

PRESERVATION OF MATERIALS IN A SOCIAL SCIENCE LIBRARY : A CASE OF DIGITISATION

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ABSTRACT

For Social Science research libraries, preservation of documents is as important as the acquisition, access and retrieval of information. The application of information technology, therefore, needs to be applied to preservation as well. The modern techniques give us the option for preservation, access and retrieval, which was not possible with the traditional options. Digitisation, as a modern method of preservation, is yet to be tested as far as reliability is concerned. So, before undertaking the process of digitisation, a clear-cut policy should be formulated and certain guidelines are to be outlined pertaining to selection, both of documents and software. A cost-benefit analysis should also be made to ensure that the digitisation of documents reaps maximum benefits and justifies the cost involved.

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0. Introduction

The twentieth century has witnessed a proliferation of scientific literature on an unprecedented scale. There has been increasing emphasis on overall development of the human endeavour in society. All cultural, social, political and economic activities in government, trade, industry and social interaction now take place in a very complex environment and give rise to information and thus, recorded knowledge grows apace in social sciences as well. A tremendous acceleration in the collection, reproduction and storage of data and documents in all fields of social knowledge, and rapidly increasing investment in social science scholarship and research have caused the production of enormous bodies of reports, articles, papers and other information carriers. The social science information, however, differs characteristically from natural and mathematical science information. In most of the social sciences, the range of the potential subject matter is extremely wide. It is also relatively more difficult to make relevance assessment. It is less cumulative, covers longer chronological periods and is more comprehensive, as its subject content never becomes obsolete or outdated.

Due to the very nature of social sciences mentioned above, preservation or conservation in a social science library assumes utmost importance. The very nature of social science

research requires large number of periodical statistical data to arrive at a conclusion. For the purpose of retrospective and historical studies also, old documents form the core of source materials and are often consulted. Therefore, a good social science library is supposed to possess unbroken records of periodical socio-economic statistics. However, due to constant use, the old books bear brunt of wear and tear and require special care and attention.

1. Types of Materials to be Preserved

As stated above, a social science library is supposed to preserve and maintain unbroken series of periodical socio-economic statistics. These include annual reports, census documents, statistical handbooks etc. These apart, old documents also need to be preserved for the purpose of longer life. In short, all documents other than those of ephemeral value should be preserved in a social science research library.

2. Preservation Methods

The methods of preservation can broadly be classified as conventional and non-conventional methods. Conventional methods include binding, lamination, fumigation, pest control, cleaning etc., which have been adopted by the libraries since a long time. Though these conventional methods arrest the decay of books, the quality of the papers and letters tend to deteriorate with the passage of time. The old books can not be made available to the users freely and also can not sustain strain of the processes like photocopying prohibiting free use in the Library.

2.1 Modern Preservation Methods

In order to preserve the materials in the original format, the present day libraries have an additional option of converting the contents of documents in some other format. This sort of conversion has the following advantages:

- i. It ensures longer life of the contents, knowledge/information;
- ii. Allows free access to the users without damaging original document;
- iii. Saves physical space of the library;
- iv. Facilitates speedy access to the contents. This is true especially in the case of computerised forms and digital resources;
- v. In case of online databases and digital materials, resource sharing becomes easier and libraries need not physically transfer resources from one library to other.

The two major formats or modern media available are 1. Microforms; and 2. Digital resources:

1. **Microforms** : A microform can be defined as a "material in a reduced state that cannot be read by the unaided eye"⁽¹⁾. Microforms include microfilm, microfiche and micro-opaque. A microfilm is a roll or stripfilm format; either transparent or translucent. A microfiche is a microform in a sheet film format, jacketed or, may be in aperture form, transparent/translucent. While a micro-

opaque is a microform in a sheet film format with its images on opaque material ⁽²⁾. Microform resources provide longevity to the materials if properly stored.

2. **Digital Resources :** Most of the present day libraries prefer to have resources in a digitised form. In this age of internet, focus has now been shifted to digital or virtual libraries which are visualised as libraries without walls. Though there is no universally accepted definition of digital library, there are many descriptions, definitions and varieties of digital libraries ³. The Digital Library Foundation provides a working definition of digital libraries as " organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or a set of communities"⁽⁴⁾.

Thus, creation of a digital library presupposes the creation of electronic or digital resources, and conversion or digitisation of the existing resources into digital forms. Digital resources may include either of the following items ⁽⁵⁾:

- i. Collections, consisting of documents, which are created or converted into machine readable or digitised form;
- ii. Scanned images, images of photographic or printed texts;
- iii. Online databases and CD-ROM information products, especially those with interactive and multimedia video components;
- iv. Computer storage devices;
- v. Computerised databases which are accessible through internet and other networks;
- vi. Digital audio, video clips or full length movies; etc.

3. Problems of Digitisation

A digital library is supposed to acquire digital resources listed above or undertake digitisation of its print resources into either of these formats. However, digitisation as a method of preservation must be adopted with caution as digital information is "...is very hard to preserve" and "it is impossible to guarantee the longevity and legibility of digital information for even one human generation"⁽⁶⁾. In case of a social science library the problems associated with digitisation are more complex due to the fact the size of the collection is usually larger and older as compared to other libraries. Also in case of social sciences, the availability of digital resources is relatively less as compared with that of libraries attached to scientific and technical institutions. In addition, resource crunch is also a major obstacle towards digitisation of social science research libraries.

Thus, before undertaking digitisation of its collection, a library needs to follow certain guidelines. It is true that in Indian context, digitisation of the entire contents of a social science research library is neither feasible nor desirable. Thus a social science research library needs to identify the documents from its collection for which digitisation should be undertaken with priority for which it has to formulate certain policy guidelines like:

- i. Documents that are important from the historical point of view locally, nationally and universally.
- ii. Documents having a clear correlation with the educational and research objectives of the parent organisation should be taken up for digitisation.
- iii. Once selection of documents for digitisation is over, care should be taken to exploit fully the benefits inherent with electronic documents. This can be done by means of providing hyperlinks and indexes of different sorts.
- iv. For providing these hyperlinks, the professional staff will have to strive hard. They will have to provide the keywords, indexing terms in the cases where documents do not possess the same..

4. Digitisation of Resources : A Feasibility Study of G.I.P.E. Library

The Library of the Gokhale Institute of Politics and Economics, since its inception in 1930, shares the Library of the Servants of India Society which was established in 1905 by the veteran freedom fighter Gopal Krishna Gokhale. The Institute is a major research and teaching institute in economics in India. The Library is one of the major databases of social science literature in India with a collection of over 2,52,000 documents and receives 470 national and international journal titles. Being the Library of economics research institute, it specialises in all branches of economics. However, its collection in many other subjects in social sciences and humanities like sociology, political science, political history, education etc. is also very strong. Apart from books and periodicals, the library also receives large number of reports, statistical handbooks, tables, and census reports etc. brought out by the Government of India and different state governments. Besides, the library is also a depository library of the publications of the United Nations and its allied agencies. The library possesses about 20,000 documents, which can be categorised as 'rare'.

An attempt has been made to discuss the problems associated with digitisation of social science libraries taking the library of Gokhale Institute of Politics and Economics as a case study. For this purpose the decision matrix suggested by Paul Ayris⁽⁷⁾ has been adopted as guideline for the feasibility study.

Paul Ayris has put several questions in his decision making matrix under the following four broad headings viz. Assessment, Gains, Standards, and Administrative issues. However, many of these questions seem to be for evaluation of the digitisation programme, i.e., post-digitisation study. In the following paragraphs, each of the question posed is discussed in detail in the context of digitisation of materials of G.I.P.E. Library.

4.1 Assessment :

- i. Is there user support? : It is anticipated that the documents selected for digitisation will definitely be more used in their digital form, and will at least become usable if required, which many of them are at present not so.
- ii. What are the local collection development policies? : At the time of selection of documents for digitisation, care shall be taken to ensure that it

is being done in consistence with the collection development policies being pursued by the library.

- iii. Does this form a national or international contribution? : In G.I.P.E. library, there are certain very rare documents, which are not easily available in any other library of India. Their existence in the digitised form elsewhere will be checked. In Indian digitisation scenario, such chances are very rare. Digitisation of these documents will definitely form a national as well as an international resource.
- iv. Does a similar product already exist elsewhere? : As already stated, certain rare documents of the library, though not exhaustively checked, are not available elsewhere. Some of these may be available in few other libraries, but in Indian conditions, their availability in digitised format will make them very widely accessible.
- v. Is this conservation or preservation? : Digitisation may be viewed as a process meant for both conservation and preservation of documents. Conservation of information in any format and making the same available to the target users assumes equal importance as preservation of the documents in a social science research library.

4.2 Gains

- i. Does this digitisation reduce wear on the originals or open up access? : Digitisation serves both the purposes. On the one hand it will reduce totally a wear on the original document and by conserving knowledge and information contained therein it will open up access to the contents of documents to a great extent.
- ii. Is the intellectual content of the work enhanced? : In a way, digitisation enhances the intellectual content of the documents. When access becomes unlimited and navigation becomes easy, disparate collections of the world are coming together, it is likely to enhance the intellectual content of the digitised documents.
- iii. Is navigation easy? : In fact, easy navigation is one of the most noteworthy advantages of digital documents. This can be done by means of providing hyperlinks of different types.
- iv. Is use of the damaged original material enriched? : Definitely. When access to damaged material is restricted to time, place and even to a person referring; digitisation shall definitely improve and increase its use by various methods i.e. Web access, printing, online access, etc.

4.3 Standards

- i. Have suitable standards been followed? : In India, very few standards pertaining to digital materials have been developed. The Guide for data elements and record format for computer based bibliographical databases for bibliographic description (IS : 11370-1985) ⁽⁸⁾ is perhaps the only relevant Indian standard that has been developed for digital materials so

far. More standards can be developed and adhered to for the purpose in India. At the international level, however, quite a good number of standards are available. They may be grouped under the following⁽⁹⁾ : i. OSI and Internet Data Transfer Standards; ii. Character Set Standards; iii. Document Interchange Standards; iv. Audio Interchange Standards; v. Image Interchange Standards; vi. Moving Image and Multimedia Standards; vii. 3-dimensional Standards; viii. Directory Standards; ix. Metadata Standards; and x. Locator Standards. Appropriate and relevant use of these standards may be made in digitisation programme.

- ii. Are the originals available from a variety of hardware platforms? : At the time of selection of the software for digitisation, care shall be taken to ensure that they are available from a variety of hardware platforms.
- iii. Is the software available and easy to use? : This is a very important issue for the purpose of selection of software for digitisation. Many commercial options are available for the purpose of selection of the appropriate software, however, an expert committee shall be formed to examine various software options available.
- iv. Does the metadata conform to agreed standards? : This point can be treated as a post-digitisation check-up.
- v. What are the archiving requirements? : The digitised documents should be easy to migrate and emulate, easy to store, cost-effective, provide easy and fast retrieval and compatible to different hardware and software systems. At the time of migration, there should be minimum loss of data.

4.4 Administrative Issues

- i. Do you have enough money? : The size of the job involved at G.I.P.E. library and its cost shall be enormous. An inquiry with commercial vendors by the G.I.P.E. library reveals that the total cost involved in digitisation of 20,000 books comes approximately to Rs.11,000,000 or Rs.550 per book having 200-250 pages. So, the fund may be a constraint. However, being one of the major databases of important social science documents in the country, the library may get funds from different governmental and non-governmental bodies.
- ii. Have copyright and rights issues been secured? : The question of copyrights issue comes to picture once the library starts acquiring digital materials on a regular basis. However, the library must take care to obtain copyright of its resources after the same is digitised and made available online to outside agencies.
- iii. Did the institute have enough expertise? : Right now, the Gokhale Institute of Politics and Economics, like most of the social science research institutes, does not have any expertise on digitisation. In Indian scenario, no academic institution like colleges, research institutes except a few scientific and technological institutes have such in-campus support available. The apex bodies interested in automation, digitisation and

networking should take into consideration this critical problem, and take necessary steps to overcome it.

Secondly, there should be an IT information centre set up which can satisfy all IT related queries of these organisations. Bodies like INFLIBNET may take initiative in this regard.

- iv. Is there a partnership with a commercial provider? : In case the library gets sponsors for its digitisation programme, it may not go for partnership with commercial providers, but the option may be kept open and it can decide upon the same after careful consideration of the associated problems.
- v. Does the benefits justify the costs? : This is a very pertinent issue which requires utmost attention. Digitisation involves significant investment, which has to be taken into consideration by a library before embarking upon digitisation programme. However, if proper selection of the documents is done and copyrights of the digital documents are acquired, the Library can raise some of its costs. As already stated, the library has to spend approximately Rs.11,000,000 for digitisation of 20,000 books. However, considering the benefits of digitisation, the costs involved seem to be justified, because by digitisation, the library will open up its treasures to entire world and also preserve the documents for the posterity. It also presupposes commercial exploitation of digital materials for which collaboration with commercial service providers may be sought if required.

5. Conclusion

Among the methods of conversion of documents, microfilming and digitisation are the most prevalent ones being adopted by libraries. Microfilming has been adopted by libraries for quite a some time. Thus it is time-proven, less expensive and the chances of loss of data are not there. On the other hand, longevity of digital materials is yet to be proved, and digitisation as a method can be more expensive and the chances of loss of data are more. However, digitisation has its advantages as well. In case of digital resources, random access is possible and they are more user friendly. Above all, in the present age of internet, the possibility of putting the documents on net and providing to them unlimited access is also possible only with the option of digitisation.

At the outset, digitisation seems to be quite advantageous and attractive option. Microfilming, however, is still a used technique even in advanced countries like U.S.A. for preservation of documents. The reliability of digitisation under migration and emulation needs to be checked by experts in information technology.

6. Reference

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