MOVING LIBRARIES

MOBILE LIBRARY CONCEPTS IN RESPONSE TO THE CHALLENGES REGARDING MODERN INFORMATION SOCIETY

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Abstract

Mobility plays a major role in today’s public life. Technical innovations and commuting are causing changes in the space-time relationship. By gaining and using information at every possible location that provides internet access, new forms of services emerge. These innovative technologies and the social change will influence library services as well. The libraries themselves or their services have to be mobile to meet the requirements of the modern information society. This paper provides in-depth information about current changes in modern (information) society and the impact these changes will have on the development of (mobile) libraries. It shows examples of mobile libraries from around the world and states needs and requirements for mobile libraries of the future. These requirements lead to a futuristic and innovative concept of a “Moving Library”, developed and submitted by the authors.
Introduction

Today mobile libraries and mobile library services provide information, literature and references at places, where people in the modern information society are used to be and use to go. Libraries are no longer in a passive position – they have to take on an active role in a society where mobility is more important than ever. The authors of this paper refer to those active libraries as “Moving Libraries” to underline the fact of mobility. Moving Libraries can occur in various forms, e.g. as a bookmobile, a camel library or as branches in subway stations.

This paper focuses on two central issues. First: “What are the requirements for Moving Libraries in the future?” Here, the authors want to show requirements a library will have to meet regarding the increasing mobilization of today’s society. The theoretical basis for this section is provided in form of a detailed analysis of the social development of the modern society. Particular attention is paid to observable social trends concerning the increasing mobility and personal individualization. The second central issue in this paper is based on the results of the first issue: “How might a Moving Library of the future look like?” The authors give an overview of existing Moving Libraries worldwide and map out a concept for an innovative mobile library. This concept includes future social development and the demands derived from the first issue.

The concept is based on both short interviews and detailed expert interviews (oral as well as written) with fellow students, professors and librarians who are working in management positions. During the first part of those interviews, participants were asked whether they had had any experiences with mobile libraries so far. During the second and more important part they could state their personal wishes and requirements concerning a future Moving Library if they had the opportunity to take part in the constructional and designing process without any (technical, financial or practicable) limitations.

1. Social development

The present social development represents opportunities to deduce potential actions and fields of activity for libraries. Therefore, it is necessary to take a look at several aspects which examine and explain the social change in our modern society including changes concerning individuals. Firstly, one has to take a look at the demographic change and the movement of the age pyramid due to the higher life expectancy and arising consequences. Secondly, it is important to notice that individuals cannot be “pigeonholed” as they behave completely different. Therefore, it is necessary to use lifestyle models to show the differences in a society. Libraries have already started to prepare
themselves for this social diversity. They conduct systematic target group orientation or customer surveys to learn about their patrons’ needs.

The task-related change is also of importance: There are less employees who have to do more work. It is expected by many employers, that the employees are specialized in certain domains and simultaneously acquire a comprehensive knowledge in other areas of their respective field of work. Therefore, further training programs are necessary. Libraries already offer a variety of services here. As a “Teaching Library” they train many different target groups in information literacy.

The third relevant aspect for libraries is medium-related change. The Internet with its numerous interaction possibilities (web 2.0) and social networks is used widely by libraries, too. Additionally, there is the section of mobile devices which also represents a kind of mobile library. E-Book readers with a collection of digital book files are sometimes entitled as “mobile libraries”. Libraries are already taking an active part regarding e-Book readers, iPhones and similar devices, primarily in the USA. Developers, technicians and librarians who are involved in the development of library services for these devices exchange experiences in the working group “m-libraries”.

The term “mobility” is defined in the following. “Non-personal mobility” refers to the ability to work at a self-determined time and place. This is often referred to as “telework” in the working environment. Equivalents in library science are e-learning modules which are already used for teaching information literacy at many universities. The term “personal mobility” describes the mobility of individuals who finish their work at a place that is not their place of residence, e.g. commuters or field service representatives. These types of mobility will increase and influence everyday life significantly. Thus, libraries are required to customize their services and go to the user instead of letting him come to them.

Defining today’s society is essential. There are numerous definitions of different scientists who examine the many facets of today’s society from their respective point of view. The authors have decided to favor the term “information society” which is also mentioned in the subtitle. Referring to libraries, it reflects that an individual continuously and critically faces the learning process and can generate knowledge from information independently. Here, libraries are able to relate the requested information to the patron and thus help her or him to recognize knowledge-related connections.

There are already numerous approaches considering the different mobility aspects and the change in today’s information society. These Moving Libraries are presented in the following chapter.
2. Moving Libraries
As said before, the term “Moving Libraries” combines two different ideas of “mobility” with “library” into one integrative concept. The term is based on library services which cover mobile libraries that actively approach their patrons as well as library services which are positioned at highly frequented metropolitan spots.

There are several criteria that define Moving Libraries, for example the mode of maintenance, the objectives and visions or the type of locomotion. The authors themselves use the latter for Moving Libraries as well as the specific mobile library service to achieve a precise distinction. Three divisions can be defined: Firstly, there are Moving Libraries which are mobile themselves. Secondly, mobile library services with which libraries can support and accompany the mobility of the society. Thirdly, there are virtual or digital offers which provide free access to information. Some examples are presented more detailed below.

**Mobile libraries**
For the libraries which are mobile themselves, three different types can be identified: Bookmobiles, ship libraries and the so-called “living libraries”. The last term was chosen to simplify matters. These libraries are not really “alive”, but moved by human or animal strength.

**Bookmobiles**
The example which is probably best known is the one of the bookmobiles. Their most important feature regarding Moving Libraries is that the library-orientated tasks like circulation and reference are taking place in the bookmobile itself and the vehicles are not only used for the transportation of the items. Bookmobiles can react to changes within the needs of their patrons more flexibly than stationary libraries. Their main tasks are the supply of literature and information for the population which can hardly or not at all be reached by stationary libraries. In this way, they support information literacy. Library trains also belong to this section of mobile libraries.

**Ship libraries**
Basically, ship libraries can be distinguished by their specific target group as well as the type of ship on which they are located. There are libraries which are mainly intended for the entertainment of the passengers but also special libraries for the crew on passenger ships (for example on cruise ships). There are also libraries which are set up for the needs of scientists on research vessels. Ship libraries in regions like Scandinavia or in Bangladesh have a similar function like bookmobiles, they guarantee the supply of literature in regions that can hardly or not at all be accessed by land.
“Living” mobile libraries
Donkey, camel or elephant libraries are mainly found in rural areas of Africa, Asia or South America. The main task of these Moving Libraries is to teach information literacy and satisfy basic literary needs. Often, these living libraries are maintained by idealistic individuals. Not only do they take on the supply of literature for the rural population, they also teach reading and writing skills if it is possible. Here the information is transported by humans, on the back of animals (e.g. in the Andes in Cajamarca) or by bicycle (for example in Indonesia).

Mobile library services
The authors do not only categorize a “Moving Library” as a library which is transportable and therefore mobile itself. Stationary libraries or library branch offices which are stationed at places where the mobile population passes daily are a Moving Library as well. These libraries, positioned at strongly frequented locations, actively approach their patrons to attract their attention, support information literacy and acquire new patrons. They attend the population’s mobility and make an active contribution to modern society’s supply of information and literature.

These library locations or automatic library machines are mobile library services as well. On the one hand they are at urban places, as in subway stations (for example the Bibliometro in Madrid, Spain) or in highly frequented malls or railway stations (by setting up automatic library machines). In these cases the libraries support the mobility of the society by the choice of their locations. On the other hand services in cooperation with the post (e.g. in the Public Library in Graz, Austria) or delivery and pick up services aim at the patrons’ mobility. It is the primary objective of these Moving Libraries to allow the patrons the use of their services at or for the time these people need to commute.

Virtual/digitals services
Virtual and digital library services can be used from every internet access. In a wider sense, they take the mobility of the society into account as well. Therefore, they represent the third section of Moving Libraries. One example is the so called “Onleihe” which is offered by the German DiViBib since 2007. This is a service, where patrons can log onto a database and download movies and music via the local public library and use it for a certain period of time. Another example is the Europeana (a database for the research of digitalised items in libraries and museums throughout Europe) or the e-Book collections many libraries offer.
3. Requirements for future Moving Libraries
Based on the findings from the part on trends of social development, the authors have identified requirements which will be expected from future libraries with particular regard towards the progressive mobilization.

*Time saving*
More institutions are competing to gain the patron’s time and attention, including libraries. Therefore, libraries have to find ways to save the patron’s time when he or she uses the library. The authors have identified three possible sections, where libraries can save their patron’s time. They are shown exemplarily in the following.

Firstly, delivery or pick up services (e.g. in the form of return boxes) represent an opportunity, because the patrons don’t need to take a second trip to return the items. A cooperation with local retail trade would be possible – while going out shopping, patrons can return their books e.g. at the bakery or the mall.

Time can also be saved by using the so-called Smart Shelf technology. These are intelligent information and guiding systems which lead the patrons to the very bookshelf that contains the requested item, but also make it possible for the patrons to get recommendations on other items like on amazon.com. The Smart Shelf technology is already used successfully in Singapore libraries. With the help of mobile terminals, the patrons are directed directly to the books, which are traceable via their RFID tags.

Another concept is that of the "Roving Librarians". Additionally to time saving, it avoids potential frustration. Here, the reference librarians do not wait for patrons behind their desk, but are roving around the library to detect patrons in need of help.

*Collection management*
The second part of requirements which should be aimed at future Moving Libraries is part of the collection management. Here, the increasing mobility has to be regarded as well. In the following, two possibilities are introduced where librarians are able to react to a patron’s requirements more flexibly by special collection management. These are mobile collections on the one hand and the rearrangement of traditional returning modalities to the so called “Floating Collections” on the other.

Libraries have to think about the fact that information and news’ life-time is shorter than ever. Patrons expect that libraries react to this as well. This can be achieved by an additional library unit with a mobile collection as an addition to the normal collection of a public library. This mobile collection, which is exchanged again after a few weeks or months, is relating to a
current political, cultural or scientific topic or event. An example might be a kind of container
with a collection of bestsellers where only the current bestsellers in fiction are available.

The concept of the so-called “Floating Collections” represents another way to create a mobile
collection. Allowing the concept of Floating Collections means a different approach to the
traditional collection management. In the traditional way, every item has its fixed branch
location within a library system to which it is brought back after having been returned.
According to the concept of the Floating Collections, a returned item remains at the location it
was returned to until it is requested in a different branch and transported there. This has the
advantage that the patrons can return their books more freely within the library system and
also have a more varied and thus a more interesting collection at any branch they visit. An
additional advantage for the libraries is the saving of costs which otherwise would arise for
the return transport of the books.

**Amenity values**
Another section of the demands which are asked of future Moving Libraries is the quality of stay
expected by the patron. This includes the interior designs in functional and formal regard as well as
the opening hours of the libraries.

Libraries have to satisfy many different needs for which different rooms must be provided. They are
used as a meeting place, studying place, communication place and as a social place. Their offer has to
be a transition from privacy to a public area. Thus, libraries have to ask themselves, in which way they
want to make which rooms available and provide the appropriate equipment. The design of the
rooms also plays an important role as well as the functional equipment. This is for example a flexible
furnishing with regard to the quality of stay for the patrons. It should motivate to sit down and study
and also reflect the spirit and the vision of the library. The rooms should also have something
“special” so that the patrons like to stay in the rooms. The third section of the requirements concerns
the opening hours of a library, which should consider the needs of their patrons (of course second
behind the possibilities of the library). The opening hours can also be extended e.g. by the use of
return boxes or virtual and digital collections. If libraries want to support the increasing mobility of
the society, they have to be ready at times when mobile target groups want to access them, so for
example in the early morning or late in the evening.

4. **Conception of a Moving Library**
The requirements which have been identified by the authors for a future Moving Library are the basis
for an innovative mobile library concept with the name DBib. The authors are aware that the
suggested concept of a Moving Library can be regarded as a utopian dream and cannot be realized immediately. But they are certain that there might be room for some ideas for potential action in the future, both in technical and in spatial and infrastructural regard and they will watch corresponding developments with interest.

**Brainstorming**

It was an aim of the short interviews to generate innovative ideas for a concept. The participants should express their personal wishes and demands to mobile libraries of the future without having to confine themselves to the issue of the practicability. An idea which was mentioned again and again in different variations is the one of the “railway station library” which is intended to be available at as many railway stations as possible and used via one library system throughout Germany.

For this reason, the authors suggest the concept DBib for a Moving Library of the future. It consists both of stationary library units at the intercity express train stations in Germany and moving ones that can be integrated into high speed trains like dining coaches. The name DBib stands for a Germany-wide library network (D). Moreover, the first two letters (DB) provide a reference to the partner company DB AG (German railway carrier). The bold B in the middle signifies simultaneously for library (Bibliotheek in german), train (Bahn) and railway station (Bahnhof) and therefore is the connecting element of these three concepts.

The authors consider business travelers or commuters as possible target groups for DBib as they are representatives of the modern information society. DBib appeals to people who are working and between 20 and 65 years old. These persons spend much time in public transportation because of long ways to work or to business appointments. Their main interest in information focuses on business use and events of the day. Due to long trips to work and little free time, these people seldom make use of libraries’ services. DBib will approach the commuters actively and thus arouse their interest. On the one hand, DBib will increase the public attention and improve the image of public libraries. On the other hand, libraries will be perceived more as “knowledge and information gas stations” in the middle of the society.

Hence the concept will attract attention of potential patrons and offer them library services at intercity express train stations. At strongly frequented spots they will support the modern information society in its mobility with “information to go”. On the other hand DBib will be mobile even within the German track network and in this way accompany the mobility of the mentioned target group actively. The authors propose detailed considerations for the development of such a Moving Library. Their ideas are supported by illustrations done with the freeware design program SketchUp (see illustrations 1 pp.).
Conception

To guarantee the equality of the selected target group throughout Germany, the concept DBib intends to set up library branch offices in every German town which has intercity express train stations. These are supplied with integrative library software. Every registered patron can use every branch in every town and the branches and services of DBib in every train, with only one library card. Therefore it might be possible to combine this card with the Bahn Card (service in Germany where the customer gets reductions on tickets). For those patrons who do not have a Bahn Card and do not want to use one either, a special library card must be issued directly in the library branches.

For DBib, two different components are planned. The first component consists of a small stationary library unit with a respective base of 15 square meters (see illustration 1). These will be placed at the intercity express train stations of DB AG. The second component of the concept are library coaches which will be integrated into the intercity express trains (see illustration 2). They have a base of approximately 61 square meters each. This is the standard size of intercity coaches at the moment. The stationary library units are supposed to have the same opening hours as the retail stores at the stations. A reference librarian will be present at the stationary unit to offer fast and competent information to the patrons. Thus the perception of libraries as competent “knowledge and information gas stations” gets promoted.
Illustration 1: DBib: Outer view of the stationary library branch

Illustration 2: DBib: Outer view of the library coach
The librarians in the stationary DBib units will be at the patron’s disposal for reference questions from the library coaches as well. The patrons can ask their reference questions via video telephony within the coaches. The questions are directed automatically to the responsible librarian by a rotating system. Furthermore, information questions can also be put and answered via chat and e-mail during the opening hours of the stationary units. There are Internet working places accessible in the library coaches, too.

The use of progressive techniques like the Smart Shelf technology, the room design with a modern colour concept and the use of high-quality materials will be implemented in both the stationary library units as well as the library coaches. Additionally the concept answers expectations already mentioned (like mobile collection management or the principle of Floating collections).
Download stations are special elements in DBib. Here, it is possible to listen to audio books, download e-Books, movies, current business statistics etc. These stations will be available for the patrons both in the stationary units and the mobile DBib coaches (see illustration 3). The stations can be used via touch screen. The patrons have to check in with their library card. Then, they are able to download digital content (within the copyright restrictions) to their own mobile devices or lent ones.

Illustration 3: Download station

The collection management for the DBib concept is catered to the target groups’ wishes and needs. An emphasis is put on current information on economy, politics and events of the day. Furthermore, the regional and national daily press is offered. The authors assume, however, that the DBib library coaches will be used for relaxation after exhausting business appointments as well. To promote this special feature and increase the attractiveness of the DBib branches for the advised target group, it is possible to use a playstation in every DBib coach. However time is restricted via the library cards so that it is possible for everybody to get access.

If a DBib user wants to check out an item, it is put automatically on his account via RFID when he is leaving the branch. Any item that is checked out can be returned in any DBib coach and every DBib stationary unit. The principle of the Floating Collections is effective here. When entering the DBib, the item is returned automatically via RFID and provided with the corresponding location remark in the
system. The patron can put the item onto any shelf in the coach. In the stationary units there is the additional possibility of returning items outside the opening hours in a secured return box.

**Conclusion**

The authors have presented various examples of mobile libraries and mobile library services. These services show that mobility is an integral part of the present social development and is already realized in many sections of today’s work in libraries. Till now, these services usually are individual projects without any central management.

The results from the expert interviews and the intensive literature review confirm that there will be two evolutional trends for libraries. On the one hand, the library will have to position itself as a social place. On the other hand, there will have to be more mobile “knowledge gas stations” which bring information to the patrons.

Using the information gathered from the interviews and the literature review, the authors present trends in modern information society and deduct requirements for Moving Libraries of the future. The first central issue of this thesis is hereby answered: “What are the requirements for Moving Libraries in the future?” The requirements were pointed out by the authors and concentrated primarily on three sections: It is essential for a library to become a “time saver for the library patrons”, have a “flexible and mobile collection management”, and consider itself as an “amenity place to stay in the physical library rooms with attractive opening hours”.

As a possible way of realizing some of these requirements for future Moving Libraries, the authors have presented the DBib concept and thus answer the second central issue: “How might a Moving Library of the future look like?”

Moving Libraries should not be considered as a single opportunity, comprehensive developments are required instead. Despite corresponding initiatives, not all innovations can take place simultaneously. Here, libraries must position themselves as a provider of innovative, mobile service. This way, they are able to enhance their image to a high extent by the promotion of innovative ideas and services.