REPROGRAPHIC SERVICES IN DELHI LIBRARIES

Surveys the reprographic facilities available in the libraries of Delhi. The various types of equipment available in these libraries are mentioned. Analyses the implications of the copyright law and development of indigenous reprographic equipment. Suggests better utilisation of the existing facilities and stresses the need for inter-library co-operation.

Introduction

After independence, Delhi has become an important centre of research activities in India. It has the largest number of educational institutions and research establishments. In addition to three universities for post-graduate studies in engineering, the Indian Institute of Technology was established in 1961. There are over fifty colleges affiliated to Delhi University which have facilities for post-graduate studies. According to the 'Directory of Scientific Research Institutions in India, 1969', there were 46 scientific research institutions, in Delhi alone, in 1969. 'Directory of Social Science Research Institutions in India, 1971' lists 27 institutions in Delhi engaged in research in various disciplines in Social Sciences. There are over ten institutions providing research facilities in the humanities. During 1973-74, the Indian Council for Social Science Research granted a sum of Rs. 13,20,739 for Delhi State [3].

With the increase in research activities the number of learned publications, research reports and scholarly journals has accelerated tremendously. The availability and growth of Union catalogues, indexing and abstracting journals, have also necessitated the demand for copies of documents from different sources. It is virtually impossible for any research institution, library or a learned body to collect, collate, classify, catalogue, store and retrieve all the published and unpublished information that is relevant to their field of study today or which may become relevant at a future date. The enormous rate at which documentary material is growing, makes the use of simple, inexpensive and exact copying of such material, a vital means for effective communication.

During the past few years, the cost of printing paper has risen notably. As a result, prices of books and periodicals have become almost prohibitive. This problem is more serious in developing countries where due to economic pressures and paucity of funds, limited numbers of copies of essential items are available to research workers and scientists. For obvious reasons it is cheaper to obtain a photocopy of a periodical article, rather than to buy the original.

Reprographic techniques enable one to obtain from an original document, a copy or copies which resemble it in all respects except perhaps the size which can be varied as required in some techniques. The language of the original or any complicated diagrams, maps, etc. that it may contain does not in any way prevent copying. Reprographic techniques, also by reduction in size such as in microfilming or reduced size copying, can produce easy-to-handle copies from large-size documents, maps, etc. These advantages have found numerous applications in every place where documentary material is being used: in the office as a substitute for many laborious and time-consuming clerical operations such as retyping; in industry for the convenient copying of large-size drawings, plans, charts, etc. and in libraries, archives and research institutions for obtaining copies of out-of-print material and unpublished works, for saving storage space, for publication in limited editions and for use in information retrieval systems.

1. Types of Reprographic Techniques

Most of the reprographic equipment of today is of the push-button type requiring little skill on the part of the operator. Comparatively in-
expensive copies can be made in a matter of seconds. The equipment is generally compact and can be placed on the desk top. Some of the equipment produces different kinds of copies usable for purposes such as “master” or spirit duplication, offset printing and diazo printing, transparent copy for use in projectors, colour-coated copy, and copy on various kinds of paper ranging from tissue to card. The chart shows various types of reprographic techniques in use in Delhi Libraries (see Fig. 1).

2. Libraries providing reprographic facilities in Delhi

Delhi has a large number of libraries attached to government, academic and research institutions. Some of them have arrangements for reprographic facilities for a limited number of clientele. Most of the institutions under governmental auspices have been making use of reprographic techniques on a limited scale. Governmental involvement with reprography has been in connection with the following activities:

Scientific documentation, archives, registration of title deeds, financial audit, tourist traffic, census operations and public sector industries.

2 (A) Government Libraries

2 (A). 1 Central Secretariat Library (CSL)

CSL serves as a departmental library for the Ministry of Education and Social Welfare and is one of the largest departmental libraries with more than 400,000 volumes and over 100,000 government publications. It receives about 1,000 periodicals.

Their reprographic equipment consists of a ‘Panaprint Photo Copier’ developed and manufactured by M/s Advani Oerlikon of Bombay and a microfilm reader. Reprographic services are strictly for official use and are not open to public. Reprographic section especially caters to the needs of its parent body, the Ministry of Education and Social Welfare.

2 (A). 2 Central Road Research Institute Library (CRRI)

CRRI’s library has about 25,300 volumes. The Institute specialises in research on all aspects of road building and traffic flow.

The reprographic section is a part of CRRI’s library. Their services are confined only to the users of the Library and research scholars engaged in road research and related activities. The following equipment are available in the library:

(1) Microfilm camera, manufactured by Kodak, England.
(2) Xerox.

They use indigenously developed diazo paper.

2 (A). 3 Defence Scientific Information & Documentation Centre (DESIDOC)

DESIDOC has an independent reprographic unit. Their services are available to the Defence Services staff and those engaged in Defence Science research. They also have a separate photographic unit. Since reprographic services are available only for official use, there is no service charge. The following equipment are available at the Centre:

(1) Agfa Gevaert processing camera
(2) Xerox-pylorys KS2
(3) Kodak printer.

2 (A). 4 Department of Tourism, Government of India

Under the supervision of the Central Government, the Department of Tourism installed around 1959, the diffusion transfer equipment along with contact/reflex copiers at important ports for copying the documents containing records of the incoming foreign tourists.

2 (A). 5 Indian Council for Agricultural Research (ICAR)

Among the institutions working under the ICAR the Indian Agricultural Research Institute (IARI) library in New Delhi has perhaps the best reprographic unit. The equipment available at the IARI library consists of the following:

(1) Microfilming camera
(2) Document printer
(3) Microfilm reader-cum-printer
(4) Enlarger for processing photocopies from microfilming negatives
(5) Photostat machine
(6) Xerox
(7) Camera for making projective slides.

The IARI provides the following reprographic services: Microfilm strips, photo copies, diazo copies and slides to over fifteen hundred scientists, students and research workers.

2 (A). 6 Indian National Scientific Documentation Centre (INSDOC)

It was not until 1952 that an organised and well-equipped reprographic service accessible to a wide range of users came to be established. UNESCO played an important role in the establishment of INSDOC. It was with their help that an extensive programme of microfilming and photo copying was started.
Besides furnishing copies of scientific documents demanded by the users, INSDOC also undertakes to produce various kinds of reprographic versions of documents brought in by the clients.

The photography section of INSDOC has a full range of microfilming and photocopying equipment. Documents obtained from local and outside libraries for document procurement services are copied in this section. The work load of this section is about a lakh of prints and 20,000 microfilm strips (each strip covering ten pages) in a year.

The following reprographic equipment are available at INSDOC:

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<th>Electrostatic Copying</th>
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<td>1. Microfilm camera</td>
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2(A).7 National Archives of India (NA).

The National Archives of India is considered the richest depository of the nation's records relating to the British period. It possesses several million archives and microfilm copies of records obtained from the India Office Library and other public and private sources in Great Britain. Besides, it has an excellent collection on modern India including a large collection of government publications.

It has also the oldest organised reprographic unit set up under the auspices of the Government of India. No other organisation has reached the volume of microfilming work as done by the NA. It has a continuous programme of microrecording. This unit is equipped with a battery of Recordak cameras and ancillary equipment. But it has yet to put on microfilm, our state records of this century, particularly the bulk of documents created after independence.

2(A).8 National Medical Library (NML)

NML is equipped with a Xerox-Pylorys KS 2. Its reprographic services are open to the users of the library. It also cooperates with other libraries in the field of medical sciences. Indigenously developed diazo paper is used in the Xerox. They charge seventy five paise per impression.

2(A).9 Nehru Memorial Museum and Library (NMML)

The NMML specialises in modern Indian history, starting with Raja Ram Mohan Roy and ending with the Nehru era. It has made special efforts to build up a collection of books by and on Nehru in all Indian and foreign languages. It is a depository of the records of the All India Congress Committee.

It has about 40,000 volumés, 2,435 newspaper files as well as over 35,200 photographs connected with the life of Nehru and Indian National Movement. It subscribes to 213 periodicals.

NMML has an independent reprographic unit which caters to the needs of the research scholars working under its auspices, along with academicians and scholars from other institutions. It has also the following reprographic equipment:

1. Automatic processing apparatus
2. Xerox-Pylorys KS 2, manufactured by Varmix Co, Poland
3. Microfilm reader-cum-printer
4. Microfilm recorder, manufactured by Karl Zeiss of East Germany.

For photo copies, it charges 50 paise per page.

2 (B) Academic Libraries

2 (B).1 Indian Institute of Technology (IIT)

IIT in New Delhi has a well-equipped reprographic unit for the use of its students, teachers, and research workers. The following items of equipment are available there:

1. Photo copying machine - model 55 SCM, manufactured by SCM Corporation of New York
2. Xerox 1385
3. Microfilm printer
4. Microfilm processor
5. Micro card reader, manufactured by Micromethods, London
6. Microfilm recordak
7. Process camera
8. Coronostat: This machine uses electrophotography process. The disadvantage of this process is that the special paper used in the process is not manufactured in...
India but is imported.

(9) Offset printer: It is used for obtaining multiple copies.

They also have a photography section which is a separate unit and is well equipped with modern cameras. They charge Re 1/- per impression.

2(B). 2 Jawaharlal Nehru University (JNU)

JNU has recently started reprographic services for the use of their research scholars and teachers. Reprographic section is functioning as a part of the Central Library and is equipped with a Xerox Pylorys KS 2 and microfilm readers.

3. Public Libraries

British Council Library

The British Council Library in New Delhi has recently started reprographic services which are open to its members, local libraries and outside research institutions. Their reprographic section has the following equipment:

(1) 3 M Copier 191: this is an automatic photo copier and uses imported paper
(2) Ultrasafe reader PCMI

Their service charge is Re 1/- per page.

The Delhi University Library is also planning to start a reprographic unit which will function as a part of the Central Library and will also cater to the needs of other libraries in the system.

The Indian Council of Social Science Research has also plans to start reprographic services. The library of Social Science Documentation Centre is acquiring material on microforms which is not easily available in the country. Their plans also include the provision of readable microcopies of the required research paper, article or extract.

4. Copyright and Reprography

Copyright is essentially a safeguard designed to ensure economic reward to both authors and publishers for their intellectual labour and investments respectively.

The first copyright act in India was the 'Indian Copyright Act of 1914', based on the British Copyright Act of 1911. India signed the Berne Convention in Brussels in 1948 and the Universal Copyright Convention in 1958. According to the current copyright act of 1957, the period of copyright is the life time of the author and 25 years after his death (compared with the post mortem fifty years formerly required by Berne Convention and amended accordingly after the revision conference of Berne and Universal Copyright Con-

vention which took place in Paris in July, 1971).

Section 14 of the Indian copyright act of 1957 sets out the contents of the author's right, therefore it is important for the librarians offering reprographic facilities to know it. This act gives the author exclusive right to reproduce the work in any material form. The reproduction of any copyrighted material, unless it is authorised by the copyright holder, is, therefore, an infringement of the Indian copyright act of 1957.

The published as well as unpublished works can be registered with the registrar of copyrights. The intended purpose of this registration is to help the authors to (a) enforce their rights against exploitation by the publishers; and (b) provide them with proof in order to establish their ownership of the copyright.

Practice at INSDOC

INSDOC requires a person asking for their reprographic services to assume the responsibility of the act of copyrighting. For the periodical articles, only single copies are reproduced and they are meant for personal use.

5. Development of Indigenous Reprographic Equipment

The phenomenal progress abroad in reprographic technology and heavy demand for reprographic equipment have encouraged a number of research organisations, documentation centres, academic institutions and private manufacturers to develop indigenous reprographic technology. Development work in certain directions has been fruitful in the National Physical Laboratory (NPL), Indian Institute of Technology (IIT) (New Delhi) and INSDOC.

The NPL has successfully developed indigenous equipment similar to the first commercially popular design of xerocopying equipment invented by the then, Haloid Xerox Inc in the U.S.A. This is called Xerox type 1385 indicating the maximum size of image as 13 x 8.5", with the electrostatic charging, dry powder developing and heat/vapour fusing units. The NPL has licensed three firms through the National Research Development Corporation (Pvt) Ltd, for the commercial exploitation of xerox copying equipment developed by them. The trade names and the addresses of the manufacturing firms are given below:

(1) Panaprint Photocopier

(a) Model No. REX 101: reproduction ratio: 1:1, 1:2, 2:1. Processor, camera and developer in three independent units take three minutes to produce a copy. Approximate cost: Rs 27,000.

(b) Model No. DeX-202, reproduction ratio: 1:1
(c) Model No. ECX-303, reproduction ratio: 1:1. It uses any ordinary paper like sunlit bond and takes three minutes to give a copy.

Manufacturers: M/s Advani Oerlikon (Pvt) Ltd, Radio House, 6, Rampart Road, Bombay.

They have their regional office in New Delhi.

(2) Majox-121 Electrostatic Copier, Model: 'LIBRARIAN'

The above photocopier can reproduce copies from the original on ordinary sunlit bond paper. It is equipped with a horizontal camera system and special object screen with facility to take direct copy from bound books/magazines up to 3/10" thickness without disturbing the binding. Six different models are available in this range. The above model costs Rs 26,000.

Manufacturer: Macneill & Barry Ltd., C-11 Connaught Place, New Delhi 110001

(3) Koresstat-171 Photocopier

Five models are available. 'Library' model costs Rs 22,000.

Manufacturer: Kores India (Pvt) Ltd, New Delhi

The advantage of the above machine is that it has adjustable camera like Rank Xerox and the copying ratio can be fixed.

INSDOC has designed an attachment for Xerox 1385 for obtaining Xerox copies from microfilms. It has been registered as a patent. A developing powder for electrostatic processes has also been developed at INSDOC.

IIT, Delhi, has indigenously developed zinc oxide coated paper for electrofax copying.

Diazo paper is being manufactured by Kilburn & Co, with a network of branches in major cities. They also offer reprographic facilities, at these centres, at nominal charges.

6. Import of Foreign Equipment

The import of reprographic equipment from any foreign country is banned by the Government of India. It can be procured only through foreign aid or as a gift.

7. Training Facilities in Reprographic Technology

INSDOC has played a pioneering role in providing training in reprographic technology. A one-year course in documentation, includes a paper which covers systems, processes, methods and techniques of reprography. Besides the regular course, INSDOC organizes short term courses in reprography from time to time.

M/s. Macneill & Barry, New Delhi, also provides part-time training facilities in reprography for candidates sponsored by the libraries and research institutions.

8. Summing Up

Under the present economic conditions, our libraries, research organisations and documentation centres can hardly be expected to be adequately equipped with suitable reprographic equipment, partly because the import of foreign equipment is banned by the Government. Spare parts for imported equipment are neither available locally, nor can they be imported. The equipment therefore in many institutions and libraries is lying idle. It is suggested that indigenous equipment should be made more popular and manufacturing firms should be given incentives by the Government.

Now indigenous equipment uses locally made diazo or ordinary sunlit bond paper, the need for imported paper has been eliminated which is an important development.

Since INSDOC is the only agency having training facilities in reprography, it is suggested that CSIR or NPL should assume the responsibility for starting another comprehensive programme of training in reprography, both at central and regional level. Our departments and schools of librarianship attached to a number of universities should also introduce a paper in reprographic techniques which will help solve the shortage of trained technicians in reprography. It is suggested that there should be three separate training programmes in reprography (a) for technicians and operators, (b) for those who are already working in reprographic units, and (c) for managers and executives who are to organise and manage reprographic services.

Great economy can be achieved by means of cooperation amongst the libraries. The demands of all the libraries and documentation centres when pooled together may help programming, not only towards better utilization of the existing services, but also installation of more efficient and up-to-date apparatus. This will provide scope for a wider variety of reproduction work. Microfiche units should be installed under the supervision of CSIR. With their establishment there may be the possibility to handle a larger volume of duplication work and the possibility to make a programme furnishing a large number of manuscripts and rare documents to research workers and scientists.
Bibliography


