

The last section of the book discusses the steps that should be taken to establish the systems. For example, running an existing system in parallel with the new system is suggested. The book provides a very good checklist for things that should be considered if you are about to implement a storage and retrieval system. The chapter on justifying the system, which includes a financial analysis for return on investment, has a private sector orientation. For public sector organizations, "after tax profits" is not a suitable measure of success. However, public sector organizations are increasingly following a business case approach to justifying automation projects and this book shows how some of the analysis can be done. In conclusion, if more organizations followed some of the suggestions in this book there would be more successful imaging systems than there already are.

Philip Sylvain

National Archives of Canada

Optical Digital Image Storage System: Project Report. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION, Archival Research and Evaluation Staff. Washington, D. C.: U.S. Government Printing Office, 1991. (1991-242-334/91104)

This report provides some very valuable insight into the design and construction of an optical disc system intended as a surrogate for microfilm. Many organizations want to know which is the most cost effective way to copy and make available textual records and be assured that the answer is based upon empirical study, not merely spreadsheet models and company brochures. This report answers this question, although not as directly as one would hope.

What were the original objectives of the project and what were the conclusions?

Objective 1: Establish the feasibility, costs, and benefits of converting paper and microform documents to digital optical disc and to assess document input speeds required to accomplish conversion in an operational environment. According to the cost analysis, optical disc is twice as expensive as microfilm. However, nowhere does the report state this directly. The authors of the report conclude:

From the cost analysis presented in Appendix D, it appears that any conversion of paper records to an alternate form cannot currently be justified purely on the basis of cost alone. However, the ODISS project also identified other intangible benefits, such as improved image legibility, improved timeliness and accuracy of access, an enhanced retrieval capability, reduction of storage space requirements, and reduced or eliminated handling of original documents. A conversion of records to an alternate form may be justifiable on a basis other than reduction of costs. Each case must be decided on its own individual merits.

This system, even if its major shortcomings identified in the report could be overcome, is less efficient for copying textual records than a microfilm system.

A second issue, which is of even greater concern to archivists, is accurately to capture the information in the documents. The report states that ninety-four per cent of the scans on the high speed scanner produce acceptable images and the remaining six per cent are scanned on the low speed scanner to produce an acceptable image. They

imply that all the information can eventually be captured. However, on page 107 the report states with respect to image quality reject rate that "... the system manager who monitored production closely on a daily basis felt that there were too many operator errors at quality control. These errors included failing to mark some poor images for rescan...." This confirms my own experience with using this system to scan low contrast documents. I found that as many as ten per cent of the images could not be captured with all of the information legible. I used documents that were easily captured using microfilm. Another significant drawback is that large documents above 11"x17" could not be scanned by the system.

Objective 2: Determine the optimal scanning density for documents consistent with producing legible images while minimizing storage requirements. The optimal scanning density in most cases was concluded to be 200 dots per inch. This is equivalent to the detail mode of a FAX machine.

Objective 3: Assess the storage capacity of the system and media in terms of storage cost and efficiency. One can store 40,000 images on the discs used in the project. The entire 200,000 images they scanned were stored on five discs. However, the equipment required for retrieval takes up a substantial amount of space. The report concludes that a collection that is above 1,000 cubic feet will take less space on optical disc than in paper form. One must bear in mind that the cost of storing the paper is substantially less expensive than the cost to copy the records to optical disc.

Objective 4: Evaluate system capability to automatically retrieve stored optical images using electro-mechanical devices. The system was able automatically to retrieve files quickly from a jukebox of the optical discs. The report states that there could be considerable person time savings using this type of retrieval system when compared with manual retrieval systems.

Objective 5: Determine the suitability of creating printed document images from digital data. The images printed from the digital data are the best benefit of this type of system. The contrast of the images is significantly increased and the images are much easier to read in most cases than those produced from microfilm reader/printers. Many equipment vendors are taking advantage of this fact and offer equipment that is able to scan microfilm and produce the clean images similar to optical disc systems.

Objective 6: Determine staff and public reaction to and acceptance of an image retrieval system as opposed to the paper and microfilm currently used for reference. Most people and staff who used this system liked it very much. This is not surprising since the images displayed on the screen are of higher contrast and easier to read than the equivalent images on microfilm readers. In addition functions such as pan, zoom, and display of multiple images at the same time from different areas on a disc make these systems much more versatile than microfilm systems. These systems allow a large number of images to be available on-line with little "wait time" before seeing a file. The problem is that the optical disc systems are so expensive and the cost per image to scan so much more than to store the original record or to microfilm the record that few organizations can afford to put more than a small number of records on this type of system.

This project required risk and vision. People within NARA and the archival community who said microfilm was superior to optical disc may feel vindicated. The project was not an unqualified success but we can all learn from it. The archival community is

indebted to NARA for taking the chance to go ahead with this project. I praise them for allowing us to see the results as I have benefited from this tremendously. This report also confirms our own studies at the National Archives of Canada. We decided not to go ahead with a large textual record optical disc project based upon the information we obtained from using NARA's system; otherwise we may have spent tremendous amounts of scarce resources on a quixotic chase for the perfect replacement for microfilm. Optical disc technology can compete with traditional technologies in the storage of some types of records but not in the case of textual records typically found in large archives. My final comment is that archivists should wait a few more years before starting a project to copy textual records onto optical disc.

Philip Sylvain

National Archives of Canada

Negotiating the Past: The Making of Canada's National Historic Parks and Sites. C.J. TAYLOR. Montreal and Kingston: McGill-Queen's University Press, 1990. xviii, 246 p. ISBN 0-7735-0713-2.

The meta-narrative of C.J. Taylor's monograph is drawn from a detailed examination of "the politics of historic sites," and seeks, ultimately, to lay bare the dynamic "relation between the state and society, regional and national perspectives, and history and national identity" that coalesce around the negotiated issues of historic site selection and development (p. xiii). This thoroughly researched and comprehensive history of the development of Canada's historic parks and sites programme features a host of largely conflicting and competing personalities, organizations, and forces jockeying for control of what would become, by the late-1960s, an important federal cultural programme. The non-human characters in this drama include the national heritage movement in the late-nineteenth and early-twentieth centuries (both regional and national components), three modules of the federal government (the cabinet, the administration of the National Parks Branch, and the Historic Sites and Monuments Board (HSMB)), as well as a cast of literally dozens of federal government employees and academics. The thesis of the monograph is neither complicated nor unexpected: Taylor contends that the competition between this multitude of conflicting interests and organizations, a fragmented and unempowered bureaucracy, and the physical dimensions of the various sites prevented the creation of a rational, national heritage policy for the "the selection, preservation, and interpretation of heritage places" (p. xvii) in Canada.

In spite of Taylor's avowed purpose, this monograph is an utterly satisfying administrative history spanning four decades (the 1920s to the 1960s) of the activities of the two lead players of the federal historic sites programme, the HSMB and the historic sites programme within the parks branch. While the narrative seems, at first glance, to be overly preoccupied with the history of the HSMB, this in fact reflects the failure of the federal government to intervene forcefully in this area, to develop coherent policies, and to provide funding for a programme within the parks branch to administer it. This fixation with the HSMB is averted near the end of the monograph, during the era of the mega-project and the eventual ascendance of the historic sites programme.

In the course of the presentation of his arguments, Taylor addresses a number of very important heritage issues and topics. The most interesting point, from my perspective as