

The Norwegian digital library

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What is it? What will it be? What will it look like? What will it feel like? This national digital library for all?

These questions are being asked by quite a few library people in Norway these days. And the questions, though not as difficult as the one about the meaning of life, are still not close to a single, "once and for all" answer. But we have started the process of getting there.

The Norwegian digital library was drafted in a report published a little more than a year ago. This report describes a number of issues and presents a number of activities that should be initiated in order to create this digital library. The vision is clear, but ambitious and challenging:

" The Norwegian Digital Library is a system that breaks down the walls between the separate libraries and makes their collective information resources available to everyone in a simple way."

The Norwegian Archive, Library and Museum Authority decided to build on this report when they initiated a programme to facilitate the process. This programme will run for 3-5 years. A project coordinator was in place from November 2003 and an organization for the programme is now also getting in place. There is a programme committee with high-level representation. This committee will outline the policy and strategy for the work ahead.

The digital library- general issues

The rapid growth and development of electronic content offers great possibilities. Libraries, archives and museums are making significant amounts of high-quality online content available to their respective users/communities/institutions. But too much remains hidden amongst the low-quality information that clutters the web or behind technical, commercial and administrative barriers. One of the big problems in the internet age, is the overflow of information and the lack of guidance

The Norwegian digital library is being designed to overcome these barriers in order to make it possible for users to exploit the quality assured information that is now available at many places, by many owners and suppliers. The Norwegian digital library shall help make more content available in digital form, for more users.

Norwegian libraries are to a certain degree already digital. Almost all library catalogues are digitized. Libraries subscribe to electronic resources both online, on CD-ROMs and DVDs, and they provide structured and quality assured subject links to internet resources. The number of digital documents, databases and periodicals increased by appr. 30% from 2002 to 2003. They add more and more services to their content. People can ask a librarian, they can renew loans, they can access the online catalogs and the subject portals from home. And all this will continue and develop independent of the Norwegian digital library initiative. What

the Norwegian digital library shall do, is to make all this content, all these services, all this activity more than just the sum of all of them. And it is this more that is the key to its (potential) success.

What is this more then? It is more than just more of everything, even if that is an element too. So we are working at identifying this more, - and with a 3-5 year perspective, which makes it challenging.

Looking back at different conference papers from different conferences 5 –10 years ago, one can easily see that the world has changed, especially that certain areas which were considered very promising at that time, has been replaced by new developments that noone, or maybe just a chosen few, foresaw at the time. “Whatever became of... interactive CD-ROMs , computer telephony, the gorgeous Windows client applications etc..” And you could add a lot to that list. But - that’s life, pure and simple... and it doesn’t mean that we were stupider back then. Or any wiser now, for that matter...

However, this is part of the back curtain for any project with a 3-5 years horizon, We try to look into the crystal ball, but we are not clair-voyants, and thus have to make best guesses made on the basis of not only what we know, but also on what we want.

We have to ask ourselves these simple questions: What do we have? What do we need? How do we get there?

Elements of the digital library

There are several elements that will constitute the Norwegian digital library:

Content

The digital library will contain all types of documents – text, photos, sound, video, hyperlinks etc. It will also provide access to non-digital objects that can be obtained as a loan or for use on site in a library or another institution. The content will be distributed and maintained by the different participants who "own" the resources and databases, and also content that resides with the producers of content will be made available.

Creating more digital content is part of the programme, and an activity to establish criteria and principles for digitization to see how this can be planned and coordinated on a national level is important. This will involve not only the library community, archives and museums are absolutely part of the picture too. A working group for digitization will be established soon, with broad representation.

Services

Content without services attached to it is not very meaningful or accessible. Services are necessary tools to get to the content and to make use of it. The digital library will provide a set of services for

- searching
- organising content
- support for production of content
- document ordering and supply
- authorisation and access control
- and more

Technological framework

A project, “Establishing the technological framework for the Norwegian digital library” is ongoing and involves a number of people with specific competencies in this area. The project is coordinated by the National Library but with participation from the library community, the library system suppliers, and other sectors.

The framework shall make it possible to integrate services, metadata and content from many suppliers. It is therefore important to reach an agreement on a set of standards for this framework. This is the glue that binds the different elements together, “invisible” but absolutely necessary.

This projects consists of several work packages:

WP1 – Metadata

This work package shall recommend standards or/and protocols for

- metadata formats
- unique identifiers for documents
- character sets for metadata
- protocols for exchange of metadata

The key to locating, using and preserving digital content is metadata. Many efforts have been unsuccessful due to inadequate metadata. Without agreed-upon metadata standards and the discipline of capturing and storing these, all but searching the smallest digital collections will become a needle in the haystack exercise.

So this is needless to say an important part of building the digital library. Different types of metadata shall be identified and the metadata information flow shall be described.

A future national standard for metadata exchange standard format shall be recommended.

Metadata standard formats for content producers and other suppliers to the Norwegian digital library shall also be recommended.

WP2 – Digital document production and publishing

This work package shall recommend standards and services for

- standard formats for digital publishing
- tools and services for simplifying the distribution process
- tools and services for the production of digital documents

Included in this are formats for long-term preservation of documents. It is a sad fact that stone tablets actually have a considerable advantage over today’s digital media for long-term storage...

WP3 – Federated search

This work package shall recommend standards and services for

- methodologies for federated search
- a technical solution for federated search

Many of us, and our users, dream of the day when a single submit button will retrieve all that they are looking (and only that!). It is not easy to explain to users that they must go to different locations to find content: book catalog, AI databases for articles and journal aggregators for online full text. How can this be solved? Z39.50 does not scale to the breadth of relevant resources available, that again leads to more proprietary product solutions. But it also means that metasearch and retrieval is a very interesting area library automation to watch, and an area where the user expectations are high. It is also hard to explain to a user who doesn't (and shouldn't) care why Google can search billions of web pages faster than an online catalog or article index can search millions of surrogate records.

There are great expectations to federated search facilities, as this will be one of the services that the user clearly will see as an added value to what is already available. There are great expectations to the establishment of a federated search service for all library catalogues in Norway, similar to the one they have in Denmark, bibliotek.dk. The outcome of this work package will be of great importance to the planning of federated search solutions for the digital library.

Among other things it will be one component of the establishment of

“The seamless library”

In a parliamentary report this year the concept of the seamless library service is supported, as an important objective for the development of the library sector in the coming years. This means in practice that optimal user access through a national coordination of information resources is introduced as a leading principle across different institutions and administrative borders. This can only be done through a better coordination of the many bibliographic databases, and an increased effort towards digitization of material in analog form. The best way to achieve an enhanced availability of digital material is to make it available over the net if possible.

There are of course both technical, legal and administrative barriers that stand in the way of achieving these goals, and the process will be gradual. There are today 2 projects trying to develop regional seamless libraries. In both these projects the establishment of federated search facilities is crucial.

WP 4 – Authentication and authorisation

This work package shall make recommendations for how the digital library shall handle the issues of authenticating and authorising of different users.

Much of the information resources in the digital library will be subject to license terms which requiring different levels of authorisation of users. There are already ongoing projects and solutions within the HE sector for authenticating and authorising users (students, academic personnel), the so-called FEIDE project, for a number of different services, access to library resources being only one part. Since much of the licensed resources belong within the HE sector, it is only natural that one will look at these solutions as a possible solution also for the digital library.

WP 5 – Copyright clearance, digital rights management and payment methods

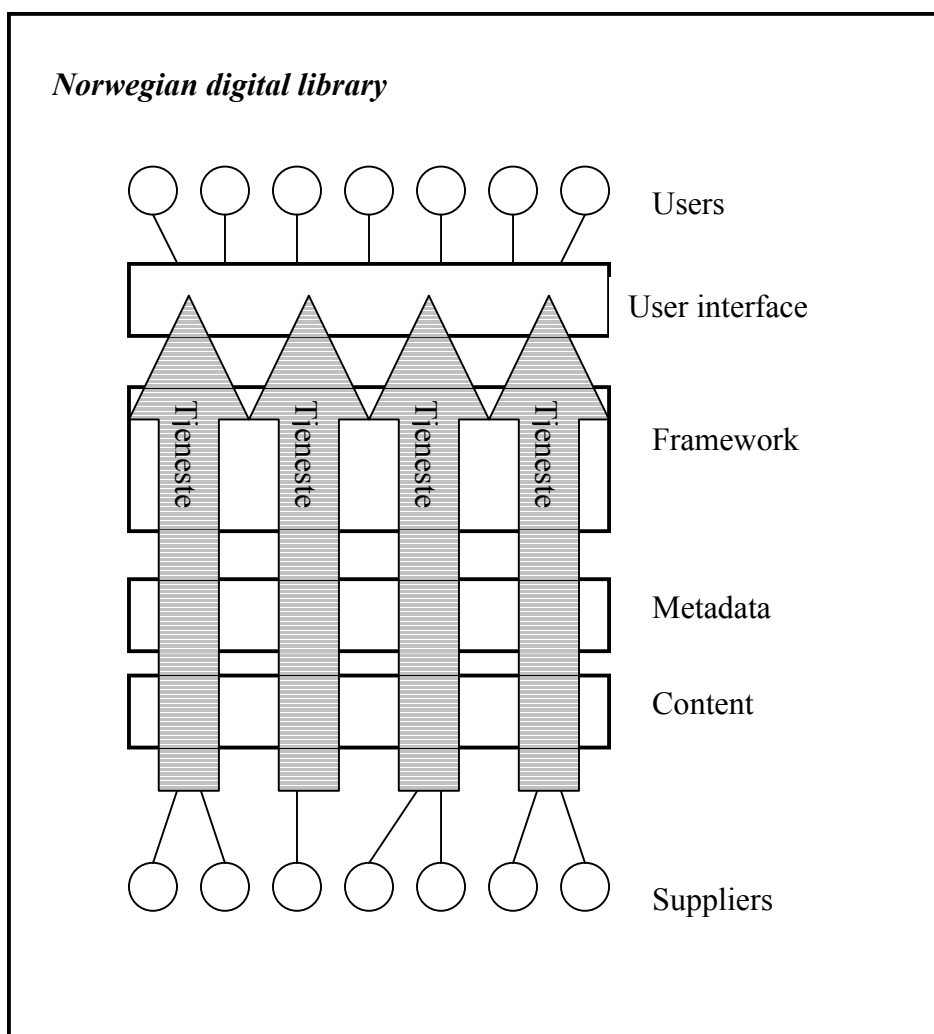
This work package will deliver a report describing the state-of-the art of the technology in these areas, taking into account the pending new copyright legislation in Norway, due to pass Parliament this fall.

WP 6 – Other services

As a result of the work carried out in the different work packages, a preferential list of additional services will be set up.

WP 7 – Infrastructure and system architecture

This work package, although the last in number, was the first to be established, and it is in a way the hub of the wheel. There will not be a completely new infrastructure, one will build on what exists already. Of course, one can be tempted to start from scratch, tear down the “old rubble” and so on, but it is not realistic, and even not required. You can say that much of what will constitute the Norwegian digital library is already in place, but we lack essential functionality that makes it possible to see this as a whole.



User interfaces

The services of the digital library can only be accessed through some sort of user interface. This is the user's window to the content of the digital library. The user interface can be one single, or it can be customized to individuals or groups, it can be an institutional portal or web site providing access to services and content from the digital library. There has to be a user interface, but it can be in many forms and shapes.

The introduction of yet another universal portal is maybe not what makes people's hearts beat faster these days? The important issue is easy access to the vast amount of information in our libraries, and this can be done from more than one access point.

So whether the Norwegian digital library will be a one-stop shop- portal, or not a portal of it's own, but just a facilitator for making services and content available through many other portals (and a lot of those are being established, library portals, educational portals, consumer portals, public information portals etc.). And it can be both. If that is the sensible thing to do, from a user and/or community point of view.

Other issues

Convergence

We need to know what is going on around us, in the library community at large, but not only there. We live in an age of convergence and change, and what happens in other parts of the "information business" and with other players (some of whom we may consider, and sometimes wrongly so, to be on a totally different field) will have strong effects on the way we design and present our services. The "googlification" of information retrieval and the rise of the Internet as the number one information resource and service bank in the eyes of the general public are the most obvious examples.

User behavior

Users get more sophisticated all the time. Ron Dunn of Thomson Learning made this general statement in 1998: "The worst level of service that a user will accept is the best level of services that he has ever seen". So the user will always look for the best and easiest way to what he is looking for. His loyalty to the library web site or catalog goes only so far as if that is the best or the only way he can get hold of that piece of information.

Copyright

We need to address the copyright issues concerning use of digital material. This is a complex area, but we need to establish solutions and to build a legal platform and framework for the digital library. We need to develop a solid national competence center on libraries and copyright in order to meet the many copyright challenges ahead.

What will we d/are we doing in 2004?

The financial framework for the digital library activities in 2004 is limited, but that does not mean we are prevented from going on with projects and starting new activities. This programme has a high priority within the Norwegian Archive, Library and Museum Authority. The programme is also supported in the Parliamentary Report on Cultural Policy, so there is reason to be relatively optimistic also about future funding.

In 2004 we will continue the work establishing consensus on the technological framework of the digital library.

We plan to start working groups on

- digitization
- further development of consortium licensing of digital content

We will organize seminars and conferences on important digital library issues. The first conference was in May and dealt with the issue of portals.

We will support and follow up projects initiated by others that contribute to the development of digital library. One such project is the development of a national register of library users, making it possible for one user to have only one library card that can be used in all participating libraries. Another is the establishment of a Norwegian digital library for architecture. Others include:

- Topic maps for library catalogs
- National authority name index
- FRBR in library catalogs
- Archiving of e-resources
- Virtual reference service
- "The Reading Cave" (childrens' literature on the net)
- Project together with the Norwegian educational portal

Conclusion

You may say: What is new?. True. But what is new or rather unique, is the planned cooperation and coordination across the whole spectrum of the library community. It will encompass the national library, research and academic libraries, public libraries, special libraries - in short, all kinds of libraries. And then there are content and services from archives and museums too. This may sound like megalomania, but we think it can be done – over some time.

First of all, there must be a shared understanding of what we are trying to do.

This includes an understanding of the complexity of the process and way forward. The vision is something that everyone can agree on as an ideal, but we have to find out how to get there.

However, the discussions must not be restricted to the committee or the core team. We have a philosophy of open information and involvement. Hopefully this programme will be both a grass root and a management level baby.

It is still early days, but hopefully in a year or two we will have something more concrete to show for us! Something that can be seen and used and that will actually make a difference for libraries and their users.

www.norskdigitalbibliotek.no is the programme's web site. Unfortunately in Norwegian only.

