CONTEMPORARY ISSUES IN LIBRARY AND INFORMATION SCIENCE

Wan Ali Wan Mamat

IIUM PRESS
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

CONTEMPORARY ISSUES IN LIBRARY AND INFORMATION SCIENCE

Editor

Wan Ali Wan Mamat

Ahmad Bakeri Abu Bakar

IIUM Press

CONTENTS

11. THE NEED PRESERVATION OF LIBRARY MATERIALS: DIGITIZATION

Huda Skaik, Basri Hassan and Wan Ali Wan Mamat
Department of Library and Information Science, Kulliyyah of Information and Communication Technology, International Islamic University Malaysia

ABSTRACT
In today's world of electronic information, librarians have directed their attention and efforts towards digitization. Digitization has been widely used as a method for conserving libraries' collection, in particular the special collections of rare books, manuscripts and archivals. Conversion to a digital format gives the users a new range of search tools, since what is created is a file that can be manipulated as any other electric data file.

11.1 INTRODUCTION

Attention and awareness of the field of preservation have been increasing in the last few years. Concern started primarily after the 1966 disaster in Florence, when river Arno flooded into the middle of the city resulting in devastating damage to the priceless collection of the Biblioteca Nazionale. Nearly half a million books and manuscripts suffered from the inflow of water and mud (Feather, 1996). Florence was indeed a critical point in the history of conservation; this event gave a striking call to all librarians of the importance of a broader perception known as preservation. People's perception of conservators changed as they saw a huge rescue team grouping from around the world to help in restoring the library's treasures. A whole generation of conservators had to be trained either at Florence or subsequently by those who learned this craft there, while the new techniques that were developed have proved invaluable elsewhere (Ogden, 1979).

This was mainly due to a different preservation problem faced by a number of research libraries in America; the problem was of a physical aspect in the decaying acidic paper used in printing books and documents.

The use of acid in manufacturing papers had already been a subject of scientific investigation in the late 19th century (Irvine & Woodhead, 1894). But the consequences were not truly addressed until a number of surveys of major American libraries were revealed in late 1960s through mid 1970s indicating high percentages in deterioration in some academic and research libraries (Feather, 1996). For instance, in 1975 a survey conducted at Colombia University showed that 30% of its holdings were embrittled (Battin, 1985).

11.2 DIGITIZATION

Digitization has been investigated as one solution to the problem of information preservation. Feather (1996) argues that format conversion is perhaps the only feasible solution to some preservation problems because conversion to digital format gives the user a whole range of new search tools since what is being created is a file that can be manipulated like other electronic data files. Yet the problem according to Feather is that those files are subject to the same problems as files created by any other means. As long as the purpose of digitization is to preserve information, then it must be justified technologically and economically, although the technical fears are now being overcome with the constant technological developments, major cost issues still remain (Conway, 1994). A number of research projects have been conducted over several years either in USA or Britain, almost all of them concluded to the noteworthy role of digitization as a tool for preservation of texts (Kiernan, 1995).

According to Jones (2001) the advantages of digitization lay in the fact that materials can be accessed from anywhere, at any time; moreover, it can reduce the wear and tear to the original document and it can enhance images electronically so that they can be viewed with greater legibility. Conway (2000) agreed saying that the information that has been digitized may be delivered directly to the users and retrieved remotely.

Stefano (2000) said that the frustration side of digitization lies in the fact that it is not yet the universal cure-all remedy technology needed to supersede microfilm as a medium for long-term preservation. This digital technology and its use as a method of reproducing library materials is regarded as an innovation; however, reproduction itself in not synonymous

with preservation. By virtue of its reproduction capabilities, digital technology is dangerously promoted by some as a preservation technology. Stefano (2000) argues that the use of digital technology specifically for preservation purposes is still premature. The only method for recovering the content of brittle materials is to copy or reformat them to more stable medium. The microfilm was invented to solve this problem on a long term, but actually experts argue that it turned out to be short term solution in terms of longevity and stability provided.

According to Deshpande and Pange (2000) the disadvantages of digitization can be summed up in the capital, running and preparation costs, as well as in the storage requirements. Smith (2000) indicated that creating digital surrogates made users rely totally on the computers and internet staying away from the physical libraries. Brian et al. (1999) said that digitization is more versatile than paper publications because it provides excellent searching capabilities by doing full text or key word indexing. Nordin (2008) commended the full text searching option as one of the major advantages of digitization in addition to cross collection indexing and using newly designed user interfaces. Nordin also stresses on the advantage of flexibility of the digital material since the data is not fixed and is thereby can be reformatted, edited and printed. Bharangar (2006) said that the image quality of digitized formats is good allowing wide range of users to view digital surrogates, in addition to the multiple points of access the digital formats provide.

However, they indicated that the disadvantages of digitization are more than its benefits. The first issue lies in the cost because after digitizing the item, there are ongoing storage costs which may cost the library far more amounts than housing materials. Moreover, it does not provide proper preservation solution for all materials, for example, social sciences and humanities volumes are best preserved on microfilm or photocopy facsimiles. Not only that, but also they argue that with the rapid growth of technology, there is a question whether the current electronic formats will still be accessible in the future with the new technological equipments and standards. Finally, they argue that instead of moving towards paperless society, users actually tend to print all texted items for their ease of use.

There is still some uncertainty when dealing with specific

fundamentals such as how to traverse public access and use of materials in the context of intellectual property and copyright regimes (Nakata et al., 2008) and how to respond to the needs of users regarding the materials they need. The priority for specific standards and protocols for indigenous digital collection is still to gain traction in this process. Digitization if collections in libraries have been an evolving area of practice. As a general digitization principle, libraries quite understandably prioritize those items that should be digitized. Nakata et al. said that at the top of copyright criteria are items out of copyright or items for institutions own the copyright.

The National Media Lab reported back in 1998 that with moderate care, most magnetic tapes used for digital data storage would last for 10 years, and with special storage and handling, tapes can store information for up to 30 years if not more. Stefano (2000) argues that electronic information is machine-readable and dependent upon not only the machines used to display recorded texts and images, but the programs that read and format them for users. The dangers of obsolescence, because of hardware and software's rapid change, are more insidious than the instability of the media themselves.

11.3 CONCLUSION

At present, archiving digital information with the hope of preserving access through migration or emulation is still not handy. Some plan for a method of long-term storage that resolves the access problems associated with obsolete software and hardware should be investigated. Preserving access to digital information has become an urgent objective because of the short-lived cycles of today's hardware and software. The question of preservation for digitized materials has become more a discussion about the continued access to electronic information in the future, rather than a question of how to preserve digital recording media.

REFERENCES

Feather, J. (1996). Preservation and the Management of Library Collections, 2nd ed. London: Library Association Publishing.

Ogden, S. (1979). The impact of the Florence Flood on Library Conservation

in the United States of America: a Study of the Literature Published 1856-1976. Restaurator, 3(1/2), 1-36.

Irvine, R. and Woodhead, G.S. (1894). On the Presence in Paper of Residual Chemicals Used in its Preparation. In Feather (ed.) Preservation and the Management of Library Collections, 2nd ed. London: Library Association Publishing.

Battin, P. (1985). Preservation at the Colombia University Libraries. In Feather (Ed.) Preservation and the Management of Library Collections, 2nd ed. London: Library Association Publishing.

Conway, P. (1994). Digitizing Preservation. Library journal, 19(2),42-45.

Kiernan, K. (1995). Material Concerning the Electronic Bewulf on the British Library Web server. In Feather (Ed.) Preservation and the Management of Library Collections, 2nd ed. London: Library Association Publishing.

Jones, T. (2001). An Introduction to Digital Projects for Libraries, Museums and Archives. Retrieved on September 14, 2009 from http://images.library.uiuc.edu/resources/introduction.htm

Stefano, P. (2000). Digitization for Preservation and Access. In Banks & Pilette (Ed.) Preservation: Issues and Planning. Chicago: American Library Association.

Nordin, N. M. (2008). Glorious Legacy of Malay Manuscripts: Digitization of the National Treasures. Voice of Academia, p.I-14.

Nakata, M. et al. (2008). Indigenous Digital Collections: an Early Look at the Organization and Culture Interface. Australian Academic and Research Libraries, 39(4), 223-236.