, mobile applications and portals. With billions of websites competing for peoples' attention and business, organizations are looking for ways to improve their "discoverability" and online presence. What tools and methods is your organization using to appear early in search results and contribute to online public discourse?
3. How might non-governmental organizations, including the private sector, engage as a partner in helping to preserve Canada's memory? Are there international or domestic multi-sector partnerships that proved successful in helping your organization to acquire, preserve and/or share information? How were these partnerships formed? Are there specific lessons that can guide Canada's libraries and archives as they seek to develop new connections?
4. What are your impressions generally of libraries, archives and the professions involved? Do you feel you have a good understanding of LAC's central mandate? What interests and priorities might your organization share with LAC?
5. How can global comparative perspectives help assist Canadian institutions, including Library and Archives Canada, to achieve their policy priorities of working across sectors to acquire, preserve and share information in a digital age?

Appendix B: List of Participants

Halifax roundtable | February 22, 2012 | Dalhousie University
Edmonton roundtable | March 6, 2012 | University of Alberta
Montréal roundtable | October 31, 2012 | Bibliothèque et Archives nationales du Québec
Toronto roundtable | January 21, 2013 | Cisco headquarters

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