

## **Rational Development of Information Services A University Leader's Perspective**

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In this presentation I intend to discuss university libraries from a consumer's or client's perspective, but also from the point of view of a University administrator. As head of the university, I am responsible for allocating the overall university financial resources to a range of activities that present many competing demands.

The question that was posed to me was: 'How do we get the best return on university investments in information and optimise services to researchers, students and the public?' This, obviously, is an impossible question to answer, and therefore I have translated it into a somewhat more approachable form: 'Rational development of information services', because we would naturally like to move ahead in a rational way. Therefore, I should like to talk about information services rather than libraries, because libraries are not an end as such for universities, whereas information services are.

### **The University and the National Library – the special case of Helsinki**

At the outset, I should mention that the situation in Finland and the University of Helsinki is somewhat different from that in most other countries and universities. This has to do with the historical background. Here, in a nutshell, is the history.

The University of Helsinki was established in 1640 in the city of Turku by Queen Christina of Sweden, our ruler at that time. Unfortunately, Turku was destroyed by a fire in 1827. The next year the Czar of Russia, who had become our Emperor in 1809, decided to move the University from Turku to Helsinki, which was a bit further away from the old capital, Stockholm.

After the University was moved, the main building and the main library building were designed by the same architect and simultaneously completed four years later. From those days on, the University and the Library have been intimately associated with each other functionally and located next to each other physically.

Up until 1918, the University of Helsinki was the only university in the country, and early in the 19<sup>th</sup> century the University Library achieved the position of National Library. This meant that of all printed publications in the country, copies had to be deposited in the University Library, that is the National Library. This is the reason why we have the best collection of Slavonic literature outside of Russia. There is still today an intimate connection between the University of Helsinki library activities and functions usually ascribed to a National Library.

In recent years, the National Library has been assigned a number of coordinating duties that concern all the 20 universities in Finland. For example, it maintains a computerised catalogue of all

holdings in all their libraries so, in that sense, scientific libraries in Finland are coordinated by the National Library. Also, the same software, the Voyager system, is being used by all scientific libraries in Finland under the supervision of the National Library. We have a National Electronic Library, called FinELib, which handles the centralised purchasing of licences for electronic publications. It is also coordinated by the National Library. The National Virtual University Consortium that includes all the Universities in the country works in close connection with the University Library. Furthermore, there is an extensive digitization programme of what we call the 'National Cultural Heritage'. This means digitising a lot of books, maps and other material. Again, this is the responsibility of the National Library. All these activities are centrally funded by the Ministry of Education. Thus we can say that there is a great extent of national coordination already. This is desirable from the point of view of the universities, because the Ministry takes the money from the overall university budget and we do not have to argue with the other universities about the share each institution should pay for the services that they get out of these coordinated efforts. The funds come earmarked for the purposes which, so far, we have found quite beneficial.

From the point of view of the University of Helsinki, it would be better to separate the functions of the National Library more clearly from the University of Helsinki Library operations. Each civilized country really needs a National Library, which should not be financially tied to any single University, and we are currently negotiating a budgetary separation of the National Library from the University of Helsinki Library. But as far as the functions go, we would like them to continue in the coordinated way that I have described.

### **Interests of library users**

In thinking about the future of information services in the University of Helsinki, we have developed a vision where we want to go with our libraries. In our current strategy this is formulated so that we want to provide every member of the university community with access to modern, high quality information services and resources, both printed and electronic, tailored into adaptable and user-friendly packages.

Another way of putting this is to bring information resources to the desk of the researcher, the teacher, and the student. Given these lofty aims, we have to consider what interests each of the users of our information systems might have. The **researcher**, who is planning projects and reporting results, needs access to up-to-date literature in order to avoid duplication of efforts and waste of money. My experience from the biomedical field is that, unfortunately, the attention span of today's researchers does not reach very far back. This may partly be due to the fact that only recent literature is electronically available. One frequently finds reports on current research that actually duplicate something done in the 1970's or before, but the researcher in question has not bothered to go back that far. One solution to this problem would be to digitize back issues of scientific journals, but by whom and at what cost? An adequate search of earlier literature is also important for recognition of priority. This is relevant in the current climate of tough competition, particularly in the biomedical field and natural sciences, and one is sometimes tempted to ask ethical questions like: 'Did you really not know that this guy had achieved this and that'?

For high quality of research we naturally have to have excellent information services, but for high quality of education **teachers** must also have access to the research base. This can even be called a legal obligation of Finnish academic teachers, because our University law states that universities have to conduct research and offer education based upon research. In our dual model of higher education, this is the distinction between universities and polytechnics, which are required to provide teaching aimed at fulfilling the needs of the labour market. As I see it, we have to have good access to the research base in order to defend ourselves as a university.

Another aspect of interest for both researchers and teachers is the time factor: books are slow to produce and even papers in printed journals are slow to appear, whereas electronic publishing can be achieved with much less delay. The use of modern and versatile teaching aids means an increasing need for access to information services. We are developing the concept of a virtual university in Finland as in many other countries. In addition to expense, there will be a number of problems in this field that are only gradually becoming apparent. It is quite clear that truly interactive teaching is very time consuming for the teachers, probably more so than conventional teaching. In any case, access to sources of information via ICT is essential in these developments.

From the point of view of **students**, current learning concepts require new learning skills and the ability to find things out for themselves. This, in turn, requires an adequate level of basic knowledge and sufficient practice of information retrieval, for which adequate library and information services are necessary. Recently a survey was conducted to find out, why in Finland it takes much longer for students to graduate than in other OECD countries. There is no denying that we are shamefully inefficient in that respect, and of course there are a number of reasons, but one that came out in the questionnaire to students was that we do not have enough course books in the library. Whether this is a real reason or just an excuse is debatable, but it underlines the importance of learning centres and library facilities for successful studies.

But in addition to the different user groups, one should also consider the interests of the **library staff**. Of course, librarians are much better equipped to answer this question. I would just offer a couple of points and one is that, in my experience, library staff are really committed to their mission and to having the library serve as well as possible the functions that it has been assigned. Furthermore, there seems to be a spirit among library people that somehow resembles that of stamp collectors, in the sense that completeness of collections is of great importance. This makes it difficult to discontinue subscription to journal series even if they have lost their relevance. At least in Finland, there also seems to be a commitment by the library staff to extend services to all customers without charge. This is a tradition in the Finnish 'welfare state' as well as in other Scandinavian countries. Library services are considered to be a public good, available to anyone without charge and financed to the general public from municipal sources. Fee for service, thus, is not a favoured solution to the cost crisis of University libraries.

### **Rational budgeting – an impossible dream?**

One of the basic problems concerning the planning of information services in a rational way is the current funding structure of universities. In all Western countries there has been an increase in external funding in relation to basic budget funding from the state. This has reached various extents but the trend is quite clear in all countries. An example of what happens in our current situation is a happy scientist, who comes to the Head of the Department and says that he has received an external grant for three years to do research. And he asks where his room is, where his computer is, and where the library is that he needs for his work. The Department Head then wonders, how he is going to pay for this infrastructure. The overhead in research grants to cover indirect costs has been either nonexistent or insufficient, and therefore external funding has actually eroded the budgetary means that should cover teaching costs. Only recently have granting agencies started to realize that in the long term universities cannot provide research space and infrastructure without a realistic overhead policy.

The change in the philosophy of teaching and learning has, as I mentioned, placed new demands on student services. Even though we are overcrowded with students, we are no longer supposed to stand in a *cathedra* and only deliver lectures to passive listeners. We are also supposed to stimulate independent acquisition of knowledge by students and put more responsibility on the student rather

than on the teacher. This is most clearly observable in problem-based learning that has been introduced in many fields at many Universities. However, this leads to new requirements in teaching students how to find information and in providing them with sufficient sources of information. Also, the speed of the ICT revolution has certainly caused problems not only for library personnel, but also researchers, teachers and students. We all have to cope with constantly changing software and the necessity of updating the machinery.

Investment decisions concerning computer hardware, and also software, are very difficult for the university leadership. If the chief of our computer services comes to me and says 'if we do not get 5 million Euros now, our internal network will break down next week', how can I make a rational decision? If I want even a rough five-year estimate, how much money should be reserved for ICT investments, this turns out to be impossible. Given the rapid new developments and maintenance requirements, one has the feeling of running behind all the time.

In trying to keep abreast of ICT developments, we in Finland are fortunate because of the central coordination of the big investments. The Ministry of Education owns and finances a company called the Centre for Scientific Computing, 'CSC', which is responsible for all domestic and international broadband connections. The company also buys all the supercomputers in the country and allocates user time for them. These investments and maintenance costs are thus off the shoulders of Universities.

At least in Finnish Universities, rational planning is hampered by a peculiar feature that I would call intra-institutional autonomy. Autonomy of academic institutions is an essential requirement to enable universities to function. But inside our universities, this autonomy has been taken too far. We provide lump sum funding to faculties and to departments, but there are limited possibilities for a rector or a dean to control how this money is spent. If a faculty decides that they want to have their own library, or if a Department Head considers that they have to have these books on their own shelf, since the library is too far away, there is no way of preventing duplication of acquisitions. The next step is to employ someone, often unskilled and therefore cheaper, to watch over those books on the shelf. This illustrates the difficulty in the autonomous use of funds and in finding a rational solution to the question of centralisation versus decentralisation. The problem is compounded in the University of Helsinki, as well as many metropolitan universities, by the fact that we have four separate campuses and we have to provide information services on all of them.

### **New developments – new solutions**

The organization of electronic publishing services is in need of a rational solution. Over half of the doctoral theses in the University of Helsinki are currently published electronically only. Given the financial constraints and also the overworked library personnel, one is hesitant to place new obligations on libraries. Hence we are trying to develop a sensible division of labour between the library experts, who are responsible for guidelines of storing both electronic and printed material, and Helsinki University Press, which should provide the technical service for publication in any format. There are some balance problems that have to be sorted out, and underlying everything is the question of how to find the money for all the good things that really need to be done.

There is currently a great interest in the University of Helsinki to set up learning resource centres. This has to do with the construction and equipping of our new campuses, but also satisfying the needs of students for facilities and study tools. We had to make a strategic choice between three options, presented by a planning team, that had to do with the desired level of ICT we want to achieve within five years. This was quantified in terms of how large a proportion of the students and the teachers we want to effectively educate to use these technologies, and what ratio of students per computer we

should aim for (currently 12:1). Mandatory ownership of a computer to enter the University was considered unreasonable at the present time. The goal was set at five students per one terminal. Another goal is that an average of one third of the degree requirements be completed with the aid of ICT. Increasing the use of ICT requires investment, in our case an estimated 7 million Euros over the next three years. But these are the kind of strategic decisions that one has to make.

Another question that also concerns big money is space, which is costly. By international comparison, the University of Helsinki currently has excessive library space, which is only partly due to our four-campus structure. Therefore, the excessive decentralisation and fragmentation has to be done away with, at the same time as old-fashioned facilities have to be updated. With the increasing availability of electronic sources, many previous users of reading rooms are now working at their own desks, and we are currently allocating reading room space for other purposes. On the other hand, there is a demand of learning centres, where students are provided with working space, terminals, and library services. Thus, the use of the total space available has to be flexible and follow the developments. We must also question the current practices regarding archival storage. Why should everybody store the same journals? How much space should we allocate for that purpose and, finally, how can we cope with the constantly increasing costs of physical space?

The rational placement and job description of library staff also merits rational thought. Currently, there are too many too small library units with one to three employees in the University of Helsinki. There is a lack of staff coordination and some centralisation is necessary, but again this is a question of balance. An attempt to improve the situation was the recent establishment of a new position, 'Director of Information and Library Services Development', for the whole University. The change in the job description of personnel is very familiar to those involved with libraries. More and more we need information managers and not just custodians of collections. We also need library personnel with substance knowledge in the respective areas to help retrieve the type of information that the client needs. Furthermore, ICT skills are necessary and in need of upgrading, since they are not always at an adequate level. Finally the teaching role is important, but this role is regarded with varying enthusiasm by library personnel. There is really a very large task in teaching researchers, teachers, and students in the rational use of libraries. Also the formal education of library staff is undergoing changes. This has been the responsibility of two other universities in Finland, but we have recently started a new curriculum for training library personnel, with special emphasis on ICT and media studies. However, an interesting and somewhat provocative question is, whether further developments in this field will lead to library personnel making itself obsolete. This could be seen as the ultimate consequence of success in helping students, teachers and researchers to be as self-sufficient as possible.

Finally a word about the substance. No library can boast with complete collections, but in many Finnish university libraries there are unfortunate gaps particularly arising in the early 1990's. At that time there was a serious funding crisis in Finnish Universities, due to a 16% cut over two years in total University funding. It is a utopian goal to make up for these shortages, and I wonder if it is even worth trying. Here, again, we come to the question of, 'how many complete libraries do we need, who pays for them, and how can they serve the worldwide scientific community?'

Electronic services, as I already mentioned, are centrally coordinated by the National Library, and those services have to be developed. That development is threatened by the same impending funding crisis that looms above all of scientific publication, and also applies to the purchasing consortia. Another issue is rapid service, which is a problem for the library personnel, because the clients always demand everything at once. Then when one asks: 'What is the urgency?' one often finds out that there is none. Express service and long opening times are desirable but costly options, and also in these matters a rational balance has to be found.

Many libraries have extensive programmes of digitizing older material, both books and journals. This way of providing service would really, in the long term, be ideal, if we had the resources and if the problems concerning intellectual property rights could be solved. A decision has to be made, how much money to put into the digitization and how to use it rationally. In Finland, we get some help from the Ministry of Education, but again the question arises, how to avoid duplication of effort and cost, and how could a library recover the money it has invested into digitization by serving the customers of other libraries.

## **Conclusion**

Some years ago the future of the library services in the University of Helsinki were thoroughly considered in a document entitled “Libraries – the heart of the University”. In the case of the failing human heart, drug treatment aims at increasing the efficiency of pumping and decreasing the workload. Although university libraries are not at the brink of failure, analogous measures will be needed to develop the services at a reasonable cost and without wearing out the personnel.