

Nordbib – a research library programme

Introduction

Taking effect from the end of 2003 Nordic Council of Ministers (NCM) closed down Nordinfo as the institution had become disproportionately heavy in terms of costs, cf. evaluation report by Dan Brändström. At the same time NCM recognised the need for support for Nordic cooperation in making research and specialist information available in the most effective way, primarily via electronic access. In 2004 NCM appointed a working group, Nordbib, which subsequently put forward suggestions as to a future programme for the area.

The programme takes into account the general objective in Gustav Björkstrand's *NORIA: Nordic research and innovation – global management through increased cooperation* (NCM, 2003). The programme is also in close accordance with the recommendations offered in Niels-Henrik Gylstorff's *Analysis of professional and political challenges within the area of special and scientific libraries in a Nordic perspective* (2003), a report commissioned by NCM. After the hearing in relevant Nordic institutions the programme was renegotiated between a representative of NORON (Nordic national librarians), NCM and a representative of the Danish presidency for NCM in 2005. The following proposals have subsequently been put forward.

The research programme takes as its point of reference the present situation concerning the increasing need for access to digital scholarly research and specialist information in connection with research and education. Scholarly communication finds itself in the midst of a shift of paradigm – in a mediation context as e-publishing and in research where access and availability is imperative.

The digital university with e-research, e-learning and shifts of paradigm in learning creates a need for optimal access to digital content. It requires that modern digital research libraries are able to make electronic services available independent of time and place, i.e. 24/7 remote access and across institutional and national borders.

Development of the digital service, including access to digital content, presupposes a close cooperation and an up-to-date technical infrastructure between research institutions, universities, educational institutions and research libraries. Just as research into new methods of communication, publication models, peer review models, quality assurance, citation techniques etc. are necessary.

At the moment the shift of paradigm is taking place at global level, which means that development needs are the same while the tempo varies. Seen in a global perspective a common Nordic development programme for e-publishing will strengthen scholarly communication in the Nordic countries, and the development programme will be able to involve the Baltic states.

Research infrastructure

Research infrastructure is of crucial importance for basic research, technological development and scholarly training, thereby playing a major part in society's future economical growth – nationally as well as in Nordic terms. Larger and more complex research infrastructures are being used by scholars from different environments and often in international cooperation. Joint exploitation of research infrastructure ensures the efficient use of resources and facilitates larger investments so that scholars are given the best possible foundation for research and scholarly communication.

Research infrastructure was previously to a great degree taken to mean laboratory facilities and apparatus, but lately the concept has been extended to also include the infrastructure which libraries, databases, registers and collections represent, cf. definition below of research infrastructure, as set out by European Strategy Forum for Research Infrastructures (ESFRI).

The term 'Research Infrastructures' refers to tools that provide essential services to the scientific community for basic or applied research. These may concern the whole range of scientific and technological fields, from social sciences to astronomy, through genomics and nanotechnologies. Examples include libraries, databases, biological archives, clean rooms, communication networks, research vessels, satellite and aircraft observation facilities, coastal observatories, telescopes, synchrotrons and accelerators. They may be 'single-sited', 'distributed' or 'virtual'.

At European and EU-level several initiatives have been launched to address the problem of individual European countries having different approaches and procedures in relation to questions of research infrastructure. Great efforts have been made to turn research infrastructure into an active part of the creation of European Research Area (ERA). European Science Foundation (ESF) is working towards creating improved European cooperation on existing research infrastructure and planning new facilities. ESF has initiated studies concerning the building up and planning of large-scale facilities in Europe. The purpose of these studies is to encourage debate in research environments as well as creating a debate between the research councils in Europe.

Many European countries are looking into the question of infrastructure right now. Great Britain is working on developing a 'Large Facilities Strategic Road Map'¹, and in France and Italy special national bodies have been established with responsibility for research infrastructure. Germany is concentrating on updating the recommendations from Deutsche Forschungsgemeinschaft from 2002 concerning infrastructure with new projects and many of the new EU countries are hosting similar activities.

In 2004 the Norwegian Research Council conducted a charting of *The need for scientific equipment, databases, collections of scientific material and other infrastructure*. In January 2005 the Swedish Research Council appointed the Committee for Infrastructure Issues which is to work on supporting strategic prioritisations and charting within all fields of research. The Swedish committee has thus taken over part of the areas of responsibility and appertaining budgets which previously belonged to the Swedish Research Council's specialist research councils. In Denmark the Ministry of Science, Technology and Innovation has asked the Strategic Research Council (SRC) to chart Danish researchers' use of and need for a larger research infrastructure. The Ministry considers it to be essential for Denmark to be equipped as well as possible within the area of infrastructure so as to act positively on international initiatives, to further Danish initiatives and to cooperate and prioritise nationally. In June 2004 SRC appointed the Working group for infrastructure.

Production of digital content – a focus area

Large quantities of digital content are available on the net, but it is not necessarily quality-assessed information. Scientific quality-assessed research information is freely available in so-called Open Access archives², as for example Biomed Central, ArXiv.org, Eprints, or as Open Access journals published by scientific associations and publishing houses. All these archives are international, all are in English – only a couple are Nordic. On a world basis there are today about 1,500 titles in

¹ <http://www.rcuk.ac.uk/documents/uklargefacilitiesstatement.pdf>

² SPARC – Scholarly publishing & Academic Resources Coalition www.arl.org/sparc/

English³ – not a very high figure yet. Most of digital scholarly information – in full text databases or full text journals – is subject to license and therefore requires contractual agreements and access management. In the world of scholarly communication the debate on Open Access is very topical, and universities, research institutions, scientific councils etc. accede to the Berlin Declaration⁴ on free access to scholarly information. They encourage researchers not to relinquish all their rights to publishers, but to make sure that they can also publish on their own or in institutional open archives. Deutsche Forschungsgemeinschaft (German Research Foundation) has just published a new report on scholarly authors' behavioural pattern in relation to OA.⁵

Normally scholars publish scientific information in established journals. STM (science, technology and medicine) are English-language international journals. The international journals are published both in print and electronic form and available via licensed databases. The humanities, social sciences and law are likewise published in professionally recognised journals, but this often happens in Nordic languages and in printed form alone. Very few scientific associations or publishing houses publish electronically today, which means that Nordic scholarly research is not nearly as visible and is not available electronically on the net, neither in Open Access nor in licensed databases. A joint Nordic portal for scholarly Nordic journals could be a valuable tool in this readjustment process and in terms of visibility.

Needs:

- OA policy
- new forms and methods of publishing
- electronic publishing of Nordic scholarly information
- retro-digitisation of Nordic scholarly journals
- A joint portal for Nordic scholarly information – for digitised and electronic information (index portal with links to full text)

Access – a focus area

Digital information can be described as 'floating information'. Structure and use of 'floating information' are different from the use of printed information', where a book would normally be read from cover to cover. Floating information is characterised by being used in fragments, not necessarily in its complete context. The needs of a teacher, a scholar and a student are different in the digital world. You need to have access to the complete text, you must be able to use it in different contexts, to refer to it electronically, and you need to be able to retrieve it many years later, i.e. have a valid unique address to the electronic file. Virtual learning platforms, e-learning systems and research systems presuppose the existence of digital content and seamless access from one content domain to another, and the user would not wish having to have several access keys. User needs include access to quality-assessed digital information across time and place and preferable in a personal portal. Lifelong learning means that a person needs access to digital information over time – in further education and in business.

³ DOAJ – archive of electronic journals www.doaj.org

⁴ Berlin Declaration Oct. 2003 <http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>

⁵ http://www.dfg.de/dfg_im_profil/zahlen_und_fakten/statistisches_berichtswesen/open_access/download/oa_ber_dt.pdf

http://www.earlham.edu/~peters/fos/2005_07_17_fosblogarchive.html#a112213984034082408

Needs:

- access management
- personified portal
- rights management
- application management.

Technical infrastructure – a focus area

The development of the digital university and the research library presupposes that the technical infrastructure is working, locally between library and institution, nationally in relation to technical standards and formats in connection with data exchange, storage, search, access and rights management. Digital archives are a prerequisite for mediation of the institutions' knowledge production.

The technical infrastructure at local level is the basis for cooperation across – nationally, in Nordic terms and internationally. Technical infrastructure is essential for building up partnerships in relation to electronic harvesting in portals and search engines.

Migration of the publishing process from the printed media to the electronic media is a readjustment process that involves not only production and technology, but also organisation and culture. The need exists for e-publishing tools that include workflow for the handling of editorial and peer review processes and technical standards.

Needs:

- concepts for digital archives
- technical system solutions
- standards and formats for exchange, storage, search
- publishing tools including workflow
- method development in user service
- cooperation models
- knowledge exchange
- policy for certification (complying fully with standards etc.)

Roles and interplay – a focus area

The players are producers and users, scholars, teachers and students. Research institutions, universities and research libraries are service agencies in this context. Scientific associations, journals and commercial publishers are today 'data suppliers' via the publishing process and 'quality guarantor' through the peer review process.

The allocation of roles has until the present time been known and stable – but is now breaking up. We therefore need projects that can test new method developments, cooperation structures and change of roles.

Some examples might be:

- Quality assurance in scientific production – today the publishers – tomorrow in an international scholarly forum?
- Print publishing – today the publishers – tomorrow as e-publishing in research libraries?
- Access to digital content – rights management and clearing in the research library?

Nordic cooperation

The picture is the same in all the Nordic countries. The research libraries' role and involvement in connection with the building and development of digital archives, digitisation of materials, license contracts to digital content, access management, rights management and electronic publishing is absolutely central and very similar at Nordic level. Cooperation between research library and universities and research institutions seems to follow the same pattern in the Nordic countries.

There is thus a clear perspective in Nordic cooperation on formulation and realisation of a policy for OA and scholarly publishing in connection with the building up of institutional digital archives, development of technical infrastructure, standards and formats as well as the establishment of digital content.

The perspective in a Nordic programme of cooperation is the utility value of common development of relevant solutions, exploitation of competencies and knowledge, and the impact of a common initiative for the development of methods, publishing strategies and not least a common Nordic policy development for digital scholarly information supply in the future.