

## **Managing the Life Cycles of the Document and Library Collections in Finnish Academic Libraries, Case Aalto and UEF**

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### **Abstract**

**Purpose** – At the beginning of this millennium renewal of the higher education legislation and structures were decided to be carried out in Finland. The new University act was passed in the summer of 2009. The new act means that the formerly state-owned Universities shall become more autonomous. In addition, the number of Universities in Finland will be reduced by merging some of the old Universities as new ones, like Aalto University and the UEF, from the beginning of the year 2010. This also means a birth of new multi-campus universities as well as new challenges for the management of finances.

Simultaneously the digital revolution of scientific information has changed the paradigm of the libraries from ownership to access. It is not necessary anymore to buy paper journals and store them in the library building. Instead, the electronic versions are licensed thus providing the academics as well as students 24/7 access to the materials. This digital change has also generated generation gaps between aging library staff and born-digital student generation.

The paper and presentation discusses the management of the life-cycles of different types of documents - printed/digital and serials/monographs - in a rapidly changing environment. Also the distribution of work and outsourcing of the collection storing with the National Repository Library is discussed. Here the emphasis is on enabling the access to the outsourced collections with the help of modern database technologies. Also some evidence on the effects on library expenses and usage is given.

**Design/methodology/approach** – The paper analyses the statistical data of Finnish academic libraries in presenting its results.

**Findings** – The National Repository Library has enabled Finnish university libraries in focusing their collection policies and saving in the costs of the premises.

**Research limitations/implications** – Based on Finnish experiences.

**Practical implications** – Models for national and international collection and preservation policies are presented.

**Originality/value** – Paper provides thoughts for the building of global division of work in the long-tail management of documents.

**Keywords** – University libraries, Research Libraries, Finland, Collection Policy; Repositories

**Paper type** – Case study

## **Introduction**

During the past two decades the dissemination of scientific information has gone through a dramatic change. First of all the technology of disseminating scientific publications has changed thoroughly. One can say that at the present we have a digital publication chain – even the books printed are produced within this chain (see e.g. Thompson 2005). And on the other hand the culture of using publications has changed. Especially the “fast food” i.e. scientific papers and journals are used in the digital form, this due to the fact that rapidity and ease of use are of great value to the academics. The latter might have a great role in the digitizing of the printed culture – even though the printed books have a value in themselves, the need to use printed books from all over the world might fasten the adaptation of academics to reading more and more books in the digital format.

Thus the printed culture is in the crossroads: on the other hand more and more books are published in printed format and at the same time more and more of the older printed books are being digitized. Here the role of the libraries and their networks face new challenges: how and whose role it is to save the printed heritage to the future generations; are repositories needed in the individual libraries or should there be an international distribution of work and duties and if we are in fact facing a total digital collection of all the printed materials in the near future what are the local printed collections for?

The aim of this paper is to describe the solutions made in Finland for the less used printed materials of the libraries and what effects there can be seen for the national economy and the use of this collection. This paper tries to tail the long tail of the Finnish use of lesser used materials, as well as present some thoughts about the management of the life-cycles of documents. In addition to that

there is some estimation and suggestions concerning the future of the dissemination and storing of the less used library materials.

### **Long tail and its meaning for collection policies**

The concept of the “long tail” came to discussion on collections after Chris Anderson's 2004 Wired magazine article. The long tail means the huge amount of low-use material, which has created new business perspectives in entertainment business in Internet era. The availability of the long tail improves aggregation of demand and supply in a new way. For libraries it should mean new possibilities to develop services and to support new user groups and to generally improve the value and appreciation of collections.

### **Finnish National Repository Library and the long tail**

The Repository Library was founded on March the 1st, 1989. It is meant to be a repository for all libraries in Finland as the most economical way of storing library material. Thus the need for building space for library collections is decreased and can be controlled. The material in the Repository Library is received as transfer from other Finnish libraries and becomes the property of the Library.

The National Repository Library (NRL) is a resource shared by all Finnish libraries and information service centres. The NRL is the most economic way of storing library material. Because of the NRL, the need for extra shelf space in libraries throughout the country is decreased and can be controlled.

The basic function of the NRL is to receive, store and offer material for the use of other libraries. The NRL serves university and special libraries as well as public libraries, and acts as a connecting link in the library network.

With regard to older printed material, the NRL is a considerable resource – nowadays it preserves more than 20 percent of all material acquired by university and other academic libraries in Finland.

The National Repository Library (NRL) was founded by the Ministry of Education as an independent library – it is part of the Ministry's Department for Education and Science Policy. The

NRL's activities are directed by a Board whose members are appointed by the Ministry of Education for three years at a time. The Board was established in order to develop interaction between the NRL and other libraries in Finland. This is important, since the library has no framework organisation of its own.

The budget of NRL is about 1, 6 million euros. It is 6, 8% of the acquisition budgets of university libraries and 1, 6% of total budget of university libraries.

NRL has three impacts for libraries. It helps them to control collection space and make savings locally. It preserves and keeps available important research material and acts as a national interlending centre. It can also be used as a tool for the collection policy of individual library.

Libraries have transferred 111 shelf kilometers of locally less-used material to NRL. This equals with more than 23 000 square meters. Cumulative savings for this space are annually 3, 5 million euros.

Following table describes change of premises in university libraries:

	Library premises, m <sup>2</sup>		Closed stacks, m <sup>2</sup>	
	1990	2008	1990	2008
University libraries, total	134 796	165 880	39 557	40 757
Legal deposit libraries	52 231	88 010	28 649	32 700
other university libraries	82 565	77 870	10 908	8 057

Table 1: premises in university libraries

Total premises of university libraries (20) have grown 23 %. Closed stacks have grown 3 %. In legal deposit libraries (6) the premises have grown 69 % and closed stacks 14 %. Other university libraries (14) have managed to diminish closed stacks by transferring material to NRL.

62, 6 % of transferred material is from university libraries. It is 15 % of collections and 20, 2 % of the serial collections of university libraries. After deduplication NRL offers nearly 70 shelf kilometres materials for use. This is more than 3 million volumes of monographs and serials.

NRL gets nearly 80.000 ILL requests annually. As ILL traffic is nationally decreasing, in NRL it is growing. Most of the loans go to public libraries (66% in 2009). Article copies are sent mainly to research libraries (90 % in 2009). The amount is close to half of national ILL traffic of university libraries.

### **Managing a documents life-cycle, case Aalto University Library**

The latest of the Finnish universities, The Aalto University ([www.aalto.fi/en/](http://www.aalto.fi/en/)), opened its doors in the beginning of 2010. However, it is not totally new as it was formed from the merger of three universities: The Helsinki School of Economics, Helsinki University of Technology and The University of Art and Design Helsinki. It has about 16 500 students, 300 professors, and an annual budget of 318 million euro.

The libraries of the three universities were merged as well. The new Aalto University Library specializes on business, technology, and science as well as art and design literature. It consists of three campus libraries and a few faculty libraries. The budget of the Aalto University Library is about 8 million euro and the size of the staff is about 100 persons.

The planning work of the new Aalto University Library has been going on for the past two years. It has been based on the recognition of the needs of multi- and interdisciplinary research, problem-based learning and case studies. This led to the recognition of the life cycle of customer needs, see Figure 2.

Each client has different information needs during his/her academic career. The service portfolio of the library has to cover all or at least most of these needs starting from studying up to professional life and lifelong learning. In addition, a library has to serve the society, like companies and general public. This is because the library is open for all users.

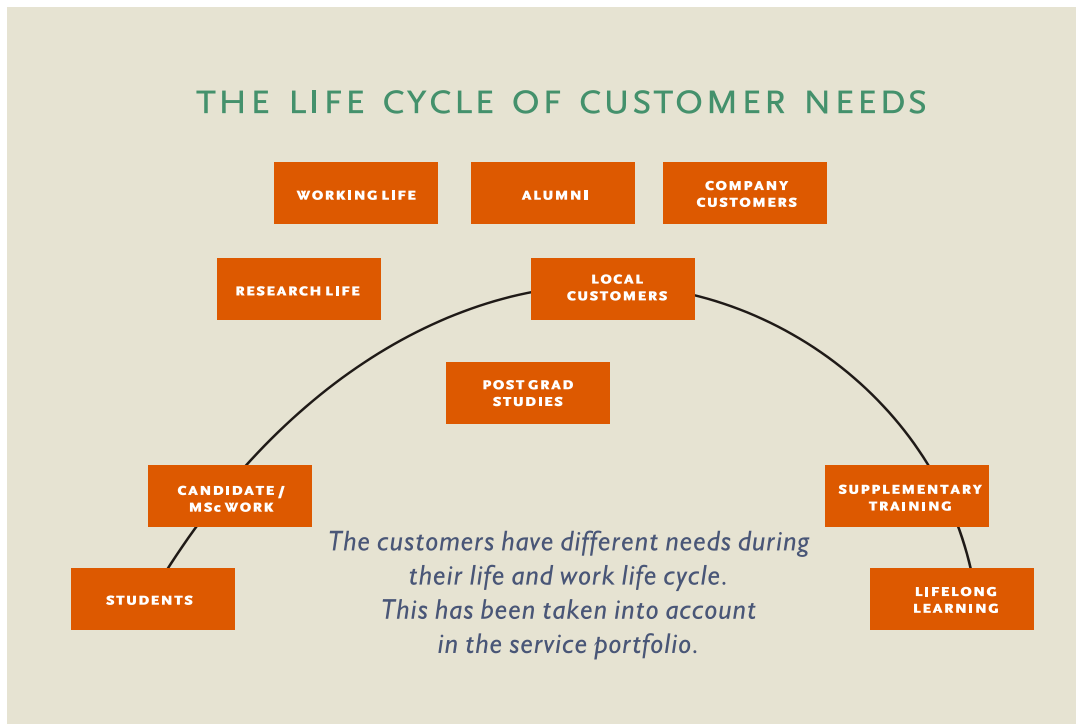


Figure 2. The life cycle of customer needs.

The change of the paradigm of the libraries has brought new duties for them. They have to deal with two-way dissemination of information: delivering the latest international research results to the University and from the University to the research community and general public in the world. Therefore it is essential for an academic library to maintain a CRIS as well as a digital repository system in addition to the traditional collections.

The biggest one of the Aalto University campus libraries is the former Helsinki University of Technology Library, now called as the Otaniemi campus library. It has a 100 year long tradition of being the central library in the field of technology in Finland. In 2008 it offered 25 000 electronic journals, 300 000 electronic books, 760 printed journals (subscriptions), and 225 000 printed books to its clients for use.

The Otaniemi campus library has had a written collection policy since 2003. It is based on the life cycle of a library book, see Figure 3. A book can be placed on several locations within a university. The best place for a book is a shelf where it has the biggest possibility to be found by a user. Ranganathan has said this his own way: “Every reader a book, every book a reader”.

In practice, if a researcher needs a book very frequently, it has to be on his/her own bookshelf. A bit less needed but still useful books can be on the shelf of the research group or faculty library. Later on they can be moved to the main library which has a big clientele, and finally to the National Repository Library, which stores tens of shelf kilometers of books economically, yet easily to be found and used by anybody.

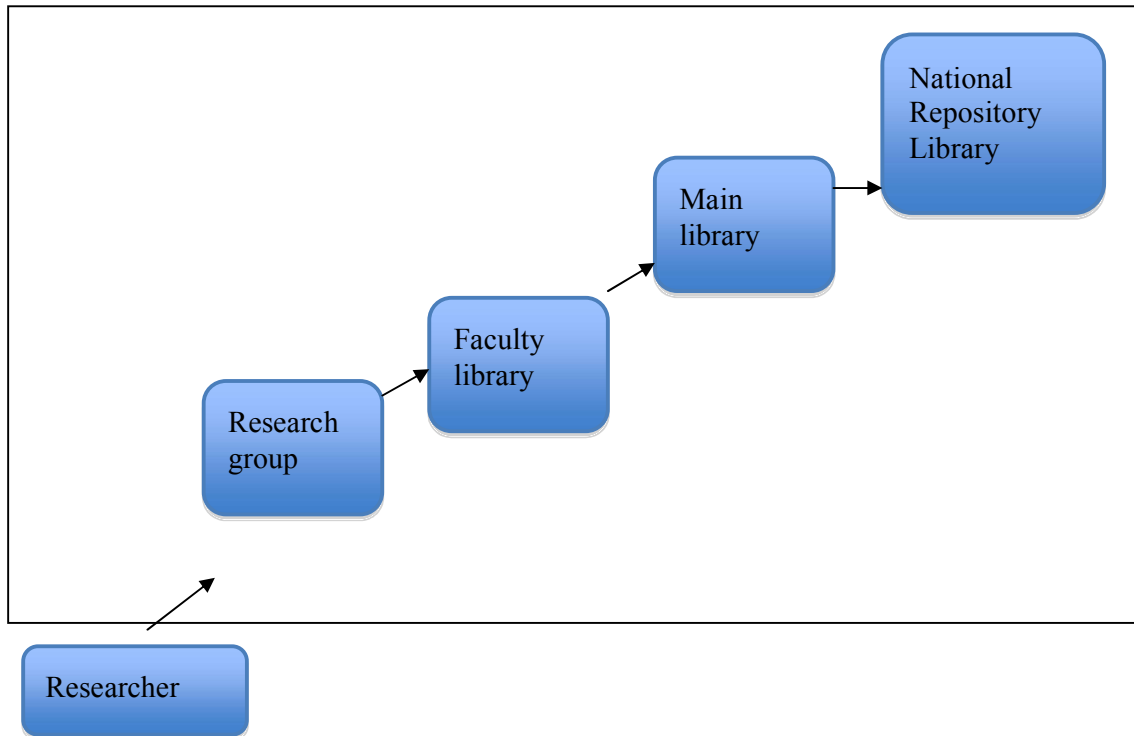


Figure 3. The life cycle of a library book.

The importance of the National repository library to the Finnish university libraries cannot be overestimated. It gives the opportunity for long term preservation of books and serials which cannot be held at the campuses. It has developed very fast and economic services. The use of the National repository library is free of charge. No wonder it has been able to increase its share of the interlibrary lending constantly over the past 20 years (Figure 4).

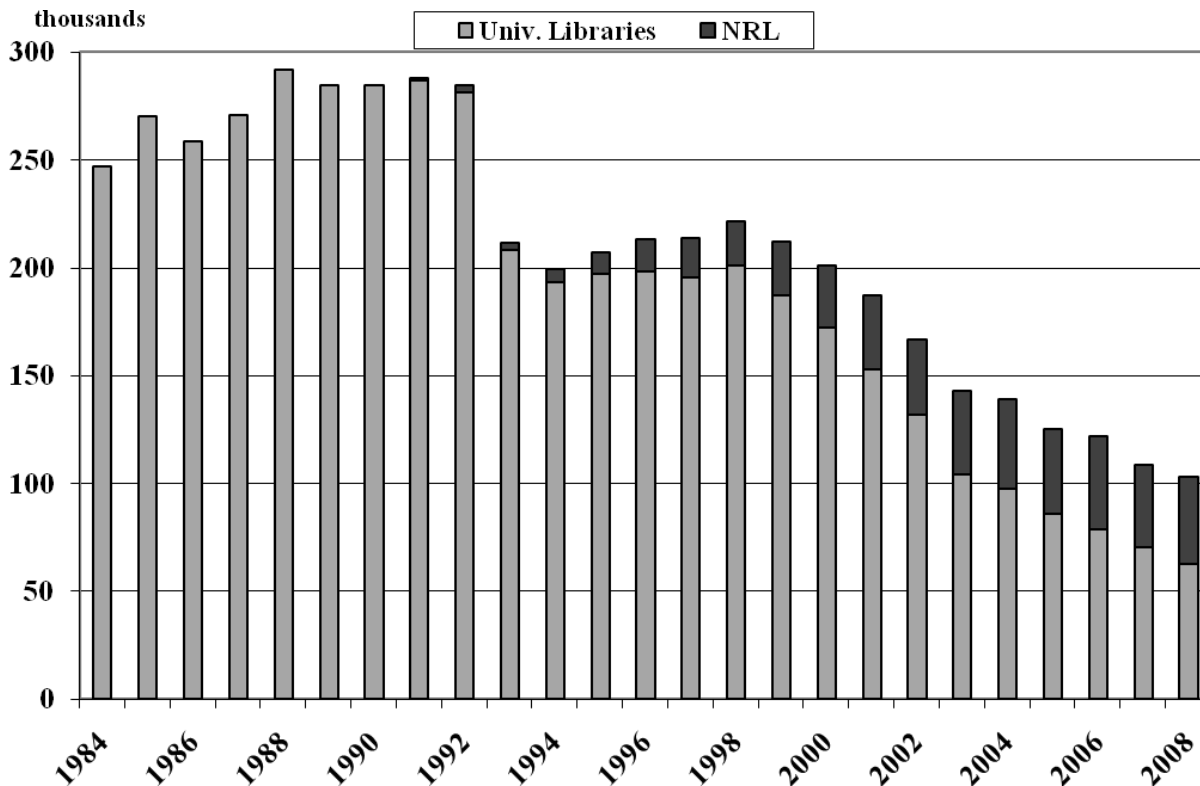


Figure 4. Number of requests received annually by the university libraries and the National repository library (modified from Muhonen et al., 2005).

### Managing a library's collection policy, case University of Eastern Finland (UEF), Kuopio Campus Library

The University of Kuopio, Kuopio, Finland (<http://www.uku.fi/english/>) has an international reputation in the fields of health, environmental science and well-being, with particular strengths in biotechnology, life sciences and biomedicine. As part of the structural changes on-going within the Finnish higher education policies, two Finnish universities - the University of Joensuu and the University of Kuopio were merged to form the University of Eastern Finland from the beginning of the year 2010. This poses new challenges for the management as well as for the collection policy of the library.

Due to the fact that University of Kuopio was quite a young institute and that its subjects are mainly within sciences the collection policy has had an emphasis on serials, during the past ten years the



aim has been in establishing a sound and deep enough e-journal collection in order to fulfill the needs of the academics (see more in Juntunen et al. 2005 and Kananen & Ovaska & Saarti 2006).

From the beginning of the new millennium a new strategic work was started on the collection policy that was integrated with the reorganizing of the library space within the Kuopio campus. The decision was made that the amount of the library spaces should be reduced to about two third from the present size, and at the same time increase the spaces for our patrons (see Saarti 2009). Here we relied heavily on the support of the National Repository Library as our repository for less used materials (see also Saarti 2005).

This meant that almost half of the closed stack repository situated at the campus was given to the use of University's archives and the library material was sent to be placed within the collections of the National Repository. The same was done with the less used books. The result was that better premises were provided for patrons; more compact and up-to-date collections were made to be used on campus and reduced rent costs were achieved at the same time. And what is most important as the use of the digital library keeps growing, staff allocation can now be done more soundly between traditional and web-library work (see Table 5.).

	Year 2006	2007	2008
Total floor area in square meters	4 041	3 788,9	2 792,2
Total shelf meters in use	12 330,4	9 630,4	5 993,7
Open collections shelf meters	6 468,4	6 468,4	3 151,7
Total reading and working places	310	310	268
Group work facilities	54	54	78
Home loans	51 847	50 176	48 174
Digital documents viewed	4 271	7 882	16 160

Table 5. Statistics about library facilities and library use. Source: Finish research library statistics database, English version available from:

[https://yhteistilasto.lib.helsinki.fi/language.do?action=change&choose\\_language=3](https://yhteistilasto.lib.helsinki.fi/language.do?action=change&choose_language=3)

This added to the fact that most of the collections that are used especially by the academics are already in the digital form has meant a drastic change within mere 15 years. The merging of Joensuu and Kuopio University's from the beginning of the year 2010 gives new possibilities in

even going further this way. It might be possible to concentrate the printed collections and their logistics to one campus and the managing of e-resources to the other. This combined to the foreseeable future of rapid progress in the digitization of the printed works shall revolutionize the dissemination of scholarly information within the next ten or fifteen years (see Lynch 2001). One might be able to provide all the worlds documents needed in the research and studies done in the new University of Eastern Finland.

### **Conclusions and policy recommendations**

Although there is an emphasis on the use of newer documents, especially within the sciences, one can clearly see a long tail of scientific document use in research done. One reason for this is that every discipline has an inherited history within it: so we will see complimentary references to classics, but what is more important, case studies and permanent innovations will be a foundation of the modern studies. This emphasises the need for storing less used printed materials, and especially the need for better access to these resources and their contents via modern database technologies.

It also is important for the libraries to have a proper knowledge of the needs of their clients and follow up the changes in them and design their services accordingly. It is likely that the changes in the ways how users behave shall be rapid and varied in the future also within the academic community. Thus libraries need to design carefully the locations of the printed material. It is no longer needed to have everything on their shelves. Material can easily be found also elsewhere

One solution for the better access to older printed materials has been the use of mass-digitization. In this, we have seen efforts, both from the public and private sector - of the latter the most discussed is the Google-books project. Here the challenges for the future are the costs of maintaining a digital collection and the resources needed for the computer infrastructure. It has been proposed (O'Connor 2009) that one should consider the cost-effectiveness of the “store printed – digitize on demand” – concept instead of the all-out digital environment, especially when we are addressing the long tails lesser used documents.

Whether the future will be completely digital or mixed, there clearly is a need for global policy for the long tail management. At least one should be able to decide the number of copies to be stored for the future and the number of traditional and digital repositories needed for the long-tail management of documents. One solution could be that nations take care of their own culture and

documents – the challenge here is in science that it does not act according to national borders, so the academic library community has the responsibility here to open the discussion. One must bear in mind that the long-tail of born-digital documents has only begun. Based on the short history of digital librarianship, one can clearly see major challenges preserving the digital heritage for the future generations.

The most crucial point when discussing global policies is how to build up trust-based networks that undertake the jobs needed for the future and that one can commit oneself and one's resources. Resource sharing should be two-sided so that free rider mentality is unachievable. This is most challenging at the present – and in future – economic situation. Here one must also be open-minded for different types of business models that include both private and public sector actors.

In Figure 6. The tasks and actors in the global long-tail management of documents are presented. The tasks can be divided into three categories. The preservation of documents, both digital and printed, ensures that all the documents produced are and will be available for the potential users as cost-effectively as possible. The knowledge organization enables the access to those documents stored via databases and search engines. Logistics, on the other hand, enable the most crucial service, i.e. the use of documents, either via ILL or digitally via Internet.

In order to make things happen the decisions and actions of at least three different parties are needed. Policymakers enable or hinder the free delivery of documents between the libraries and academic community, especially when one speaks about copyright issues of digital documents. Libraries and private sector actors on the other hand must find realistic and working ways of producing the services and distribution of work.

<b><u>TASKS</u></b>	<b>Preservation of documents</b> (digital and printed)	<b>Knowledge organization</b> (enabling the access to documents)	<b>Logistics</b> (enabling the use of documents)
<b><u>ACTORS</u></b>	International co-operation and distribution of work  and  National co-operation and distribution of work	Individual libraries  and  Private sector actors  and  Policymakers	

Fig. 6. Tasks and actors in the global long-tail management of documents

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