Non-book materials in libraries

a practical guide

Third edition

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CLIVE BINGLEY   LONDON

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Part 1

BACKGROUND

CONSIDERATION OF TERMINOLOGY

> I have no great opinion of a definition, the celebrated remedy for
> the cure of this disorder (uncertainty and confusion). – *Edmund Burke*[1]

Uncertainty and confusion both become apparent in any discussion of
the terminology of non-book materials. The subject is invested with an
excess of jargon and technical language; general and specific terms
abound. It is further complicated by three worlds – television, computers
and publishing – merging. Interactive multimedia are giving us new
processes for education, leisure and information.

A consideration of the literature on the subject is an obvious starting
place for establishing a consensus view. What terminology is used in
the general literature of non-book materials? Have these terms been
standardized at a national or international level? Are there approved
glossaries? If the specialists within the subject agree on standardized
terms, do the non-specialists use them?

On checking the titles of books in this area, it becomes apparent that
there is as yet no general agreement on a single term to describe the
subject. *Non-book media: collection management and user services*
(1987),[2] *Bibliographic control of audiovisual materials* (1986),[3] *The
media lab* (1987),[4] *Legal deposit of non-book materials* (1986),[5] and *Non-
print production* (1988)[6] are all relatively recent publications . Attempts
to combine terms include *Audiovisual and microcomputer handbook*
(1984)[7] and a particularly ingenious title, *Non-print cataloguing for multi-
media collections: a guide based on AACR2* (1987).[8] In 1976 the British
Standards Institution identified a similar picture of the range of general
terms,[9] which included:

medium,
non-book material and its synonyms audiovisual materials and meta-
book,
non-book media and its synonym non-print media,
multimedia and its synonym non-print materials.

Thus in the last decade, despite many efforts and much individual
endeavour, no consensus about one general term to describe this subject
has emerged. Consequently, the terms used in this book need to be
defined.

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Media
These are the channels used for the transmission of a message, as shown by the difference between print, sound and vision. The channels are: printed message, usually on paper or on a screen, which can be writing, graphics or photographs; still pictures, which are transparent for projection or viewing; sounds, as in a live radio broadcast, or recorded as on a sound disc; moving pictures, as in a live television broadcast or recorded on a cinefilm.

Materials
This term is used to describe the complete range of physical forms for the recording of information carried by the media; for example, books, wallcharts, pamphlets, videorecordings, sound recordings and computer discs.

Non-book materials (NBM)
Strictly speaking, this should cover all those materials which are not bound into a book. However, it is used here to exclude any printed message presented in the form of a pamphlet, leaflet, manuscript, map, serial or music score. The range is therefore wide, and also includes those materials which have been excluded above when they are re-presented in a different form, such as a map on a slide or serials on microfiche.
Four materials may be used:

(a) Paper, which can be arranged in a variety of ways; cards, charts, art reproductions, portfolios, photographic prints.
(b) Film, which includes:
filmstrip
slide
cinefilm: 35mm, 16mm
microform: 35mm roll, 16mm roll, aperture cards, microfiche, microfiche jackets.
(c) Magnetic tape, which includes:
sound tape: open reel, cassette
·videotape: open reel, cassette
magnetic discs.
(d) Plastic, either flat and transparent or opaque and grooved:
transparent plastic: overhead projector transparencies
vinyl discs: gramophone records
optical storage systems: laservision, CD audio, CD-ROM.

. Other materials are, of course, used in models and artefacts. Specimens, which are actual objects themselves, are also referred to as NBM. There are also mixtures of these materials, commonly called kits.

Finally, there are collections of NBM materials which can be electronically accessed at a distance; for example, teletext and viewdata systems.

Document

A unit of material con.aining information. The emphasis is on the information content rather than on the physical form of the material.

Form

A general designator for a particular material; for example, cinefilm, sound recording, microform, videorecording, CD-ROM.

Format

A specific designator for a form of material; for example, sound cassette, microfiche, videodisc.

Each form and format will be described in Part 3, together with technical terms concerning the components of equipment. Other than there and in the foregoing list, this book contains no glossary of terms, and the reader is advised to turn to other works for such information.[10] The *Anglo-American cataloguing rules* (second edition, revised 1988) includes a glossary of terms which has some international credence. The area of computer terminology requires further work on a standard approach, for example computer laser optical disc or CD-ROM.

However, these are the works of specialists trying to establish a common language, and it remains to be seen how far non-specialists will use their terms and definitions. A term such as 'computer file' may have a clear meaning to the specialist who knows it is a generic term for computer software, but it is unlikely to find much favour with the library client who is searching for a computer cassette or floppy disc. The librarian needs to be aware of this 'natural language' if he or she is to succeed in remedying the disorder.

HISTORICAL DEVELOPMENT

It is generally agreed that the function of a library is the collection, preservation, organization and use of documents. However, it is the documents concerning one medium, print, that have dominated the operations of most libraries to date. This is hardly surprising considering the long tradition of writing, beginning with the earliest cuneiform system in Mesopotamia circa 3000 BC. Similarly, the development of the codex with pages like those of a modern book by the first century AD points the way towards the long tradition in which one physical form predominated in the preservation and dissemination of knowledge in every literate society. The development of printing in the second half of the fifteenth century made possible a revolution in thought and scholarship through the spread of multiple copies. With its mechanization in the nineteenth century the increased demands of an increasingly literate society could be met. It is hardly surprising that the mainstay of most library collections is the printed word, particularly in book form.

The physical materials used for the other forms have been the result of inventions of the late nineteenth and twentieth centuries. The more important dates for the various forms are presented below:

Still pictures
(a) Film
- 1841 William Henry Fox Talbot. Paper negative using the Callotype process. The true beginning of photography.
- 1884 George Eastman. Roll film system patented and the development of the film slide. Prior to this date only lantern slides used, which were glass with an image printed on them.
- 1888 First Kodak mass-produced camera.
- 1912 Rudolph Fischer patented basic principles of the Kodachrome process for colour photography
- 1924 First crude picture containing all colours on a three-layer type of film.
- 1935 Kodachrome first marketed. Development of 35mm (2 in. × 2 in) colour slide.
- 1951 Polaroid camera.
- 1952 Theory of holography patented by Dennis Gabor.

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1960s Development of lasers made production of holographic
       pictures possible.
1976   Microprocessor controls exposure in a camera.
1988   Sony and Canon introduce electronic still cameras.
1989   Canon introduce Xapshot which records pictures on floppy
       disc for display on TV set.

(b) Microforms

1839   John Benjamin Dancer. First microphotography.
1870   Microforms sent by pigeon during Franco-Prussian War.
1901   Victorian age – commercial microphotographic views sold
       mounted on pen-holders, manicure sets etc.
1906   Idea of microfiche proposed.
1928   Eastman Kodak Co. Use of microfilming to prevent bank
       frauds.
1970   *Books in English* produced on microfiche.
1978   Whitaker's *British books in print* available on microfiche.

Moving pictures

(a) Cinefilm

1870   Eadweard Muybridge. Experimented with photographs and
-93   eventually made films of animal and human locomotion.
       Simple cameras and projectors used.
1889   First cine camera in which the successive pictures were
       taken on a strip of film with a single camera.
1893   Thomas Alva Edison invented the nickel-in-the-slot cine-
       matograph machine.
1895   First cinefilm made by L. Lumiere.
1914   First animated cartoon, *The dachshund*.
1922   Technicolour process used for *Toll of the sea*.
1922   First sound recording on film.
1923   First practical 16mm camera projector and compatible non-
       flammable film. Prior to this date all films were made on
       35mm.
1927   Sound on film with Fox-Movietone News.
1932   First practical sound on 16mm film.
1932   Introduction of standard 8mm film cartridges.
1950   Magnetic striping of 16mm film enabled amateur makers
       to add a sound track.
1952   Cinerama.
1965   Kodak introduced the 'super 8' film.

(b) Videotape and television

1908   First successful electronic transmission of a picture between London and Paris.

1926   John Logie Baird demonstrated first mechanical television transmission.

1932   Radio Corporation of America demonstrated all-electronic television.

1936   British Broadcasting Corporation launched the first 405-line public television service.

1940   Colour television system developed.

1958   Videotape marketed.

1965   PAL scanning system patented.

1965   Demonstration of MVR videodisc recorder.

1967   Colour television broadcasting introduced in the United Kingdom.

1971   Some 20 different 'videocassette' systems under development.

1972   BBC introduced digital TV.

1977   Philips 1700 videocassette recorder

1980s Development of domestic camcorders.

Sound recordings

(a) Discs

1877   Thomas Alva Edison. Patented the phonograph using a sheet of tinfo l wrapped around a cylinder.

1889   Emile Berliner First recording on a flat disc.

1889   First use of sound recording in academic research.

1920s Use of electrical recordings

1933   Stereophonic gramophone patented.

1948   Columbia Company introduced long-playing record using vinylite.

1980   Philips and Sony introduced compact digital discs.

(b) Sound tape

1899   Valdemar Poulsen. First practical system using a wire magnetic recorder.

1927–8 Introduction of steel tape and coated paper tape.

1930   Cellulose acetate tape used.

1940   PVC tape used.

1960s Philips compact cassette developed.

1968   Dolby 'A' system for reducing tape hiss.

1980 Sony Walkman miniature cassette recorder.
1985 Sony and Philips introduced digital audio tape (DAT).

Microcomputers and viewdata

1945 ENIAC (Electronic Numerical Integrator and Calculator). First fully electronic computer.
1956 Burroughs E-101. First desk-sized computer.
1969 Silicon chip designed as the central processing unit of a computer.
1971 Intel introduced microprocessor.
1973 Computer-coded labels introduced into supermarkets.
1974 Hewlett-Packard programmable pocket calculator.
1974 BBC Ceefax service.
1975 Altair home computer in kit form.
1975 Videogames.
1976 Apple microcomputer.
1979 Prestel service launched.
1981 Sinclair ZX81 microcomputer.
1983 Telesoftware service via Prestel and BBC Ceefax.
1984 American Library Association established library electronic mail system.
1989 Library Association established an electronic mail system.

Optical storage systems

1972 MCA and IBM Disco Vision.
1978 Philips Laservision digital videodisc system.
1981 'Kiddidisc' videodisc which allowed viewer participation.
1983 Audio CD released in Japan.
1984 CD-ROM drives introduced.
1986 Whitaker published pilot CD-ROM.
1986 BBC released the Domesday interactive videodisc.
1988 Philips CD video.
1989 CD interactive released.

How were these inventions and developments reflected in library collections? There is a parallel with the early history of libraries in that there is a general progression from service to select groups to service to the general public. Such a picture may be seen with collections of NBM, particularly those of sound recordings.

Private collectors went early into the field, recording folk songs and making anthropological recordings. The first instance of sound recording being used in academic research was by J. Walter Fewkes, who recorded the prayers, tales and songs of the Pasamquoddy Indians in 1889. The firstly officially recognized collection of sound recordings[11] was established in Vienna in 1899 for the language and dialects of Europe. Later collections such as the British Institute of Recorded Sound (1948) relied heavily on the donations of individual collectors. Other national institutions were also keen to establish an interest. The Library of Congress had copyright concerning paper prints or contact prints of motion pictures by 1894, but sound recordings were not covered by federal copyright law until 1972. The BBC established its sound library in 1935 to satisfy its own growing demands. But there is little other evidence concerning the beginnings of many NBM collections. However, there is some indication of involvement by public libraries from an early date, particularly in the United States.

Illustrations collections
These included prints, photographs, materials cut from periodicals and lantern slides. The first known picture collection was begun in 1889 at Denver Public Library, Colorado. In the UK the emphasis seems to have been on the collection of local illustrations, in particular photographs. Local photographic societies sponsored surveys, and in 1908 some 20 systematic collections had been preserved in local libraries or museums. Lantern slides were in use in a number of libraries and in 1923 Kent County Library had a collection of 6,000. Hereford County Library in 1926 had sets of lantern slides for 44 lectures on subjects agreed with the rural community council. Illustrations collections were available in half the municipal libraries in London and the Home Counties by 1939. However, Campbell,[12] writing in 1964, suggests that these were still peripheral in most UK public libraries and that there was nothing to compare with the developments in the USA, where at least three public libraries held over one million illustrations. The closest British comparison was Birmingham Public Library, with some 200,000.

Sound recordings
In the USA public libraries were early in the field. That at St Paul, Minnesota, established a collection in 1913 and by 1919 had a stock of 600 records and an annual issue of 3,500. In the UK the first gramophone record service to schools was organized by Middlesex County Library

in 1936, although it was soon transferred to the education department.
Hereford County Library was the first public library to make discs
available on loan to the general public, in 1945; and Walthamstow was
the first municipal library to do that, in 1947. By 1950, there were 50
public library authorities lending gramophone records. In contrast, sound
cassettes and CD audio were quickly introduced into libraries, perhaps
because they were more robust and therefore less susceptible to damage
by borrowers.

Cinefilm and video

Collections were slow to emerge in the USA, but by 1922 11 school
systems had established them and by 1945 approximately a dozen large
urban public libraries had organized film services. As early as 1929,
the Cleveland Public Library had cooperated with a local movie house
to publicize the film *Scaramouche*. Little has been discovered to indicate
any services to the public in the UK, but the children's librarian of
Rochdale in 1930[13] has been reported as using film, primarily to
encourage reading!

Yet it should not be thought that librarians were slow to realize the
potential of film. A writer in 1912 stated that 'a few years ago there
were people who prophetically said that the cinematograph would not
live long: it was just a craze, the popularity of which would soon
diminish, but we are compelled to acknowledge that the moving picture
is a force to be reckoned with'. He cited its use to train medical students
and reported that in this way 'a large number of unnecessary operations
are obviated'.[14]

Librarians quickly saw the potential of videorecordings for their
collections. The resource centre growth of the 1970s saw a steady increase
in educational establishments of collectors of videorecordings. Similarly,
the domestic videorecording boom in the UK in the early 1980s was
matched by services in many public libraries.[15]

It is ironic that cinefilm itself as a form is in decline in libraries. The
growth of videorecording titles and the ease of use of the form has helped
to accelerate this decline. In the UK a number of film hire companies
have completely switched to videorecording only. In 1982 a survey in
the USA indicated a reduction in the 16mm film service and by 1988
libraries in the USA were putting their film collections up for sale.[16]

Viewdata and computers

Librarians have readily accepted computers as valuable tools for the

'house-keeping' duties of a library. However, they have also been keen
to develop client services based on this technology. Public access micro
services are available in a number of libraries; for example, the Have-
a-go-Micro provision at the Central Lending Library in Stockport,[17]
aimed at increasing public awareness of the computer.

Similarly, viewdata facilities have been offered to the general public
and developed by librarians who have seized the initiative to create new
bulletin boards. Particularly interesting because of its enterprise is the
viewdata guide prepared by Robert Gordon's Institute of Technology
for the Glasgow Garden Festival in 1988.[18] The Library Associations
of the UK and the USA have also reacted speedily to the new growth
of electronic newsletters.[19]

This short history of the development of collections of NBM in libraries
is slanted towards developments in the public libraries of the USA and
Britain. There were some developments in other types of libraries, but
there is still a lack of research into the early history of NBM collections.
One writer has suggested that the lack of written evidence concerning
the early collections of sound recordings may have been because they
were 'considered ephemera and as such were likely to be disposed of;
therefore, the librarian was reluctant to make their presence official by
accessioning or cataloguing them'.[20]

The interest of librarians

Why were these early librarians so slow and in some cases so reluctant
to include NBM in their collections? Four reasons may be considered:

(a) The long history of the book and the printed word as the main
   medium for recorded information.
(b) The librarian was a collector and preserver of books and not of
   all forms of information.
(c) There was a strong belief that the book was an educational force
   and the other forms were mere novelties.
(d) The cost and fragility of NBM.

In spite of the absence of detailed research, some general points may
be made. Media other than books have been readily accepted by the
general public. The spread of cinemas, the large sales of sound discs
and the number of home movie makers and photographers indicate a
favourable use of all these forms. Yet librarians have often been in
opposition to these other forms and have linked this closely to a defence
of books. In 1917 Doubleday questioned 'what may be the educational

value of the picture palaces after sixty years or more of existence is and must be a matter of speculation. In the writer's opinion they can only hope to serve as auxiliaries to libraries much as libraries are now an auxiliary to education; and they may never even attain to that utility.'[21] An anonymous writer some 20 years later believed that 'films are substitutes for reading. At the present time they are, at their very best, poor substitutes; at their very worst, they are pernicious '[22]

Film was considered necessary in order to encourage reading rather than appreciated or valued in its own right. McColvin (1927), commenting on extension activities, said 'the chief objections are that suitable films are difficult and expensive to obtain, and that they are not sufficiently related to books. Without a doubt they would attract a different public.'[23]

The librarian has also worried about the expense, safety and fragility of NBM. The cost would be prohibitive:

> for a rate-supported institution to bear the expense of such a scheme
> . . . It is surely carrying our ideal of public service to such an extreme
> as to make it sentimental and American . . . To keep on adding to our
> extraneous undertakings will mean that we shall have soon departed
> so far from the fundamental idea of the public library that we shall
> regard the issue of a good book as a mere side-track.[24]

Savage was particularly concerned about the damage to discs by borrowers 'scraping the life out of them with steel needles or . . . blasting them with a blunt needle'.[25] Cinefilm was not being used in 1931, Sayers suggested, because the 'obstacles of inflammable films and local regulations have made its use difficult .[26]

During the early period of libraries, their champions defended books on the grounds that they were of educational value to the general public Paradoxically, after 1945 NBM were excluded from libraries on the grounds that they were of value only to educational institutions and not to the public. The only form that did develop outside the educational setting was the sound disc, and even this was seen as an adjunct to music. One writer in 1946 commented: 'Since librarians first began to discuss gramophone records, those in favour of them have on various occasions stressed the value of non-musical recordings — such as sound effects, local council proceedings, play readings, and, in particular, language-teaching records . . . It seems doubtful whether they will ever be of great significance in public libraries.'[27] Thus the major impetus for the development of collections of NBM after 1945 came from the educational