EXECUTIVE SUMMARY

LEADING IN THE DIGITAL WORLD: OPPORTUNITIES FOR CANADA'S MEMORY INSTITUTIONS

The Expert Panel on Memory Institutions and the Digital Revolution

Council of Canadian Academies
Conseil des académies canadiennes

Science Advice in the Public Interest

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Expert Panel on Memory Institutions and the Digital Revolution

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Message from the Chair

As an exercise, identifying the best opportunities for memory institutions at a time of rapid technological and social change is inevitably fraught with uncertainty. What is possible and promising now could be completely undermined by unforeseen developments in the near future. This, however, is what the Expert Panel on Memory Institutions and the Digital Revolution was tasked to do, and for good reason. Memory institutions and other organizations that find themselves on the front lines of digital change must continuously determine which opportunities warrant investment regardless of the uncertainty.

As challenging as it is to identify the best opportunities amid a digital revolution, the Expert Panel, comprised of leading experts from a broad range of disciplines, had the advantage of having the time to engage with one another in rigorous and insightful deliberations over the course of a year. The result has been very encouraging. Indeed, though it became clear that memory institutions must step up to the challenges of the digital age lest they become culturally obsolete, the benefits of doing so are significant. It also became clear that, in the digital age, the commonalities among memory institutions are now outweighing the differences. Thus, while important distinctions remain, memory institutions collectively share many fundamental problems, the solutions to which require that they work together across sectors to deliver what Canadians now expect.

It has been a pleasure and privilege to chair this Panel. I am very grateful to my colleagues on the Panel who contributed their time and effort to ensure the depth and quality of the report. We hope the resulting effort will be useful in helping inform the decision-making and policies of memory institutions as they navigate the myriad of digital opportunities and related challenges.

On behalf of the Expert Panel, I thank Library and Archives Canada and Treasury Board Secretariat of Canada for asking the Council to undertake this assessment, and the expert peer reviewers who set aside the time to critique the report and help ensure its comprehensiveness, accuracy, and balance. I would also like to extend my thanks to the Council's project team for its excellent work and support throughout the assessment. And, not least, special thanks to Heather Gordon for organizing an informative tour of the City of Vancouver Archives.

Doug Owram, FRSC
Chair, Expert Panel on Memory Institutions and the Digital Revolution

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Report Review

This report was reviewed in draft form by the individuals listed below — a group of reviewers selected by the Council of Canadian Academies for their diverse perspectives, areas of expertise, and broad representation of academic, industrial, policy, and non-governmental organizations.

The reviewers assessed the objectivity and quality of the report. Their submissions — which will remain confidential — were considered in full by the Panel, and many of their suggestions were incorporated into the report. They were not asked to endorse the conclusions, nor did they see the final draft of the report before its release. Responsibility for the final content of this report rests entirely with the authoring Panel and the Council.

The Council wishes to thank the following individuals for their review of this report:

Greg Bak, Assistant Professor, Department of History, University of Manitoba (Winnipeg, MB)

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The report review procedure was monitored on behalf of the Council's Board of Governors and Scientific Advisory Committee by **Margaret Conrad, O.C., FRSC,** Professor Emerita, Department of History, University of New Brunswick (Fredericton, NB). The role of the Report Review Monitor is to ensure that the Panel gives full and fair consideration to the submissions of the report reviewers. The Board of the Council authorizes public release of an expert panel report only after the Report Review Monitor confirms that the Council's report review requirements have been satisfied. The Council thanks Professor Conrad for her diligent contribution as Report Review Monitor.

Executive Summary

Canada is now a digital society. Decades of evolving digital technologies have changed how we interact, the amount of cultural content we create and exchange, and the methods we use to create and exchange this content. This reality has profoundly affected the established ways in which memory institutions, such as libraries, archives, museums, and galleries, have been managing Canada's documentary heritage for future generations. Indeed, the sheer volume of digital content necessitates new ways of locating, maintaining, and accessing digital holdings that must coexist alongside the continued need for the preservation of non-digital content.

To help better understand and navigate this period of change, Library and Archives Canada asked the Council of Canadian Academies (the Council) to undertake an assessment of memory institutions in the digital age to answer the following question:

> *How might memory institutions embrace the opportunities and challenges posed by the changing ways in which Canadians are communicating and working in the digital age?*

Additional direction was provided in four sub-questions:

- *With the use of new communication technologies, what types of records are being created and how are decisions being documented?*

- *How is information being safeguarded for usefulness in the immediate to mid-term across technologies considering the major changes that are occurring?*

- *How are memory institutions addressing issues posed by new technologies regarding their traditional roles in assigning value, respecting rights, and assuring authenticity and reliability?*

- *How can memory institutions remain relevant as a trusted source of continuing information by taking advantage of the collaborative opportunities presented by new social media?*

To address these questions, the Council appointed a multidisciplinary expert panel (the Panel) with expertise in archiving, history, digital humanities, management of memory institutions, digital technologies as they relate to cultural content, and law. In preparing the report, the Panel drew upon evidence from a wide range of traditional and non-traditional sources with the goal of

providing guidance to decision-makers concerned with the long-term success of Canadian memory institutions, both large and small. To encompass the range of new practices and services at the leading edge of a rapidly moving digital frontier, the Panel used non-traditional sources of information documented in specialized blogs and other social media to complement peer-reviewed literature. International examples from countries whose memory institutions have been at the forefront of adapting to the digital landscape were also valuable.

MAIN FINDINGS

To keep pace with the fundamental and unavoidable digital change now reshaping society, Canada's memory institutions must exercise their capacity to be leaders.

Effective institutional leadership that embraces the digital society and its opportunities can help guide change in all aspects of memory institutions' operations, both technical and managerial. Without such leadership, the digital challenges will only get bigger. While digital strategies will vary by institution, the response to the digital world must be fully integrated into management decisions in all cases.

Facilitating the change requires an integration of human resource capabilities, bringing together established disciplinary knowledge and expertise with technical skills and legal knowledge, and a substantial refocus of resources to ensure positive digital outcomes. At a time of limited resources, digital priorities invariably compete with other corporate functions. All memory institutions can benefit from a significant rebalancing of these resources, one that recognizes the importance of digital initiatives and how they can augment other corporate functions.

Many of the challenges that memory institutions face as they attempt to adapt to the digital age are rooted in technical issues associated with managing digital content, the sheer volume of digital information, and the struggle to remain relevant.

Although the digital environment creates some new challenges for memory institutions, many of the challenges relevant to non-digital materials are amplified in the digital world for the following reasons:

- *Technical challenges* — Unlike non-digital material, digital entities can only be experienced when they are processed by technology, which becomes obsolete quickly. Memory institutions are challenged with preserving files in formats that will remain accessible over the long term. Technical challenges have important legal ramifications for archives, since they are trusted to preserve records that may be used in lawsuits, human rights inquiries, and other investigations.
- *Volume of information* — For archives in particular, deciding which records to preserve is made more difficult by the growing amount of material to appraise, including content created by the public using web-based tools such as blogs and YouTube.
- *Relevance* — Users now expect information to be available from online search engines such as Google. Thus memory institutions are becoming increasingly aware that they are not central web destinations for information seekers. The copyright laws that memory institutions must follow in their daily activities are not always relevant for the digital age.

While these challenges may appear daunting, memory institutions can take advantage of the opportunities created by the digital age. Cultural shifts and technical advantages can also help memory institutions adapt to the digital environment and maintain relevance.

The digital world has the potential to fundamentally change the relationship between memory institutions and people for the better. The integration of a participatory culture into the daily operations of memory institutions will ensure that they establish a sustainable, authentic relationship with the public.

New technologies are allowing memory institutions to redefine their relationship with users in ways that increase their participation and engagement in a range of institutional activities related to documentary heritage. If done successfully, the Canadian cultural landscape can be transformed in important ways. By establishing meaningful relationships that foster trust between institutions and users, memory institutions can leverage both skilled and non-skilled input from citizens while providing them with enhanced and valued experience.

Building relationships is especially important for memory institutions that steward Aboriginal cultural heritage and archival records. Meaningful collaborations between Aboriginal communities and museums aimed at increasing digital access to, and engagement with, cultural heritage may play a role in broader efforts at reconciliation.

Memory institutions are beginning to realize that digital projects, which may be national or even international, must establish firm roots in the community in order to succeed. For example, the Digital Public Library of America (DPLA) manages a project that involves training local librarians in digital technologies. The librarians will use their new skills to help community members digitize their personal materials, thereby enriching DPLA holdings with local content.

Once memory institutions forge relationships with community members, they can more easily engage citizens in various participatory projects. These projects benefit both the institutions (e.g., by enhancing the content or descriptive data of collections) and the public (e.g., by providing them with unique experiences). Dedicated expert volunteers may even design software programs that enhance the day-to-day functions of memory institutions or create innovative applications that encourage further input from the public.

Collaboration is essential for adaptation. It allows memory institutions to access resources vital for delivering enhanced services that users now expect in the digital age.

Through collaboration, memory institutions can access the breadth of knowledge, skills, and technical infrastructure that underpin both core and specialized services. This allows them to carry out their main functions much more efficiently. For example, collaboration can make core services more convenient for users, reduce the workload for individual institutions, and increase standardization of policies and digital platforms.

In addition to accomplishing these more practical goals, collaboration can provide unique opportunities for the public that would not be possible if memory institutions acted alone. Through collaborations with private companies and academia, memory institutions can become involved in exciting activities that enhance their visibility and undertake large projects that require additional resources. Memory institutions can cultivate trusting relationships and create rewarding experiences for both themselves and their diverse users by collaborating with various communities. These relationships can pave the way for future collaborations and engagement in participatory opportunities. An integral concept for the success of many of these collaborative strategies is openness.

Knowledge sharing, innovation, and further collaboration are enabled when programmers make their software open source and when memory institutions release data under open licences. Countries that have provided cultural data to their citizens and encouraged reuse of data through activities such as contests have demonstrated the benefits of this approach.

For collaborations to be successful, however, memory institutions must be conscious of the need to manage reputational and other risks associated with collaborations and to gain proper credit for their role and contribution.

BENEFITS OF BEING DIGITAL

The digital opportunities of today demand collaboration and information sharing. In lowering barriers to collaboration and enabling more complex services, digital technologies provide memory institutions with an exceptional opportunity to engage a wider set of culturally relevant, but geographically dispersed, communities. Memory institutions would benefit by becoming more vocal participants in the current national debate on digital infrastructure, given its potential to support the acquisition and preservation of digital heritage. Such participation would ensure that their needs, along with those of the wider public, are represented.

Leading digitally is also about keeping pace with expectations. In all facets of our lives, we expect citizen-centric services to seamlessly interact with how we use and access digital material and information every day. If documentary heritage is to be used in the shaping of Canada's culture, it must be digitally discoverable and accessible. Expanding presence in these digital spaces is therefore important for future relevance.

Canada's memory institutions are historically contingent: Library and Archives Canada dates back to the establishment of the Dominion Archives in 1872 and the National Library of Canada in 1953. The digital environment of the 21st century is a different time and place. Despite the recognized limitations and responsibilities of governments and institutions, the internet, a worldwide repository of documentary material, is fast becoming its own archive. In the past, we could only read one book at a time. Today, we can use machines to "read" millions of books, examine thousands of artefacts, or wade through a myriad of records at once. New understandings and interpretations will emerge from these new ways of accessing information. It is an exciting moment, and Canada's memory institutions have an opportunity to show leadership and shape the way in which we remember, now and in the future.