

FinELib electronic resources - Broad-based user research:

Scientific e-resources have made life easier for researcher workers

The ninth user questionnaire on the electronic resources provided by FinELib, the National Electronic Library, was conducted in April 2007. Customers at university, polytechnic and public libraries, and those at research institute and specialist libraries belonging to the FinELib consortium were asked a number of questions including how much they used the e-resources and how satisfied they were with them. The answers show that in many cases, the use of electronic resources has improved the availability of the resources and increased their accessibility considerably.

The staff at organisations belonging to the FinELib consortium, researchers, students and other library customers were asked about the amount that e-journals, e-books, databases and other electronic resources were used and how satisfied people were with the resources. The questionnaire also yielded information on customers' suggestions for new acquisitions, problems associated with the resources, the usability of the resources and how much the national information retrieval portal (Nelli) was used.

The questions were drawn up in collaboration with Professor Pertti Vakkari and Professor Sanna Talja of the Department of Information Studies at the University of Tampere and Professor Carol Tenopir of the University of Tennessee. This has made it possible to compare the information obtained with user research on e-resources conducted abroad.

In previous years, the questionnaire has been restricted to material acquired through the FinELib consortium, but the latest questionnaire covers all the electronic resources that are available. This year, the questionnaire was extended to cover customers at public libraries. The online questionnaire form was published in Finnish, Swedish and English.

The questionnaire, which was open for response for a month, brought a record number of replies, more than 5,000 in all. Most responses came from polytechnics

(2,154), and universities (1,882). The responses from research institutes remained low by comparison (611), as did the responses from public libraries (926).

Roughly half the university respondents were students and a quarter were research and teaching staff. Most of the respondents at polytechnics were students, whereas at research institutes they were mainly researchers, but only a quarter of the 38 research institutes took an active part in the questionnaire. Respondents at public libraries were mainly those with university education and a quarter of them were students.

Responses from universities came mostly from the field of economics, from polytechnics they came from the fields of social studies, health studies and sport, while research institute responses were mostly from natural scientists and the technical sector. Apart from a few minor exceptions, the university and polytechnic samples are fairly representative. On the other hand, the sample from research institutes and public libraries was so small that it cannot be considered to be fully representative.

E-resources are part of everyday work for researchers

The questionnaire was conducted solely in online form so that respondents were primarily the sort of people who are familiar with online services and who use electronic resources. Over the years, the use of electronic resources has increased in the universities. At present, about 50% of the university respondents use mainly electronic resources in their work, whereas the corresponding figure for 2000 was 20%. At polytechnics, the use of electronic resources has not gained ground significantly over the last few years and printed material is still the principal source of information. More electronic course material is needed, however. There is no equivalent information on research institutes and public libraries that could be used for comparison.

If the use of e-resources is compared with the use of printed material for all respondents, the proportion of e-resources used by respondents at research institutes is the highest, in fact over 60% of respondents at research institutes use mostly e-resources. About half the university respondents and about a quarter of the polytechnic respondents mainly use electronic resources in their work and study. E-resources are clearly used least at public libraries.

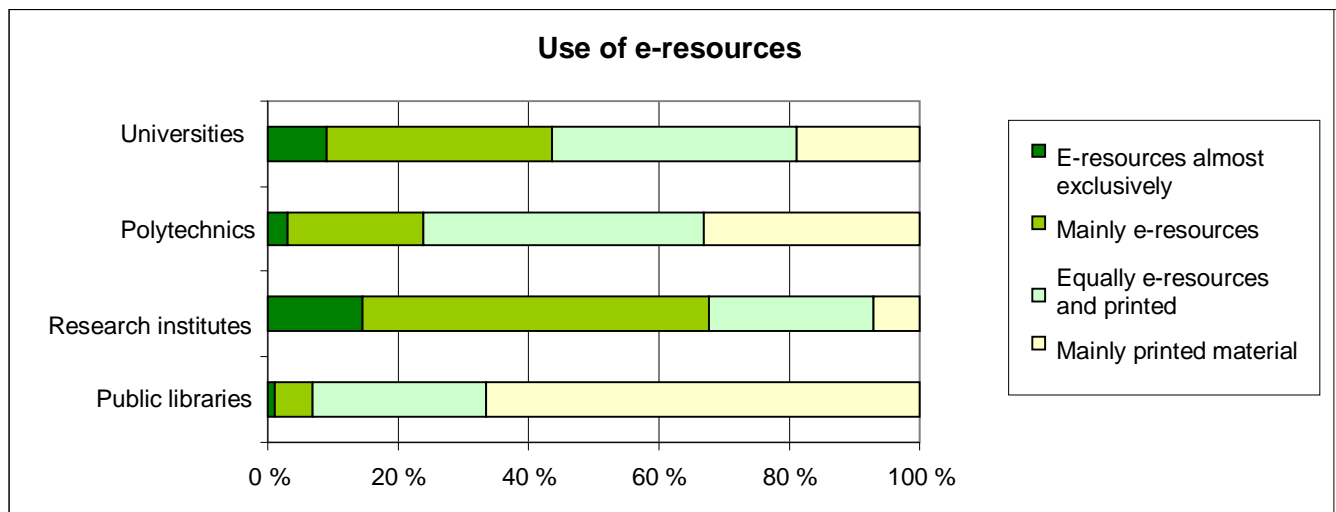


Figure 1. Electronic resources as a percentage of all the material used for work/study

Because the resources provided by the polytechnic and research institute libraries that come within the scope of the questionnaire are mainly scientific, people doing research use them most. There is a significant difference between the electronic resources used by researchers and students. Some 50-70% of researchers use solely or mainly e-resources, while the figure for students is 20-35%. University students use electronic resources more than polytechnic students. There is less of a difference between researchers working at research institutes and those at universities in the amount they use e-resources.

The amount e-resources are used varies from one scientific discipline to another. Natural scientists and the medical profession use e-resources most, while those working in the humanities and social sciences use them least. However, the amount of use by those in the humanities and social sciences has grown over the last few years. In 2000, 60% of those in the humanities field and 50% of those in the social sciences used mainly printed materials. This year, only about 35% of those in the humanities and less than 10% of those in the social sciences said they used mainly printed materials. FinELib's centralised acquisitions of e-resources have used special funding to focus particularly on resources used in the fields of the humanities and social sciences, and this may in part account for the growth in the amount of use.

Electronic resources are still used relatively little in public libraries. Almost 70% of respondents said they mainly used printed materials. Apart from work and study, e-

resources are also used for hobbies and spare-time activities. There are still rather few e-resources on offer of the type needed by public library users and this naturally affects the amount of use.

Dictionaries, reference books and journals in electronic form, books in printed form

Dictionaries, reference books, reference databases and journals are the most used electronic resources in all sectors. At universities and research institutes, about half the respondents use e-journals and dictionaries, a third use reference databases and one fifth use reference books several times a week at least. In polytechnics, about one third and in public libraries about 10% use electronic dictionaries several times a week at least.

A majority of the respondents would be happy to give up printed dictionaries and reference books. The majority of respondents at universities and research institutes would also be happy to give up printed journals. The desire to give up printed materials has increased not only in universities and polytechnics, but also in research institutes over the last few years.

On the other hand, there is little use of electronic books. At universities, polytechnics and research institutes, about 20-30% do not use e-books at all, and at public libraries, the figure is over 60%. The printed book is considered almost irreplaceable as a proper user interface and no sector would be willing to give it up.

Plenty of e-resources available, but more are required

Most of the respondents were happy with the electronic resources available. At universities and research institutes, the resources on offer were also considered to be more comprehensive, and over half the respondents at such places considered availability to be 'good' at least, and thought that the resources on offer covered at least 60% of the resources they needed.

The results show clear differences between scientific disciplines in the way people viewed comprehensiveness. For example, almost half of those connected with the medical profession at universities felt that the resources covered over 80% of their

needs. On the other hand, those working in the humanities see the resources as less comprehensive, with only 5% of them of the opinion that the resources covered over 80% of their needs and almost 40% of them taking the view that e-resources cover less than 20% of their needs.

Respondents at polytechnics and public libraries thought the e-resources available to them were less satisfactory than did respondents at universities and research institutes. Over 70% of respondents at polytechnics were of the opinion that the resources covered less than 60% of their needs. About a third feel that the resources meet less than 20% of their needs. In public libraries, the situation is even worse, with about half the respondents feeling that the resources on offer cover less than 20% of their needs.

Although there are plenty of resources available, the collections still do not meet users' information needs in every respect and it is thought desirable to acquire more electronic resources. Dictionaries, glossaries and encyclopaedias are wanted in every sector. Many people would like to see more electronic university publications and Finnish e-journals. The most desired resources at universities and research institutes are foreign scientific journals. Students want to have their course books in electronic form, and top of the list for public library customers are online versions of newspapers and periodicals.

Electronic resources make life easier for research workers

The questionnaire established how the use of electronic resources affected research, and the work and study of respondents in the university sector. Respondents were asked to assess the importance of various alternatives, or whether they had any effect at all, on the basis of the classification used by Professor Carol Tenopir. Respondents were also given the opportunity to comment freely on the question of the influence of the use of e-resources.

E-resources were deemed to have a significant impact particularly at universities and research institutes. Most of the respondents at universities and research institutes were of the opinion that e-resources had made it considerably easier to find and obtain the material they need in their work and to keep up with developments in their own field. For many respondents, e-resources have improved the resources available and saved considerable amounts of working time. Many researchers were of the

opinion that e-resources have also improved the quality of their work and promoted new ideas.

Many of the respondents at polytechnics experienced similar effects, but they were not deemed to be of such importance as at universities and research institutes.

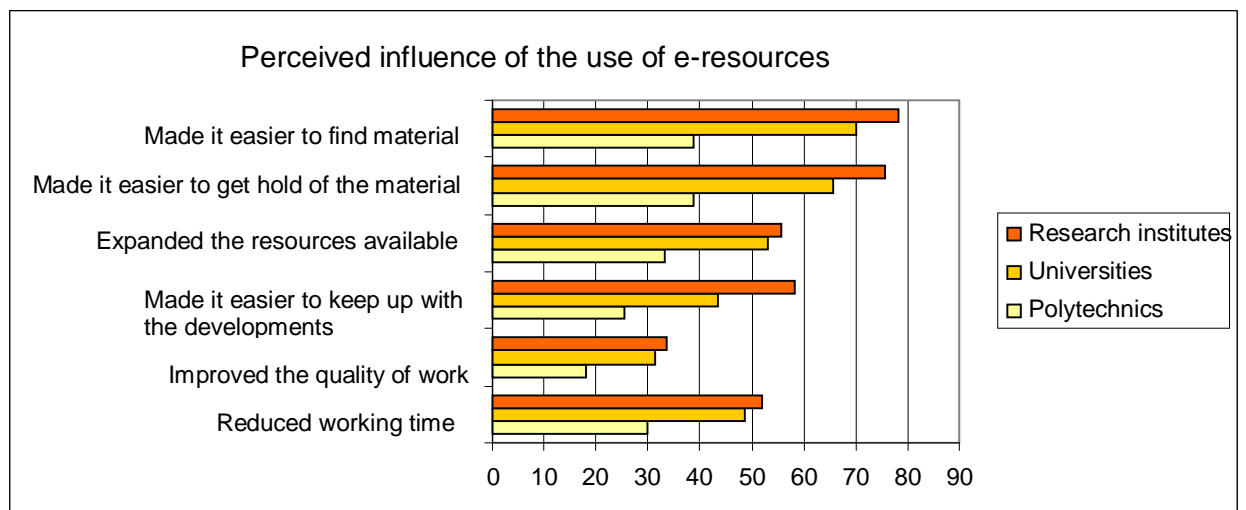


Figure 2. Perceived considerable impacts of e-resources

Respondents thought that e-resources had improved the extent of the resources available, made them available in more languages, and made them more up to date. Many respondents took the view that electronic resources had increased equality among researchers and made it easier for researchers to communicate with each other.

Although those working in the humanities used e-resources rather little, they have changed research methods in research in the humanities. Electronic resources have made it possible to get access to the resources from a remote distance and this enables researchers in Finland to study rare material abroad. Students especially liked electronic course books, which have improved the availability of textbooks.

Challenges associated with e-resources

One of the biggest drawbacks to the use of electronic resources is considered to be the various problems associated with reading from the screen. Using the computer too much, particularly with a poor working position, results in shoulder pains, tired eyes and so on. Lengthy resources, such as books, are particularly difficult to read on screen and printing them out is not considered to be a particularly sound alternative, either. Technological development has clearly still not made it sufficiently easy and pleasant to read electronic resources.

The incomplete data on the electronic resources available and poor user skills are considered to be limiting factors on the use of the resources. The growing volume of material has an ever-increasing impact on information searches and some of the material is lost in the flood of information. Ease of finding and availability also cause problems. Many respondents thought that by using only material that is easily obtainable in electronic form, relevant printed information may not be found at all and the viewpoint of the research may even be distorted.

Respondents want more information on e-resources and more training in their use. Public library customers in particular thought there was little information about e-resources, but it is a challenge to reach the large and diverse clientele of a public library. However, online information bulletins would seem to have an important role in disseminating information about e-resources, as most of the respondents in all sectors had obtained information on the e-resources available from the libraries' own websites.

Training needs put forward by respondents varied considerably. Some were looking for basic training, but many also pointed out that what with their busy working schedules, there was no time left for long-term training, so that shorter information bursts were required. Students wanted training in the use of e-resources to be part of their studies and carried out at the appropriate stage. Skills taught in the first year are not necessarily remembered when the time comes to commence work on a thesis or dissertation. Many respondents wanted an introduction to the resources available and training in information searches. At universities and research institutes there also seems to be a demand for training related to each particular scientific discipline.

Ten years of acquiring e-resources

FinELib has been acquiring e-resources on a centralised basis for its member organisations for ten years now. The organisations belonging to the consortium have also acquired e-resources in other ways. Hundreds of databases and thousands of e-journals and e-books have been obtained for the use of customers. The e-resources user questionnaire shows that along with the increase in the e-resources available, satisfaction with the material has grown. The use of e-resources has also affected researchers' methods of work in particular, by increasing the availability and usability of the material.

As the amount of electronic resources available is fairly extensive, customers need more and more information on the e-resources available and more and more training in how to use them. The growing importance of disseminating information to customers and resources training also affects the work of librarians and information specialists. It emerged in the responses to the questionnaire that respondents wanted resources training to be better linked to the study process, for example. Individual, tailored information briefings on e-resources and training to serve the needs of various users are a future challenge for libraries.