Libraries' Service to the Blind and Partially Sighted*

OLGA POROTNIKOFF

IT is a pleasure for me to have the opportunity to present some of the results of Working Package 5 of the EXLIB project which was the task undertaken by the Danish National Library for the Blind.

Development of the information society

Before I go to the libraries I should like briefly to mention the larger framework to be able to see the EXLIB and the libraries' services in a wider perspective.

During the few years since the EXLIB project was first designed the information and telecommunications technology has developed rapidly all the time and something is now beginning to happen at the highest political levels of decision.

In July this year The European Commission has adopted the Bangemann report, presenting a series of recommendations to the Council of Ministers. When we look to the USA we have seen the Clinton-Gore initiative The National Information Infrastructure Agenda for Action 1993 and in that country there has also a few years ago been passed the Act called ADA: Americans with Disabilities Act, therefore the libraries may use this to develop within the information society far better services than hitherto seen to the physically handicapped, and the blind and partially sighted as well.

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To use Denmark as an example from one of the EU Member States I would like to refer to a report issued by the government last month called INFO 2000, which describes a series of principles and initiatives which should be taken to further the information society. One of the chapters of the report is particularly concerned with handicapped people. I happened to attend a seminar a few weeks ago where one of the two persons mainly responsible for the report assured us that it is clearly the intentions of the Government that the implementation of INFO 2000 has to take place in such a way that we will not produce more losers in the society but that the libraries as well as the educational system should assist all those who are not familiar with the information and telecommunications technology from their daily work. This report is more detailed in describing the social, cultural and educational challenges of the IT as well as the initiatives to be taken.

Therefore, I think that it is the right time for the EXLIB reports to give some clues to how information and telecommunications technology may help the blind and partially sighted to get information and knowledge on equal footing with the rest of the population and to set up some models for the way it can be used by the libraries to the best advantage of our target group.

Investigation of library provision

To find out what libraries offer the citizens and particularly the blind and partially sighted today a lot of data is needed so the project required an investigation particularly addressing the issues we were going to deal with.

The results of this investigation are given in the report on libraries issued as part of the EXLIB reports. I shall not repeat all the figures found but try to give an overview of the picture of libraries and their services while at the same time stressing some points of particular interest.

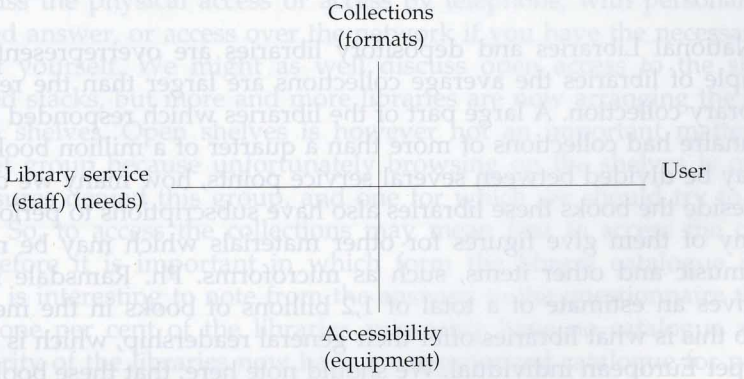
A total of 778 questionnaires were sent out and according to Ph. Ramsdales report which he made to DG XIII there is a total of 75000 library service points in the EU so this would be a sample of about 1% of the European libraries. But as many of the libraries in our sample have several service points it really is a great deal more than 1%. It is, however, not to be seen as an average sample of the European libraries, in that all the National Libraries and as far as possible all the libraries for the blind have been included, but the WP has tried to have all types of libraries in Europe except school libraries represented in the sample.

After the deadline in the middle of november 1993 when the data processing of the questionnaires had to start still more forms were pouring in so that the return of forms reached more than fifty percent which gives the figures found some more reliability. It was not possible to have the data processing repeated but I have checked the latecoming forms on a few points and feel reasonably sure to say that the 82 late answers are in nice agreement with the first 308 forms received and processed. A few corrections have been made afterwards and this will explain why there may be some deviations between the WP report and figures on my overheads, but these are not significant.

So what is the picture we get?

When we want to take a look at the library services with particular regard to the services for the blind and partially sighted persons we have to take four main factors in account as I have tried to show in figure 1.

FIGURE 1



The users have been surveyed by WP 4 and WP 5 has looked at the other factors.

The collections

The collections are actually the main characteristic of a library, at least in the traditional sense.

From the survey of WP5 we get an idea of the library collections as may be seen in table 1.

TABLE 1

Libraries (number)	Material	Size of collection
308	printed books	up to 12000000
308	periodicals	up to 100000
?	periodicals, braille or spoken text	< 100
308	«other» materials	up to 10000000
136	spoken text (human voice)	<250 up to > 35000
90	large print texts	<250 up to > 10000
33	braille, short	<10 up to > 30000
31	braille, long	<10 up to > 30000
77	floppy discs	up to 500
10	spoken texts (synthetic voice)	up to 900
108	cd-rom	up to a few hundreds

As National Libraries and depository libraries are overrepresented in our sample of libraries the average collections are larger than the real average library collection. A large part of the libraries which responded to the questionnaire had collections of more than a quarter of a million books but these may be divided between several service points, how many we do not know. Beside the books these libraries also have subscriptions to periodicals and many of them give figures for other materials which may be manuscripts, music and other items, such as microforms. Ph. Ramsdale in his report gives an estimate of a total of 1,2 billions of books in the member states. So this is what libraries offer their general readership, which is about 4 books per European individual. We should note here, that these books are not as many different titles as many libraries have several copies of each title and there will naturally occur duplicates among the libraries as well. This we should remember when we compare with the figures for items in alternative forms which most probably do not occur in as many copies each. So then it is interesting to see in comparison what may be offered in the alternative forms of particular interest to our target group.

More than half of the libraries have some kind of materials for the blind and partially sighted. But at this point the differences between the Member States was big.

It goes without saying that these collections are really very modest when we compare them to the amount of books etc. which is offered to the

sighted people. Were they restricted to only that information and literature which they can get from these materials we must really say that the educational, cultural and social needs of our target group are not so well served by the libraries as they ought to be. But the situation is not quite as bad as it looks here, and I shall return to this point later on. We may note as well that half the libraries in the survey had one type or other of the materials in alternative forms: talking books or periodicals or braille publications.

I should like to add that collections of printed music in braille are found in some libraries, particularly in ONCEs central library and in the Danish Library for the Blind you will find comparatively large collections.

The accessibility

Let us then turn to look at the accessibility of the collections. We might discuss the physical access or access by telephone, with personal or automated answer, or access over the network if you have the necessary equipment yourself. We might as well discuss open access to the shelves or closed stacks, but more and more libraries are now arranging the books on open shelves. Open shelves is however not an important matter for our target group because unfortunately browsing on the shelves is one of the pleasures denied this group, and one for which we should try to compensate. So, to access the collections may mean first to access the catalogue. Therefore it is important in which form the library catalogue is issued.

It is interesting to note from the answers to the questionnaire that while still one per cent of the libraries answering have no catalogue at all, the majority of the libraries now have a computerized catalogue for part of the collection or for the whole collection. And moreover some of those who do not possess a computerized catalogue do have microfiches which again means that the records are machine readable. Others mention their plans to computerize or automate further or make the catalogue into an OPAC. This signals that in a few years we can be pretty sure that the overwhelming majority of libraries have a machine readable catalogue, maybe for the larger part of the collection if not the whole of it. This is really a significant piece of information because a machine readable catalogue may possibly be accessed from a computer over the network or it may be converted into other formats suitable to our target group. There was on the questionnaire a line to indicate whether the libraries held catalogues in other formats and

in several cases it was indicated that catalogues were found in braille, large print or as a talking catalogue.

At least half of the machine readable catalogue data are in the Marc format or are Marc compatible. In several of the member states the libraries have a joint system which means that the catalogues in that country are compatible and may be accessed from any of the libraries of the joint system. (This goes at least to some extent for United Kingdom, Italy, Spain, Portugal, The Netherlands, Belgium and Danmark as well as for several of the German Länder).

It is of significance as well to see in what ways the libraries have access to other materials than those in their own collections. This may be either by means of access to Inter Library Loan, which is the most traditional way, or, in the automated library where access may be by networks and by access to information databases or cd-roms.

From the answers to the questionnaires we get the following results:

TABLE 2 ACCESS

	All libraries	Pct	Libr. for the blind	Pct
Network	99	32	5	13
ILL	242	79	19	50
Databases	133	43	6	16

In figures for the database access the cd-roms are not included as they might well have been.

Networking which a few years ago was just beginning to appear in the libraries have now been spreading rapidly and many libraries in our investigation indicate that they have plans for further networking. So if still only about one third of the libraries have access to national or international networks this figure is rising all the time.

The practice of Inter Library Loans has always been important for the traditional library service, and this is still so. Even though so many of the libraries indicate that they have an ILL service either at the national or at the international level, only a little more than half the libraries for the blind participate in this function.

Then we can see how many libraries are offering access to foreign databases. This does not mean that they let their users access the databases but

the librarians will search the bases for them. The periodicals indexed in bibliographic databases very often are machine readable so these articles may be accessible by computer.

A special point is that the library material used most by our target group is the talking book which is not digital but analog, therefore not easily converted into other forms and not necessarily easily transmitted through a network. So ILL of talking books will have to use the traditional postal route.

From the figures found for collections of materials in alternative forms and for catalogue forms and catalogue automation we can see some trends. There are differences between library types. The academic libraries seem to have been quicker in automating than the other types of libraries. We can also see that the technology is not yet as widely used in the libraries for the blind as it is in the other types of libraries. Further the technology is spreading more rapidly in the Northern than in the Southern countries. I do not see much point in developing the analysis of these differences because I find it a more significant point that all library types and practically every library indicate that they are doing their best to automate within the framework they have and the financial means at their disposal.

The equipment in the libraries is part of the accessibility. This point has been investigated as well. Some libraries do not offer more than magnifying glasses, but others have a whole range of machinery to assist our target group as may be seen from table 3.

TABLE 3

Type of equipment total	Number of libraries	Libraries for the blind
Magnifyers	61	3
CCTV	19	3
Special screen	9	
Cassette recorders	86	17
Synthetic speech devices	17	7
Braille devices	17	8
total	308	38

I think these figures show that at this point the service of the libraries is not very impressive. Obviously they expect the users to have the neces-

sary equipment at home. We may notice that far fewer libraries have cassette recorders than those having collections of talking books.

The potential of the libraries

Before I go on I would like to take these two factors together: the collections and the accessibility, and look at them more specifically in the light of our target group.

The collections to which the blind and partially sighted persons have direct access in the libraries are clearly only small collections compared to what is at the disposal of the sighted, but through ILL access to more publications is possible. Most of the libraries that offer Inter Library Loan does this only at the national level, but in many cases this is sufficient because the users want materials in their own language. This will often mean from their own country. In libraries of higher educational institutions you will also have to use literature in foreign languages. Here ILL at the international level is particularly important because you can then get access to all the collections in foreign languages.

When we look at the users with computer abilities they may have access to the virtual library — defined as the sum of all the information accessible to a user with network access and pc. These users may well be blind or partially sighted persons. Here the computer may give equal access for all to all those materials which are in machine readable format.

On the other hand for the blind and partially sighted persons without computer skills, which are the large majority, we might instead talk of the *potential of the library*, which still means that a library has more to offer than just its own small collection of large print or talking books. Therefore ILL is important, the collections may be shared, that is one of the main ideas of libraries. But moreover, and I think this is a cause for optimism: as soon as a library has acquired the right equipment it has a much larger potential to serve the blind and partially sighted persons. In principle all the texts in the library's holdings could be scanned on demand and enlarged to a screen or to paper and all these texts could be read with synthetic voice. Therefore it is a good service to the blind and partially sighted persons that they may have access to the whole library catalogue and not just to a catalogue of special format materials. But the technology of synthetic voice needs much further development. I shall return to this point later.

I have said nothing of the copyright problems as this very important topic will be treated separately at this seminar.

Library services and staff

The services offered by the libraries apart from the fact that they offer their collections is very important. All library users may take advantage of the professional and ready assistance of the library staff, but our target group is more dependant on this assistance. The fact that so many libraries have automated cataloguing procedures and machine readable catalogue data also signals that the staff of these libraries are familiar with automated procedures and machinery which make them better prepared to assist users with new media and new formats. The knowledge of machinery and automated procedures is significant for the readiness of the staff to cope with technology, and more technology, and new forms of technology. It really is very demanding on them, but this is part of their professionality and will become more and more so. Therefore the training of the staff is so important.

From the comments on the questionnaires we can see that many libraries offer special assistance to blind and partially sighted persons in many forms. Some have special equipment as mentioned above, a few have special rooms where the talking books can be heard or rooms equipped with other facilities, many are willing to accept loan requests per telephone and send the material to such users. Some libraries have special services for homebound users, in Denmark we call it «the book is coming» and these services are open to our target group as well as to other groups who need them. Some libraries offer different kinds of help for instance with scanning of letters or magnification of papers, or the librarians are willing to read when this is needed. As an example 80 of the Danish public libraries, which is one third, offer a weekly tape with the local newspaper often read by members of the library staff.

99 libraries, *i. e.* 37% of those which are not libraries for the blind have indicated that they offer special services to the blind and partially sighted persons but when I studied the forms returned by the libraries I noticed that many libraries that did not tick yes at this point have the materials all the same, which most often means talking books and large print books. This must mean, that they do not consider it a special service, but they offer these materials anyway.

Some of the academic libraries answering the questionnaire even though they have ticked no for special services note that if a blind or partially sighted person made a request they would certainly offer all assistance possible, but they have very few of these users.

Models for the library service to the blind and partially sighted

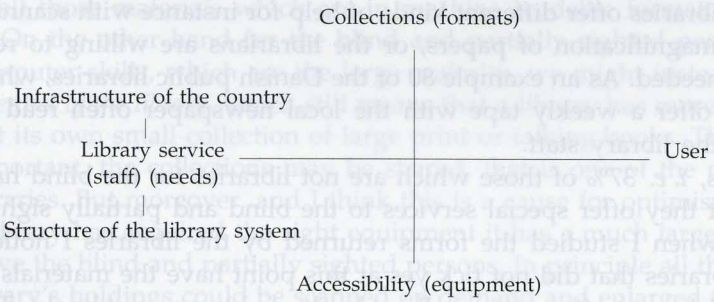
By the survey of WP 4 and 5 we have got a better knowledge of our target group, their abilities and disabilities and their needs of library materials and information so we must put the question to ourselves:

What should the libraries do to serve them as well as possible?

When trying to answer this question and suggest models for the future library services to our target group it is not enough to build only on the experience gained from the user survey and the survey of libraries' collections, accessibility and services. Other factors are equally important, particularly we must consider the structure of the library system in each country, but also various other conditions in the society and in the EU as a whole are very important, such as copyright laws and laws on legal deposit and international agreements as for instance the Lausanne convention on free postal service, as well as the infrastructure of the Member States. As an example, we could not propose digital transmission over the telephone if the telephone system in the country is not yet ready for this process. Model development must therefore take account not only of the library survey and the survey of user needs, but of the whole structure.

Figure 1 will then have to be elaborated to include these additional factors:

FIGURE 2



With this in mind the WP 5 has discussed centralized and decentralized models as well as possible combinations of these.

You might say that in the IT&T society it is difficult to speak of centralized and decentralized systems because the user may sit at home and get the materials she wants and not worrying about where it originated as long

as it is found in the network. This is the real concept of the virtual library. And this is just fine as long as you think of the information which is in machine readable format and occur in a database connected to the network. But we are today not quite as far as that. It is still mostly the more specialized literature you will find on the net. When the users wants literary texts to read for pleasure they may find a great deal on the network, too, particularly if you want (older) English language literature. But in some minor languages such as Danish, Portuguese or even Flemish the bases are still not very comprehensive. Here the catalogue databases are particularly important.

And if you think of talking books you will still not get them over the network or have them transmitted from the library into your own equipment. So for all those users who are not braille and computer literate the question of centralized or decentralized service is absolutely relevant.

Even for those who read braille it is in many cases desirable to have a production with specialists to make a good layout and proper arrangement of a book. Short texts may more easily be produced at home or in a local library.

So our main areas of concern are

FIGURE 3

Production and distribution:
- which materials should be produced – for stock or on demand
- where should it be produced and by whom
- how should the users (including libraries) get them

Collections and use:
- what equipment is necessary for these particular users – at the library and/or at home
- which assistance is necessary for the use of this equipment and the materials

Service:
- which further service should be offered by the libraries
- what kind of training is necessary to give the best service

Cooperation:
- how can libraries cooperate to further the equal access to collections and information.

A centralized model

A centralized model may imply production of materials in alternative forms such as braille texts and talking books and a central collection includ-

ing such materials as are produced commercially. Legal deposit of special materials produced commercially would certainly be a help. This production is rather expensive particularly in small language areas where you may not produce more than about 40-50 copies of each. In such an area there will be a wish for financial support for the production.

From this central library for the blind the materials may be sent out by whatever means are available according to the character of the material and the wish of the user, by post or electronically, converted to a format to suit the individual users.

This may be very efficient and the central library in addition to catalogues online as well as in several alternative forms might issue information material such as talking catalogues with spoken annotations to some of the texts as appetizers for new borrowers as well as have a telephone service with professionel staff to serve the users and give advice for instance concerning equipment and its use. Such a service may of course also be automated. Monitoring the market for new developments and ongoing research is a service which belong in the central institution as well.

Among the advantages of this model is the expertise which will be built up in the central library, and in addition it will probably be the cheaper solution as centralised solutions very often are.

One of the disadvantages will be that the library will not be placed close to all its users and most of these will miss the advantages of the attractive environment of a library. Advice may be had by telephone which is fine but without that kind of personal help a good librarian can provide at the library desk.

Decentralized models

The opposite, a fully decentralised system, based on electronic access is another possible model.

In this model the user will have direct access to the libraries and their catalogues as well as to information databases present on the network and consequently to any electronic texts by electronic means, *i. e.* by computer and an advanced telephone system. She or he can then search the system and find what is needed and take the information home in her or his own computer and read it either in very large letters on the screen, or with a braille bar, or alternatively have it read by a synthetic voice. By the telephone system the information found can be transmitted to her own tape recorder. All of this and much more is quite within reach. This version of

course is for users with computer literacy and/or braille literacy and with the necessary equipment at home. Such users exist, but it is still a small, yet growing group of the blind and partially sighted persons. Here we may find young persons in the educational system or persons which by means of their computer and adaptive equipment are able to keep the job they had before their vision was impaired. During education these users may alternatively find the equipment at an academic library but these allthough they appear to be quite willing to serve the blind and partially sighted persons only have few of these users.

In this kind of full decentralisation the main role of the library is behind the scene as information managers, making databases and catalogues, annotations, subject indexing, advising users and assisting in systems development to ensure that systems are easily understandable and easy to use.

Another kind of decentralised model will be possible and useful for blind and partially sighted persons who are less well equipped and less trained in computer use — or not at all. The local library, most often a public library, may have the facilities necessary to serve the users. They should have collections to serve these users with large print books, talking books and machine readable texts. Materials should be accessible to our target group without special computer knowledge and where computerized systems are to be used they should be designed so cleverly that they will not cause our target group trouble. In the library you should find space for using the library materials and the machinery. In case the user is homebound the library will bring large print books or talking books and the local newspaper on tape as appropriate, or see to it that shorter texts are enlarged or maybe recorded on tape. These users need a cassette recorder at home, but a great deal of blind or partially sighted users seem to have these nowadays. The local library may assist with letters and the like as well.

The advantages of this model are obvious. The user may benefit from the local library's environment, and will by visiting the library probably be made aware of community information and local events of interest such as evenings with authors or other cultural or social events. They will in many cases be familiar with the music collection which many public libraries offer to their users as well. They will probably more easily keep the contact with the local society which they had before the impairment of the vision. Those who were library users before their vision became impaired are the most likely ones to keep this contact. In other cases the library should arrange information campaigns towards the potential users.

Such a decentralized model may be established when the libraries, and particularly public libraries, acquire the necessary equipment and have a staff that is prepared for it. It will also rely on an efficiently working Inter Library Loan system at least at the national level. But as I said earlier the local library have in its collections a potential special format collection as it is possible on demand to make large print copies of whatever they own, and to scan materials which are not in digital format from the beginning. The local libraries may also on demand make recordings of shorter texts which are not supposed to be used more than a few times. As we have seen as a Danish example many public libraries record the weekly local newspaper for their users.

One of the disadvantages is that the staff will be less specifically trained to serve the blind and partially sighted persons. Another one is that though special format material, particularly braille, may be made by anyone with the right machinery it will not necessarily be in the same good quality and layout.

There are other limitations to this model, too. If the local library suffers severe budget cuts as is often the case these days, it will have to make priorities and it will not be easy to have all the necessary materials and equipment. And when the budget for the staff is cut they will have less time to serve the public or to attend courses which will be needed. There is no denying that a decentral model will be more expensive. Probably this model will only work to its full extent where a national information policy for the blind and partially sighted exist and where legislation will support, not be a hindrance to the work.

But in any case, for such a decentralised model to work optimally it has to rely on a strong central library which may assist and back up, for instance with products in high quality, help with advice, for instance a hot line to answer questions from the local libraries, concerning both materials and for instance choice of machinery maybe assist with training courses and monitoring what is new in the market of products and facilities.

A developing model

As said before, the different infrastructure in the Member States and variations in the structure of the library systems and cooperation will probably together with economic factors be decisive in the individual choice of models. But where the library system is least resourceful the decentralisation will not be able to go very far without the risk of weakening the central resource center.

The preferable model may in many cases be a mixture of the two. One may guess that a process of decentralizing the library service from a central model would be a natural development.

Therefore I think that the preferable model will be what I call the developing model. The core of this model is a central institution, a library for the blind and partially sighted persons as a stronghold in each region, or land or province (or in the smaller countries for the whole country). This library will have some main responsibilities. It should be a coordinator of activities and not alone produce such materials as should be produced in larger impressions, but also catalogues and bibliographies online and in alternative forms as well as of information materials to our target group.

The central library may lead the process of decentralisation when the library system and the libraries are ready for that, among other things when they have the necessary equipment. The central library may be ready to advice the libraries and assist in the training of librarians from non-specialised libraries. Cooperation is very important in this model. Then the central library or libraries will be a strong support for both public and academic libraries which offer services to the blind.

Economy

I have put no economic figures on the models neither for the libraries' nor for the users' equipment. This would not make much sense because the prices both on production and equipment will vary very much from one country to another and because the prices of technology are moving very fast downwards for many of the things we are talking about. Investments in equipment are, however, necessary. More equipment is needed when it is supposed to be available in the individual homes than in the libraries. But many blind or partially sighted have cassette recorders already as well as cd-players and soon the computer will be quite as natural in many homes as the telephone. There is a question of the payment for the network and here it might be reasonable to make a case for free electronic transfer to our target group just as they now have free postal tranfer.

Whether the model will be financed by the state, local government or privately seems not to be of prime importance. When we compare for instance Spain and Denmark who have models of a rather decentralised type we can see, that in one case the activities are financed by ONCE in the other it is financed by the state and by local authorities. Cooperation

between libraries may however be easier when the financing comes from the same source.

Recommendations

The Working Party 5 has tried to see where the major hindrances for an optimal system lie and tried to describe in which areas development is most needed. Consequently a series of recommendations are put forward in the reports. The main recommendations are seen in figure 4.

FIGURE 4

Legislation
- national information policy for service to the blinds and partially sighted persons
- copyright laws
- legal deposit of special format materials (and machine readable registration of these in The National Bibliographies)
- like the Lausanne Convention on free mailing free data transfer should be granted the blind and partially sighted
- production of special format materials should be subsidized

Technological development
- speech synthesis, particularly in «small» languages
- technology should be developped to accomodate socalled computer illiterates

Standardization
- quite generally standardization is particularly helpful to this target group
- differences in short braille is an example of lack of standardization

Production of materials
- digital recording of audio materials (as well as other library materials)
- more newspapers and magazines available in special formats

Supply of materials
- ILL should be supported and improved (as recommended by IFLA)

Education and training
- training in service to the blind and partially sighted should be integrated in library school training
- teaching in braille should be strengthened

Information
- libraries should inform better of their services towards the blind and partially sighted, both concerning materials available and adaptive equipment.

I would like especially to stress some of these points.

Some important progress in the services to our target group will depend on the governments and the legislation. Copyright laws is the most burning issue and I hope that there will soon be found some good solutions to these problems. Other laws might be helpful such as better laws for legal deposit of materials in alternative forms. But it is also crucial to have official recognition of the special needs of this group in the form of an official information policy for the blind and partially sighted persons. The Lausanne Convention on free postal service has meant much to the blind and it should be followed by a new convention as materials and information now will be sent to the blind persons on another medium.

The remark on standardization is quite unspecified, but standardization can make life so much easier for our target group. And we should remember that what makes the life of the blind and partially sighted persons easier will most probably make things easier for anybody. Not only as regards telecommunication standards which are very important but also in minor matters, such as the placing of the numbers on the telephone dial or keypad. Many other areas of standardization could be mentioned here. Particularly the issue of short braille which differs from country to country.

It is inconvenient — to say the least — when the computer systems and the user interfaces are made in such a way that the users have to have much computer training. This should not be necessary. It *is* possible to make information systems accessible without too much computer knowledge. Many systems might be made as easy to handle as the cassette recorder. To read a book on a large screen should be possible just by pushing a few buttons. To say it short: the computer systems should be taught to accomodate the users, it is not the users who should be taught to adapt themselves to the systems.

In the areas of technological development we have further already stressed the importance of developing the synthetic speech area. Particularly in «small» languages better synthetic reading should be developed. Reading for pleasure is a very important cultural experience which may compensate for other losses for the elderly persons who have acquired the impairment of vision at a late age. But listening to a synthetic voice when you are reading poems or love stories may not be a pleasure. And for this group of people I suppose that human voice in talking books will still be the preferred medium for some time.

All materials — audio as well as text — should be produced in digital form. It will then be possible to convert it to various formats and to transmit it through networks.

Concerning supply of materials we have noted that compared to what is offered to the library users in general there is a limited supply to choose from for the blind and partially sighted. Particularly many in our target group are missing daily newspapers and magazines, some with informative contents but also some to read for pleasure.

Education may always be improved. Here we recommend that library schools improve the training of library staff in service towards the blind and partially sighted. Training courses should be offered to those librarians who work in non-specialized libraries, maybe the libraries for the blind could be of assistance with this.

Most of this costs money and we cannot and should not hide the fact that services to the blind and partially sighted persons are expensive but it simply has to be done anyway.

Conclusion

As conclusive remarks I would like to say that we should not forget that though information technology is moving rather rapidly, and what was difficult to do or too expensive yesterday is possible tomorrow, there will still be some barriers. Some of the barriers should be forced by law such as the copyright problems. An official information policy towards the blind and partial sighted will give a clear basis for the service. And, though today for instance in several of the Member States every fourth or fifth family has a computer at home I think it will still be some time before every person with impaired vision will have a computer and the necessary programmes to use it without knowing too much about information technology.

It will probably also take several decades before all citizens, whether they are seing well or less well (including many of the decision makers of our society) will become computer literate to a degree where they fully understand what can really be done to make up for the handicaps of some citizens.

Therefore it is very important not just to praise the progress but to make provisions so that also those who are not computer literate for instance people who become blind at a late stage of life and have never used a computer get the full advantage of the information technology. I think this is the right moment for EXLIB to say this to our governments and to the European Commission.

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ABSTRACT The EXLIB Project is within an environment of very wide information technologies development which should not be wasted: the visually handicapped must have equal opportunities as the whole community, and it is now the right time to develop, and implement models in reading services which will help to attain those rights.

RESUMO *O Projecto EXLIB insere-se num contexto de desenvolvimento das tecnologias da informação que urge aproveitar: os deficientes visuais têm de ter igualdade de oportunidades como o resto da população e é tempo de desenvolver modelos a implantar nas bibliotecas que garantam a plenitude daqueles direitos.*

ADDRESS Como consultora desenvolve actividade para a UE/DGXIII e também
ENDEREÇO para a Royal Library, Copenhague. Paltholmterrasserne 75E, 3520 Farum, Dinamarca.