



# Getting to Know Library Users' Needs — Experimental Ways to User-centred Library Innovation

**Karen Harbo**

ASB Library, Business and Social Sciences, Aarhus University,  
[har@asb.dk](mailto:har@asb.dk)

**Thomas Vibjerg Hansen**

Aalborg University Library,  
[tvh@aub.aau.dk](mailto:tvh@aub.aau.dk)

## Abstract

'Meeting the User' is a programme committee under the Danish Electronic Research Library. As a development group at a national level we see our role as facilitating an innovative culture within academic libraries, focusing on users' needs and the way libraries meet them.

In collaboration with a consultancy firm, the committee organized a travelling workshop in four cities in 2010. The workshop introduced practical ways for library staff to get to know their users' needs for services and was based on anthropological methods. The travelling workshop was part of a larger project called 'A Journey of Discovery in Danish Library User Land' (translated from Danish *Brugerkaravanen*), which also included a national thematic day, a blog and the publication of a method guide.

There is an ongoing need for academic libraries to improve their services. One strategy is to become more aware of the users' needs. On the one hand we have libraries which give access to a lot of information, offer courses in information literacy and strive to be a part of the learning environment. On the other hand we are not always certain of the needs of our users.

If libraries want to improve the way they serve their users' needs, they must innovate their services, facilities and courses by building upon what you could call 'user logic'

and not upon classical 'library logic'. 'User logic' is that which is meaningful for the user instead of what is traditionally meaningful for a library. Finding out what the users' needs are, requires methods to study the users. In order to discover the shortest route from knowledge via idea to action, we looked for methods that can be employed by librarians or library information specialists.

This article describes how 110 librarians and information specialists acquired such methods in four cities and in four days, by means of a workshop structured like a guided tour through the land of library users. The goal of the article is to give other libraries inspiration for ideas, concepts and concrete tools to study user behaviour and become more aware of the user's needs for service.

The article contains a description of the above-mentioned methods, valuable experiences from the workshop, a presentation of the concept and concrete tools, discussion of the concept of user logic and library services, and the seven principles for human-centred innovation in relation to libraries, a short list of studies carried out by librarians and discussion of further perspectives.

**Key Words:** user-centered innovation; user needs; library innovation; anthropological methods; user logic; Brugerkaravanen

## **Introduction to 'Meeting the User'**

The Danish Electronic Research Library (DEFF) is an organization which is co-funded by three Danish ministries: the Ministry of Science, Technology and Innovation; the Ministry of Education; and the Ministry of Culture. At the national level, DEFF collaborates with the institutions under the three ministries that co-fund DEFF, primarily libraries, academic institutions and secondary educational institutions. Internationally, DEFF collaborates with partners both in the Nordic region and the European region. The DEFF steering committee is responsible for DEFF's strategy and actual activities.

Four groups monitor DEFF's large domain of interest, which includes initiating projects (based on subsequent steering committee approval) and coordinating projects across the groups and with DEFF licenses. One of these groups, 'Meeting the User', worked as a development group at the national level from 2008 until 2011. The group's three main objectives were:

1. To facilitate an innovative culture within academic libraries focusing on users' needs and the way libraries meet them.
2. To initiate projects in the fields of information and knowledge creation, learning and communication at the junction between the physical and the virtual library environments.
3. To encourage sustainability of the project outcomes.

## **Innovation in Libraries**

There is an ongoing need for academic libraries to improve their services, if only because of the considerable amounts of resources spent on library services and the need to ensure value for money. Libraries must take strategic action in order ensure that the services offered are the services needed. One strategy is to become more aware of the users' needs for services. On the one hand we have libraries which give access to a lot of information, offer courses in information literacy and strive to be a part of the learning environment. On the other hand we are not always certain of the needs of our students, teachers and researchers. What is traditionally meaningful for the library is not necessarily meaningful for the library user. There is always a risk that what libraries regard as the right answers to user needs, may be answers to questions that were never raised users in the first place.

In addition, users' needs may change imperceptibly over time and libraries must constantly take such changes into account. For example, today's students may still need guidance in using the enormous amount of e-based literature, but at the same time they are, beyond dispute, advanced users of the latest information technology which library institutions, often conservative by nature, are only beginning to experiment with.

Offering services that are of no need to users is an expensive business. One ambition of the DEFF programme committee 'Meeting the user' was to challenge the state-of-the-art mindset of libraries and library staff by encouraging them to switch from what you could call classical 'library logic' to 'user logic'. Another ambition was that the new insights and knowledge gained by project participants could be transferred easily into their own library settings.

## **The Concept of User Logic and Library Services**

Does a particular service appear to be logical and natural to a *user*, or does it appear to be logical to the *library*? This is the simple test question we ask ourselves when we innovate our library services. The next question is whether it should be either, both or neither.

Libraries support researchers and students in their research and learning and it is our job to allow them to benefit from the library's access to materials and services. In other words it is about the library's front end services. The question arises whether these should be based on the library's perspective of proper use of resources or on the user's perspective? In our terms we talk about library logic vs. user logic. The latter is our focus area!

User logic is about meaning. Are our services meaningful to our users from the users' point of view or from that of our libraries? Do our services appear to be logic to the users? Do they match the way users work?

The concept of 'user logic' is related to professor emeritus Carol C. Kulthau's description of the user's perspective on information retrieval and the paradigm shift from source or bibliographic oriented services to process-oriented library service (Kulthau, 2004). Briefly, Kulthau distinguishes between searching for sources (source oriented paradigm or library logic) and seeking meaning (process oriented paradigm or user logic). Sometimes library logic and user logic match, sometimes they do not. We have to remember this when we innovate our libraries and library services. We must also remind ourselves that the context is crucial: the kind of educational institution, the types of students and their learning background, the types of researchers and their topics, the educational culture and traditions, the social culture, etc.

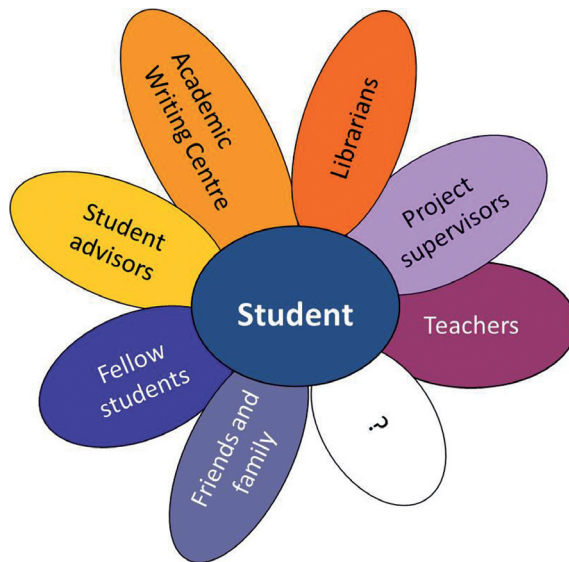
A user logic point of departure means that we place the user in the centre, not the library. We do not focus on introducing the library's collections, but we focus on helping the user along in his or her research or study process from a holistic point of view. The library's collections are part of the services we offer, but they are by no means the only services (Figures 1 and 2).

The classical library catalogue based on a classification system (e.g., UDK, Dewey) is a typical symbol of library logic. It forces the students and researchers to use the library in a particular way. Different libraries have different classification systems, even though they have the same kind of students!

Fig. 1: Library logic with the library in the centre.



Fig. 2: User logic with the user in the centre.



The concept of user logic contrasts with library logic. It is not a well-defined concept, rather a concept we use for critical awareness when we want to innovate library services. We ask ourselves whether we want to innovate services, support, access, teaching, counseling etc. according to library logic or user

logic. It is difficult to define a clear-cut rule about what is user logic and what is library logic. However, some symbols of library logic could be those shown in Figure 3:

Fig. 3:



Some examples of user logic test questions are:

1. Do you focus on the user's process or on the library's information resources in your library teaching, information counseling and other contacts with users?
2. Does your library reflect the users' needs, e.g., in terms of work spaces, facilities, access to materials, and resource or process-oriented help?
3. Do you understand how your users work or study?
4. Does the user require help to move along his studies or does the user need to know everything the library can offer?
5. Is the location of the service logical for the users? Should the services be available in the library where students and researchers work, or should they be available from the library web or another virtual place?

The methods, techniques and tools demonstrated in the project 'A Journey of Discovery in Danish Library User Land' help librarians to find answers to the above questions.

## **The Project 'A Journey of Discovery in Danish Library User Land'**

In 2010 the programme committee 'Meeting the User', in close cooperation with an Aarhus-based consultancy firm named 'Changepilot' (John Lassen and Rebekka Høy Biegel), decided to launch a large and experimental

development project on a national scale: A Journey of Discovery in Danish Library User Land. The expedition was termed *Brugerkaravanen* (which means: a caravan setting out for library users). The *Brugerkaravanen* consisted of 110 library employees from academic libraries covering different levels of educational institutions. In sixteen mini-buses they visited 32 locations where users live their personal and professional lives in the cities of Copenhagen, Aarhus, Odense and Aalborg (Figure 4).

In each of the cities meetings were arranged between the participants in the project and different categories of users. The project focused on four particular categories:

1. Master's students who already have completed higher education, are employed and have a demanding career.
2. Nursing students.
3. Exchange/international students.
4. Researchers in the field of arts and Humanities.

The consultancy firm 'Changepilot' that arranged the expedition to the four main cities of Denmark also arranged the meetings with these groups of users. In each city the participants were picked up in groups of eight by mini buses that took them to a 'base camp' for the tour of the day. By way of introduction the participants were shown a presentation about seven principles of human-centred innovation. After this they were introduced to qualitative methods and techniques inspired by the scientific fields of ethnography and anthropology: a set of user-centred tools for investigating users' needs. The presentations were intended as theoretical as well as practical background information to the programme of the day which included rides in minibuses to visit users that represented one of the above four categories.

The project had invited library staff to leave their (safe) libraries and go to where the users live, work, study, have coffee, listen to music, meet with friends and co-students. During these meetings with users in the field, the library staff were supported by expedition guides (employees from the consultancy firm). These helped the library staff apply the anthropological methods they had been introduced to, i.e., varied forms of interviews and observations. By interviewing and observing during the day, the library staff collected valuable data about the users. While collecting data they attempted to forget about libraries and classical 'library logic' and to focus on the people they

Fig. 4:



met, not only as library users, but as ordinary people, living ordinary lives and doing ordinary work and or studies. By the end of the day, the data collected were analyzed, categorized and presented at the project base camps — still under the skillful guidance of the expedition guides.



After the four individual expeditions had taken place in the cities of Copenhagen, Aarhus, Odense and Aalborg, a final conference was held in Aarhus, to draw conclusions about the insights gained; these were presented as *working questions* by the participants by the end of each expedition. Many library staff participated in both events, but the final conference also attracted new participants. The conference took the work one step further and by the end of the day a publication was launched to document the methods and tools presented as well as a web site which also offered the participants a virtual space, a blog, to share knowledge on the subject in the future.

### One participant of the Aarhus expedition shares her experiences

'Having signed up for the 2010 Journey of Discovery in Danish Library User Land in Aarhus, I had been told to meet in the hall of the central station at 9 o'clock. I had brought the little bright green suitcase that had been sent to me by the project, filled with items that had awoken my curiosity about the seminar on user-centred innovation which I was going to attend. While waiting I met other participants — easily recognized by the little bright green suitcases they all carried (Figure 5).

Fig. 5:



'At 9 o'clock we were met by people of the project. A row of minibuses displaying bright signs with the name of the project waited for us in front of the station and we were taken, in groups of eight, to a place nearby that turned out to be the base-camp of this day of expedition.

'At the base camp we had coffee and were welcomed by the managers of the project and introduced to the programme of the day (Figure 6). First we were introduced to the principles of human centred innovation and to a set of qual-

itative methods and techniques — various kinds of interviews and observations — all of which were inspired by the scientific field of ethnography and anthropology. After being divided into groups of eight we were introduced to our team-leader — who would lead us through the practical exercises of the day, an expedition to library user land (Figure 6).

Fig. 6:



'My group was to meet users from one of the four categories, i.e., master's students, and we were going to do research at their workplace and their home. Master's students are ambitious people who are studying to promote their careers, they often have a family and thus their days are full of duties. How do libraries create services that are meaningful to this category of students?

'The first stop was at the workplace of a financial advisor, who gave us a guided tour around his office. In this case we were told to use *the method of observation in work context*, to observe and take notes about the physical items and atmosphere of the office, and to take photos — if allowed —, and we were. After the guided tour we conducted a *basic interview* based on open questions and genuine curiosity and we got the opportunity to ask clarifying questions.

'The second stop was intended to be at the home of a media consultant, another master's student. But since he worked in Copenhagen most days of the week, it had not been possible to arrange such a meeting. Instead he had

been asked to provide a *photo diary* with pictures from his daily life and to write some text to each photo plus text that tied the photos together. After having examined the photo diary we did an interview with him in Copenhagen via mobile phone.

'Back at the base-camp we all had to *categorize* the data collected during observations and interviews (printed photos, video clips, observation notes, interview notes, and, in the case of taped interviews: transcripts, collected thoughts), by categorizing each segment under broader headlines. This phase was very crucial, we learned, as it is the careful preparation of data that lead to the final stage of the process: the *analysis*. Both phases should ideally be as broad and open as possible and conclusions not too easily and quickly drawn.

'When presenting our results, our group ended up by formulating three working questions, relevant for the creation of services for this category of users:

1. How do we relieve the master's students of their bad conscience?
2. How can libraries support talented employees to qualify for taking steps up the career ladder?
3. How can libraries work with information and services so that master's students' needs are met?

Fig. 7:



'These questions reflect the insights gained by actual meetings with the two master's students as ordinary people living ordinary lives — and not exclusively as library users.

'The Discovery Journey in Danish Library User Land thus gave me a range of concrete user-centred tools to choose from when I want to learn more about the needs of the users of my library. The methods and techniques are applicable in smaller as well as bigger library settings.' (Figure 7)

### **Other User-centred Tools**

The five other groups in the Aarhus expedition investigated users representing the three other categories and had the opportunity to try the other user-centred tools presented by the project.

#### Observations:

- Photo diary (described in text above)
- Observations in work context (described in text above)
- Think-aloud observations: library users are asked to solve certain problems while they think aloud during the execution of the assignment

#### Interviews:

- Basic interviews (described in text above)
- Value wheel: library users are interviewed in order to draw a picture of the extent to which their needs within a certain area are satisfied
- Interview at a location that means something to the user: library staff meet with library users on their home ground
- Small spontaneous interviews with users.
- Variations between interviews and observations:
- The meaning of physical surroundings: typical artifacts can be signs, boxes, furniture, doors, etc. — but may also include the way the light is set, the sound in a room and where it comes from, décor and much more
- Meaning of language — listening for metaphors: a useful tool to sharpen listening skills is to listen for the language. What are the terms and the metaphors used? Language tells a lot about the interviewed

or observed person's approach to the world (Harbo and Biegel, 2010, p. 22 ff).

## **Seven Principles of Human-centred Innovation in Relation to Libraries**

Many user investigations are carried out by using quantitative methods, collecting data through thoroughly designed questionnaires in order to get comparable data sets to analyze. However, quantitative investigations require big sets of data in order to be generally representative. Qualitative methods also require thorough preparation, but they can work with a smaller population of users, as qualitative methods do not claim generally representative results, but only results that are representative of the smaller categories of users actually investigated.

The methods used in this project belong to the latter category of user investigations, i.e., qualitative methods. Drawing on inspiration from the scientific field of ethnography and anthropology the project introduced the actual practicability of a set of abstract methods: a range of user-centred tools which could realistically be implemented even in small library environments — a criterion of success which had been defined by the project.

Teaming up with 'Changepilot' gave us a methodological basis for an open-minded, anthropological observing and listening approach. To make the approach practical in our everyday library work, 'Changepilot' formulated seven qualitative methodological principles about human-centred innovation which enable us to focus on user logic (Harbo and Biegel, 2010, p. 8 ff).

A short description:

1. Users run nothing  
We prefer to use the term 'human-centred innovation' instead of 'user-driven innovation'. For most people it is difficult to put new words to what they need. Instead we try to uncover what drives people, what they dream of and how they live their lives.

2. Remove the blinkers  
In areas where we basically are the experts (e.g., the library) our own knowledge may be the biggest obstacle that keeps us from seeing new angles. We must mentally remove our blinkers and put on new glasses to see things with new eyes.
3. Focus on the question  
When working on human development one of the pitfalls is that we begin to search for solutions at the same moment we see a challenge. It is important to focus on the questions and to refine the question or to find more questions in order to be sure that we have formulated a question which is important for the users.
4. Meet ordinary people  
We must meet and know ordinary people to find out what really matters to them to come up with exceptional solutions.
5. Focus on context  
The decision to go to the library is taken before the visit takes place and the value of the visit is realized afterwards in the user's everyday life. Therefore we need to focus on the whole context surrounding the visit, including what happens before and after the visit.
6. Improve people's lives  
We develop and innovate to improve people's lives. Nothing less!
7. Don't go to the zoo, go to the jungle  
Human-centred innovation is forcing us out there where we meet the user in his or her own element, not in ours!

What does that mean for the librarian at work? Librarians who like to be in control of a situation and find proper answers are challenged by the human-centred approach to be open-minded and truly observe the user in his or her needs. The seven principles give answers to how and why to use this approach. How: principle 2, 3, 4, 5 and 7. Why: principle 1 and 6.

Perhaps the librarian experiences methodological pressure when using this approach. In that case the librarian must ask herself what is practically possible within her working context. Every new insight is valuable and is good training for the librarian using anthropological methods. So the use of the seven principles is scalable in relation to the librarian's working conditions. It should be possible to accomplish human-centred innovation if

you are the only librarian in a small library or if you are a member of a team of librarians at a large university library.

At the same time living up to the seven principles keeps the 'anthropological librarian' on the right human-centred track.

'Users run nothing' means that the librarian should not only ask the user 'what do you need?', but observe and perhaps instead ask 'what is important for you?' in relation to the academic task, and in relation to the user's study life in general.

'Remove the blinkers' is very difficult for a librarian or any professional exploring his own area, but patience and not coming up with quick answers are ways to start seeing new things. A lot of our professional work is based on routine and common library knowledge, but trying to be a student or a researcher could provide us with new glasses.

In practice the librarian should dare to be an 'anthropologist' and go outside the library to follow a researcher or a group of students, e.g., by being introduced to the researcher's work process and teaching preparation, or by following study group meetings and courses, or lunch breaks by students.

'Focus on the question' is again a challenge to a librarian's need for control and the wish to give proper answers quickly. Normally a user will ask and the librarian will come up with an answer. Changing the roles will be difficult.

'Meet ordinary people' should not be a challenge to a librarian working with front end services. However, it is important to understand users not only as library users.

'Improve people's lives' could be specified as a university library's objective to improve not only education and research but also the lives of students and researchers.

'Don't go to the zoo, go to the jungle' means meeting the users on their home ground, where they work, study, have lunch and coffee breaks, live.

All in all human-centred innovation means a more proactive, process-oriented, observing and anthropological type of librarian who is ready to seek meaning and whose objective is to improve users' lives. The whole 'field trip to user land'-concept is a step towards giving librarians the competences to do that.

However, keep in mind that the concept can be implemented on a small scale as well as on a large scale, and that a pragmatic attitude is necessary.

## **Conclusions, Sustainability and Further Perspectives**

The DEFF project A Journey of Discovery in Danish Library User Land demonstrated concrete approaches and methods which in the future will make Danish librarians capable of perceiving library users in a new light. To perceive the library user as a person with a complex set of needs is very different from the way in which libraries have traditionally perceived their users. Complexity is here an important and meaningful element and insights in users' own understanding of their lives can contribute to radical changes in the way in which library services are presented.

However, the acknowledgement of the fact that the interpretation of users' behaviour is not necessarily the same as users' own interpretations is just as important. In this context the *user-driven* concept is substituted by the *user-centred* concept, which allows for inclusion of libraries' analysis of the field work. By implementing the range of user-centred tools presented by the project, libraries have a real possibility to start transforming the mindsets of librarians with regard to library users.

The project revealed completely new ways for us, library staff, to meet library users. We realized that in their lives (representing the user logic), libraries did not mean as much as we, library staff, think. Thus, the library staff participating in the expedition obtained new and valuable insights into the land of library users. The qualitative methods and techniques that they have been introduced to by the guides of the expedition have proven to be very useful and easily transferable when the staff returned to their own libraries.



### **Examples of New Ways of Librarians Meeting Library Users — Inspired by the Project**

- Observation of behaviour of patrons using a web application which tells them where a book should be placed in order to test if the application worked well in a certain context. The point was that saying is one thing, doing is another! This is why observation was preferred to interviewing.
- A small exploration of the understanding of the words 'community' and 'motivation' in relation to the question 'what does a good day of study look like'? University students at the Department of Social Sciences were asked this question by librarians using tools from 'A Field Trip to Library User Land'; they focused especially on the 'value wheel'.
- Another small investigation of the reason why some library users hesitate to ask the librarian/information counselor for help or, alternatively, started the conversation with 'I am sorry to disturb you'. Library staff were worried that they looked too busy, unfriendly or unapproachable. They observed library users and during one day they interviewed library users who started their approach with 'I am sorry to disturb'. Seven small interviews were done.
- A library team wanted to explore the concept of service by observing staff and customer interactions and by interviewing people using vox pop at 1) a combined swimming pool and library, 2) a shopping mall, 3) outside a tea and coffee shop, 4) a department store, 5) a MacDonald's, and 6) Ikea. What should their library service look like?
- Observations of library users combined with questionnaires sent to 180 students asking them whether the library should keep the collection of reference books or replace it with magazines about art, literature and music.

### **Further Perspectives**

Do we always want a library to be based on user logic (process oriented) innovation? We think it will make a lot of sense considering the fact that library services are targeted at users. Examples are the library catalogue, the

classification system, the design of the library, the position of meetings point, information counseling services, etc.

We should also ask ourselves in which situations we prefer library logic (product oriented) innovation. In some cases, it is necessary to get a specific message through, e.g., how to navigate in a specific database.

According to the situation, either orientation can attribute to improve library users' lives.

Every librarian should be able to implement human-centred innovation in her library. The challenge for us is to further a human-centred innovation culture among librarians and to spread the word that it can be done in many different shapes and sizes. In our pragmatic understanding it is better to focus on the outcome than necessarily having one hundred per cent scientifically based evidence. If we succeed, we believe libraries and librarians will become flexible in adjusting to their users' needs.

With the easy access to information through, e.g., Google, Wikipedia and other websites the users' need for libraries providing access to information is perhaps decreasing. On the other hand the need of information counseling is increasing as access to enormous quantities of information resources requires information-literate users. Information counseling of users requires understanding of the context in which the users find themselves. The counseling librarian needs to know as much about the users' way of working, studying and living, as he or she knows about running a library in an efficient way.

One way of getting to know the users' needs is by applying the methods and techniques demonstrated in the project 'A Journey of Discovery in Danish Library User Land'. We recommend that a shift of focus from library logic to user logic be discussed in library environments as well as at academies of library and information science.

The project 'A Journey of Discovery in Danish Library User Land', its workshop concept, its how-to-do-manual containing concrete tools, and its website to share experiences and discussions, give us a practical fundament. Now it is up to us to do it!

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Deff — Denmark's Electronic Research Library and Change pilot

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