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Library and Information Commission
And
Share the Vision

Project one: Developing and maintaining the National
Union Catalogue of Alternative Formats (NUCAF)

Part A: The future role of NUCAF and a technical
specification of the metadata requirements

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December 1999

Report to the Project One Steering Committee

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Executive Summary

The present level of library service and bibliographic information to visually impaired people, apart from the specialist services in the voluntary sector, is inadequate and in no way integrated with the facilities available to people without sight problems. Even within the voluntary sector there has been minimal collaboration and integration of service in the past and the number and range of titles available is limited. The National Union Catalogue of Alternative Formats maintained at present by the Royal National Institute for the Blind addresses some of the problems caused by this situation but is incomplete, not comprehensive in coverage and access to it is limited. It could however, provide the basis of a new and improved service for visually impaired people.

The National Union Catalogue of Alternative Formats should be developed into a national database of resources in alternative formats. It should be accessible through a web-based OPAC and CD-Rom products and should be available for downloading on to databases held by other major library and information services.

The web-site that supports the OPAC should provide a main entry point to services that support visually impaired people. In addition to its own OPAC, it should ideally allow simultaneous searching on equivalent databases overseas, or link into these web-sites. It should enable producers and holders of alternative format material to add data to the database. It should enable end users to initiate requests to borrow, hire, buy and request materials, and should support the routing of these requests to the appropriate mechanism. It should also maintain a collection register that identifies collections of alternative format materials and their strengths in specific subject areas.

The national database should concentrate on recording the holdings of materials in alternative formats produced and held by specialist, non-commercial organisations. It should record the details of titles scheduled for production in alternative formats by such organisations.

Advantage should be taken of systems already in place for recording the existence and holdings of materials in alternative formats produced by commercial publishers. The national database should participate in information sharing arrangements to enable, where possible, existing records to be held on its files rather than seek to produce records for this material itself.

The national database should be the responsibility of the British Library but hosted and maintained under a partnership agreement by the proposed joint library service of the National Library for the Blind (NLB) and the Royal National Institute for the Blind (RNIB). All specialist producers and holders of alternative format material should be encouraged to participate in the national database, by supplying details of titles selected for production, added to stock and withdrawn from stock. Notification procedures should be as simple as possible but should also cover all relevant information.

The national database needs a mission statement and an easily identifiable name. It needs to be promoted to the fund holding bodies so that a financial basis of operation can be established. It must be promoted to all producers and holders of alternative formats as a resource that will assist them. It should also be promoted to the end-users as a new resource.

The national database needs to act primarily as a union catalogue, but it must also act as a database of in-print material, an in-production file, and a register of copyright permissions. It should also be a part of the national bibliography, recording the titles that have been produced in alternative format materials. It should support the producers, holders and users of alternative format materials.

The national database should where possible use national and international standards. It should use the UKMARC format and conform to AACR2. Current RNIB subject indexing should be used for subject indexing, and LCSH entries retained where they exist in the records for the original items. A single set of headings for fiction genre/form should replace the existing ones. A full set of the data elements required has been identified.

Currently copyright restrictions discriminate against effective provision of library and education services for visually impaired people. The national database should provide a copyright permission register in order to simplify the existing situation for producers and publishers.

This study has defined the aims and objects of the national database, proposed how it should operate within the context of current technology and existing provision, and defined standards within which it should operate. The work now needs to be taken further in the following ways.

The recommendations from this report, together with recommendations from the report on Project One Part B (NUCAF Retrospective Conversion Project), need to be disseminated widely and promoted as an effective strategy to improve services in this field. It is important that it reaches those who can take decisions to support the development of the new service: the British Library, the appropriate government departments, the library and information sector, the voluntary specialist organisations and the planning group for the NLB/RNIB joint library service. In addition, it is important that visually impaired people themselves know about the proposals. For effective dissemination, the full report and the summary of recommendations need to be supplemented with other documents (for example, a briefing paper and/or a promotional flyer).

To take the initiative on, the recommendations from the report need to be accepted as the way forward. A further study is required to develop the strategic recommendations into a service and management structure that would support the new database, and to investigate the costs of developing and maintaining the proposed service. Some other additional work, for example developing a single set of genre terms, will be required. Once a detailed service and system specification has been compiled, and when funding has been negotiated to initiate and support the service, database system providers can be approached regarding system provision.

This further development work will need to be funded. The Department of Culture, Media and Sport could be approached for funding, as could the Library and Information Commission (or the Museums, Libraries and Archives Council). In addition, the British Library Co-operation and Partnership Programme includes a Co-operation and Partnership Fund, for which there is a Call for Proposals 1999, to be followed by another Call in 2000. The projects are expected to be of a practical nature, and would be welcomed in a number of areas including those that support collaborative collection development, mapping collection strengths, and creation of a national distributed online catalogue; cross-sectoral and cross-

domain projects are encouraged. However the last date for submission in the 1999 Call is 14th January 2000 which may make it difficult to apply within the time available.

This report sets out a substantial development strategy for a national database to support the library and information needs of visually impaired people. In some areas further development work is needed, but equally there are other areas where action can be taken now. Promotional work can be undertaken now, as can work on making and keeping better contact with producers. Some work needs to be carried out on the current database, though a decision to develop the database as recommended in this report will affect the extent and direction of this work. Despite the problems that will inevitable emerge, the proposed national database offers a considerable improvement in the library and information services available to visually impaired people and will be worth whatever investment is required.

Recommendations Summary

2.2 Ownership and management

- The British Library be asked to acknowledge and accept responsibility for recording this material as part of the national bibliography
- The national database of resources in alternative formats should be established as an independent resource
- The proposed joint RNIB/NLB library service should maintain the national database

2.3 Funding

- Via the British Library, government should fund the setting up of the national database of resources in alternative formats
- Via the British Library, government funding should maintain the service

2.4 Aims and objectives

- The database and its associated services must combine the functions of a union catalogue, a stock selection resource, an inter-lending tool, a sales and hire catalogue, a copyright permission register and an in-production file, and form part of the national bibliography.
- The database must provide data rich bibliographic records.
- The database must support known item searching and target area searching through adequate and appropriate indexing.

2.6 Bibliographic coverage of materials

Phase 1

- The database should record monographs, serials and ephemera in tactile, audio, enlarged print and electronic media.
- The database should concentrate on material produced by specialist non-commercial organisations

Phase 2

- The option of an in-print file supplied by a book trade database service should be investigated
- The option of a locations file for mainstream library stock supplied through the regional library systems should be investigated.

2.6.1 Master copies

- The database should record masters and copies
- Consideration should be given to setting up a deposit scheme for masters

2.7 Access

- A variety of access routes must be provided to the database
 - Web based OPAC
 - CD products
 - Downloaded files
 - Links to the database site from other sites
 - Web facility for producers to transmit details of:
 - New titles
 - Withdrawn titles
 - In Production titles
 - Web facility for end users to generate requests for items

2.8 Mission statement and name

Promotion

- Produce a range of clear promotional material, appropriate to different target audiences – end user, service provider, producer or referrer.
- Organise events to promote the database

Name

XX: the national database of resources in alternative formats

Mission statement

XX: the national database of resources in alternative formats is an integral part of a network that links local, regional, national and international resources in serving the library and information needs of visually impaired and print handicapped people in the UK. XX provides a resource that can be used by anyone with a need to identify, locate and obtain expressions of knowledge, intellect and creativity in alternative formats. XX is available through a range of access methods to ensure the widest possible outreach to visually impaired and print handicapped people in the UK.

3.5 Record import

- Set up a reporting system for producers and holders to notify the database of
 - Intention to produce
 - Addition to stock
 - Withdrawal from stock
- The reporting system should accommodate both electronic and paper-based methods
- Supporting information should be provided to producers and holders
- Individual set-up negotiations should be held with each producer or holder in order to achieve the maximum co-operation and successful implementation

3.6 User generated requests

- Design the web platform to accept requests from end users
- Design a management routine for forwarding requests or supplying items requested

4.3 Data elements

4.3.1 Basic Bibliographical details

- Title, author(s), publisher, date of publication, edition, series, and subject.

4.3.2 Search Support

- Subject indexing, fiction genre and form indexing, target audience, format type.

4.3.3 Decision Support

- Annotation or content summary, target audience, series and character information, serial frequency, abridgement notes, narrator or cast notes for audio materials, format type and level, number of units comprising the title, serial holdings information.
- Also desirable: sample passages, serials article indexing
- Policy decision needed on acceptability of warnings in content notes

4.3.4 Support ILL and Loans

- Holdings, locations, loan status

4.3.5 Support sale and hire

- Availability status (hire, sale, subscription) and charge, producer/hirer/retailer

4.3.6 Support production selection

- Statement of intention to produce, format, producer, copyright permission details.

5 Standards

5.2 Record format

- Use the UKMARC format
- Adopt MARC21 007 fields for tactile formats
- Extend UKMARC only when essential, preferably by adoption of MARC21 fields

5.3 Subject indexing

- Use RNIB chain indexing and review inclusion of BIC Subject Categories
- Use UKMARC field 655 at present
- Retain LCSH headings where present in the record for the original item

5.4 Genre indexing

- Define a set of genre and form terms based on the existing alternative schemes
- Use UKMARC field 655 for genre and form indexing and for fiction topic indexing

SERVICE OVERVIEW

The web site would contain the following

National Database of Resources in Alternative Formats	This will be composed of several files
Links to similar sites overseas	e.g. Louis, NLS, CNIB Visucat, Miracle
Copyright register	Records copyright permission status for titles
Collections register	Records details about specialist collections of alternative formats in the UK

The national database would consist of the following files

Union file	Material produced and held by specialist organisations
In Production file	Material selected for production and in production by specialist organisations
Notifications file	Additions, withdrawals, and selection for production data supplied by specialist producers and holders
Also desirable are:	
In Print file	Material published commercially and currently in print
Library Stock file	Material published commercially and held in public libraries

The web interface would allow the following access

Notification Entry screen	For specialist producers and holders to notify additions and withdrawals
Database Search screen	For end users to search the database on selected files or across the range of files For end users to initiate a request for an item For producers to search the database across the range of files as an aid to new title selection
Database Management screen	For database staff to add, delete and amend entries

The national database management service would

Create records for alternative format material using details supplied through manual methods by producers and holders
Enhance records for alternative format materials that are supplied by producers and holders through the web site Notification Entry screen and electronic transfer of records
Control record quality
Pass requests for items on to the appropriate producers and holders
Maintain the Copyright Permissions register
Maintain the Collections register

The national database union file should be available via

Its own web site
CD-Rom products for libraries, schools and end users
Downloaded files on union catalogues, and file subsets for educational institutions if required

1. Introduction

1.1 Background

1.1.1 Library and information services

Until recently there has been little systematic provision of library and information services for the visually impaired population of the UK. The British Library does not provide any special services for visually impaired people, nor is it required to do so under the British Library Act. Most importantly in this area, it neither collects material in formats accessible to visually impaired people nor records the production and publication of such material in a systematic way. The one category that is covered to any degree, commercial large print publications, has been inconsistently recorded due to different decisions over time. Because of this lack of central direction, a range of services largely based in the voluntary sector has developed on a piecemeal basis over the years.

At present library and information services for visually impaired people are provided by a patchwork of providers in both the voluntary and public sectors. Voluntary providers vary greatly in size and often serve specific groups of user and/or specific areas of the country. As charities are dependent on donation income, their funding levels and the need in many cases to rely heavily on volunteer labour limits the extent of their services. Provision of such services in local authority and academic libraries is variable and in the past has been very limited. Recent initiatives on social inclusion have prompted improvements but it can take time to build up services to effective levels. A recent piece of legislation, the Disability Discrimination Act, does not identify specific provision but does state that service providers must take reasonable steps to provide disabled people with access to their services, including the provision of auxiliary aids to services.

A major problem in this situation is the fragmentation and lack of co-operative partnerships to maximise the usefulness of limited resources but this is changing. In Share the Vision the voluntary and library and information sectors are working together to co-ordinate improvements to library and information services for visually impaired people in the UK. Share the Vision is a co-operative group working on strategic planning to improve services. For the voluntary sector there are representatives from the National Library for the Blind (NLB), the Royal National Institute for the Blind (RNIB), the Talking Newspaper Association of the UK (TNAUK), and Calibre. The library sector is represented by the British Library (BL), the Library Association (LA), the Scottish Library and Information Council (SLIC), the Society of Chief Librarians (SCL); this has recently been widened with the inclusion of the Standing Conference of National and University Libraries (SCONUL).

Not only is there fragmented provision of materials and services, but there is often a lack of knowledge of provision outside any one providers' area. The average sighted person is aware of the existence of libraries and bookshops, regardless of whether or not they use them. Few people will have even an awareness, much less any knowledge, about provision for those with visual impairment unless they have specifically sought out or been given that information. Visually impaired people directed to one service may not realise that other options are available and a request that cannot be satisfied by one service may remain unsatisfied since there is no standard way of directing the requester to other providers and a wider range of material.

1.1.2 Alternative formats

Visually impaired people have the same need for information and intellectual stimulation as the rest of the population. Their problem is with access to the intellectual content since they are unable, to varying degrees, to read standard print even with normal spectacles. People become visually impaired in different ways and for different reasons. Some are born with congenital conditions that affect sight. Others suffer loss of vision, sometimes suddenly but more often slowly and progressively, through medical conditions. Accidents also account for some loss of vision and again this can result in either sudden or slower progressive loss. There is also the gradual loss of sight as part of the ageing process and this is often accompanied by a similar impairment in hearing. The proportion of people with these age-related impairments is likely to increase in future as people live longer.

A number of alternative formats to standard print have been developed over the years. Very few people are completely blind and unable to see anything. The amount and nature of residual vision, together with personal preferences, dictates the most appropriate alternatives to standard print for a particular person. A user may prefer different formats to access specific types of material (e.g. braille for fiction and audio for newspapers), and physical environment (whether one is at work, at home or on a train) may also affect choices.

An RNIB survey in 1991 showed that a large proportion of visually impaired people (36% of the blind and 75% of the partially sighted) is able to read large print comfortably. Much of the provision in this area is through commercial publications stocked by local authority library services. While large print may be satisfactory for most of the time, there may be occasions when users would prefer another medium. For instance, large print volumes are physically larger and heavier than normal print books, and when travelling an audio version might be preferable.

People with severe visual impairment often use tactile formats. People whose sight loss occurs early in life are likely to use Braille, while those who lose sight later in life are more likely to use Moon. These tactile formats are bulky and heavy, which can be a problem especially for the elderly and those with physical disability. Because they draw attention to the fact that the user is visually impaired, some people will prefer not to use them on journeys and in public areas.

The audio formats can be used by anyone with visual impairment unless this is accompanied by some hearing impairments or a physical condition which makes the use of the equipment difficult. The RNIB Talking Books are recorded on special cassettes and need special equipment to play them, restricting their use to a single place. Commercially recorded cassettes can be played on standard personal cassette players, making this an easy method for many people to use on journeys. Technology is likely to bring improvements in this area, including recordings on CDs.

The newest medium is that of electronic files, which can be recorded on either computer disc or on CD. These contain the text in a form that computer equipment and software can convert to a variety of output forms including synthesised speech, hard copy and temporary display braille, and magnified screen text. Electronic files are physically small and easily portable and can potentially be used with any PC or laptop computer that has the appropriate software.

Only around 5% of the 100,000 new British titles published each year is converted into one or more of the alternative formats; it is therefore important that those who would benefit from such material can identify that it exists and then obtain it by loan, hire or sale.

Bibliographic record coverage for the alternative formats is incomplete and not comprehensive. Records for tactile materials are created only by the producers and holders of such materials. Bibliographic records for large print items are well covered in book trade databases (to which visually impaired people are unlikely to have access) but have been covered to varying degrees over time in the national bibliography. Coverage of audio materials also varies; commercially produced items are covered in the book trade databases but records for those originating from the voluntary sector are limited to the producers and holders of such materials. Records for electronic texts are unlikely to exist except where created by the producers and holders of these items.

1.1.3 Alternative format producers and holding institutions

In the UK both voluntary sector and commercial organisations produce alternative format materials. However, whereas the voluntary sector organisations produce material for visually impaired people, the commercial organisations produce such material partly for a subset of visually impaired people (i.e. large print publications) and partly for general recreational use (i.e. spoken word recordings). The voluntary sector producers are often small organisations with very tightly defined parameters on what they produce and in what formats. These parameters may be defined by copyright restrictions on material, postal benefit parameters or the subject matter of the material.

National Library for the Blind

The NLB is a lending library for people who read by touch. It operates a free and post-free lending service for a range of materials, including braille, Moon and large print. It contains 40,000 titles covering fiction and non-fiction, and its collection of titles in Moon is the largest in the world. There are more than 4,000 children's titles, including Twoways (original interleaved with braille) and Moonshare (original interleaved with clear plastic Moon sheets). The collection contains more than 16,000 braille music scores. The library has a large print collection of several hundred large print titles issued by commercial publishers but now out of print and publishes Austin Books, a large print collection of about 300 titles concentrating on classics and standard English works not available commercially. The NLB is currently working on a pilot project with Online Originals to offer members free access to digital books.

The NLB produces alternative format titles in braille, and large print. Titles held in Moon and braille music are produced by the RNIB.

Royal National Institute for the Blind

The RNIB provides a range of services for its users, including the production and loan of material in formats other than standard print. There are more than 11,000 Talking Books currently available and coverage includes fiction, biographies, children's books, music, history and sport. The Cassette Library currently has 21,700 titles of non-fiction; this collection also holds a number of fiction titles. The Braille Library contains around 13,000 titles on the shelves on mainly non-fiction subjects ranging from cookery books to computer manuals. There are also more than 6,000 music braille masters. Many titles in the Cassette and Braille Libraries are of a highly specialised academic nature and there is a wide range of books in foreign languages. The Home Video Service lends videos with audio description to

fill in the gaps in films by describing facial expressions, body language and actions and some documentary videos with ongoing narration.

The RNIB produces Talking Books which are spoken word recordings on special audio tapes (extended-play and multi-track) for which special playback equipment (available free to users of the service) is required. RNIB produces recordings on ordinary C-90 audio cassettes or 4-track half speed audio cassettes for the Cassette Library. The RNIB also produces braille texts and is the only professional producer of braille music in the UK. The RNIB produces a number of magazines on a range of subjects (including for example, braille Radio Times). Some titles contain only selected parts of the original title, others (braille Music Magazine and Upbeat, both monthly) include some text original to the transcribed version. They are available to customers on a subscription basis. RNIB produces Moon text and braille music scores but this material is loaned through NLB.

Calibre Library for the Blind and Print Disabled

Calibre is a postal lending service of books on audio-cassette. It currently has around 5,700 titles and title coverage includes best sellers, classics and children's stories.

Clear Vision Project

Clear Vision books are standard print books for children which have been cut up, interleaved with braille embossed on clear plastic sheets and then rebound. Books are chosen from popular fiction and National Curriculum related information books. There are currently around 2,400 titles available.

Playback Service for the Blind

This service has 1,000 titles on audio cassette, covering a range of subjects.

Talking Newspapers and TNAUK

There are around 500 local talking newspapers throughout the UK and the vast majority are members of the Talking Newspaper Association of the UK (TNAUK). Most local talking newspapers are recorded on ordinary audio cassette and are digests of local news taken from local newspapers. There are also specialist talking newspapers produced for ethnic, religious and other groupings. TNAUK produces approximately 120 national newspaper and magazine titles.

Torch Trust for the Blind

The Trust produces and lends a range of Christian literature in several formats. There are 1,000 large print titles, 1,000 braille titles and 2,000 audio cassettes.

Other non-commercial organisations

In addition to these organisations there are a large number of others who produce a varying number of titles, some of whom produce a very small number of items. Of the larger groups, the Scottish Braille Press currently has 300 titles, Sports Tapes for the Blind has 300 audio cassettes, the Association of Blind Catholics has 300 audio cassettes, and Living Paintings has 300 titles. The Sensory Disabilities Research Unit based at the University of Hertfordshire has a collection of around 5,000 tactile diagrams and representations of graphic materials; production of these items is more complicated than for tactile text and most are 'one-off' items. Some braille is produced by prison workshops. Schools also produce alternative format versions of educational and curriculum material; much of this material consists of extracts in large print (braille items tend to be complete texts) and copyright

permission may restrict the use of items outside the institution and prevent masters being retained.

Commercial organisations

Commercial organisations have been producing large print and spoken word recordings for some time. The large print area has focused on supply to public libraries and a limited range of titles for a specific perceived readership in the older age range. The spoken word area has developed more in response to an interest in materials that can be used in car sound systems and in portable cassette players. There are two main content areas. One is that of fiction, both adult and junior. The other is that of instructional material – language courses, children’s learning support, bible study, and ‘how to’ courses ranging from ‘how to reduce stress’ to ‘how to do well in interviews’.

The spoken word range has historically used audio cassette, where the main publishers include Chivers, Cover to Cover, Isis, Ulverscroft, BBC and EMI. The majority of this material is limited to 90 minute playing time, which favours the recording of abridged versions, though Chivers, Cover to Cover and Ulverscroft in particular, have a policy of producing unabridged versions. However CD titles are now becoming available as well. Isis has recently launched a collection of unabridged books on compact disc, and Chivers have made selected titles available in both cassette and CD formats since September 1999.

Electronic text producers

This area is still very new and developing in both the commercial and non-commercial sectors. Etexts are usually available as files which can be downloaded from a web site.

Based in the US, Project Gutenberg is a non-commercial collection of etexts of titles in the public domain, i.e. material that is no longer subject to copyright restriction. The files are in ‘plain vanilla’ ASCII (their terminology) in order to keep access as wide as possible. Texts are selected on the basis that large numbers of people will be interested in the titles chosen. The collection falls into three main groups: light literature (Alice in Wonderland, Peter Pan, Aesop’s fables), heavy literature (Shakespeare, the Bible, Paradise Lost) and reference materials (Roget’s Thesaurus, encyclopaedias and dictionaries). Also based in the US, the Internet Public Library is a web site that focuses on linking users with texts already located on servers throughout the world. Currently around 10,000 titles are listed on this site.

In Italy, the Ezio Galiano Foundation web site hosts an etext collection of around 2,500 literary works in Italian, ranging from classics to leisure fiction and aim to eventually offer around 10,000 titles. The site also allows the downloading of school and reference books, and access to a wide selection of Italian daily newspapers and the most popular magazines.

In the UK, the NLB is piloting a partnership with Online Originals, a publishing company that operates solely on the Internet, to provide free access to a limited number of its titles through the NLB web site. In addition, the RNIB produces Access books on disc, and Dorling Kindersley are intending to put all their titles onto the web.

1.1.4 NUCAF

In the wider library and information domain, union catalogues exist to maximise investment in scarce resources. It is not necessary for all libraries to stock all books, as long as the book required can be traced and made available in some way to the user. Union catalogues are the main structure through which this is achieved and they exist in different forms. One group is

that of the regionally based union catalogues, to which local authority libraries and some academic and specialist libraries belong. Another group is that of focused union catalogues such as that for academic research libraries. The third group comprises the union catalogues of member libraries using library management systems such as Talis and Innopac.

Visually impaired people use a range of media based on individual needs and preferences. Since only around 5% of the hundred thousand new British titles published each year is converted into one or more alternative formats, visually impaired people often face difficulties identifying which titles have been converted, and into which formats and where they are held. The existing union catalogues cover few of the materials of use to them, as many libraries do not notify audio books acquisitions to union catalogues and not all notify large print acquisitions. Of more use is a focused union catalogue that covers all sources of accessible media. There is already such a catalogue in existence – the National Union Catalogue of Alternative Formats (NUCAF) maintained by the RNIB. At present it is neither comprehensive in its coverage of sources of material nor complete in its recording of their holdings and direct access to the catalogue is limited. Despite current limitations, it does provide a good base on which to build an improved service.

Even with recent initiatives to widen access to NUCAF, present use is limited outside the RNIB. By putting the NUCAF file onto Unity database and LASER's V.3 Online catalogue, access has been widened to any library that is a member of one of the ten regional library systems in the UK. Subsets of the NUCAF file are available to schools (the VIDE service) and further and higher education institutions (the ALP service). In theory these initiatives extend access to library and education professionals. In practice the extended access is often minimal. The Unity and LASER databases are usually only available from terminals in the inter-library loan section. Making the files available over all terminals in a library service would extend accessibility to central library staff and to branch staff, where branches have suitable terminals.

Widening access in this way requires library service management to recognise the need and act to make changes. Even with access at more terminals, staff in mobile and housebound services might still require a CD version to take out with them. An additional problem is staff awareness. Even if the files were more widely accessible, staff generally may not know that NUCAF exists, or what it covers, or that their library has any access to it – and more importantly, how their users can obtain materials listed on NUCAF.

End user access is currently extremely limited. In the case of the subsets VIDE and ALP, direct access for the end user is likely to be variable and depend on practice within the institution. In libraries where access is via Unity and LASER it is unlikely that end users can access the file at present, since the relevant terminals are very limited in number and are not sited in public areas. Clearly, much work needs to be done on improving end user access options.

A wide range of people would be helped by the development of an accessible database of alternative formats. Actual and potential visually impaired users of NUCAF may be of any age from child to adult, cover the whole range of intellectual ability and require material for work, study and recreation, and they may suffer from an additional impairment or multiple handicap.

The actual and potential non-visually impaired users of NUCAF are equally many and varied. There are individuals who have long term relationships with visually impaired people – teachers and parents of children with impairment, children of parents with impairment and carers of those with multiple handicap. Then there are the agencies – doctors, dentists and other health professionals, banks, advice centres, electricity/water companies, tourist offices, schools and academic institutions, government departments, and service providers of various kinds. Sometimes the need is to know about NUCAF in order to be able to recommend it to the user as a resource. At other times the need is for a database such as NUCAF to identify a specific title as relevant to a user's current need for information.

Originally designed to meet certain requirements, NUCAF has had little modification to support a wider remit apart from the inclusion of additional records and it is still owned and maintained by the RNIB. It is now time to review the existing service and how it should be developed to best serve the needs of the visually impaired. The specific aspects that need review are:

- Current and potential functions of the service.
- Ownership and maintenance of the database.
- Working partnerships with other organisations and agencies.

Within this overall review, there is a need for a technical specification of the bibliographic requirements, or metadata, necessary to ensure the database has consistent, accurate content.

1.2 Remit

The Department of Culture, Media and Sport has recently made a grant of £200,000, to be administered by the Library and Information Commission, to improve library and information services to visually impaired people. Share the Vision produced a number of proposals to achieve this. Of those proposals approved, Project One focused on improvements to the National Union Catalogue of Alternative Formats. UKOLN has been contracted to carry out Part A of this proposal, with the following remit.

- Produce a technical specification for metadata requirements in order to maximise the utility of the database for independent end users and library/agency staff.
- Within this, address the need to provide expanded and descriptive cataloguing entries which permit visually impaired people to browse through an easy to use single source of information.
- Explore how the existing service provided by NUCAF can best be developed. Define the vision and set out the aims for such a service.

1.3 The study

The initial stage of the study focused on collecting information and reviewing the processes currently used to maintain NUCAF. A visit was made to RNIB to look at how the database is currently maintained, how it fits into the Infoflo system and what functions it supports. The review also looked at the relationship between bibliographic, library and customer services work and their staff. A visit was made to NLB to look at their existing library management system and their new system (expected to be in place in early 2000). The review also looked at how their library service functions and the allocation of tasks among staff teams.

While at the NLB, the opportunity was taken to talk to a number of visually impaired people to provide an insight into their view of current and potential provision in this area. A visit was made to Islington Library Service to look at their access to the NUCAF file and their provision of equipment and terminals to support visually impaired people. Ideas for an

enhanced NUCAF were discussed in relation to public library services in general and to visually impaired people in particular, and also in relation to specific library management systems.

Reports from the TESTLAB projects were reviewed for relevant input, particularly in relation to union catalogues and inter-lending mechanisms. Discussions were held with Kevin Carey, who is working on another of the proposals, Enhancing Access to Library Based ICT Services for Visually Impaired People. A number of meetings were held with Helen Brazier, Karen Dane and Juliet Leves on their work on Part B of the NUCAF improvement proposal. Finally examples of similar databases in other countries were identified and compared with NUCAF.

The specific areas reviewed were:

1. The function of the existing NUCAF service
Some functions will require specific data elements to be present.
2. The requirement for expanded and descriptive data elements.
Investigation from the viewpoint of both staff and end users.
3. Compliance with standards.
Where possible the objective would be conformance with national/international standards already in existence.
4. The one-stop shop concept.
Investigation of issues related to this, such as the products currently excluded from NUCAF, the need to integrate with other library service mechanisms (e.g. inter-lending) and the need to enable user independence.

The deliverables were:

1. Define objectives and mission statement for NUCAF.
2. Technical specification for NUCAF metadata.

2. The mission

2.1 The current situation

The Royal National Institute for the Blind (RNIB) developed the National Union Catalogue of Alternative Formats (NUCAF) as an extension to its own in-house database of accessible media products. Currently NUCAF has no mission statement and has not published any defined aims and objectives.

RNIB uses Inflo, a commercial product, to support a variety of RNIB stock management and customer service functions and it is very effective in doing this. The full stock includes items of equipment and toys etc. in addition to the alternative format materials. The system handles all sales, accounting and distribution operations within RNIB. The bibliographic system was developed in-house to run within the Inflo system, effectively treating loans as sales. While most of the stock is available either for loan or for sale, audio-described videos loans are charged, and so therefore are effectively are for hire.

Currently the NUCAF file supports not only RNIB services and functions, but also provides support in specific areas for other providers.

2.1.1 Support for RNIB

The NUCAF database is part of the bibliographic system and consists of two parallel files: the pre-production file and the live file. It supports the production services, library services and customer services functions of the RNIB.

- The **live file** records the alternative format stock of the RNIB that is available for sale, hire and loan. Records for the vast majority of this stock are held in the NUCAF file, although records for subscription magazines are held in a separate file in the RNIB Infoflo system.
- The **pre-production file** records new RNIB titles in production, but these records are not downloaded in VIDE or ALP or the files available on LASER or Unity.

The bibliographic system and the NUCAF files support:

- The loan of braille and audio titles to RNIB service users.
- Responses to queries on the availability of alternative formats for specific titles made through RNIB Customer Services.
- Responses to queries on the availability of alternative formats for subject areas or fiction genres made through RNIB Customer Services.
- The selection of new titles for production by RNIB
- Storage of details about copyright permissions obtained for titles produced by RNIB.

2.1.2 Support for other providers

The two NUCAF files also include records for materials produced by and available from other organisations. There are currently around 230 other organisations producing and supplying alternative format materials. Additions to the pre-production file are notified to RNIB under the Notification of Intention to Transcribe (NIT) scheme and between 25 and 30 producers participate in this. Additions to the live file are made using details supplied by other producers; these may be in the form of typed lists, computer printouts or pages from the producers' catalogues.

Originally this information was collected on a piecemeal basis with the result that coverage is currently variable. This situation is being addressed in Part B of the NUCAF improvement project. An additional problem arises from the fact that while records are added for other holders and producers, there is no withdrawal procedure in place with the result that some titles may appear to be available when in fact they are not. This limits the effectiveness of NUCAF as a location tool and will not inspire confidence in users. Currently around 10% of non-RNIB producers ask RNIB to negotiate copyright permissions with publishers on their behalf and details of these permissions are recorded in the database.

- The NUCAF pre-production file records new titles in production from 25 – 30 other producers.
- The NUCAF live file records details on some of the stock of a number of the other producers and holders of alternative format material.
- The database records details about copyright permissions obtained for titles produced by other organisations when the agreement has been negotiated by the RNIB.

2.2 Ownership and management

NUCAF has evolved out of the database for RNIB stock and it is currently owned and managed by RNIB. All additions and amendments to the database are mediated entirely through the RNIB bibliographic services section. Although records can be downloaded from British Library BNB files to act as base records, all other data must be keyed in by RNIB staff. Because of its in-house development and the type of system within which the database is placed, electronic data transfer options are very limited at present and will probably continue to be so in the future while the Infoflo system is in operation. Access to the data is restricted to a very few access routes, none of which are easily or routinely available to the end user at present.

This position is contrary to the current trend towards collaborative services that provide a seamless, single entry point service to users in a distributed or virtual arrangement. Visually impaired people need a national database to maximise both the effectiveness of provision, and their access to the full range of materials. A national database needs to be an independent entity with a range of access routes, and links into relevant systems and other databases that support visually impaired people. If the NUCAF database is to be developed as a national resource, accessible to all users, a number of issues need to be addressed: who owns the database, who manages it, and who funds it?

It would seem logical to place a national resource for library and information services within a national library. This is the case in the United States, where the Library of Congress includes the National Library for the Blind and Physically Handicapped. The Library maintains a Union Catalogue of materials and a file of In-Process Publications, accessible over the web. A separate programme, also based at the Library, covers alternative format music materials.

In the UK the British Library has no specific remit in this area and maintains no relevant collections and services. With regard to large print items, Cataloguing in Publication (CIP) records are received for these from Bibliographic Data Services (BDS) and it is thought that there is nearly 100% coverage on this – but these records will only be present from the point BDS took on the contract in 1995. Although deposit copies are received, these are not checked against the CIP records which simply remain on the BNB file. The three years clearance of CIP ghosts leaves the records for large print items in place but still with CIP status. It may be possible with the new Corporate Bibliographic System to amend these records to indicate that they have been published but at present this is uncertain.

With spoken word sound recordings the situation is even more inconsistent. Any deposit of such recordings is at present on an ad hoc basis, though a new voluntary agreement on deposit will start in January 2000. However, records are only created if no print copy of the title exists, and it is unlikely that spoken word sound recordings will come into this category though some electronic texts might.

In its recent review the British Library is looking to continue existing partnerships with other organisations and to make new ones to deliver a national service in a distributed way. Record creation for the national bibliography is already shared between the copyright libraries in Copyright Libraries Shared Cataloguing Programme (CLSCP). The British Library is currently investigating whether local authority libraries can assist in achieving higher rates of legal deposit for locally produced materials and creation of records for these materials for the

national bibliography. It is also looking to extend the legal deposit requirements to media other than print.

There is a good argument for placing the responsibility for a national bibliography of alternative format materials with the British Library. However, operationally the British Library has not had experience of the specific data requirements in this field that the specialist organisations have. Accepting a responsibility for this area need not require creating another department within the British Library; in the new collaborative approach a partner body could carry out the work. The British Library website should indicate the existence of an alternative format database (indicating where and how it may be accessed) and link to it once it is available on the web. The database itself could also be held as a file on the BL database or the records incorporated within the BNB files.

The voluntary sector organisations have in the past operated completely independently from each other. This arose from each being set up to address identified, and often very specific, needs and has been reinforced by the fact that they are to varying extents in competition with each other for funding. This has prevented the voluntary sector providing a unified service in the past but there are signs now that the benefits of co-operation are being recognised and that the way forward will increasingly be collaborative.

RNIB and NLB are planning a pilot partnership to deliver a joint service that would be available to all blind and partially sighted people throughout the UK. Joint plans will be drawn up between autumn 1999 and spring 2000. During this interim period the Chief Executive of NLB has additionally been appointed as Director of Library Services at RNIB. The NLB and the RNIB are the largest organisations working in this area and between them have a great deal of experience. Assuming that the joint service becomes permanent, this would seem to be the logical base for a national service, especially if the joint service were to eventually incorporate many, if not all, of the other organisations as partners of varying types.

In addition to this there is increasing recognition of the need to collaborate internationally. In February 1999 NLB and the Canadian National Institute for the Blind signed a formal partnership agreement with the aim of providing better services to readers in both countries. Discussions are currently being held to explore the possibility of extending this collaboration to include libraries for the blind in other countries.

Recommendations

- ***The British Library be asked to acknowledge and accept responsibility for recording this material as part of the national bibliography***
- ***The national database of accessible resources should be established as an independent resource***
- ***The proposed joint RNIB/NLB library service should maintain the national database***

2.3 Funding

Much of the provision of services to visually impaired people at present is through voluntary sector organisations or is supported at varying levels by other publicly funded bodies such as schools and public and academic libraries. The RNIB was responsible for the initial conception of a national union catalogue of alternative formats and since then has supported it financially as part of their range of services. No other financial support is available to NUCAF at present.

The national database of resources in alternative formats envisaged in this report would replace NUCAF. It would be a more comprehensive database than NUCAF and would involve more producers. It is envisaged that it would support more functions and be available much more widely to producers, service providers and users. There will be a requirement not only for new equipment but also for additional staff. In order to produce the system envisaged, investment will be necessary in the initial set up stages and financial support will then be required annually for running the service.

Where should this money come from? The voluntary sector agencies do a very good job running the services they do from donated income, but the amounts they have are limited and many are charities with specific terms of reference that may exclude expenditure on anything not related to their prime purpose. The publicly funded bodies have limited budgets and many calls on such money as they are allocated. Lottery funded projects usually require matching funding, though on occasion this can be in kind (through staff time) as well as in money. All these possibilities beg the question as to what value the government places on the provision of library services to visually impaired people.

Placing the national database as a contracted out service of the British Library would require that the funding for the service be allocated from the British Library grant. If the current grant budget cannot meet the cost then an increase in the grant from government should be requested. The proposed service benefits a section of the population nationally and would support education and employment initiatives the government is already committed to. The government should be willing to fund both the initial investment in developing the proposed system and recognise its responsibility in the longer term by providing the funding for running the service through the British Library.

Recommendations

Via the British Library, government should fund the setting up of the national database of resources in alternative formats

Via the British Library, government funding should maintain the service

2.4 Aims and objectives

One problem for the existing NUCAF is that its only clearly defined objectives are those that relate to stock management and production management at the RNIB. It is therefore difficult for it to satisfactorily address functions outside the RNIB. In designing the specification for a new database it is necessary to define its functions.

Databases in the library and information world are set up for different uses. Catalogues of individual organisations provide an inventory of stock, a tool for loan arrangements, and a tool for users to search the stock for relevant material. Union catalogues record the stock of a number of organisations and facilitate loan arrangements between institutions. Databases of titles in print and in production maintained by the book trade are used for ordering material from producers or retailers. The national bibliography records for posterity everything that has been published in the UK.

Added to this is a need to register copyright permissions for transcription into alternative format. Until the principle can be established that production of a title in an alternative format by a non-commercial producer is a guaranteed right, without the need for individual negotiation over permission that operates at present, the database also needs to act as a

register of copyright permissions. A new agreement for licensing braille and audio transcriptions is currently being negotiated with the Copyright Licensing Authority (CLA).

The database for alternative formats is therefore a hybrid database since it has to act as all these tools, in order to replicate services already in place for standard print publications. However, this hybrid status raises the need to identify to what extent it fulfils each of its roles. For instance, decisions need to be made about retention of records in a hybrid database. The national bibliography record confirms that a title has been published and, based on a presumption that a deposit copy is held somewhere in perpetuity, the definitive record created always remains on file. A book trade database holds records for titles only while copies are available for acquisition. A union catalogue holds records for titles only while copies exist in the holding library. The aims and objectives of the database will govern the requirement for record retention.

This enlarged role for the national database will have to be considered in staffing and management structure terms and not just the technical capacity of a database system. For instance, taking on the copyright register will increase the work currently done, since permissions are only recorded at present where the RNIB negotiates the agreement.

- It needs to act as a union catalogue and record the stock held by a large number of holders of material to facilitate loan arrangements between users, both individual and institutional, and material holders. It therefore needs to record locations and indicate loan restrictions.
- It needs to act as a record of material in print so that individuals and institutions can order material. It needs to record where to obtain the material, and whether it is for sale, hire or available free on request.
- It needs to act as a record of material that is in production, or has been scheduled for production, to assist producers in title selection for production. Since only around 5% of a year's publications will be transcribed into an alternative format, there is a need to reduce duplication of transcription and widen the range of title transcribed.
- It needs to act as a copyright agreement register while the current copyright restrictions are in place. Ideally publishers should be approached only once for permission for all non-commercial producers to transcribe a title into the various alternative formats.
- It needs to act as part of the national bibliography by recording definitive details of alternative format material within its remit.

Recommendations

- ***The database and its associated services must combine the functions of a union catalogue, a stock selection resource, an inter-lending tool, a sales and hire catalogue, copyright permission register and an in-production file and form part of the national bibliography.***
- ***The database must provide data rich bibliographic records.***
- ***The database must support known item searching and target area searching through adequate and appropriate indexing.***

2.5 The range of alternative formats

Not only must the uses of the database be defined, but there must also be a definition of what material is and is not within its remit. Defining the coverage requires consideration of the alternative formats, the publishers and what, if any bibliographic record coverage is already in place.

A number of alternative formats to standard print now exist. The tactile formats are braille and Moon; both systems have uncontracted and contracted forms (grades) for text and there is also a braille system for music scores, and there are tactile diagrams. Spoken word recordings may be on either standard cassettes or use special tape systems, and it is likely that there will be a move to using CD-Roms for spoken word recordings in the future. There are also audio-described videos where additional narrative gives details about body language and action sequences.

Large print is a variable term that is used to refer to printed texts in fonts larger than 12 point. Most large print is 16 point, but this is often not large enough for people with visual impairment and bibliographic records do not normally identify the font size of items.

The newest storage medium is the electronic file and this is potentially the most flexible in having the capacity to produce tactile, audio and magnified text outputs when used with suitable equipment and software. The electronic files can be on computer hard discs and servers, on floppy disc or CD-Rom.

In addition to the single media formats, there are also a number of mixed media formats mostly in tactile and standard print variants and tactile and tape variants. For example: tactile pictures with tape commentary, tactile text interleaved with standard print pages, and tactile diagram with audio tape text.

The alternative formats are produced by both commercial and non-commercial organisations. The non-commercial organisations include voluntary sector organisations, schools and prisons. Commercial publishing is concentrated on large print and spoken word recordings. Voluntary sector organisations produce the tactile formats and spoken word recordings, with some large print work. Specialist schools and specialist units within mainstream schools are likely to be mostly producing large print materials; though some tactile material is produced in specialist schools, the number of children learning braille is small. Prison work units only produce tactile formats.

Alternative formats are transcribed from a variety of types of original text. The format of the original work may be text based (printed text) or image based (musical notation, maps, graphic images) and will include material categorised as ephemera that is often excluded from print based bibliographies (instruction leaflets, examination papers, and knitting patterns). The original work may be a monograph (which may form part of a series) or a serial publication.

2.6 Bibliographic coverage of materials

To what extent should a national database attempt to record all versions of alternative format materials, irrespective of the status of the producer? Coverage of alternative format material in the national bibliography, in book trade databases and union catalogues is limited and variable. Some materials are partially covered by existing databases and catalogues. The

tactile formats and the mixed media formats are only listed in the catalogues of the producers and holders of such material and in NUCAF.

For spoken word and large print materials, the coverage depends on the status of the producer. Commercial production is best covered in the book trade databases as they include records for both these types of material, but only while they are still available for purchase. The national bibliography (BNB) has no records for spoken word recordings and only has records for some large print titles, as the criteria for inclusion of records for this material has changed over the years. Regional union catalogues contain varying numbers of records for both spoken word and large print material. Unfortunately, since this depends on the notification policies of the contributing libraries, the holdings of many libraries are likely to be substantially under-represented in both categories. Non-commercial production coverage is like that for tactile formats, only listed in the catalogues of the producers and holders of such material and in NUCAF.

As noted above, commercial publications are covered to some extent in mainstream book trade and union catalogue files. The best coverage is probably the listing of 'in print' titles through book trade databases. For location identification, however, the coverage is variable and not always consistent. Union catalogues depend on member libraries notifying additions and withdrawals of stock. Policies on what material should be notified has changed over the years, but many libraries still do not notify union catalogues of material in non book materials, which includes the large print and audio formats.

Even if libraries were from this point to notify all additions and withdrawals of this material to the union catalogues, there would still be an unknown amount of older stock which would remain invisible, unless addressed by union catalogue retrospective conversion. And crucially, there is no single route to checking what is available nationally. The situation that has developed with the regional library systems currently operating in two groups that cannot be accessed jointly means that nationwide searching is not possible, further excluding those who require these materials. With the present arrangement of mounting the NUCAF file on both LASER and Unity, searches will be limited to NUCAF plus LASER or NUCAF plus Unity, whereas what is required is searching over NUCAF plus LASER plus Unity.

The resources to create and maintain an alternative format database will always be limited and duplication of effort should be avoided. Since the commercially produced materials are covered to some extent, the main task for the national database is to cover the materials that are produced by the non-commercial organisations. The service that hosts the database should aim to help people access the resources that already record commercial production rather than duplicate record creation. There is a need to put pressure on the existing resources to ensure that coverage is complete and comprehensive. So for instance, union catalogues are moving towards notification of all holdings and this needs to be encouraged and supported.

Although the primary focus and initial concentration of effort for a national database of alternative formats should be the non-commercial providers, commercial publications are a vital element in widening the range of material to which visually impaired people have access. A second phase to the development of the national database should investigate collaborative approaches to addressing coverage of commercial publications, both In Print coverage and Library Stock coverage. The new national database service is unlikely to ever have the resources to take on recording this material directly, and any moves in this direction will need to rely heavily on automated methods of record identification and transfer. The

collaborative approach may well involve payment to the record providers and these costs will need to be included in the budget for running the national database.

Recommendations

Phase 1

- ***The database should record monographs, serials and ephemera in tactile, audio, enlarged print and electronic of media.***
- ***The database should concentrate on material produced by specialist non-commercial organisations***

Phase 2

- ***The option of an in-print file supplied by a book trade database service should be investigated***
- ***The option of a locations file for mainstream library stock supplied through the regional library systems should be investigated.***

2.6.1 Master copies

It is not normally a function of library and book trade databases to record the existence of master plates and tapes used in the production of the copies. However, given the way that production in the non-commercial sector has evolved, this is an issue that needs to be addressed in the context of a national database.

Older forms of production in the larger organisations relied on masters that were used to generate a set number of copies and then held against the need for further copies. Alternative formats were also produced as one-off transcriptions in response to specific requests. New technology is changing the production methods to conversion of the text into electronic files that can be manipulated for output. Output production is also increasingly being automated, reducing the likelihood that older masters will be re-used: it may be quicker and cheaper to re-transcribe using new technology. Increasingly there will be a move to production on demand, using electronic file masters. Initially the move to new technology is taking place in the larger organisations, but over time such methods may also be available and affordable enough for the smaller units. So what is recorded in the database may be a master, or a copy for which no master exists, or a master plus a number of copies. Masters form an integral part of the production and availability of alternative format material and therefore need to be recorded in the database.

A related issue is with the retention of masters from the non-commercial producers. There is currently no national policy on the retention and storage of masters. Ideally masters should be preserved against future demand but in practice masters deteriorate, or production processes change such that the masters can no longer be used. Master copies take up space, so there may be pressure to dispose of masters of titles for which there is no current demand. Equally for such titles it will not be worth the investment in trying to convert them to electronic masters. To run a national depository for the physical master forms would require a substantial amount of space and is unlikely to be either feasible (even as part of the national library) or cost effective.

However, where the masters are electronic files, storage space is less of an issue. If organisations are able to move on to the newer methods of transcription, perhaps the time has come to inaugurate a deposit scheme for electronic masters, with the deposit centre located with the joint NLB/RNIB library services. This could assist in two specific areas. Firstly, prison workshops carry out some of the tactile transcription production. They keep their

masters because generating the copies is a source of work to the prison. This can cause problems when a duplicate is required urgently and the prison unit has been temporarily closed, which happens at times in response to prison security issues. An electronic master held centrally could be used in this situation to meet a specific urgent need. Secondly, schools produce a large quantity of extracts of textbooks, often under rigorous copyright restrictions such as the CLA Large Print Licence, which does not allow them to retain an electronic master or to use the item outside the producing location. This inevitably produces duplication of effort in transcription and such copyright restrictions discriminate against visually impaired people in education. Understandably schools may well not wish to loan outside their primary user group, but if they are able to produce electronic masters for deposit this will widen access to a very important range of materials. Currently copyright restrictions discriminate against effective provision of library and education services for visually impaired people.

However, care needs to be taken over records for items that exist only in master form. Some forms of master deteriorate with age or with use, or the appropriate equipment may no longer be available to produce a copy. If the master cannot be used to generate a copy for a user it should not appear in a file of available resources. Is the master to be kept, irrespective of its ability to generate copies? This will be a decision for the producing institution. But if it is not kept, records need to be transferred to some form of historical archive file or withdrawn altogether.

Recommendations

- ***The database should record masters and copies***
- ***Consideration should be given to setting up a deposit scheme for masters***

2.7 Access

The database also needs to be accessible. Visually impaired people and those working to support them are currently restricted to a few narrow avenues of access. End users have indirect access via the customers services department at RNIB, and there is now limited access to library professionals in specialist educational institutions and in inter-library lending departments in all public library authorities and many academic institutions. Current provision for access is inadequate and a basic objective therefore must be to widen access to the database.

Widening access will require the use of a range of access methods. Provision of Internet access is variable, with some areas much better served than others, though this will improve with the introduction of the People's Network and Internet access for schools. An individual's access to Internet services varies: people may have access via work, public services, educational and academic institutions or have their own equipment at home. Individuals and small voluntary organisations have least access now and for many of them, this situation is unlikely to change in the near future. Access to the database therefore needs to be provided through a range of services and products.

A web-based system offers the most flexible way of providing the database service. It can offer customised access to the database for database management staff, alternative format producers, inter-lending services, and the end user. It can provide safeguards on data accuracy and consistency, offer a range of data display variations and facilitate user service functions through password systems, user registration and customised screens.

A database that is accessible through a web based OPAC will ensure wide access through the Internet. The web site should ideally be linked from a range of web sites: the national library, overseas databases of alternative format material, organisations working in the field of visual impairment, and professional organisations in the library and information field. Ideally the web site would allow simultaneous searching of other databases of alternative formats in other countries, and at the least it should contain links to those web sites. A web accessible database should enable producers who have such access, to transmit details of new, withdrawn, and 'in production' titles to the database with the minimum of effort to the central service. It should also enable end users to generate requests for items that they have located on the database.

The database should also be available as a CD product. This is needed not only in the short term while Internet access is being extended, but also in the long term in situations where Internet provision is not practical (housebound and mobile public library services, patients' libraries in hospitals, small voluntary sector producers of alternative formats). Other long term uses are where an offline service reduces pressure on online service points, or as a product that individual users can obtain for personal use.

The database needs to form an integral part of the national inter-lending mechanism. It must therefore be downloadable into the union catalogues of regional library systems and co-operatives.

Recommendations

- ***A variety of access routes must be provided to the database***
 - ***Web based OPAC***
 - ***CD products***
 - ***Downloaded files***
 - ***Links to the database site from other sites***
 - ***Web facility for producers to transmit details of:***
 - ***New titles***
 - ***Withdrawn titles***
 - ***In Production titles***
 - ***Web facility for end users to generate requests for items***

2.8 Mission statement and name

NUCAF suffers from being the right idea with too little resources, no strategic direction, restricted access and low visibility to its potential users. Not only does it suffer from low visibility, but awareness of its existence does not guarantee an understanding of its function. In the investigation carried out by Helen Brazier, Karen Dane and Juliet Leeves as part of their work to identify the records missing from NUCAF and to establish methods to rectify this, it became apparent that assumptions may be made about NUCAF relative to an organisation's contact with it. Thus for some organisations there seems to be a perception that it is concerned with production and obtaining copyright permission rather than being a union catalogue of holdings. Some organisations notify additions via updated or replacement lists of holdings, and assume that RNIB will remove the old records and replace them with the new list, whereas RNIB only withdraw records relating to their own stock. There is confusion over whether the Notification of Intention to Transcribe (NIT) is primarily for obtaining copyright permission or for preventing duplicate production. The NIT is perceived as difficult to use and appears not to be used by any audio producer. Few public and academic libraries are

likely to know about NUCAF to any extent at this point and any knowledge is likely to be concentrated in specific areas: inter-lending, housebound, and disabled student support services.

A national database of resources in alternative formats is a key part of improving library and information services to visually impaired people. As such it needs to have a clear identity and a statement of its aims. The preceding sections have identified the variety of factors relating to the provision of a national database of resources in alternative formats. A mission statement should be brief, clear and unambiguous and relate to what the database is, what it does and what it supports.

In addition to the decisions on what the national database is, what it covers and what functions it supports in the provision of library and information services to visually impaired people, there is a need to market it as a resource. It needs to be promoted to producers and holders of material, to providers of standard library services and the regional library systems, to hospitals and opticians, to visual impairment support services such as rehabilitation officers, to the relevant government departments and not least of all to the users. There needs to be a range of clear promotional material, appropriate to the target audience – end user, service provider, producer or referrer. However, the consequence of higher visibility and an improved product is to raise demand and service providers need to be aware of this.

The current name for the database is the National Union Catalogue of Alternative Formats and it is referred to by its acronym NUCAF. As noted above, the new database would not be simply a union catalogue but a combination of several database types. A more accurate description is the National Database of Resources in Accessible Formats. Neither professionals nor end users will want to use this description in full and will start referring to it by its initials or some variant of them. For a reference resource known to and used by a wide range of end users an acronym only works well if it converts into a word or variant of a word, preferably with relevance to the subject of the resource. Neither NUCAF nor NDRAF is a good candidate for this. The alternative option is to look for a word that encapsulates something about the resource and attach the description as a subtitle.

What makes a good name? In the United States, there are two major databases that illustrate what works well and what does not. The National Library for the Blind and Physically Handicapped is referred to as the BPHP – not something that trips off the tongue and not easily remembered on first hearing. However the database hosted by the American Printing House for the Blind is the Louis Database. This is easy to say, easy to remember and links well in people's minds with one alternative format, having taken the name from Louis Braille.

Looking at acronyms the options are NUCAF, NDRAF, the National Accessible Data Resource (NADR), or acronyms that reflect the media (Audio, Tactile, Large Print and Electronic) TALPE or ALPET. None of these are good candidates though RALF (from Resources in ALternative Formats) is an option. It is probably better therefore to concentrate on finding a word that reflects the 'flavour' of the resource and then combine it with the subtitle: National Database of Resources in Alternative Formats.

A number of possible names are already in use and could cause confusion. *Focus* is used in many connections, and *In Touch* is used widely in the visual impairment service field and by a publisher, and may appear specific to tactile media. *Oculus* is the name of a software

specialist and an art journal, while *Spectrum* is the name of the UK Museums Documentation standard. *Scope* is the acronym for the Scottish Collaborative On-demand Publishing Enterprise and as well as being the new name for the Spastics Society. *Virtual Vision* neatly links the current focus on virtual concepts (virtual library, virtual reality games, etc) with vision, though a two-word name may work less well. However, it is the name of a company that produces specialised headsets with monitors so there could be trademark copyright problems.

There are some alternatives. The word *Visions* can be taken in two ways – actual variation in sight and the goals and ideals envisaged. *Options* and *Choices* both reflect the goal of widening access. *Interchange* and *Axis* focus on the linking of resources and the fact that the format of materials changes. *Reflections* focuses on the fact that the resources are alternative ways of presenting the intellectual or artistic content; *Perceptions* might be another candidate. Following the lead of the Louis database, personal names are another possibility but apart from Louis Braille, few names would be widely known in this context. *Helen* (after Helen Keller) or *Dunstan* (after the saint) might be worth considering. In making the choice there will be a need to avoid existing trademarked names and names which are already in use and well known.

While visually impaired people are the primary focus of the database, alternative formats can also assist people with other forms of print handicap, such as dyslexia, or physical handicaps that make it difficult to handle standard printed material. The mission statement will need to reflect this.

Recommendation: promotion

Produce a range of clear promotional material, appropriate to different target audiences – end user, service provider, producer or referrer.

Organise events to promote the database

Recommendation: name

XX: the National Database of Resources in Alternative Formats

Recommendation: mission statement

XX: the National Database of Resources in Alternative Formats is an integral part of a network that links local, regional, national and international resources in serving the library and information needs of visually impaired and print handicapped people in the UK. XX provides a resource that can be used by anyone with a need to identify, locate and obtain expressions of knowledge, intellect and creativity in alternative formats. XX is available through a range of access methods to ensure the widest possible outreach to visually impaired and print handicapped people in the UK.

3. Access to the database

3.1 The requirements

Using a single method to access a database invariably excludes some people, either by format or by technology. The primary aim of the database is to widen people's knowledge of and access to the alternative format materials. Therefore the database needs to be accessible to the greatest number of people through a range of methods.

3.2 Web access

An individual's access to the Internet is currently variable but it is potentially the most widely available route to resources. A web OPAC type of database can support not only the search and locate requirements of users but can also support a range of services either directly or by providing routing methods. It can hold records in different files (e.g. a union file and a pre-production file) and make searches over one or more files. It has the potential, through protocols and tools such as Z39.50, to facilitate simultaneous searching of its own database and other databases of alternative formats.

Records for alternative materials need to hold more data than records in most other bibliographic records. However, displaying every data element in a record initially in response to a search may be counter-productive. A web OPAC database can use customised display screens so that initial displays show brief information and fuller details can be requested. Display screens can also be customised for different users: production unit staff will want to see copyright permission data, inter-lending staff are interested in locations, and users in annotations.

A web-based database could also support effective creation of records. Producers and holders of titles could enter details of their own additions and deletions through a form; this facility is currently offered to producers of standard print titles through the web sites of both Book Data and Whitaker. Records entered in this way would not go straight onto the database but would first go to a Notifications file and would be enhanced where required by database staff before going on to the Union or In Production file.

A web-based service also has the potential to support end user requests. Instead of users having to note details of items and then to fill in forms or make telephone calls to make the request, a web-based system can offer users the option of registering the request on the web site. Potentially requests can then be automatically routed to suppliers or inter-loan systems (depending on the holder status). In the initial phase at least of such a system it is more likely that the database management would act as a clearing house passing requests on to the holding organisations.

3.3 CD products

A CD version of the database has a number of potential users: individuals, schools, and the mobile and housebound public library services. A CD version may be used in addition to using the Internet access. For example, schools may find that a CD product, restricted to national curriculum materials, that is portable and can be used on a number of PCs, would suit them best for much of the time. Internet access, which may be restricted to a few PCs, can be used on the occasions when a wider search is required.

The update or issue frequency of such a product needs to be considered. One factor to take into account is the rate of additions and deletions to the database. Interestingly, in its 1996-1997 comparative study of bibliographic record supply for the UK imprint, UKOLN found that even a quarterly updated CD service produced records for 88% of sample searches. This survey measured products that cover the whole of the UK publishing output. The obvious factor governing how quickly a CD product becomes unreliable is the number of records being added to and deleted from the database each month. Since relatively fewer titles will be added and deleted each month to the national database for alternative formats, the likelihood is that a lower frequency than monthly may produce satisfactory performance. Another factor relating to frequency of issue is that of the characteristics of user types. Three issues a year

linked to terms may work well for schools and academic institutions but this may be too infrequent for other users. The number of potential users of a specific type would indicate whether more than one CD product is required.

3.4 File download

File download is currently used to make the database accessible via the LASER and Unity inter-library lending systems and this needs to continue. The file could also be downloaded onto other databases where this is appropriate. The database therefore needs to be based in a system that can support electronic transfer of files to nationally and internationally agreed standards.

3.5 Record import

At present RNIB undertakes all record creation for the present NUCAF file. Where possible BNB records are downloaded and enhanced with additional data (target audience, genre and format details and annotation). Success rates in finding a matching record vary according to the source of the alternative format title being checked. For RNIB 'current' titles being produced for stock development, the hit rate is estimated to be around 85%. For material from other sources, that may be producing less recently published titles and ephemera, the hit rate against the BNB files falls to around 55%.

Of the British Library data files, only the BNB files are checked. The Stationery Office and the SIGLE grey literature files are not checked, though for certain items they could be useful since some records for some materials appear on these files and not on the BNB files. With the current system it is not possible to accept bibliographic records from elsewhere through any electronic method. However records from other sources, such as the Library of Congress, are consulted and the appropriate details keyboarded in to RNIB created records.

Record and copy details supplied by other producers and holders of alternative formats are supplied in hard copy format that is then keyed in by RNIB staff. Producers supply details in the form of lists of titles, copies of catalogues and photocopies of title pages and the level of detail supplied varies. The NUCAF 'backlog' review previously referred to revealed that non-commercial producers variously used card catalogues, word processor lists, databases and library management systems to record details of titles. The library management systems provide templates for data entry which are adapted by each organisation for recording alternative format details. There is also a limited appreciation of the value of identifying the precise edition by publisher and date or by ISBN; surprisingly this occurs even in the education sector. This makes it difficult to match holdings against correct bibliographic records on NUCAF and has implications for applications for copyright permission.

A more structured system is required. The new database should be able, where possible, to accept imported records in electronic form from other producers. There will need to be an editing function for the database. A new record coming in may detail a further copy of an alternative format title, or a new alternative format for a title that already has alternative format(s) or be for a title that currently has no alternative formats. There will be a need for central authority control. Additional data may need to be added to records from some producers; for instance, they may supply the basic bibliographic data and the format data and even indexing terms using agreed lists, but the database staff may need to add the annotations. Records need data on the holding institution for loans and hire and on the producer for material for sale. Since institutions on occasion change their name or are merged with another organisation it could help for institutions to be represented in the data as a code.

However, not all producers and holders will be able to take advantage of electronic transfer in the short term and some, particularly the smaller ones, may not manage this even in the long term. In these cases an alternative standard reporting system needs to be put in place. This needs to be a simple and easy process for the producers and holders to use. Terminology used on forms needs to be clear and unambiguous and recognise that those completing the form may have little or no library or information service training. Forms need to record the relevant data for any item. Form design also needs to support efficient keyboard input. The system needs to cover several areas: (i) intention to transcribe, and copyright permission details, (ii) in stock (whether for loan, sale, hire or free on request) and (iii) withdrawn from stock. The NIT scheme has in a sense been a pilot stage for such a system; currently around 25-30 producers use these forms at present and this provides a base of experience on which a new system can be built.

All methods used should be as simple as possible for the sending organisation and the receiving database service. As well as electronic transfer (either using the web or sending data files or floppy discs) of records and the paper-based method, it may also be possible to use an intermediate method combining the paper-based format data elements in an electronic mail message. Another method would be for the database service to periodically printout the records listed for a specific producer. This is then sent to the producer, who is requested to indicate any titles that should be removed, any for which additional copies should be recorded and any for which new records should be created.

In addition to designing the new system and new forms, there is a need for outreach to the producers and holders to convince them of its usefulness and to raise an awareness of the importance of accurate and sufficient data. In fact, it would be useful for the outreach process to begin now, rather than waiting for the new database to be operational. The data elements may need to be divided into essential (the basic bibliographic details such that it can be matched easily with existed bibliographic records) and supplementary data (e.g. annotations) that should be supplied where possible.

Recommendations

- ***Set up a reporting system for producers and holders to notify the database of***
 - ***Intention to produce***
 - ***Addition to stock***
 - ***Withdrawal from stock***
- ***The reporting system should accommodate both electronic and paper-based methods***
- ***Supporting information should be provided to producers and holders***
- ***Individual set-up negotiations should be held with each producer or holder in order to achieve the maximum co-operation and successful implementation***

3.6 User generated requests

End users are currently limited in their access to the database and in most cases need to go through an intermediary. The most direct access currently is a call to RNIB customer services, who will search the NUCAF database. It is less easy at NLB at present since the NUCAF file is only available in the cataloguing section and enquiry calls are taken by the readers' advisors. While inter-library lending staff in public and academic libraries can now search the NUCAF files loaded onto Unity and LASER, few users are likely to be aware of this as yet. This is obviously not providing a truly accessible service.

By placing the database as a web-based OPAC with supporting access via CD- Rom products and downloaded files on other services, users will be enabled to search the database themselves. If the database is restricted primarily to the non-commercial sector, users also need access to the union catalogues of Unity and LASER. Widening access then needs to be taken one step further by enabling them to start the process of obtaining an item.

With the envisaged web database it should be possible to extend options in this way for the end user. Having found an item or items on the database, they should be able to generate a request directly. Once the request has been generated, there needs to be a system in place that can deal with the request. One option is that the user request is a message that is sent to a central service, that routes the request on to the holder together with details of the requester. Alternatively a more sophisticated method might link the holders as consortia partners, and all users would have a user number and the system would pass on the request. While this would primarily be in place for loan material, the routing process could also be used to pass on orders for sale, hire and free on request items.

Even with a web database it is unlikely that all this functionality can be achieved from the start and a phased plan will be needed. There are concerns about publicising the holdings of providers unless there is authorisation for this, and some providers may not initially feel able to support direct requests, except from their own members. The web database service should therefore develop as a facilitator service for visually impaired people, through which all requests are routed.

Recommendations

Design the web platform to accept requests from end users

Design a management routine for forwarding requests or supplying items requested

4. The database

4.1 Database structure

In order to achieve its objectives, the national database will contain records for material that is in production or available from a range of holding institutions. It is also envisaged that a range of people will have access to the database – database staff, producers and holding institutions of varying types, and end users. Not everyone will need the same access permissions; for example, end users require record display for items currently available, producers require notification input and database staff require record amendment access. It is probable that the best way to support this is for the database to comprise a number of files.

Union File

This will be the basic file of the national database, to which everyone has display access, but only database staff would have record creation and amendment access. It will contain records for materials in alternative formats produced and held by specialist non-commercial organisations. These records will be under the control of the database staff. Database staff will create records, where possible using bibliographic records for the original item as a base. They will also move records from the Notifications file and the In production file into the Union file as appropriate. They will remove records on receipt of withdrawal of stock notification.

In Production File

The file will hold details of items which specialist non-commercial organisations have decided to produce or are in the process of producing. Producers will have display access and database staff will have record creation and amendment access. Some records will be moved into this file from the Notifications file. Database staff will create the remaining records using details supplied through the manual notification procedure. Records will be deleted on receipt of 'intention to produce abandoned' notification. On receipt of notification that the item has been produced and is now available, records will be moved into the Union file.

Notifications File

This file will hold the data supplied by the specialist non-commercial organisations through electronic methods of transfer. Producers will have data input access and database staff will have record amendment access. Database staff will enhance and amend these records as necessary before moving them to either the In Production file or the Union file.

These three files are the basis of the national database and need to be in place from the start. A number of additional files would further improve services to visually impaired people and the capacity to incorporate these at a later stage should be included in the specification for the provision of the service as a whole.

Archive file

If there is a decision that records are never removed completely from the database, even when no copies or usable masters remain, there will be a need for an archive file to which such records can be moved. Each record in this file would need to be updated with a note indicating its current status. Database staff will move records into this file and will have record amendment access.

Copyright Register

At present there is no one place in which records are kept of all copyright permissions granted. It is a recommendation that the national database service takes on this responsibility and a copyright register would need to be set up. Producers would need display access and database staff record creation and amendment access.

Collections Register

During the course of this study and the parallel study on the retrospective cataloguing needs of NUCAF, it became apparent that the number and range of specialist producers and holders of alternative format material is much wider than many people will be aware of. It is important that as much of this information as possible can be made accessible to potential users of the various organisations and a collections register would support this. It would contain details such as organisation name, contact details, membership eligibility, and collection strengths. It should be available in display access to everyone, and database staff will have record creation and amendment access.

It has also been noted that a potential resource for visually impaired people is that of the large print and audio recordings made by commercial producers. These are variously covered in mainstream bibliographic systems, with in print coverage better than holdings coverage. While the primary function of the national database will be to cover the production in the non-commercial sector, widening access to the commercial sector would greatly benefit many people with visual impairment. Realistically this will only be achieved through collaborative effort, which should be investigated as a later phase of the database development strategy.

In Print File.

Visually impaired people may wish to know what is commercially available for sale in large print and audio and book trade databases already record this information. It may be possible to negotiate with organisations such as Book Data, Whitaker or Bibliographic Data Services for the supply of records for these materials and hold them as an In Print file in the NUCAF database. This assumes that the records contain format identifiers that would enable them to be stripped out of the full databases.

Library Stock File

Visually impaired people also want to be able to search across all sources of material, and downloading the records to LASER and Unity only does part of the job. It would be worth exploring whether LASER and Unity could also export their records for these materials back to the national database, where they could be held as a separate Library Stock file in the database. Again, this would depend on the records containing format identifiers to enable them to be stripped out of the full databases. Given the variation in notification of alternative format material, both historically and currently, to the regional library systems, this would not be a comprehensive listing. It would be important for the database to indicate that the file, initially at any rate, is incomplete and only contains 'some of the materials' available in these formats in public libraries.

Records acquired in this way for the In Print and Library Stock files would not be of the same standard as those created through the national database of resources in alternative formats. Content descriptions would not be available for Library Stock records, though would be for many In Print records. Genre and subject indexing might be lacking or not consistent with national database practice, especially with older records. Additional data such as narrator and cast for audio recordings might not be present. Despite these areas of shortfall, the addition of these files would extend the options available to visually impaired people.

4.2 Functional requirements of bibliographic records

Following the 1990 Stockholm Seminar on Bibliographic records, IFLA set up a project to study the functional requirements for bibliographic records. Its terms of reference were to delineate in clearly defined terms the functions performed by the bibliographic record with respect to various media, various applications and various user needs. For the purposes of the study the bibliographic record was defined as encompassing descriptive elements, access points, other organising elements (e.g. classification) and annotations. In 1996 a draft report was issued for world-wide review. In summary it made the following statements.

It firstly defined terms to be used with reference to the items being described by the records. These fell into three groups, the products of intellectual or artistic endeavour, the entities responsible for the content of such products and the entities that form the subject of intellectual or artistic endeavour.

Work	a distinct intellectual or artistic creation
Expression	the intellectual or artistic realization of a work in the form of alpha-numeric, musical or choreographic notation, sound, image, object, movement, etc. or any combination of such forms
Manifestation	the physical embodiment of an expression of a work
Item	a single exemplar of a manifestation

Person	an individual
Corporate body	an organization or group of individuals and/or organizations acting as a unit

Concept	an abstract notion or idea
Object	a material thing
Event	an action or occurrence
Place	a location

For each of the terms, the study defined a set of characteristics, or attributes, associated with each. Thus one of the attributes of a work is its title.

The report then defined the role of the national bibliographic record as assisting the user to do at least the following tasks:

Find all **manifestations** embodying:

- the **works** for which a given **person** or **corporate body** is responsible
- the various **expressions** of a given **work**
- **works** on a given subject
- **works** in a given series

Find a particular **manifestation**:

- when the name(s) of the **person(s)** and/or **corporate body(ies)** responsible for the **work(s)** embodied in the **manifestation** is (are) known
- when the title of the **manifestation** is known
- when the **manifestation** identifier is known

Identify a **work**

- identify an **expression** of a **work**
- identify a **manifestation**
- select a **work**
- select an **expression**
- select a **manifestation**
- obtain a **manifestation**

4.3 Data elements

Moving on from the theoretical model it is obvious that in order to be able to carry out its functions, a bibliographic record has to contain a range of data about an item and its attributes. This data is organised into separate pieces, known as data elements. Thus each of the functions of a national database of resources in alternative formats will require a number of data elements to be present.

4.3.1 Basic bibliographic details

The data elements here are the same elements that are required in any record.

Data elements

Title, author(s), publisher, date of publication, edition, series, and subject.

4.3.2 Search support

When users are searching known and unknown items, they use a range of source strategies and therefore need a range of data elements. Some of these elements will be present in the basic bibliographic details – author, title, and subject. However, when searching for alternative media users require additional data elements, and will use various combinations of these elements. These elements need to be indexed so that the search details pick up all relevant records.

Users need to know what format the material is in. They may wish to restrict searches to a single format of material (e.g. only braille) or to a number of formats (e.g. braille and audio). This information therefore needs to be in an indexable field.

Subject indexing is required in fiction as well as non-fiction areas. Visually impaired people are no different from the rest of the population in having preferences in fiction but cannot select from the books on the shelf. So both genre indexing and theme or topic indexing is important. Currently NLB and RNIB have their own genre categories, as do other databases for these materials and the British Library. A single set of terms would be needed for the new database. In practice, it might be difficult to retrospectively convert all records. An automated conversion will work where there is a one-to-one (*romance = love stories*) or a many-to-one (*space stories & Star Trek stories = science fiction*) conversion of terms, but not where a one-to-many (*religious novels = Christian fiction, Jewish fiction, Islamic stories*) conversion is required.

Data elements

Subject indexing, fiction genre and form indexing, target audience, format type.

4.3.3 Decision support

Once titles that match the search terms are found, the user has to decide which items are relevant. A number of factors need to be taken into account here. Additionally, while users who are not visually impaired do use catalogues, they may equally begin a search by browsing the shelves at their local library. The search support for visually impaired people therefore has the additional challenge of trying to replicate this experience to some extent.

Users want to know about the completeness of the text. Sometimes texts are abridged to fit onto a set number of audio tapes. Some alternative format titles are compilations by a producer from a number of original texts. Sometimes the alternative format text comprises only extracts from the original, or specific elements such as diagrams, tables and indexes are missing.

More information is required about the subject matter. If the item is fiction, users will find several data elements useful: annotations on the overall story-line, sample passages, genre headings, theme headings, whether the item is part of a series and its position within the series, and the name of main characters who appear in a number of items. If the item is non-fiction, similar types of data will be useful: annotations on the content and treatment of the subject and sample passages.

Because of the limited number of titles produced in alternative formats, there has been a tendency for holding institutions to retain older stock that would normally be weeded out in mainstream library stock management. It will be up to the holding institutions to make policy decisions on retention, but where older stock is retained it is important to provide users with

the data to allow them to make an informed choice about an item. Publication date and edition statements will help with non-fiction titles, but for fiction it may be useful to use genre terms in this context. Terms like 'classic' can indicate older material for which there is generally continuing interest, but a new term such as 'pre-1950' may also be required.

Users need to know what format the material is in if they have made a search that is not limited to a specific format. Within a format they will want to know grade level for tactile formats, specific format for audio recordings (standard cassette or Talking Book), the number of units for the title (e.g. 3 braille volumes, or a 2 cassette recording) and font size for large print material.

With spoken word recordings, end users often like to know the name of the narrator, as they may have strong preferences for or against particular voices. They will also want to know the cast in the case of dramatic presentations.

There is an additional requirement to support decision in the area of serials. In addition to alternative format versions of books and other monographic publications, both newspapers and serial publications of various sorts are transcribed. A user may initially be searching to establish whether a named serial (e.g. the Radio Times or the Telegraph) is available, or they may be searching to find out what titles are available in a specific field (e.g. music or gardening). Having found maybe three titles on gardening, they need to know what sort of focus the serial has. They will also want to know how often it is issued, and since few serials are transcribed in their entirety, they will want to know the extent of abridgement.

However, people are not only interested in serials as a single unit of information, and they may be interested in individual articles. To provide access to this level of information would require indexing each article within the serial issue. In the short term this is probably not feasible, given the additional effort required, but it is desirable in the long term.

Serial publications pose other problems. With many alternative format serials only the current issues are available and non-current issues are not kept. The record has to give clear information as to what is available – current issue only, past five issues only, from a specific date or issues x, y and z. The user will also want to know if the serial is for loan or a subscription title. If the title is a subscription title, then the user will want to know its frequency and where they can obtain it, and ideally the cost.

Content warnings currently appear on some titles in NUCAF. The RNIB has developed a small number of warning codes to indicate strong language, potentially offensive material, non-suitability for family reading and material in foreign languages read by non-native speakers. These were originally devised for the Talking Books service, but in recent years have been applied to audio cassettes and audio-described videos. There is no systematic process that applies to all materials; warnings are mostly created at the recording stage, and may be generated in response to feedback.

It is clear that one type of 'warning' (that audio material is read by a non-native speaker) should be in a record as it does indicate a possible problem for some listeners. However, the other categories are subjective judgements and constitute a form of censorship, to which users of libraries in general are not subject. Whether such content notes should be included in records on the national database is a matter of policy that will need to be determined.

Adding this level of description requires additional input effort as many of these elements will not be present in the bibliographic record of the original item. Initially the essential elements need to be included, but the system design should also take account of desirable elements so that they can be incorporated at some future time. The elements that require the most input effort are:

- content summary, where dust jacket or preliminary page information will often provide adequate information
- sample passages that require firstly choice of passage and secondly input of the selected passage
- serial article indexing

The content summary is essential, while sample passages and serial article indexing are desirable.

Data elements

Annotation or content summary, target audience, series and character information, serial frequency, abridgement notes, narrator or cast notes for audio materials, format type and level, number of units comprising the title, serial holdings information.

Also desirable: sample passages, serials article indexing

Policy decision needed on acceptability of warnings in content notes

4.3.4 Support for ILL and loans

The national database will serve a widely flung user population. Users currently select, request, receive and return items from individual holders of material using telephone and postal services. What is often forgotten or ignored is that everyone has the right to library services through their local public library, where inter-library lending for print items has been in operation for many years. Work is now going on to extend the options for users by extending the use of inter-library lending agreements in this area.

For loan and inter-lending services therefore the database needs to identify specific items and their locations. Knowing the location enables the request to be passed on to the holder and so this data needs to be displayed to staff who are processing requests, but may not need to be displayed in full to users. In an ideal system it would also record whether items are currently on loan but this would be extremely difficult with the variety of holders of the material, unless they were using the database in some way as part of their loan record system.

End users do need to know whether the item is for sale or hire because costs are then involved. But if the item is for loan they are less interested in the fact that a standard audio cassette item is held by Calibre, RNIB or a public library and will be happy for the system to take over the routing of their request.

Data elements

Holdings, locations, loan status

4.3.5 Support for sale and hire

Unusually for a library database, not all items listed in the database will be for loan. Some will be for sale, some will be for hire, and some will be subscription serials. There has to be enough detail in the record for the user to initiate the request. End users need to know which category an item falls into, and where possible the charges. They also need to know who to contact to pursue the request if the system does not provide the routing for them.

Data elements

Availability status (hire, sale, subscription) and charge, producer/hirer/retailer

4.3.6 Support for production selection

A number of organisations produce material in alternative formats. They range from the larger voluntary sector agencies that produce a range of material, to small voluntary producers with a narrow focus of materials, from institutions producing the occasional item when needed, through transcription services, to commercial producers. In the past these groups have defined their own area and selected titles for production without reference to the output of other producers. This situation is beginning to change and another of the Share the Vision projects is addressing the issue of co-ordinating title selection.

One tool that would support co-ordinated title selection is the national database. This will enable producers to see what has already been produced and in what formats. In addition, through the pre-production records it will show what has been selected for production and in what formats. It should also show who has or is intending to produce a title and indicate copyright permission status. Sometimes titles that have been selected for production are not actually produced. So alongside the requirement to indicate title that have been selected for production, is the need to remove records when plans for production are abandoned.

Data elements

Statement of intention to produce, format, producer, copyright permission details.

5. Standards

The database should conform where possible to relevant national and international standards in data structure, import and export and also in indexing, coding and authority control.

5.1 Record format

The standard for data structure in the library and information domain is the MARC format group. At present there are a number of differences in UKMARC and MARC21 (the harmonised form of USMARC and CANMARC) arising from parallel development using different approaches. The UK library community is to be consulted in late 1999 or early 2000 on three options on further harmonisation.

- Move to MARC21 completely
- Move to MARC21 retaining 248 fields and embedded punctuation by either:
 - A single set of changes plus regular changes to keep aligned with MARC21
 - or
 - A steady flow of changes to achieve and maintain alignment with MARC21

The original MARC format was designed for text materials only. With the need for records for other types of materials the two formats were developed using different approaches. UKMARC kept the single format and added fields and subfields where necessary for different materials. USMARC initially developed separate formats for different materials only to re-integrate into a single format in the mid 1990's, in particular using 007 fields as part of the process.

Adoption of MARC21 007 tactile fields into UKMARC has been postponed until the results of the latest consultation on harmonisation are known. The outcome of the consultation will affect the timing of the adoption of these fields nationally but they will be adopted eventually. There would be no problem with the national database of resources in alternative formats

using these fields in advance of the rest of the country if that is the only place the records exist. Problems can arise if the files are exported to sit on other databases where UKMARC format is still the standard. A conversion programme to straight UKMARC format may therefore be required to enable downloading and this may reduce the capacity for format defined searches. Alternatively the database of alternative formats would need to use UKMARC options until the change is made nationally.

Currently UKMARC uses field 037 to accommodate tactile format data but this only allows a distinction between braille and Moon. Given the range of tactile formats in use, the use of 037 is increasingly of little value. Using MARC21 more distinctions can be made and these can be indexed for search purposes.

007 Physical Description Fixed Field

Category of Material = Tactile materials

Specific Material Designation	Moon Braille Tactile, with no writing system Combination
Class of Braille Writing	Literary braille Format code braille Mathematic and scientific braille Computer braille Music braille Multiple braille types
Level of Contraction	Uncontracted Contracted Combination
Braille music format	Bar over bar Bar by bar Line over line Paragraph Single line Section by section Line by line Open score Melody chord system Short form scoring Outline Vertical score
Special Physical Characteristics	Print/braille Jumbo or enlarged braille

The NUCAF database currently uses the UKMARC format with some in-house customization. Thus the UKMARC 008 field has been extended to include additional subfields for in-house coding. In some cases this ignored the fact that UKMARC already had subfields for the required information and the RNIB is now in the process of reverting to the format. For music, \$x has been used but RNIB practice is now changing to UKMARC \$j which already has a code for music. For biography, \$y has been used but this is superseded by UKMARC \$k for biography. Not all duplication has been removed, thus \$t is still used for fiction age categories and \$s for age categories although the UKMARC \$c would appear to cover both of these. Two of the in-house subfields are not covered in UKMARC. Subfield \$w

is used for warning codes; there is no provision for this in UKMARC. Subfield \$z is used for fiction genre codes. In MARC 21 there is no place for warning codes and fiction genre coding within the 008 field, and the age category coding is very limited.

The NUCAF database currently uses the UKMARC format, but the RNIB and the NLB are the only producers or holders using MARC standards at present. The NUCAF 'backlog' review found that other specialist producers use their own systems for cataloguing. Those with automated library management systems use the system templates for data entry which are adapted by each organisation for alternative format details. Some organisations use databases and word processor lists. Many of the specialist producers are very small organisations; they use manual systems to record their production, stock and loans and are unlikely to have or see the need for personnel with library skills. (The audit carried out for the 'NUCAF backlog' study revealed that one database of titles in fact files by author first name.) For those organisations without professional library staff, it will be important to get to a position in which they record data in elements that can be mapped to the MARC format, even if they do not use it themselves.

Earlier in this report recommendations were made that the union file of the new database should be exported to the British Library database and the Unity and LASER databases. In addition, BNB records will continue to be a source of data for record creation. In view of this, the new database should continue to use the UKMARC format (pending decisions on harmonisation of UKMARC and MARC21). Some extensions to UKMARC will be essential where the format does not provide, or does not provide adequately, for alternative format data. These should be kept to a minimum and where possible, be achieved by adoption of MARC21 fields. In particular MARC21 007 fields for tactile materials should be adopted.

Recommendations

Use the UKMARC format

Adopt MARC21 007 fields for tactile formats

Extend UKMARC only when essential, preferably by adoption of MARC21 fields

5.2 Record control numbers and ISBNs

Bibliographic records hold two types of identifying number. Firstly, records need a unique control number (RCN) that identifies each record within the database. Secondly an item may have a unique standard number allocated by a national or international agency. In some bibliographic databases unique standard numbers have been used as record control numbers. The MARC formats have field 001 for record control numbers and a number of fields for unique standard numbers, but different rules apply to the record control number fields. UKMARC mandates the use of an ISBN or an ISSN, where this exists, as the record control number; the unique standard numbers (ISBN, etc.) also appear in their respective specific fields. MARC21 specifies that the control number is assigned by the organisation creating, using or distributing the record, and field 003 must also be present containing a code identifying whose system control number appears in 001; the unique standard numbers appear in their specific fields.

Unique standard numbers identify items not only from a textual viewpoint but also from a rights viewpoint. A book can exist in a hardback version, a paperback version and a commercial large print version, reflecting varying rights agreements, each of which will have a different ISBN. There may also be a commercial audio recording of the complete or abridged text, again with its own ISBN. The book may exist in several editions, reflecting

textual changes, and each edition will have a different ISBN. None of these standard numbers relates to the text alone, and always reflect the text and format combination. Equally, these standard numbers do have a relationship to each other - a hardback version and a paperback version of a book have the same textual content. The record for the hardback version can contain the ISBN for the paperback as well as the hardback ISBN.

So where do the records for non-commercially produced alternative formats fit in? The bibliographic record for an alternative format is derived from the bibliographic record for the item from which it was produced. The record for an alternative format should include the unique standard number of the item which it is an alternative form to indicate the relationship. But should it also have a unique standard number for that format? Does Sourcing by Terry Pratchett require a separate ISBN for the braille version, another for the Moon version, and another three for non-commercial recordings on standard cassette, Talking Book cassette and CD, in addition to the hardback, paperback and commercial recording ISBNs? If such ISBNs are required, allocation of additional ISBNs would have to be undertaken by some agency, preferably the alternative formats database agency, but it would create a substantial amount of additional work and could it practically address the older records? In considering these questions, it is important to focus primarily on what is the function of the ISBN in a national database of resources in alternative formats.

Within the database the requirements are as follows. Each record within the database requires an RCN. Each record in the database will relate in many cases to an ISBN, ISSN or another standard number, since the alternative versions relate to a specific text original. The ISBN provides a search element and collocates the various alternative versions. Holdings records are then attached to the bibliographic record. Where the alternative versions are for sale, or are available on request, or as a subscription, holdings records need only indicate the supplier. Where alternative versions are for loan or for hire, the holdings records need to indicate the copies available. Each copy will have a copy number; these will be in the various numbering schemes allocated by the producing organisation.

In some cases there will be no ISBN or ISSN, or other standard number. Not all materials for which alternative format versions are produced (e.g. instruction leaflets, examination papers, and compilations) will have such standard numbers. However an RCN will still be required.

The relationship of record control number and unique standard number is important in relation to the issue of downloaded records. Does the host system require a standard number in the RCN field? Does the host system keep the national database file as a separate file? Will downloading the alternative format records overwrite records in a host database? It may be necessary for records to be converted for export to other systems and these issues will need to be explored when export agreements are negotiated.

5.3 Subject indexing

Subject indexing for non-fiction items is needed for the new national database. The most important consideration is how easy an end user will find the indexing and the efficiency with which it can use the terms to support searching. Three main options are possible in this area.

Library of Congress Subject Headings (LCSH) could be used. The argument against is that they have not been consistently recorded in BNB records, which are likely to continue as a major source of basic data for the new database. To use LSCH would require database staff to input the headings when not available. Additionally, the terms in themselves may present

problems to some end users. However, where LCSH terms are present in a source record, these should be retained in the alternative format record.

The second option is continue current NUCAF practice. At present the RNIB use an in-house subject index in field 655. Field 655 is used to hold a 'chain index' string corresponding to a Dewey number and this field is automatically completed once a Dewey number is entered in the record. Work has already gone into mapping the relationship between the Dewey number and the indexing terms and this is a more viable option than introducing full LCSH at this stage.

Another option is to use the BIC Standard Subject Categories. They consist of 17 major subject areas (Level 1), each of which can be further divided into some 4 to 15 sub-headings (Level 2), followed by Level 3 sub-headings. The categories were developed through consideration of the groupings commonly used in bookshops rather than libraries. The headings and sub-headings are represented by an alphabetic code supplemented by a numerical code for subject qualifiers for geographical areas, languages, time periods and educational purpose. This coding can be used for search purposes. Use of this set of headings is potentially easier for non-professionals, at both producer title notification and user search levels. However there are two problems at present. Firstly, the fiction categories are very limited, though they are likely to be extended in the future and secondly, there is currently no mapping between Dewey classification and the subject categories.

The RNIB terms (or perhaps the BIC subject categories) are likely to be the most useful to the database and its users, though the national bibliography records use LCSH. For educational materials the ability to code for national curriculum key stage will also be of value. At this point it would appear that the database would best be served by continuing to use the RNIB terms in all records, and including LCSH headings when these are found in the source records for the original items. Further consideration should be given to the inclusion of the BIC categories.

Technically field 655 is the Genre or Physical Characteristic added entry heading field in both UKMARC and MARC21. Field 650 is Subject Added Entry – Topical Term and 651 Subject Added Entry – Geographical Term. UKMARC restricts use of 650 and 651 to LCSH but MARC21 accommodates a range of defined subject heading schemes including LCSH, MESH, and Canadian Subject Headings; in addition to other heading schemes (indicated by use of a subfield) can be used.

Use of field 655 for both subject and genre/form indexing is unusual but has been adopted because of current restrictions in UKMARC. If UKMARC were to move to MARC21 practice, then all subject headings should go into 650 and 651, with the subfield indicating the scheme in use.

Recommendations

Use RNIB chain indexing and review inclusion of BIC Subject Categories

Use UKMARC field 655 at present

Retain LCSH headings where present in the record for the original item

5.4 Genre indexing

Libraries in the past have made a simple distinction between fiction and non-fiction. While non-fiction material has subject indexing and classification schemes, users were initially left to choose items simply by browsing along the shelves. In recent years libraries have tried to assist the user by dividing the fiction stock into areas. Using audience age the usual groupings are junior, teenage and adult fiction. With type of fiction the most usual categories are romance, crime, western, and science fiction or fantasy. Media groupings are standard print (sometimes sub-divided into hardback and paperback), large print, audio recordings and video recordings.

This approach produces a limited number of groupings and users still need to browse. Because visually impaired people are likely to make the majority of their choices through the medium of a catalogue, they have a need for additional information about material. Many of the physical stock groupings used in public libraries are not specific enough for those with visual impairment and they will want to combine categories. For instance a visually impaired child might be looking for a story in Braille that is at the right level for their age group; they may be looking for a school story or one that has a specific theme – divorce, adoption, ethnic setting and characters. Adults may be interested in knowing that the item is a best-seller, or has won an award. All these aspects need to be indexed in the record. The media type will go in one set of fields, the audience age goes in another. The content indicators may need to be in several fields – genre, theme, form (diary, letters), main character type, named characters, series links. As noted under ‘4.3.3 Decision support’, genre terms need to indicate relative age of fiction material using existing terms such as ‘classic’ and newer terms such as ‘pre-1950’.

So genre and form indexing is required. Genre defines fiction in terms of setting (Regency novels), theme (fantasy) or plot (crime stories). Form defines fiction in terms of specific presentation (diary fiction), provenance (radio and television novels), intended audience (picture books) and form of publication (musical books). A number of genre/form indexing schemes are in use in different databases but they do show a great deal of consistency in the majority of groupings and terminology. A review of the terms used by the British Library, the RNIB on NUCAF, the NLB, the BIC Subject Categories, the CNIB (Canadian) and Royal Blind Society (Australian) show a large core of standard terms. Some of the sets of terms are more detailed than others.

The RNIB has also developed a set of keywords for fiction. These have been agreed for use on the records that go out on the VIDE educational subset and subsequently on NUCAF. The keyword list is a combination set of terms in that as well as topic terms (adoption, prejudice and sisters), it also includes genre terms (fantasy, fairy stories), form terms (diary, tv tie in) and series terms (Babysitter’s Club).

The MARC formats accommodate this indexing in field 655. The field is repeatable so a record could contain a 655 field showing a title is in diary form and another 655 field showing that a major topic is divorce.

Recommendations

Define a set of genre and form terms based on the existing alternative schemes

Use UKMARC field 655 for genre and form indexing and for fiction topic indexing

5.5 Summary of fields required

Author(s)

Title

Publisher

Date of publication

Edition

Series

Serial frequency

Abridged / not abridged / extracts / compilation

Content warning notes

Physical format

Level of tactile formats

Number of units comprising the title

Subject – non fiction and fiction

Genre/Form

Annotation or content summary

Sample passage

Target audience

Theme

Main character(s)

Narrator / cast

Holdings

Loan status (on loan / in stock)

Locations

Availability status (hire, sale, subscription, free on request)

Producer / hirer / retailer

Statement of intention to produce

Copyright permission details

Appendix A: Acknowledgements

Steering Group

Margaret Bennett
Stuart Ede
John Godber
Sue Howley (Chair)
David Owen
Isobel Thompson

Consultations

A number of people were contacted during the course of this study and gave generously of their time by participating in formal and informal discussions.

NLB

Helen Brazier
Linda Corrigan
Jackie Frith
Wendy Hall
Tony Seymour
Ann Shaw

RNIB

Karen Dane

HumanITy

Kevin Carey

Islington Libraries

Alan Issler
Tony Parkin

User discussions at NLB

Laura Alexander
Martin Bancroft
Sue Clarke
Terry Colley
Yvonne Francis
Mike Howel
Diana Maynard
Roy Minshall
Adrian Pearce
Margaret Smith
Dennis Trigg
John Welsh
Allan Young

Appendix B: Web accessible databases outside the UK and relevant projects

National Library for the Blind and Physically Handicapped (USA)

The Library of Congress National Library Service for the Blind and Physically Handicapped (NLS) maintains a Union Catalogue. The Union Catalogue (BPHP) and the file of In-Process Publications (BPHI) can both be searched via the NLS website. To obtain the actual materials, eligible users must make the request through their co-operating network library. However, if the material required is music, this can be requested directly from the NLS Music Program.

A number of search approaches are available: Author, Title, Subject, Keyword, Series and Number (includes book number and Dewey number searching). Records found display the following data elements: Book number, Author, Title, Imprint, Description, Note, Annotation, Subject (repeatable), Other Name and Holding Agency. The description field is used to describe the format. If a sound recording, then a 'read by' statement appears in the note field and the narrator's name in the 'other name' field. The subject fields hold LCSH subject terms.

<http://lcweb.loc.gov/nls/>

Louis Database (USA)

The American Printing House for the Blind (APH) currently hosts the Louis Database of Accessible Materials for People who are Blind or Visually Impaired. The Louis Database contains over 145,000 titles of accessible materials, in braille, large print, sound recordings and computer files, from over 200 agencies throughout the United States. The database can be searched via the database website and there is a link to the NLS website and union catalogue database.

Again the usual searches are available: ISBN, Keyword, Title, Author, Subject. In addition there are another three search options: 'Classic' (combining various search elements), Maria's Favorit (streamlined for speech users), and IMRC's Favorit (only a small number of elements displayed – aimed at staff in Instructional Resource Centres). Data elements displayed are: ISBN, Author, Title, Source (holding agency), Edition, Publisher, Note, Subject, Source Code. Records do not appear to indicate the identity of the narrator. The notes field is used for a variety of information including 'Intention submitted 7/99', 'Spine title', 'Includes index' and 'Braille grade 1'.

<http://www.aph.org/louis.htm>

VISUCAT (Canada)

The Canadian National Institute for the Blind operate a number of services including online access to their library collection via VISUCAT. The library collection contains over 45,000 titles with materials in braille, print braille, audio, electronic text and descriptive video. Access to the catalogue is via a telnet connection. Library clients can search VISUCAT, check on titles currently on loan to them and reserve titles.

A variety of search strategies are available. There are browse searches by title, author, series, 'all of the above' or call number. There are keyword searches by subject, title, author, series, notes, narrator or 'all of the above'. There is also the option of an expert search. All items in

the catalogue have a format prefix which in most cases identifies the physical format (eg.braille) but is also used to identify CIP type records, items in French and items for sale.

- RC recorded cassette
- BR braille
- PB print braille
- DV descriptive video
- TP title in progress
- ET electronic text
- FC French material (available through Montreal CNIB)
- Non loan materials
- RR reel-to-reel
- BM braille masters
- CC 2 track items sold to other institutions

Record display is available as either brief or full record. The **brief record** contains book number (which incorporates the format prefix), author, title, annotation, ‘allow profile’, ‘includes’ notes, grade level, and containers note (number of physical items for the title). Below this is shown the location, call number of each physical item and its status/due date (e.g. in library, repair, due date). The **full record** contains the same information as the brief record and adds the following: subject headings, producer, publisher, description (statement such as 4 v. of braille).

<http://www.cnib.ca/library/visunet/>

TBP: Talboks-och Punktskrift Biblioteket, Sweden

Library for audio books and tactile writing. Forstorad text is also available (while not confirmed this is believed to indicate large print).

The initial web page links into the following pages:

Allma”nt	general information
Talbo”cker	pages about audio books
Punktskrift	pages about tactile writing
Ho”gskoleservice	‘high school’ (This is more like further education and not based at institutions.
Forskning & Utveckling	research and development
Katalog & Boklistor	pages about the catalogue
Handikat	the actual catalogue
Punktskriftsna”mnden	pages about this association for development of tactile writing
DAISY	pages about the new DAISY system
The Daisy Consortium	link to consortium pages

<http://www.tpb.se/>

TESTLAB

This two year project, Testing Electronic Systems using Telematics for Library Access for the Blind, was completed at the end of September 1998. The project combined a number of nationally based projects. In Ireland, libraries installed workstations providing a selection of access methods and the National Council for the Blind of Ireland created a new accessible catalogue of their holdings. The UK project enabled NUCAF to be integrated into Unity and

carried out a pilot project for inter-lending alternate format materials. In Italy participant libraries put in additional workstations but the major focus was on social aspects and mobility. In Austria academic libraries installed workstations and created a network of libraries, developed catalogue access systems and linked these to information from other German speaking parts of Europe and the project influenced decisions on changes to national cataloguing. In Greece, the project reviewed provision of services in areas where currently nothing exists. The Dutch libraries co-ordinated the project and developed the interfaces. TESTLAB2 is a continuation of the project and involves the European Union and East European countries.

<http://www.svb.nl/project/testlab/testlab.htm>

MIRACLE

On the first of February 1999 the MIRACLE project (Music Information Resources Assisted Computer Library Exchange) was launched under the European Commission's Telematics Application Programme (Libraries Division). Co-ordinated by the SVB in Amsterdam this two-year project aims to create a central catalogue and database of music in alternative formats. The action is based on the co-operation of four major libraries, SVB, RNIB, ONCE, and SBS (Switzerland), which have worked together for five years to create the standards for the central catalogue. The project consortium consists of these four libraries plus the Danish Library for the Blind and the Stamperia Braille of Florence, Italy. The system development is in the hands of Shylock Progetti of Venice and will be based on the library access program developed in the CANTATE project. Project management will be supplied by the FORCE Foundation in the Netherlands.

MIRACLE is not only an international catalogue of music it will also deliver the digital files of the pieces. These will primarily be braille but it is hoped to include spoken word music and large letter music. The whole system will be available via the Internet. Because music in alternative formats is so expensive to produce it makes sense for libraries around the world to share their resources thereby reducing duplication.

Where libraries are required to sell music files the system will track and permit secure electronic payment and manage the redistribution of costs. Although it is possible to make the system open to individuals the primary participants will be the special libraries for the blind and other braille production units. Purchasing an existing braille file will be cheaper than creating the file anew. There will be differences in the music layout produced in different countries. MIRACLE is not setting out to automate conversion from one format to another but it will be investigating the acceptability of these different files by the users.

MIRACLE expects to open the system to as many libraries as wish to take part during the two years of the project. The system must be ready for trials and evaluation in February/March 2000. For more information see the SVB web site at www.svb.nl/project/MIRACLE/ or contact the co-ordinator Vera Wessels, Head of the Music Department, SVB, Molenpad 2, 1016 GM Amsterdam, the Netherlands (email address vwessels@svb.nl)

From IFLA Section of Libraries for the Blind Newsletter Spring 1999.

Appendix C: Glossary

AACR2	Anglo American Cataloguing Rules 2
ALP	Academic Libraries Package (subset of NUCAF)
BIC	Book Industry Communications
BL	British Library
BNB	British National Bibliography
CD	Compact disc
CLA	Copyright Licensing Authority
CLSCP	Copyright Libraries Shared Cataloguing Programme
CNIB	Canadian National Institute for the Blind
DCMS	Department of Culture, Media and Sport
IFLA	International Federation of Library Associations
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
LA	Library Association
LASER	London and South East Regional Library System
LCSH	Library of Congress Subject Headings
LIC	Library and Information Commission (to be replaced by MLAC)
MARC	Machine Readable Cataloguing
MARC21	Combination of the US and Canadian versions of the MARC format
MIRACLE	Music Information Resources Assisted Computer Library Exchange
MLAC	Museums, Libraries and Archives Council (supercedes LIC)
NIT	Notification of Intention to Transcribe
NLB	National Library for the Blind
NLS	National Library Service for the Blind and Physically Handicapped (USA)
NUCAF	National Union Catalogue of Alternative Formats
OPAC	Online Public Access Catalogue
PC	Personal computer
RCN	Record Control Number
RNIB	Royal National Institute for the Blind
RBS	Royal Blind Society (Australia)
SCL	Society of Chief Librarians
SCONUL	Standing Conference of National and University Libraries
SIGLE	System for Information on Grey Literature in Europe
SLIC	Scottish Library and Information Council
TNAUK	Talking Newspaper Association of the UK
UKMARC	The UK version of the MARC format
UKOLN	UKOLN: The UK Office for Library and Information Networking
Unity	A consortium of eight of the ten UK regional library systems
VIDE	Visual Impairment Database of Educational Material (subset of NUCAF)