Library Services for Blind and Visually Impaired people

Literature review

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CONTENTS

1. DEFINING THE AIM

This literature review aims at summarizing, evaluating and comparing some of the existent literature about Library Services for Blind and Visually Impaired People.

Its main aim is that of providing a critical overview of the presence and organization in different areas of Library Services for readers who cannot make use of the traditional printed material, while pointing out their strengths and weak points. It is also meant to single out themes and critical trends regarding the subject, while suggesting ways to improve the above said services. The necessity of further studies in the field is also put forward and strongly recommended.

This research takes into account only the last ten years, as in the last decade and thanks to the growing awareness of their inclusive key role and also to new information systems and electronic technologies, libraries have started to serve every kind of readers, including those with visual handicap.

Even if "blind" and "visually handicapped" can have slightly different meanings, here they are used to indicate the same thing. The term "visually impaired" applies both to people who can partially see and to those who cannot, i.e. who are totally blind.

This research only regards literature in English.

All quotations are in English.

2. BACKGROUND

Since the publication of "*The Standard Rules on the Equalization of Opportunities for Persons with Disabilities* (ONU, 1993) and of the "*UNESCO Public Library Manifesto*" *(1994)* the awareness that information is a primary and fundamental right even for disabled has grown considerably. Libraries have to play a key role in building an "Inclusive Society", serving all kinds of users included which have a visual impairment.

The IFLA Guidelines for Development of The Public Library Service (2001) assert that

> "The development of collections should be based on the principle of access for all and include access to formats appropriate to specific client groups, for example braille and talking books for blind people."

According with Machell (1996)

> "The ideal library service is one where each individual, regardless of the degree of visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff."

Blind people and those visually impaired traditionally read Braille, Tape Audio-Books and large print books produced and provided by specialized libraries for the blind.

New technologies have opened up new areas of reading, participations and activities for people with disabilities that were inaccessible only a few years ago. Visually impaired can access to computer programmes, Internet and digital resources using Braille displays, screen magnifying monitors, screen magnification, scanning software with OCR, screen readers and speech synthesis. These electronic aids are named Assistive or Adaptive Technology.

Services are beginning to be supplied in Public and Accademic Libraries, not only in the visual specialized libraries. The lack of accessibility of Internet and digital resources has been recognized as a barrier for those who access information using Adaptive Technology and therefore a problem that has to be faced urgently.

The background of this literature review therefore considers the growing presence of library services for the visually impaired in every kind of library and also the new access opportunities to information that technology offers to these special readers.

3. INFORMATION NEEDS OF BLIND AND VISUALLY IMPAIRED PEOPLE

There are many articles in the literature underlining the importance of information to people with disabilities. The following is from an article about increasing access to disability-related information

> Information/knowledge is power. The ability to obtain and use information about any subject gives a person the opportunity to choose a path from many alternatives instead of being limited to a few perhaps unwanted and unfeasible choices (Fullmer & Majumder, 1991).

Blindness and sight impairments are very common disabilities in all countries of the world. In 1996 the Royal Blind Society estimated that 300.000 people in Australia had difficulties to read print, even when wearing glasses. It's a problem particularly for older people. Davis (1996 cited by Blake 1998) indicated that approximately one million people who are registered as blind or partially blind in the United Kingdom, nine out of ten are over 60. There is considerable emphasis on the key role that information should play in their lives but there is also a considerable recognition that information is not easily accessed by a large number of people with disability. According to Edward and Lewis (1998) "*access the printed word has long been recognised as a significant barrier of integration of visually impaired individuals into school and work environments*".

But what are the information needs of the visually impaired and in what ways are those needs being met? What is the role of the Internet and digital information in meeting their needs, and what are the barriers to use new technologies and access the libraries and the web? A literature search revealed a poverty of studies about information needs and information seeking behaviour of this group of people.

Williamson's (1998) study explored both information needs and the preference for sources of information in 202 older people many of which had visual disability. It found that the most important information topics were health, income, finance (all respondents). Other topics were recreation, government, consumer and housing. In terms of sources of information, the most used by blind and visually impaired are family members and friends. Similar findings were in British studies (Tinker, 1993) where interpersonal sources were at the top. Next were media sources (newspapers, television and radio). Libraries are less frequently used and the direct contact with the librarian is preferred. A University of Alberta (Canada) survey of the information needs of blind and visually impaired citizens in the province of Alberta revealed (Balini Bala, 2000) that over 50 percent of the focus group used their public library because they prefer to receive personal services such as *"speaching directly with a librarian, and leaving with a book in hand"*.

 The latest research projects that have been found in literature about improving library services for visual disabled people, have their conceptual framework based on studies which have emphasised the need to explore information in context and on models of information seeking behaviour.

By information behaviour is meant those activities a person may engage in when identifying his or her own needs for information searching for such information in any way, and using or transferring that information. (Wilson, T.D., 1999).

All of these studies are oriented to the social model of disability that consider the role of socio economic environment in producing disability (Oliver, 1990), away from the personal/medical model that reduce the problems of disabled people to their personal or functional limitation. In all studies there is the general adoption of qualitative methods, the use of focus groups and personal interviews. This approach emphasises the relativism of culture, the 'hearing' of data, the understanding of meaning in context. Some of these research projects proposed to the visually impaired an information seeking activity and described the consequences of these activities and the relationships among steps of information seeking behaviour according to models in information behaviour research (Dervin, 1980), (Wilson, 1981), Ellis (1989).

Dervin's contributions were the early writings that introduced the concept of the *situation* in time and space to understand the information needs and its uses in particular situations. Wilson also developed a useful theory in which person in context is the focus of the information needs. He identified information seeking behaviour as a users' interaction with the findings of the information seeking activity. These models are particularly appropriate for the analysis of information seeking for visually impaired people because allow a degree of flexibility: they consider findings that are shown by different searching behaviour, taking into account the resources accessed and in the case of blind people the assistive technology used (Craven, 2003).

People who are blind or visually impaired need to be provided with a range of ways of meeting information needs as are available for people with normal sight (Williams, 2000). The research gave considerable emphasis on the information seeking behaviour of people with visual disability and involved the role of Internet in order to provide specific online services for people with disabilities in Australian public libraries. Life circumstances influence the ways in which the visually impaired seek or acquire information: being alone or having a family, working or being unemployed or retired, the type of vision impairments, individual information seeking preferences.

The researches revealed a sense of excitement about the Internet and interest in being able to access information that was previously inaccessible. Other studies demonstrate a same sense

of empowerment (Berry, 1999) of blind people who use the Internet. But a number of barriers to using the Internet were mentioned: the major was the cost of computer and adaptive technology. Other barriers were technological challenges, lack of skills at using a computer without vision, personal factors and poor web design. Web design was the main barrier in accessing library's online resources in Brophy and Craven (1999). However libraries did not generate as much enthusiasm for a number of reasons. One of these is that in the past libraries did not serve blind patrons very well regarding large print and talking books especially for those who can't read Braille. A similar unsatisfaction was revelead by a newer research of library user's satisfaction in the UK (Creaser et all 2003).

> "Indipendence in information seeking can be defined as the freedom to choose to rely on other, or to use technology or other methods to access information. There is no one particular way of providing information which necessarily assists people who are blind or sight impaired… the Internet is seen by some as the ultimate way of providing indipendence. The Internet is only one way and just as sighted persons use a variety of methods to access information, so do people with disabilities" (Williamson, 2000).

Recommendation for library services were to provide adaptive equipment for people with disabilities to use Internet It seems a little result that has not considered any other provision such as the improving of the digitalised material, customized services and accessible library web page.

Personal seeking preferences were less important in the NoVA (Non.visual access to the digital library) British project which investigated (Brophy and Craven, 2002) access to digital resources looking in particular at serial searching in non serial web based environment. Screen readers used by the blind to use the computer force users to navigate pages in a serial way but the web is a non serial context using frames and tables.

The aims of the project were not only to explore the accessibility of websites (OPAC, Directories, Search Engine, Shopping website) but above all to increase the understanding of the retrieval of information by blind and visually impaired in digital environment and to make recommendations for the design of digital library system. The methodology of this study is innovative: each step of the information seeking process was logged and pre-task and post-task questions were asked in order to gather qualitative data.

The findings of this study are in accord with the findings of (Coyne and Nielsen, 2001) *"the Web is three time easier to use for sighted users than it is for users who are blind or who have low vision"*.

In fact the study revealed that searching for information is a major problem within digital library systems and that visually impaired users spend more time searching or browsing and these time varying considerably depending on the design of the site and the level of experience with the assistive technology they were using.

The result seems obvious but it is important for improving the usability of digital libraries and the library design of online service.

The two most quoted researches in the field of services to the disabled have several things in common: the methods of qualitative research, the evaluation of the context and the plea for studies about information seeking behaviour of the disabled. They differ as for the suggestions: while the Australian study limits the innovative idea of services for the visually disabled to the purchase of assistive technologies and to an adequate training, the English study relies more upon the easiness of use of digital resources. NoVa finds out partially reliable results (greater slowness in surfing the Net for those who use assisting technologies in comparison with those who are endowed with normal sight; the former are also less used to the web pages of the libraries); but first of all the study highlights that the first barrier to the access to information is the way in which this is organized. Even though successive studies do not mention the results of the application of such finding, the news are relevant, as not the easiness of use, but the accessibility of electronic information in libraries was at the basis of the most important study for the definition of the national services to visually handicapped people in UK. This study, called REVIEL (Resources for Visually Impaired Users of the Electronic Library) Project, has investigated the current state of accessible services and explored what would be needed to achieve national excellence in this field (Brophy and Craven, 1999). In the 125 pages of the final project, all motivations and technical bases for a national service are investigated and three different researches about the services for the visually handicapped in UK are promoted. Yet, there are very few references to the way visually impaired people interact with information, and this justifies the new though limited study which Nova Brought about the following year. As there are very few important studies

in this field, further studies investigating the way people using a vocal synthesizer or a Braille output interact with digital information would be welcome. They could build up a stock of shared knowledge and add to the already existing guidelines about the easiness of use of the websites and about the organization of the library electronic resources.

4. THE ROLE OF LIBRARIES IN SERVING BLIND AND VISUALLY IMAPAIRED PEOPLE

4.1 SPECIALIZED LIBRARIES AND PUBLIC LIBRARIES

Libraries organize and distribute all expression of knowledge and free library service is the foundation of democracy, citizenship, economic and social development, scholarship and education in progressive societies.

The G8 summit in Japan recognized that information and information technology are potent forces in shaping the 21th Century and recognizes the importance of information and technology in "bridging the divide"

> " a key component of our strategy must be continued drive toward universal and affordable access… we continue to pay particular attention to the needs and constraints of the socially under privileged people with disabilities and older persons and actively pursue measures to facilitate their access and use" (The Okinawa Chart on Global Information Society, 2000).

What they hold as good for all of society is good also for blind people everywhere but the challenges are enormous. 80% of the world's blind people live in the third world, most are illiterate and have no access to libraries (World Health Organisation, 2000). If 180 million people who are visually impaired is a big number, locally this represents a small, scattered population. So, many countries continue to identify the need of a central library designed specifically to serve the needs of those who are print disabled. These libraries of the blind are the equivalent of a free public library service.

Literature evidences a debate about the role of Libraries for Blind and Public Libraries in serving the visual disabled and the importance of the cooperation.

In 1983/84 a British Library survey (Craddock, 1986) revealed that many public libraries thought that blind people were adequately served by external agencies such as the Royal National Library for the Blind. The survey also revealed that they didn't identify blind people as a target group. Craddock argued that these people are members of the public and rate payers and they must have the same services from the local library as sighted users.

The improvement of information provided by agencies and specialized libraries are also emphasised by an Australian research (Roth, 1991) focused on the characteristics and needs of potential clients of information services, where visual disability was the defining criterion. The central and exclusive role of the library for the blind in serving the visually impaired is also declared in Morgan (2003) about the library service for the blind in New Zealand. The Royal New Zealand Foundation for the Blind (RNZFB) library service, only serves those who are blind or vision impaired. Its key activity is the production of accessible formats. New Zealand public libraries do not act as agents for the Blind Library. RNZFB doesn't serve those who are print disabled for other reasons, for example through a physical disability or learning difficulty so public libraries do strive to meet some of the reading needs of these groups who have problems in accessing written information. These efforts are insufficient for the low availability of special resources and the high costs.

In the same way, in Italy there is a centralized service for the production of alternative formats by the Library for the Blind "Regina Margherita", the only library that received a governative funding for these activities, without cooperation with other agencies or public libraries (Bernardi, 2003).

The common points we can find in a literature review about libraries for the blind are:

1) Library services for blind and visually impaired people vary from country to country but usually libraries for the blind have the central role in serving this type of reader.
2) Generally they are developing services with low-status, low-budget and unprofessionalism.
3) In most countries their services are not even a part of the local or national library. system.
4) Their principal role is in the production of accessible formats (Braille, audio, electronic texts, large print)..

5) A few of them are well positioned to take advantage of new developments in digital library services.

Libraries for the blind even in relatively developed and prosperous nations, suffer a disparity compared to public libraries. Most of them provide access to less than 5% of the materials published in their country.

> "In a world where information is estimated double every two to three years and less than 3% -5% of trade books and half of one percent of magazines published are available to people unable to read print, we ask our blind students to excel on less than 5% of what sighted students have available to them. Content remains the single most profound issue for those unable to read print." (Kavanagh, 2005).

According to IFLA/UNESCO Public Library Manifesto (1994) *"Public library, the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups"* , the local library should be the primary service point for access to information also for the visually impaired. However public libraries could have a little awareness of the needs of blind people and a paucity of special format resources. So in literature we can meet a growing presence of recommendations and projects based on the cooperation between public libraries and services for the blind.

4.2 COOPERATION

A number of experiences seem to demonstrate that partnership and decentralization of library services for the blind and print-handicapped people is a necessary element of the equality of service.

> "Whether it is called partnerships, consortia, linkages or networks, this emerging phenomenon recognizes that there is substantially more to be gained by working together, than working alone and isolation." (Griebel, 2000. Special Needs Service, Calgary Public Library).

The VISUNET CANADA Partners Programme is a partnership between public libraries and library services for the blind (Griebel, 2000). It's a model based not only on cooperation but, more importantly, on the integration of service to the blind into the mainstream of library service. Through VISUNET the local library has access to an online catalogue of the multi-format collection and to a number of digital resources such as full-text Canadian newspapers

and magazines and publications available in electronic format. There is also a training of staff in the local library.

Other examples of cooperation are in Veer (1996), Owen (2001), Paterson (2003), NLS (2005), Tank (2000), Kavanagh (2005), Nguyen (2005), Hirschfeldt (2005).

In the Netherlands a working group has been formed with representatives from the libraries for the blind and the Dutch Centre for Libraries and Reading for closer cooperation (veer, 1996). The group's aim is to improve the quality of services in both public libraries and libraries for the blind. Libraries have already implemented a number of initiative, including regional information centres, talking book services and online catalogues for the blind.

In Vietnam information services are now available to visually impaired through public libraries and the leadership role of The National Public Library, General Science Library of Ho Chi Min City. The formation of strategic alliances and collaboration between Ministry, funders, public libraries and other organizations providing services to the blind, has been a fundamental step in delivering and maintaining these services (Nguyen, 2005).

Cooperation and a strong political pressure is the Swedish way to obtain library services for all people. Services are a totally integrated part of the public libraries and an important opportunity is the Internet distribution of digital talking books (Hirschfeldt, 2005). Main points of this result are:

- Ideas expressed by the stakeholders and political decisions
- Legislation (Copyright Law and Library Law)
- Widespread awareness of accessibility.

Also Share the Vision (STV) is a partnership agency in the UK promoting library and information services for visually impaired people and others who have difficulties in reading print. It is working closely with public library services and the major national providers of reading and information services in the voluntary sector, above all the Royal National Library for the Blind.

Local public libraries are a primary point of access to the range of services available, both local and national. A principal of its aims is mainstreaming a national union catalogue of alternative formats to provide local access to the reading materials available for visually

impaired readers (Craddock, 1997). Share the Vision has proved an effective in mechanism of coordination but Scandinavian models demonstrate that coordination is most effective where central government has helped development by the provision of funding, legislation and policies. In fact Owen (2001) in measuring progress of STV, commissioned the Library and Information Statistics Unit to conduct a survey of public library's provision. Major findings were:

- public library provision varies widely;

- there is a lack of management information and what is available is not used properly;

- there was unintelligent marketing of the services which were available.

Findings conducted to a major project, to publish Library Services for Visually Impaired People: a manual of best practice (Hopkins, 2000).

A technological example of cooperation gives innovative opportunity to the visually impaired in the USA. A partenership has been formed by US state libraries for the blind in five states together with the National Library Service for the Blind (NLS), Library of Congress.to launch a digital audio book service for visually impaired users. The system enables blind readers to download digital audio books directly to their computers (NLS, 2005).

> "The libraries for the blind should take upon themselves the role of inspirer , lobbyist and watchdog. In Denmark we assume that role primarily towards other public libraries but also towards commercial information vendors, who develop and sell library systems". (Tank, 2000).

The importance of cooperation is in accordance with the IFLA guidelines for libraries for the Blind (2005).

> "Blind and print disabled people require access to public library type services for the general blind public in their communities which also interfaces with other types of libraries such as school or academic libraries. The roles of these community based library services should be developed in co-operation with other national and local agencies. The community based public library, for example, has the best opportunity to become a major access point for all print-disabled readers. All libraries should ensure that their collections and services complement and integrate with national agencies to provide access to as wide a range of materials and services as possible" (IFLA, 2005).

5. LIBRARY SERVICES FOR BLIND AND VISUALLY IMPAIRED

5.1 CURRENT LIBRARY PROVISION

A considerable number of articles have been written about the provision of library services for visually impaired people above all in the UK and elsewhere (Brophy and Craven, 1999), (Kinnell et all., 2000), (Stefanova, 1997), (Harris, 2003), (Bundy 2002). Generally these studies have been compiled from the point of view of the information provider (Public or Specialized Libraries, Agencies, Schools and University). They often posted questionnaires, such as that sent to all 208 public library authorities in the UK (Kinnell, 2000) in order to know the level of current service provision for visually impaired people and to examine how they matched up to National Guidelines. It is probably the widest survey met in literature review that revealed that a significant minority of library authorities did not have specific policy statement concerning the needs of visual disabled, a lack in relationship with external agencies and in the provision specialist equipment. A perspective of users was considered in Creaser et all. (2002), an extensive survey "user focus" of visually impaired people to determine their perception, opinions and activities regarding library services available to them. The survey was carried out using structured interviews as in Williamson (2000) and Berry (1999), face to face with visually impaired people and by telephone. The study highlighted that there was an increasing level of satisfaction with services of agencies and a quite high level in public libraries that are less prepared to give personal attention to their visually impaired readers. The level of satisfaction depends on a number of facts: to be personally taken with consideration, to listen to their needs and desires; availability of resources suitable for all ages and for every type of visual impairment.

But what are the services that are the most current provided?

Regarding the type of services offered there is in literature a consistent number of articles about accessible resources and services offered to visual impaired. Some of these services are provided through a cooperation with local or national agencies. Others are part of library network projects.

The kind of services are:

- ✓ ***Traditional special format material (Braille, Audio Talking Book, Large Print).***

✓ *Adaptive technologies, sometimes accompanied by training activities for users and librarians*. (Cahil, 2003). One of the recommendation of the NoVa (Non Visual Access to the Digital Library) project in UK was that libraries and museum should invest in uptodate technology and inform training issues relating to assistive technology (Craven, 2003). Accordingly with this result, The People's Network project has provided information and technology equipment and training in public libraries throughout the UK also for users with a range of impairments, including visual disabled (Lauder, 2004). Gateshead libraries had shown the way to provide information and communication technologies, training and a wide range of services to visually impaired with their AIRS project (Access to Reading and Information Services) (Karen, 2004). This project was the model not only for English services, but also for other countries such as Italy (Giavoni, 2000): the Nessuno Escluso project of the Monzese public library is one of the few Italian initiatives for providing training and specially adapted hardware for Senior Citizen with visual impairment (Bernardi, 2003). In USA where there is a national library service for blind people and specific requirements of the American with Disability Act, the most technological efforts of the libraries for visual disabled are on improving access to the library material through adaptive technologies but training seems less important (Goddard, 2004), (Pietrala, 2004), Mandel (2003), (New York Public Library, 2005). Strong emphasis is put on training information and computer skills in Scandinavian services.

"However is vital that users with inexperienced with hi-teach aids are able to use this new technologies" (Craddock, 2003).

In Norwegian Libraries new full time position of information officers are established to assist and guide the users of the public libraries, also those who have visual impairments. Their role is also to market the new services to the local community and to see to what the equipment is functioning satisfactorily. They also keep a log of feed-back and experiences with the services. This role is considered a very important measure to increase the accessibility to the services for all kind of users also in Sweden and France (Eymard, 2002). An usual online service has been provided by the National Library for the Blind in UK: a series of short online tutorials in access technologies for those involved with training visually impaired users, as well as those who would like to gain further understanding about working with access technology and supporting those who use it (NLB, Access Technology Primer).

The cooperation is a key role also in providing training as declared by IFLA Guidelines

"They [Blindness Agencies] are likely to be on top of the latest vision aids and technologies and are already providing training to clients or assisting in troubleshooting adaptive devices. Since many people who are blind use both a library service and the services of these agencies, there are substantial opportunities for partnership in supporting adaptive technologies"
(IFLA Guidelines for Libraries for the Blind, 2005)

✓ *Target services such as access to specific catalogues, digital texts, DTB (Digital Talking Books) and special format interlibrary loan.*

Audio Books, CD-ROMS , Braille and large print books occupy an increasing part of the service s of the public libraries (Craddock, 2003). However the Tape Audio Books are not user friendly as book marking and navigation is slow and cumbersome. DAISY Books (Digital Audio Based Information System) an international standard for digital books, had proved to be a very useful tool for visually impaired. A growing number of libraries are producing and providing Daisy books that is coming to be recognized all over the world as a major opportunity for the future Cookson, 2001), (Davies, 2002), (Tank, 2000), (Tylor, 2004), (Fineberg, 2002), (Goddard, 2004). There are still some problems with Daisy. In Netherland, where audio-cassette system has been abandoned, user have some problems in receiving Daisy and cd-rom requested are often faulty (De Witt, 2004). However standards are strong recommended:

"Many libraries for the Blind originated outside mainstream libraries, primarily as a transcription service in blindness organization. Standards are seen as a luxury to be ignored. However without standards libraries cannot record, retrive and share content as part of a wider network or family of libraries. Libraries unable to implement agreed upon standards are excluding themselves from best content and from developing interconnected digital libraries of the future" (Kavanagh, 2001).

An important step in serving visual disabled is the development of national catalogues of accessible formats. An example is VISUCAT Canada that offers VISUTEXT a library of electronic text available through Internet that allows clients and partners to search, order and view electronic books in Braille or text format (Shelag, 2001). NUCAF is the accessible catalogues of the special formats in UK regarding both traditional and electronic texts in cooperation with specialized and public libraries (Brophy, 1999).

"Our Section [IFLA Section for the Blind] has endorsed the work done by Library of Congress in creating a union catalogue available online and on CDRom of the holdings of libraries for the blind in the world. We urge all libraries to add their holdings if possible through their National Libraries. There are two advantages to this. First it creates a world catalogue of alternate format holdings. Secondly it provides cataloguing records for local users". (Kavanagh, 2001)

5.2 A FUTURE PERSPECTIVE OF LIBRARY SERVICES FOR VISUAL DISABLED

The two models that will emerge in public and specialized libraries in the future, will be the "hybrid" model which has already been introduced in the UK

> "There are immense opportunities to end the exclusion of people with visual impairments from full participation as users of information and literature through the development of an integrated, well-designed, national service which integrates both traditional and electronic library services. The **UK National Accessible Library Service** (NALS) would be a co-operative enterprise drawing on the strengths of all sectors to serve all citizens who have need of its services. It should not be limited to any one sector, such as higher education, nor to use for particular purposes, such as education. Its dual focus would be on encouraging all content suppliers and brokers, including libraries, to take accessibility seriously and on facilitating access to material in appropriate formats. NALS would take its place as a part of the enabling infrastructure of the UK's Distributed National Electronic Resource (DNER), drawing on distributed resources as far as possible and making maximum use of electronic formats where these are suitable for delivery and access by blind and visually impaired people. But it would in essence be a **hybrid** service, using traditional and electronic formats as appropriate to the needs of its users". (Brophy and Craven, REVIEL Project final report, 1999).

and the highly digital and technological model which is the trend in the US.

> "The increasing prevalence, popularity, and economy of digital electronics motivates the National Library Service (NLS) to work rapidly toward a completely digital audio service.. Our plans are to have a digitally mastered collection of about 10,000 titles available no later than 2008… In support of our progress toward a fully digital future, NLS has undertaken an eight-point in-house technical research and development program. The thrust of this program is threefold: evaluate potential DTB components, build expertise competent to develop technical specifications, and maintain a clear view of where consumer products are headed. Specific areas under study include audio data reduction algorithms (e.g. MPEG Layer 3), variable rate playback methods, text-to-speech programs, and user interfacing hardware" (Cookson and Rasmussen, both based on NLS, Library of Congress, Washington, 2001)

Ever commercial publishers are currently offering such digital audio books Mp3 and accessible e-books that can be downloaded from Internet and which can also be used by blind and visually impaired.

6. CONCLUSIONS

The literature of the last decade highlights the efforts of the libraries and of the librarians to provide visually impaired or generally print-disabled readers with information services. There is little evidence, though, of the effectiveness of such services: statistics about their use are almost totally lacking, as are the studies about the level of satisfaction and of expectation of this kind of customers.

Service decentralization an cooperation seem to play a fundamental role in ensuring equal access to information. Libraries specializing in services for the visually impaired, are called to modify their role. They should turn from suppliers of special format resources into professionals of the information; they should be part of national library systems, as well as cooperate with national and international libraries; they should promote digital standards and special initiatives for the use and the easy access to electronic resources; they should promote and the making of copyright laws favourable for the visually impaired. Public libraries must become aware of their all-inclusive role, thus abandoning local or narrow-minded policies (i.e. the proliferation of adaptive technologies or special format texts without true organization of services or assessment methods).

The general trends go towards shared service policies among Libraries for the Blind, Agencies and Public Libraries; they go towards digital technology, electronic books to be downloaded via Internet, accessible I-Pod and e-books, catalogues accessed by telephone.

Libraries must be careful so as not to create inequalities between those who can have access to electronic information and web based services and those who can't because of their age, cultural level, lack of money or preparation. Traditional services will keep on serving disabled or "weak" readers. Services should be organized in an universal perspective.

This research highlighted the following weak points:

1-too little literature about the access to information services of print-disabled people. This is due to the lack of studies about information needs, information seeking behaviour and users' satisfaction

2-little capacity to adapt to ever changing digital technologies favourable to the visually impaired. The subject of the development of digital libraries fit for the needs of these special readers is hardly ever treated; little attention is paid to the facility of access to the data banks of electronic journals. No reference has been found to academic repositories, a sure source of digital development for universities. The importance of publishers and of the publishing market in producing and making available digital books or special formats of print on demand is never stressed.

3-Fragmentation of traditional services and persistence of exclusion of certain users

4-Fragmentation of the suppliers of special material; too great a number of associations and of single libraries; too costly duplication of documents

5-too few references to the promotion of initiatives

6-too few references to the training and the role of librarians

Strengths:

1- growing development of guidelines and international standards

2- growing awareness of the information needs of the visual disabled and increase in the number of special services

3- growing number of cooperation projects both at a national and at an international level

4- growing activity of the IFLA with regard to the national libraries and the international associations of the visually handicapped

5- new national laws about the right of access to information of the visually disabled and limits of the copyright.

These are the investigation areas suggested by this research:

1- studies about the actual accessibility and possibility of use of digital technologies

2- studies about the assessment of the services for the disabled

3- investigating the possibility of compiling catalogues and national bibliographies including special format material

4- investigating the activities of bibliographic instruction, information and computer literacy for the disabled

5- investigating the presence of services for the disabled in the library policies

6- investigating the presence of instruction about disabilities in the Schools of Librarianship

7- Investigating the possibilities offered by technology and digital books

It is true for the readers of this review, what is true for anyone receiving library services: to be successful in their efforts, libraries and librarians must keep in mind the results they want to obtain and apply the correct strategies to obtain them.

CRITICAL ACCOUNT OF THE STRATEGIES USED TO WRITE

THIS LITERATURE REVIEW

I think that the findings of this literature review could be a useful, even if limited, instrument of general knowledge about library services for blind and visually impaired people. I judge that the major elements of its validity are:

1) The depth of the research, especially regarding certain aspects (the role of libraries in serving the visual disabled, the role of technology, the studies about the needs and the information seeking behaviour of this kind of readers, the project of cooperation among libraries and specialized agencies).

2) The variety and the authority of the considered literature.

3) The importance of the considered studies and projects in changing the way of providing library services to users special needs and in increasing library awareness of its inclusive role.

At the beginning of the research, I personally expected some different results that I based on my personal knowledge in the matter and previous researches. I imagined to find a large number of case studies regarding library services for the visual disabled and more quantitative data about the provision and the wideness of these special services. I only found a few. This lack of data, the restriction of the research to the English language and the poverty of the "direct voices" of visually impaired people, could represent a possible bias of this literature review.

❑ *INFORMATION SOURCES*

✓ The main information sources were e-Journals and Bibliographic Databases (such as Emerald Full Text, Lisa and ZETOC) accessed through the Library of the Northumbia University, via ATHENS.

✓ Bibliographies such as The Reference Bibliography for Library and Information services to individuals with Disability published by The Library of Congress, Washington, (Nussbaum and Strauss, 2002).

✓ OPACs (such as COPAC), Library catalogues [Northumbria University] and meta-catalogue (such as Karlsruher Virtueller Katalog KVK) .

✓ Search engines

✓ Online Directories and Virtual Reference Desks such as BUBL Information Service, Internet Reference Resources [Cornell University] and Librarian's index to the Internet [Berckley University].

✓ "Alert" Service of "Print Google"

❑ *STRATEGIES*

a. During the first stage words and sentences to be used as keywords were selected. After a research in the databases, reading of the material began. The boundaries of the research were more clearly defined and so was the subject area of the literature review.

b. The articles were registered first in an Excel working sheet and then in Endnote. Authors, subjects, main concepts were highlighted, quotations and comments added. A list of results of the most profitable researches was first saved and then moved to the bibliographic databases.

c. After a second and more accurate reading, the research turned decidedly towards those subjects, authors, words (i.e. project titles) and themes that proved more suitable for providing a detailed and varied overview of the Library Services for the Blind and Visually Impaired People.

d. A full-text research strategy proved necessary for those articles which were not immediately available. The online list of available journals and the possibility of using a password to enter Athens were extremely useful. Special directories were prepared to contain the full texts which had been previously separated according to the different subjects and made available for easy off –line reading or use.

e. Monographic research was carried out especially by the Library Catalogue of the Northumbria University, in COPAC and in the Library of Congress. An interlibrary loan was activated from the University of Newcastle. The search engine and web directories proved especially useful for the research of full text

articles produced by highly representative library organizations such as IFLA, The National Libraries and the most important national services for visually impaired people. The "Alert" service of the "Print Google" provided news from online magazines all over the world, which unfortunately proved of little use for this research.

❑ *SELECTION OF RELEVANT MATERIAL*

Not all the found material went into this literature review. The following criteria were adopted for the selection of the material:

Articles were selected, whose author shows deep knowledge of the subject, clearly poses problems or suggests matters from a point of view which appears relevant for the improvement or the amelioration of Library Services for Users with Special Needs.

Articles or books were selected presenting old or contemporary studies in the field of information services for visually impaired people, whose thesis or points of view, though different, are all equally important for the matter.

Material was selected whose authors largely contributed with their theoretical or practical work to the modification of the context of LSBVIP

Material published by national or supranational library institutions was also selected. Reports of activities brought about in cooperation with the above quoted institutions were also selected and used for the research.

Publications suggesting key themes in the field of library services were also selected. Their authors are either very frequently quoted in bibliographies about the subject or have highly qualified professional positions or relevant direct experience in the field of visual handicap.

❑ *CRITICISM*

The use of keywords proved quite difficult because of the different terms defining visual handicap (visually disabled, visual handicapped, blind, visually impaired, sight impaired, people with impaired vision…)

Though not regarding a special geographical area, all publications refer to Europe, North America (USA and Canada) and, to a smaller extent, to Australia. The research is therefore about these areas.

A lot of articles are actually reports of official projects or are about the initiatives of single libraries or local library systems. They are often quite pompous and pay little attention to true problems.

The lack of true, documented debate about common problems is among the greatest deficiencies in the field. This is probably due to the fact that the most interesting documents are all very recent and that there is very little literature about the subject.

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