

The Age Bomb and the Age of Globalisation

Hans Selberg

NTNU Library, Norwegian University of Science and Technology

Abstract

As the library world we have known is changing rapidly around us, we are all getting older. At the NTNU Library 69 people out of a staff of about 145 are aged 55 or more. During this year alone 22 staff members will become eligible for retirement, if they should so choose. The coming ten years will show a massive changing of the guard in our library. This means a severe loss of competent staff members. On the other hand: Even though the Library Board has ordered staff reductions during the past few years, we shall now be able to hire some new staff according to our needs of the future.

We have recently started a process of “prophesy” and planning.

What type of changes do we anticipate? What will the university require from its library during the next years? What type of staff will become necessary in the year 2015?

The library seems likely to remain the prime provider of learning space on campus, as well as an oracle within information literacy questions. What is left of paper collections will mostly be in its domain, and it may be heavily involved in the publishing of university research.

There are a number of other questions pending, though.

How will the transfer of information from the publisher to the end user take place in a digitised world? Will researchers search, pick and buy from large repositories of digitised periodicals provided by the publishers, or by commercial Internet-libraries? Will students buy their own textbooks, borrow them from the library or lease access to whatever they need for the duration of their study?

Traditional university libraries, with large collections of physical items of information, may become wholly or partially obsolete.

Direct marketing may facilitate sales of digital information straight from the publisher to the end user. The music industry is doing this today! You may download what you wish from a large selection on the Internet, at a reasonable price.

The university library may become the central marketing tool for information to the university community, rather than a repository of information in its own right.

University staff and students may become their own librarians, the same way we already have, to a large extent, become our own travel agents.

This paper will look at the way the NTNU Library is meeting its age bomb and the age of globalisation. Predictions of future trends within our different library departments will be discussed, along with a variety of possible scenarios for the future.

An ageing organisation

The university communities in Norway expanded rapidly in the 1970's and 80's. Large numbers of faculty and support staff were hired as student numbers increased. The libraries formed no exception. From the time I joined the Library of the Norwegian Institute of Technology in 1971, and throughout the next 20 years, I saw a steady influx of young and eager new staff members.

Today, a large percentage of them are still here – as part of a staff slightly reduced in size. They are no longer quite as young, but most of them are still reasonably eager.

At the end of this year, 92 people, out of a total staff of about 145, will be aged 50 or more. Among these, 69 will have passed 55 years of age, 30 are past 60, and 10 are more than 65 years old. Many staff members have been with the library for 15, 30, even 40 years.

Norwegian universities are run by the state, and the mandatory retirement age for government employees is 70 years. Normal retirement is at 67. There are, however, a number of rules and regulations which makes it possible to retire any time after the age of 62.

When you have worked for the state for 30 years, you will have earned full retirement benefits. If you retire any time after the age of 65, you will receive 66% of your former salary level each year – for the rest of your life. Since pensioners are taxed at a somewhat reduced rate, the difference in what you receive each month after taxes is not very great. If you have not worked the full 30 years, you receive proportionally less. For instance: 20 years of service will give you 2/3 of the full pension level.

Special provisions, agreed with the trade unions, make it possible to retire between the ages of 62 and 65, with a reduced pension the first years. At 65 the ordinary pension kicks in. These special provisions are up for revision in 2007. The entire future Norwegian pension system is in the process of being changed, since the ratio between the working population and retirees for the next generations will be significantly lower than it is today.

Our staff may choose to leave us any time between the ages of 62 and 70. This year alone 22 staff members are eligible for retirement. During the coming 10 years 61 further members of the present staff will pass into this category. Experience tells us that library staff members do not retire early. Normally a good percentage of them will hang on almost to the very end, and some even beyond that. They keep on working as pensioners...

The coming ten years will show a massive changing of the guard in the library, and we shall experience a severe loss of competent staff members.

"Always look on the bright side of things" says the song. Well worth keeping in mind!

There is a bright side to this as well. We are losing people well versed in traditional library skills at a time when the library world is changing profoundly. Is this a problem, or a blessing in disguise? Will we need the old traditional skills in the years to come? What type of staff will the future library require? Those are questions we need to answer.

Our Library Board has been ordering staff reductions for some years now. In spite of this we will be allowed to hire new staff according to our changing needs of the future, if the skills needed are not to be found on our present staff.

Skills needed in 2015

Earlier this year, the Library Senior Management Group and union representatives held a seminar trying to analyse the needs of the various library departments in 2015. Anticipated changes and "prophesy" should show us the necessary skills of the future.

Each department was discussed in depth, looking into the work being done today, and the skills needed to do it. Focusing 10 years into the future, we tried to establish likely changes in each department, as well as general changes in the role of the library in the university community.

What type of work will increase? What will decrease, and what may disappear all together?

The following main areas were discussed:

- Collection management (acquisitions/cataloguing/storage)
- Loan/interlibrary loan services
- Reference services/support desk/learning environment
- Library courses/user training sessions

- IT-services
- Publishing university research
- Marketing library services
- Staff- and management support systems

Future acquisitions will increasingly be in the form of digital publications and databases. Necessary cataloguing information in standardised form should be readily available for all digital publications when you buy them or subscribe to them.

Paper publications will still remain an important part of the library during the next 10 years. In the future it should not be necessary to do much cataloguing work in the libraries. Cataloguing-data and subject headings should be provided for each and all published items at the time of publication - according to commonly accepted cataloguing-rules.

Meta-data should be in such a form that library catalogues can be automatically updated.

Interlibrary loans will decline with the increased availability of digital resources. Faculty and students will be able to order copies of required publications from publishers, book-sellers or other libraries by themselves, when their own university library does not hold the item.

Full-text search-ability will give the user much more information than what the library catalogues of today can provide. The possibility to find chapters, paragraphs or tables of interest, formerly hidden within the confines of a book, will open a new world for distribution and use of information.

Proper training in information literacy will become even more vital. Mandatory general courses will be given - supplemented with specialised and tailored courses on demand. Librarians or subject specialists with teaching skills will train faculty and students according to their needs.

Basically the library should be a self-service operation. Patrons should be taught all necessary skills needed to use the collections in full.

In 2015 we will need less people with traditional library skills. At the same time we shall need more people with skills in teaching, marketing, IT, and digital publishing.

Scenarios for the future

Economic considerations will to a large extent rule our future. Universities and publishers will adapt technology to maximise efficiency and profits, and minimise expenditure.

Traditional university libraries are based on the need for large local collections of physical items of information, such as books and periodicals, to serve faculty and students. Acquisitions, cataloguing, classification, long time handling and storage have established the need for a large and well educated staff, as well as spacious library buildings. All this is quite expensive for the university.

Interlibrary loans, while being an excellent supplement to library holdings, also cost time and money. Collection management is done according to local customs and needs. Basically, the same work is being done in most major libraries. This is a waste of time as well as a waste of labour.

The libraries may continue as providers of information services to the university communities, only for as long as the universities will finance them. If equally good information services could be provided from other sources at a lower cost, the traditional library would be in trouble.

In the future most books and periodicals will be available digitally. The Google-initiative of digitising large university library-collections may change the information scene deeply. Older items, where the copyright has expired, may be freely available in full text on the internet. Newer items will be made available, at a price. This, as well as the steadily increasing numbers of back-files of periodicals that are being made available to subscribers, will to a great extent reduce the need for substantial parts of traditional library holdings, and may in some cases eliminate entire libraries.

For safety reasons most librarians would feel comfortable if they had access to a paper copy if all else failed. A sensible option is sharing the cost and use of paper collections. Co-operating libraries pool their old paper collections, discarding excess copies, establishing a facility which can provide loans and copies when/if needed. This is being done today at some universities.

A significant number of libraries world-wide have purchased library portals like MetaLib. Is it likely that these portals will survive, or does the future belong to an all-dominating Google?

One of the main benefits of library-portals should be the possibility to make a simultaneous basic search in a specified group of information-resources. Some large and important resources are not searchable this way, because they choose not to follow standard forms like Z39.50. This may be a serious mistake. Access-ability is the alpha and omega of the publishing world. Using non-standard procedures may make your product "invisible" to students and researchers alike. If you are important enough this may not seem to matter, but over time your importance may diminish as "visible" competition gains momentum.

Publishers may choose to sell their digital products the way they sell paper-editions today, or they may try to maximise their profits by eliminating intermediaries, such as the bookshops – and the libraries?

NTNU Library has a total budget of about NOK115 million (about USD18million). Less than one-third of this amount (NOK34 million) is used to purchase publications and database-access. The remainder covers wages and other running costs for the library. In addition to this the 20.000 students at NTNU spend around NOK50million a year to buy their own textbooks. I assume the publishers receive up to three-quarters of this. This gives a total of NOK165 million, of which publishers receive about NOK70 million. This is well under 50%. Adapting their act closer to the needs of faculty and students by using technological possibilities in full, publishers might well increase this percentage as well as their profit margins.

Direct sales of digital information units – such as books, single chapters, periodical articles etc, may be provided by the publisher to the end user. The music industry is doing this today. You may download single tracks of music from the internet – quite legally, at a reasonable rate – instead of buying a ready made CD. The movie industry will provide you with movies direct from the internet, at a price, to keep or to view.

E-books may be distributed in various ways. They will be sold to the public. They may be loaned out by the libraries - like a paper edition - with single or multiple user access. They could be made available for partial free scrutiny on the net. If you want to read an entire book, you have to pay a small fee. Books could be available as rental items, for a given period of time. Students could be offered complete packages of digital courseware for each term.

In Japan increasing numbers of young people are reading books on their cell-phones. Hardly beneficial for the eyes, I would think, but never the less a sign of the times.

The library may act as an information outlet for the publishers. It may guide patrons to commercial vendors of information, receiving payment for the marketing effort. Faculty and students pay for their own downloads. The library provides remaining traditional paper resources free of charge – unless new copyright legislation forces the end to free library services.

In a small country like Norway, national subscriptions to information databases could be considered an option. The nationally stated goal of life-long learning, and the rapid spread of broadband-technology both pull in this direction. This would remove large numbers of digital publications and databases from the exclusive collections of the university libraries, and put them into the public domain. Management of these accounts would be done centrally, saving significant labour costs. Libraries budgets would have to be reduced correspondingly. From a national economic point of view, this might be a sensible solution.

Norway has about 4.5 million inhabitants. The scientific-library community alone spends upwards to NOK200 million each year to subscribe to electronic information resources. This amounts to less than NOK50/person/year (USD8). Open access for everyone obviously would cost more, but perhaps not prohibitively much more. Every million in added revenue would be a bonus for the publishers, which they could not expect to receive within the present system.

If the library becomes mainly a marketing tool – will every university need one?

There is an increasing competition for students among universities. Education is a commercial enterprise in many parts of the world, and universities compete for the best faculty and the best students. Good library services may help to attract both researchers and students. Economy and competition may very well determine the future of library services. Commercial libraries, or information management service-companies, may provide library services to universities on demand. Questia, marketed as the world's largest online library, will give you full-text access to a sizeable collection of about 500.000 documents for USD15/month or USD100/year.

On the other hand, University A might buy the digital part of its library services from University B, thereby possibly saving considerable sums in management and other staff. Universities may share library resources, or establish a common library, even if they are situated far apart.

Purchasing an object meant for a lifetime of steady use – and then using it only once – would normally be considered a waste. Yet, this is what happens to millions of books every year. In Norway, university students have to buy their own text-books. A university library will normally have two or three copies in their collections, which does not really help the students much. Most of these books are used during one or two terms. The curriculum may include an entire book, or just one or two chapters. New editions appear quite often, making the older ones obsolete. The result: Thousands of students buy thousands of copies of text-books every year, use them during the term, never to read them again. World-wide, millions of paper copies of books are printed each year – to be read once - and then forgotten or discarded. Digital editions may change all this. Publishers save printing cost, transportation and storage. Unsold copies are a thing of the past. Students will have access to the latest edition of what they need, for as long as they need it.

Reading a long text off a computer screen is not every-ones cup of tea. Compared to a traditional book, it is quite impracticable, as well as being trying for the eyes. Printing it out on paper is the common solution today.

Electronic paper is being developed and should eventually be commercially available. It should give the same reading comfort as ordinary paper, providing a serious challenge to printed matter. In theory this one sheet of paper will be all you need in your personal

library. Through it you may read any text available digitally. In the morning you spread it on your breakfast table, and read the morning edition of your chosen newspaper, tailored to suit your interests. In the afternoon you use it to continue reading that mind-curling suspense-novel you started yesterday. Your electronic sheet of paper will remember precisely where you were.

All these scenarios raise serious questions for the university libraries – and indeed for the publishing industry.

Will researchers remain faithful to, or need, their university libraries – or will they search, pick and buy from large repositories of digitised periodicals and books provided by publishers, or commercial Internet-libraries?

Will the students of the future buy their own textbooks, lease them from the publisher, or borrow them from a library? Publishers could provide a university student with access to all textbooks needed for his/her courses for the duration of their study, at a reasonable rate.

We are being taught to manage on our own in a number of areas, where we used to rely on personal service. Bank-outlets are becoming scarce in Norway. When the local branches of the two banks at the university closed their doors some years back, we were not happy. Today, they are rarely missed. Almost everyone prefers doing their own banking-services on the internet. We used to have post-offices everywhere. Today most postal services are delivered through a large number of food-stores. Opening hours are longer, and the public is well satisfied. We used to depend on travel agents to book plane tickets and hotels. Thanks to the internet we can choose to be our own travel agents.

Why not be our own librarians?

The digital library is available 24/7, and provides information from anywhere to anywhere. With cordless broadband technology it may be used almost everywhere. Used sensibly it provides society with a perfect tool for distance learning, as well as life-long learning. It may contain all textbooks needed in a university, in addition to all necessary research material. Even primary-source material is being scanned, and thus made accessible to the world – at a price.

So - why visit a library, if almost everything is available from home?

Man is a social animal, and efficient learning may be a social event. Bouncing ideas off another person face to face often provides both parties with a better understanding in a learning situation.

Most students of the future will need to spend considerable time at a university, and they will need an attractive place to study, relax and recuperate in between lectures. The prime provider of learning space on campus should always be the university library.

The very scale of the internet and its information resources will demand the existence of people able to advise users, educate them in information issues, and point them in the right direction. Students attend a university to learn, not only a special subject, but also the art of pursuing knowledge in general. The librarians and subject specialists of the university library can help them do just that.

Vast digital collections will be available through the library. Whatever paper-collections are needed will either be found there – or you will get the help necessary to locate them. The library of 2015 might be open 24 hours a day – based on self-service.

University research is being published locally at an increasing rate. It seems reasonable that each institution should make its own research available to the scientific community, as well as preserving it for posterity. Through publishing, displays and exhibitions, the library will make university research available to the general public.

University libraries should not become museums of old dusty volumes. They should be beacons of knowledge on campus. Places where mind meets mind and new thoughts are shared. They should be repositories of all the help university students, teachers and researchers might need regarding information issues.

The future is coming rapidly – and if we still want to keep our slice of it, we have to determine who and what we are.

We have to interact with faculty and students alike, to accomplish excellence in research and teaching - delivering services the university simply cannot do without.