The role of the national library as a catalyst for an Open Access agenda: the experience in Sweden

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Abstract
Purpose - To discuss the role of national libraries in developing national Open Access infrastructure and policy on the basis of the experiences of the National Library of Sweden.

Approach – Descriptive based upon the knowledge of a key player in the development of Open Access in Sweden. The priorities and outcome of the programme are described.

Findings – That the NL Sweden since around 1990 has combined the mission of a “traditional” national library with that of a national, research library authority. It has coordinated its support for development of repositories and Open Access in the OpenAccess.se programme, that ran from 2006 to 2009. The conclusion is that a national library can successfully act as a catalyst for closer cooperation between the main bodies of research and research libraries in advancing an Open Access agenda and developing a digital research information infrastructure. This is because it is usually placed directly under the government and thus closer to national policy making. It is often perceived as unbiased in relation to different interests of the various parties involved. It is also able to advance development projects into sustainable services.

Keywords – open access, national libraries, self archiving, Sweden

Paper type – Review

Introduction
The role of national libraries in developing a national Open Access infrastructure and policy is discussed here based on the experiences of the National Library of Sweden.

The National Library (NL) of Sweden has received Swedish printed material by legal deposit since 1661. With the integration in 2009 of the Swedish National Archive of Recorded Sound and Moving Images in its organization, it also became responsible for collecting TV and radio programs, movies and videos distributed in Sweden, Swedish music and multimedia recordings. It serves as a research library primarily in the humanities and social sciences and acquires foreign literature in these fields.

Since around 1990 it has also been assigned by the Swedish Government to coordinate research libraries in Sweden in providing information to higher education and research. Now this coordinating role will be extended to all publicly financed libraries.

The library operates and maintains the nationwide search service LIBRIS, which includes the Swedish National Bibliography and the Swedish Union Catalogue, with references to six million titles from more than 170 libraries in Sweden [1]. LIBRIS has also recently started a new service – Sondera [2] – that searches simultaneously in LIBRIS, the Swedish Media Database and the National Archival Database of Sweden. In another new search service – SwePub [3] – LIBRIS harvests the publication databases of Swedish universities and university colleges for articles, conference papers, dissertations etc, as metadata and in a growing proportion also as fulltext. The NL Sweden also organizes central purchasing of licences for electronic resources for the national
consortium of research libraries.

First steps
The development of digital repositories within Swedish higher education started on a small scale during the 1990s, usually on the initiative of university libraries. In 2003 the NL Sweden launched the national SVEP project to coordinate and scale up development of e-publishing within higher education. Among other things it provided start-up support for building repositories, created consensus on metadata recommendations and developed a national search service for undergraduate theses to demonstrate the use of the Open Archives Initiative Protocol for Metadata Harvesting.

The international discussion about Open Access was first introduced in Sweden by librarians. Later, university leaders started to show an interest and in 2003, their association, the SUHF (the Swedish Association for Higher Education), issued a report favourable to Open Access. In the years that followed, several leading institutions and organizations within the academic community expressed a general support for Open Access by signing the Berlin Declaration. Signatories included the SUHF, the Swedish Research Council and the Royal Swedish Academy of Sciences.

The NL Sweden decided to fund a major project at Lund University - ScieCom - promoting awareness about Open Access. It also supported the development of the now internationally recognized service Directory of Open Access Journals (DOAJ) [4], also at Lund University.

Formation of the OpenAccess.se programme
Development of repositories and awareness-raising on Open Access were integrated in the OpenAccess.se programme, [5]. The NL Sweden wanted to create a platform for practical cooperation between research libraries and the major stakeholders in the research sector. Given that these now officially supported Open Access, would they also be willing to take some practical steps towards fulfilling these goals?

The steering committee was chaired by a former university rector and the members represented SUHF, the Swedish Research Council, the Royal Swedish Academy of Sciences, the National Library of Sweden and Swedish university libraries.

The programme started in 2006 and finished in 2009. For the last two years the Swedish Knowledge Foundation was engaged as a partner of the programme, contributing substantial general funding for projects with a special focus on digital learning resources. The National Library of Sweden coordinated the programme and provided the main part of the funding.

Priorities
The strategic goal of the programme was:
To promote maximum accessibility and visibility of works produced by researchers, teachers and students at Swedish universities and university colleges.

It was defined as a development programme in a wide sense, the core activity was prioritizing and funding projects, usually run by libraries within higher education. There were projects developing new services and standards, user studies, advocacy efforts, state of the art reports on new issues etc. Within the programme 30 new projects were started with a total funding of around 14 million SEK (≈ 1.4 million Euro). Decisions on project funding were taken by the National Librarian on the recommendations of the steering committee. Priorities were formulated in a number of calls for proposals.

The highest overall priority was to create a critical mass of open content, and in particular of self-archived scientific and scholarly articles, in institutional repositories at universities and university
colleges. Six general objectives were put forward, of which the following received the main funding:

- To promote growth of the volume and diversity of material
- To promote access to and use of content in academic repositories and Open Access journals
- To support publishing in Open Access journals and the migration of Swedish scientific journals to an Open Access model

**Major projects**
Some of the major projects were:

- **Unified access to and reporting of Swedish scientific publications.** It resulted in the SwePub [6] search service within LIBRIS.
- **Parallel Publishing of Scientific Articles.** Trials and interviews were conducted with researchers concerning their attitudes and experiences of parallel publishing of articles.
- **Creating OA Information for Researchers.** The project created a website with instructional material about Open Access and arranged a series of seminars targeted to researchers.
- **Access to Nobel Prize Awarded Works – a pilot.** The project has developed a work-flow and tools to provide Open Access to Nobel prize awarded work in Physics, Chemistry and Medicine/Physiology
- **Open Educational Resources in Open Digital Archives**
- **Aiding Scientific Journals towards Open Access Publishing**
- **Best Practice Guide to Open Access Publishing**
- **Sponsor support for Directory of Open Access Journals**

**Open Access policy statements**
The programme was never defined as an outright Open Access lobby organization. There were from the start differing opinions within the steering committee which only gradually changed into a stronger consensus on major Open Access issues. It was for instance discussed whether a government authority such as the NL Sweden should support information projects actively advocating Open Access. Was not this taking a political stand? Another such issue concerned the legitimacy of a research funder or a university adopting a strong Open Access mandate.

The representatives did not have clear mandates to participate in public declarations for Open Access. However, the committee did take a stand when promoting Open Access for the upcoming Swedish Research bill in 2008, but then a formal letter had to be signed by the heads of some of the involved bodies and not by the committee itself.

**Stakeholder involvement**
The involvement of stakeholders gradually grew stronger. The SUHF had already in 2005 taken a Board decision to recommend that universities adopt Open Access policies and now actively supported the core project of the programme, SwePub, by encouraging its members to participate. The Swedish Research Council provided some of the funding for two major projects and finally in autumn 2009 decided on an Open Access mandate for the research it funded. The representative of the Royal Academy of the Sciences was actively involved in setting up the programme and later the Permanent Secretary of the academy opened the way for a pilot project on Open Access to Nobel Prize awarded works.

**Communication**
Communication activities were another important part of the programme. The website [www.openaccess.se](http://www.openaccess.se) is a separate section of the NL Sweden website. It contains mainly information about programme activities, projects, meeting etc. There is some general information about Open Access and a news section that also selectively highlights major national and international
developments within the field.

The programme has organized yearly conferences for those who are involved in the field, called Meetingplace Open Access, and also some seminars targeted to special issues.

**Outcome of the programme**
There has been a rapid development in this area in Sweden during the time span covered by the programme. There are now Open Access repositories at almost every major higher education institution. Their content has been growing quickly and becoming more varied, now notably including a much larger share of self-archived scientific articles. There are some clear indications for this.

Since 2009 there has been a national search service, SwePub, which harvests metadata from the entire publication databases - that include the Open Access material - of most higher education institutions. Its coverage is still far from complete so it can only be used as a data source with clear reservations. The proportion of free online publications to the whole database has risen from 4.1 percent 2000 to 13.7 percent in 2010. The proportion of articles to all free online publications has risen from 23.6 percent in 2000 to 31.2 percent in 2010. The total number of free online publications in SwePub is 36,937 [7].

But this does not account for the total Open Access availability of research articles by Swedish authors. An unknown proportion of articles published in Open Access journals are also deposited in an institutional repository. Only a minor share of articles that authors self-archive actually go to an institutional repository. This is verified by data from Björk and Hedlund. Using a complicated sampling technique, that measures total Open Access availability of articles, Björk et al have come to the conclusion that 20.4 percent of the total article output from 2008 is OA available [8]. Turid Hedlund, using the same data for the Nordic countries, reports a total OA availability of 22.6 percent for Sweden [9].

The number of Swedish Open Access scholarly or scientific journals has also been steadily rising and there are now 37 of them to be found in DOAJ. There is much stronger official support for the Open Access principle that publicly funded scientific results should be freely available on the Internet. This is testified by the Open Access mandates from research funders and universities. Following the Swedish Research Council Open Access mandates have been adopted by the research council Formas (sustainable development) in 2009 and Riksbankens Jubileumsfond (Social Science and Humanities) and The Knut and Alice Wallenberg Foundation in 2010. Three higher education institutions now have mandatory Open Access policies. These are Blekinge Institute of Technology (2007), Chalmers University of Technology (2010) and Malmö University (2010).

It is not possible to separate the effects of the OpenAccess.se from other influencing factors, like the international developments in the area. One might conclude that it has generated a wide range of activities, using a fairly limited budget, that most likely contributed to the overall positive Swedish Open Access developments.

**International evaluation**
The programme was evaluated favourably by two international experts in 2009. The evaluation highlighted the impact of the OpenAccess.se programme on Swedish Open Access developments and the important role of the NL Sweden as a coordinating body [10].

The evaluators, Leo Waaijers from the Netherlands and Hanne Marie Kvaerndrup from Denmark, stated that “The OA programme has been a catalyst for co-operation, networking and activities on a national scale. It has also managed to get OA on the agenda of several important organisations
such as the Association of Swedish Higher Education (SUHF), the Swedish Research Council and the Swedish Knowledge Foundation.”

The review showed a strong consensus among stakeholders on recommendations for a future OA programme based on a strategic framework with clearer goals, bigger projects and broader commitment. One should concentrate on infrastructure, sustainable end-user services, a critical coverage of good content and awareness-raising. The NL Sweden should take the role as coordinator and catalyst for the OA agenda.

**Permanent programme with new focus**

The OpenAccess.se has now been transformed into a permanent programme and the national library has involved the former partners and some new bodies to participate in the steering organization of the programme. The programme lays more stress on information about Open Access to Swedish researchers, who now will have to respond to recent OA mandates from research funders and universities. As a consequence the official website www.openaccess.se has been radically refocused towards having researchers and the general public as its core audience. This is also coordinated with the NL Sweden being the national Open Access desk of the EU project OpenAIRE, which supports researchers in complying with the OA mandates of the EU. The “inside” information for the Swedish Open Access Community is now available on a more informal website, based on blog software. This site is open for direct participation from the community, but still run by the NL Sweden and linked to the official website.

Open Access policy issues is another major theme. The Ministry of Education and Research announced at the Meetingplace Open Access meeting in November 2009 that it was going to formulate a national OA policy. Discussions have been initiated with the Ministry on how to implement this, and the programme will hopefully be able to contribute.

Finally the programme will continue to support the development of infrastructure and user services, building on earlier work. Repositories have to be user friendly and keep a high quality, new kinds of content have to be accommodated, the support for Open Access journals in Sweden should be strengthened and coordinated. The development of services will now more than ever have to unfold within the framework of an international infrastructure for Open Access repositories.

**The role of the national library**

A national library can successfully act as a catalyst for a closer cooperation between the main bodies of research and research libraries in advancing an Open Access agenda and developing a digital research information infrastructure. It has some obvious strengths in achieving this:

i. It is usually placed directly under the government and thus closer to national policy-making than for instance individual universities. This has made it easier to create partnerships with bodies like the Swedish Research Council and been useful in getting the Ministry for Education and Research interested in the Open Access issue.

ii. It can be seen as unbiased in relation to different, and sometimes competing, interests of various parties within higher education and research. There has been a certain competition for leadership in this field between major universities in Sweden, which now has changed into a generally more cooperative atmosphere. The OpenAccess.se has offered an arena where all can cooperate in a fruitful way.

iii. It also has a position to advance development projects into sustainable services, something that might be a considerable problem for a library or information authority that does not run any services. The best example of this from the OpenAccess.se is the SwePub project. The initiative came from a number of university libraries. Their role in the
The project was to analyze the current national metadata format recommendations and develop a specification of requirements for the search service and also communicate with all institutions of higher education about participation in the service. The LIBRIS unit at the NL Sweden then developed the technical solutions for harvesting data and creating the actual search service. After the end of the project the search service is now run by LIBRIS and will later be totally integrated within the general LIBRIS web search. The downside of this is that the national library might be perceived as unjustly favouring the services it runs itself. This can be kept in check by having an organization where university libraries and other stakeholders have a real influence over national, library development issues.

The national library might be regarded as too distant from the daily realities of universities. This can be also be addressed by working in close cooperation with all relevant stakeholders of the field.

The national library adopts an Open Access policy
Gradually the NL Sweden has realized that Open Access principles concern several areas of its operations and that it needs itself to have a coordinated policy on Open Access [11]. The recently adopted policy takes its starting point in the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, which uses a broad definition of Open Access: "We define open access as a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community". The NL Sweden signed the Berlin Declaration in 2006.

The policy covers:
- Support for Open Access repositories and journals (via OpenAccess.se today),
- Open Access perspectives in national licences for electronic resources,
- Open Access to the non copyright protected material digitized from the collection of the library,
- Open Access to publications from the national library and from its staff and finally
- Open Access to metadata

This overview clearly demonstrates the complexity of formulating an Open Access policy for a national library. The policy is supposed to coordinate activities within the library and communicate a clear common position. There is for instance a growing cooperation between the OpenAccess.se and the national consortium for e-licensing - also coordinated by the NL Sweden - to promote a development where licensing deals support Open Access publishing of Swedish researchers.

Open Access essentially concerns the accessibility of national research publications and thus fits very well with other tasks of national libraries in a digital environment, like running national bibliographic services, handling legal e-deposit and providing long term access to digital documents. This discussion is based on the perhaps unusually wide remit [12] of the Swedish National Library but hopefully the conclusions can apply more or less to others.

Web references

Web references
[5] Information in English about policies, projects, organization as well as articles and presentations concerning OpenAccess.se, can be found here: http://www.kb.se/OpenAccess/Hjalptexter/English/


[12] See the introduction to this article, also at [http://www.kb.se/english/about/operations/](http://www.kb.se/english/about/operations/)