



Theme: The Internet, Libraries and the Changing Information Behaviour: Perspectives for Research and Education

Predictable and Unpredictable Patterns: Adoption, Avoidance and Alteration in Danish Research Libraries

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Abstract

It is often assumed that improved access to Internet resources is likely to affect user information behaviour in predictable ways. Thus, the access to online resources in Danish research libraries has caused a significant, but expected, increase in downloads through the last 2-3 years. In general the growth from 2002 to 2005 was 318 percent. The distribution between loans of printed materials – books and articles - and downloads has also been radically changed. It seems that downloans are going to substitute the loan of physical materials. These mechanisms were likely to happen. However, it was also expected that the exploded demand for electronic articles would also work through concerning e-books. However, towards other e-media - such as e-books - users have, in general, reacted far more hesitant than expected. It was also expected that improved electronic access to library resources would influence the use of other library services, for example, the number of physical visits. Indeed, from 2004 to 2005 the number of visits fell by 2,9 percent. In some cases, the user reactions seem to been rather unexpected. One example is the use of the reading room facilities of larger research libraries. In spite of most students having access to a variety of electronic resources from home address Internet connections, use of library reading rooms have been increased during the last years. Many larger research libraries now experience that reading room facilities are utilized the whole day and apparently much more than in the '70es and '80es. What kind of sociological or cultural mechanism are available to explain such an rather unexpected pattern. Indeed, it seems reasonable to make a distinction between three types of user information behaviour changes influenced by the availability of net resources. One is adoption, illustrated by increased use of downloans. Another is avoidance, where users seem to avoid certain library e-resources such as e-books. Finally, we have alteration which is the most unpredictable pattern since users seem to react in an unexpected way towards more easy access to information resources. Here, the apparent popularity of traditional library reading rooms could be an illustrative example.

Introduction

The aim of the paper is to investigate and compare patterns and discuss various explanations in Danish main research libraries based on published evidence. An interesting perspective could here be to discuss to what extent the apparently intensified use of reading rooms is limited to certain countries, subjects or environments? What cognitive, social or cultural needs and preferences could explain why students prefers reading rooms? To what extent and how can library education and research deal with especially the unexpected changes of information behaviour? There are examples of questions to be addressed by the paper.

Innovation, service delivery and user response

As the following examples will show, not all our assumptions about user needs and preferences are based on observations and collected data. Often, prejudices about IT use and preferences influence our judgment and, consequently, our decisions on innovation and service delivery. One typical error is to underestimate the strengths of traditional media, for example, books, compared to electronic versions. Another, is to make psychological interpretations based on simplified models. If you assume that convenience is a primary driving force you are likely to underestimate the power of, for example, human social needs. The following Danish research library cases, aim to challenge existing basic assumption and also to demonstrate that it is necessary for library managers, leaders and staff to re-examine and rethink their assumptions about user needs and preferences.

Downloads

One recent significant innovation in Danish research libraries, was the introduction of free downloads, primary from electronic journals. The service was, besides new technological devices, also made possible by formal agreements between Danish main research libraries and library authorities and publishers of academic journals . The response of the users, towards this innovative service delivery has been impressive. From 2002 to 2005, the increase of downloads in Danish research libraries was 318 percent. Such successful growth rates could easily be explained by obvious service improvements: a radical reduction of waiting times and queues followed by permanent access to the demanded journal article. Another benefit, was the easy access to the needed information: it was no longer necessary to move from ones study place to the library, since the needed article could be delivered to an office or even a home address. Based on a success like that, there were, obviously, opportunities for further innovations and new service deliveries.

E-books

One natural idea, was to broaden the media coverage from journal articles to books. Videofiles and podcasts are still not the most obvious in the research and study environment of the research libraries.. But e-books were. It was believed, that the driving forces explaining the success of downloads would also be relevant concerning e-books. The need for easy and fast access to text books , readers and monographs and the opportunity to avoid troublesome and time-consuming library visits would surely ensure e-books a success similar to downloads

of journal articles. However, the breakthrough is yet to be awaited. In both research and public libraries in Denmark, e-books have not activated much user interest. Why? Researchers and students, at least within the humanities and the social sciences, are still heavy users of monographs and other books. One obvious explanation refers to the marketing theory and product offering concepts about market growth and market share. Adherents are often likely to define e-books in libraries as a being in a provisional take-off situation. In an Internet context, it is obvious here, to refer to alleged parallel cases, such as charts of internet users from 1996 and onwards, the exponential growth of Danish blogs from 2004 to 2007, the recent developments of e-commerce, etc. For example, in July 2005, there were less than 5.000 Danish bloggers, today (April 2007) the number is about 40.000. Other observers admit that the e-book technology has not been fully developed to provide an attractive alternative to traditional printed books. The most obvious conclusion, to be derived from such preliminary data is that it is risky to generalise and deduce use patterns from one media to another without a thorough analysis of the characteristics and the context in which the use takes place.

Obviously, in an academic context it makes a considerable difference whether the text to be dealt with is a journal article about 20 pages or a monograph of 300 pages or more. This elementary learning, however, does not always seem to have had a significant impact on the sayings of library and knowledge society futurologists. Finally, one more comment should be added. In modern management thinking on innovation and change, the satisfaction of perceived needs of users, are not always the ultimate goal. In contrast, achievement of “exciting quality” which means that the provider surprises his customers by delivering offerings exceeding their expectations demands more pro-active attitudes towards innovation and service development. Indeed, hesitant users towards innovative offerings can be interpreted as a proof that the library leader or manager has bold visions and future oriented plans.

Reading rooms

My final case, concerns the use of reading rooms in the main Danish research libraries situated in cities with universities. Although the reading rooms have been changed since the 1970es, for example, by offering wireless access to the Internet and to other library resources. However, in many respects the concept is unchanged. You arrive to the physical reading room bringing with you books, notes, and your own PC. Then you work there and, finally, you return to your home or to a place downtown. Some research libraries also provide convenient spaces for group work, discussions, or symposia, but the quiet reading room where the students individually conduct their studies is an important service delivered by Danish research libraries. Furthermore, what is interesting is that library managers and staff have observed significant changes in the behaviour of the users. Although there is no documented data on the use reading rooms since the 1970es covering all Danish research libraries, managers and leaders agree that usage has increased since the 1970es and especially after the arrival of the Internet. Also use patterns seem to have been changed. Thus, students today, arrive precisely by the opening hours and leave at closing time. What we can observe today is thus, paradoxically, an industrial age pattern, the eight-hour working day, within an essentially knowledge society institution, the research library.

According to some management gurus and futurologists of the 1980es this pattern is rather unexpected. In the 1980es, trendy John Naisbitt predicted - in his once famous book

Megatrends - a golden age of distance and home-work where successful consultants and managers could enjoy the dramatic peaks of the Rocky Mountains and at the same time be up to date and network with customers and colleagues around the world. Physical distance seemed to have lost its importance. Also in the library world, the Naisbitts had many followers. However how can we explain what had really happened? One way could be to try to falsify some basic assumption. One, we would here name, the either/or failure. In short, it states, that if you are a heavy user of IT you are likely to drop other things. For example, if you use Google as a student you are likely to diminish your use of library resources, and if you use the Internet frequently you will probably neglect books and ordinary social contacts.

Research results (Pors, Castells, 2001) have documented the weakness of such assumptions. There is no reason to believe, that the existence of the Internet in itself would imply a reduced interest in other media and social contact. Indeed, research seem to indicate that internet users are as much involved in social networking including meeting with friends than non-users (Castells, 2001, chapter 4). Furthermore, dialectic forces should also be considered. Thus, the Second World and virtual reality oriented and stereotype computer nerd like performance on the Internet, could even stimulate traditional, face-to-face interaction with colleagues and fellow-students. Also cultural changes might contribute to explain why Danish students of today apparently prefer physical reading rooms to virtual home-based ones. In the 1970es, it was a widespread belief that conformity was an attractive goal. Equality between man and woman was a issue focused on. But also the equal importance of everyday life and festive occasions and work and leisure time was emphasised. This specific ideology could be illustrated by numerous examples. In the present case, it seems sufficient to point out the ambivalent role of the distinction between work and leisure time in the 1970es. On the one hand, membership of a workplace was emphasised for both men and women. On the other hand, it was believed that the distinction between work and leisure time was an unfavourable feature of modern capitalism. A lifting of the distinction between work and leisure was therefore by some considered an attractive goal. My point is here, that this perception may have survived among the generation now influencing Danish research libraries, although it seems as if the younger generations think quite different among others about the distinction between work and leisure time. Apparently, they prefer a clear distinction.

Discussions

This paper has discussed a number of existing assumptions about the Internet and its effect on library innovations, service delivery and user response. Three main research library cases have been discussed. In the first, downloads, statistical fact seem to prove that users have adopted and utilised fully the new services offered. Furthermore, this pattern does not seem to have surprised the libraries. Therefore, it can serve as an example of an expected pattern. The second case, concerns e-books. Here, the user response is characterised more or less by non use. The user response, here, might be characterised as avoidance. Probably, this response is rather unexpected since e-based services normally are demanded. At least, in public library contexts, it was believed that the introduction of e-books would be more successful than it showed up to be.

Finally, the last case, reading room use, is an example of an unexpected success. However, the unexpected user preferences have caused an alteration of the priorities of the research libraries.

Could - or should - the libraries have been able to foresee the three different patterns, adoption, avoidance, and alteration revealed above ? What went wrong?

Obviously, it is most easy to start with the last question. If we start with steps in a classical problem solving cycle, the errors are apparently not associated with the collection and registration of data. Traditional user studies, seldom provide reliable answer on the reception of hypothetical new services . Apparently, we are here dealing with a classical “what- if” type of problem. Ranked as to complexity, downloads and e-books certainly represents the most simple problems. If the library introduces a new service, what will probably happen? In both cases, a traditional physical offering is transformed into a electronic service. In both cases, too, more easy access to needed study materials is a likely outcome of the new service. Why then, the striking difference in the response of the users ? The reason could probably be found in differences in information behaviour associated with the two media, journal articles and books. Due to its size, but also different use patterns, comprehensive, printed textbooks are more difficult to substitute than relatively short articles from scientific journals. The different use patterns associated with articles and books for study purposes were certainly already known by library staff and managers. However, it was not known to what extent a new service were likely to change an already existing pattern or whether, in the near future, a change would actually take place. There are a number of examples from many industries of various lengths of take off phases concerning new services and products.

As already mentioned, the reading room case, seems to be the most complex. Although, modern library reading rooms, typically, includes wireless internet access for mobile PCs basically library reading rooms are very traditional associated with the 19th century or even earlier. Furthermore, it was expected by many that online access to library resources from your home address would influence the incentive to visit a distant library. Already, John Naisbitt, in his famous book from 1982, *Megatrends*, foresaw a shift from centralisation to decentralisation influencing ,among others, peoples habitation patterns. Although, Naisbitt also recognised the social needs and never predicted the dominance of distance work, he firmly believed in the breakdown of centralised structures. Furthermore, when he wrote his book, the Internet had not yet showed up its potentials. Thus, it was not likely to believe in a significant increase and intensified use of library reading rooms. Contributing to that, should also be mentioned generation specific idiosyncracies and related prejudices. If we assume an average age of Danish research library managers and leaders of about 50 to 55, there were in broad circles an outspread belief that an ideal was to integrate work and leisure time as much as possible. According, to today’s student users of research library reading rooms, preferences seem nearly opposite. Instead of integrating work and leisure time, they apparently prefer to have them not separated, not only in time but also in space. To such a purpose, daily visits to a library reading room, from 8AM to 4 PM fits well. Of course, other explanations of the popularity among students of library reading rooms could be enumerated. For example, it is likely, that certain social needs, not directly related to study purposes, could play a role also. What can then be done to remove or at least limit mistaken predictions? In the three cases mentioned, the answer certainly not lies in application of more sophisticated statistical tools.

Rather, the errors are associated with judgment and interpretation procedures. One obvious weakness is certainly associated with personal idiosyncracies. What makes sense for me, and for my generation, are likely also to be valid for others. On the other hand, it is not possible to assume that the preferences of others necessarily should be the opposite as ones own.

Probably, the main challenge is then, at least, not to find the eternal truth but rather to avoid errors – an aim associated with the ideas of Karl Popper and his famous principle of falsification. Especially difficult and thereby also challenging, are the contexts where culturally defined basic assumptions are involved. We have already discussed the problems of opposite views of the basic dimensions of life, such as work and leisure. Another relevant example could be the interpretation of the wider consequences of intensified computer and internet use. Does intensive use of Google and the Internet, necessarily lead to diminished use of library resources and reduced ordinary social contact? In fact, traditional modes of thinking and common prejudices seem to confirm such a point of view. However, research results indicate that intensive student users of Google are even more likely to use library resources than their fellow students. Indeed, Pors' analysis of students using Google for study purposes has revealed interesting results. The most important was that heavy Google users could be divided into two groups. Members of the one of group, approximately 60 per cent of the students, had the important characteristic that they also used the formal library resources and the physical library to a great extent. Thus, there seems to exist a "strong and positive correlation" between Google use and library use in the widest sense. (Pors, 2006). In the same way, other research results (Castells) suggest that use above average of computers and the Internet does not necessarily lead to neglect of traditional social contacts and friends as sometimes believed. On the contrary, there is empirical evidence to support that the most busy internet users are also above the average concerning traditional social contacts and friendship. A number of techniques have already been developed within management and problem-solving to avoid the above mentioned traps and errors. Typical tools and procedures are likely to focus on concepts such as "group thinking," "blind spots," "unconscious basic assumptions" and the like. A complementary approach could be to be more tolerant towards errors. Indeed, many management authors have substituted 1980s culture of zero error performance with more innovation friendly attitudes towards experiments and risks of mistakes. A problem is here, that in many cases the degrees of freedom to make experiments are limited. For example, should space for reading rooms preferably be planned beforehand. Finally, I will address what can be done to prepare future librarians for the barriers and pitfalls associated with predictions on future user needs and preferences.

Consequences for Research and Education

Typically, skills concerning user surveys and interpretation of user studies are delivered either as separate research methodology courses or integrated in courses on library and information science. At the Danish School of Library and Information Science, for example, research methodology including qualitative and quantitative methods at the bachelor level is taught within a separate course of 60 lessons whereas user study methodology is an integrated part of the curriculum at the master level. In 2005, a report, *European Curriculum Reflections on Library and Information Science Education*, was published by The Royal School of Library and Information Science in Copenhagen and supported by the European Community and the Socrates Programme. The report contains many interesting contributions on recent and pertinent subjects such as digitization of Cultural Heritage, information literacy, information retrieval, knowledge management, knowledge organisation, library history, the library in the multi-cultural society, library management, etc. However, the subject concerning application of social science research and evaluation principles and techniques as an element of a LIS curriculum is not emphasised or even dealt with in abovementioned report. Would a be a

reliable road to prepare students to take hands of their own “blind spots” and unconscious mental models, to prioritise quantitative and qualitative research method skills in the LIS curriculum and how? Appropriate skills in test and interpretation of quantitative and qualitative data could certainly improve the students ability to identify cultural shifts and other anomalies. Probably, discourse analysis would also be able to help identifying new trends and preferences. The actual focus on sense-making as a scientific principle and as an alternative to rational problem-solving and decision-making, on the other hand, appears more questionable. The question is obviously whether sense-making is a part of the solution or a part of the problem. This basic question can't and should not be solved here. What is important to emphasise here, is that the professional challenges associated with understanding user needs and preferences today requires a clear focus not only on the analytical skills of the students but also on their ability to critically reflect on both data and ones own interpretations and understandings.

Literature

Castells, Manuel. 2001. *The Internet Galaxy – Reflections on the Internet, Business, and Society*. Oxfor University Press.

Kajberg, Leif & Leif Lørring (eds.). 2005. *European Curriculum Reflections on Library and Information Science Education*. Copenhagen: The Royal School of Library and Information Science.

Naisbitt, John. 1982. *Megatrends*. New York: Warner Books

Pors, Niels Ole. 2006. The public library and students' information needs. In: *New Library World*, Vol. 107 No. 1226/1227, pp. 275-285.