Denmark

Christian Ertmann-Christiansen
National Cultural Heritage Agency

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Digitisation policies and emerging initiatives

Policy, programmes and projects

As a matter of national policy, digitisation and digital dissemination initiatives in Denmark continue to be the responsibility of the individual cultural institutions; and, generally speaking, funding for these initiatives must be found within the institutions' normal budgets. However, as awareness of the importance of digitisation initiatives grows, particular funds have increasingly been earmarked for digitisation purposes. Thus, the following important exceptions to the general rule exist; they illustrate a growing attention to the area.
In 2002, DKK 13 mio. from the profits from the sale of UMTS licences were allocated to digitisation of cultural heritage in institutions under the Ministry of Culture, specifically to improving the digitisation of materials under public ownership in order to heighten the quality of cultural dissemination over the Web. From the same funds, DKK 53 mio. were allocated to the major cultural institutions for research (22 mio.) and digitisation (31 mio.) for the period 2003-2005. An additional pool of DKK 15 mio. has been allocated over a three year period (2003-2005) to special initiatives for dissemination, including (specifically) digitisation. The funds are available to non-governmental museums (the approximately 150 museums in Denmark who are recognized – but not run – by the state), who must apply for the funds.
In addition, the government has secured a majority in parliament for an agreement covering preservation of culture for the period 2004-2007 with digitisation pointed to as an area of special attention. Agreement on the final allocation of amounts is pending.
CultureNet Denmark continues to be the Ministry of Culture's own digital dissemination project. CultureNet Denmark is a portal to Danish culture on the Internet; a news service covering the cross-section of IT and culture; a calendar of events; an extranet servicing cultural institutions; a network of institutions for the exchange of ideas; and a funding opportunity for digital dissemination projects (see: http://www.kulturnet.dk/).
A pool of DKK 6 mio. has been allocated over a three year period (2002-2005) through CultureNet Denmark to pilot projects focusing on innovative digital dissemination within the public cultural sector and broader cooperation projects in digital dissemination within the public cultural sector. These founds are available to institutions within the CultureNet Denmark network of public cultural institutions.
CultureNet Denmark is – on behalf of the Ministry – running several programmes to facilitate knowledge-sharing in the field of digital dissemination among employees at public cultural institutions over a three year period (2002-2005).

A new strategy for coordination of digitisation programmes

The transfer of membership of the NRG from the Ministry to the Danish Cultural Heritage Agency (http://www.kuas.dk/) has provided the opportunity to reevaluate the Danish strategy for leveraging the results achieved within NRG and MINERVA. Thus, the following goals have been formulated:

• to contribute to continued improvement of the quality of digitisation and digital dissemination projects through dissemination of the results produced within NRG and MINERVA;

- if necessary, to further develop selected results into recommendations in a form that may be considered useful and user-friendly by actors within Danish institutions;
- to solicit, from Danish institutions and experts, advice and critique, and to incorporate their viewpoints into the work produced within MINERVA;
- to leverage standards, recommendations and guidelines produced within or endorsed by MINERVA and/or other relevant international bodies by incorporating them into the national databases, systems and digital dissemination projects administered by the Danish Cultural Heritage Agency;
- to provide significant resources for Danish institutions involved in digitisation and digital dissemination projects who seek guidance in order to live up to relevant standards, recommendations and guidelines.

While a strategy to implement these goals must rely on voluntary cooperation and coordination measures between government bodies on the one hand and individual institutions and experts on the other, it is hoped that it will contribute significantly to the body of work carried out on the institutions, and that it will help to bring about the kinds of resources needed by institutions that carry out digitisation projects.

Regulatory and legal issues

IPR continues to be a major issue for many institutions involved in cultural dissemination projects. While current legislation has, to a great extent, succeeded in securing the digital rights of IPR-holders, the problem of how to provide the public with reasonable digital access to culture and heritage without violating such rights remains an issue.
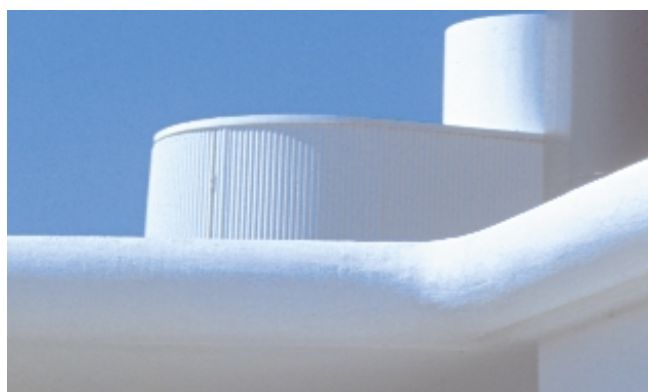
Although the issue is complex and has a strong political dimension, efforts are being made to aid the institutions in navigating the current legal obstacles. One such effort has been carried out through the National Cultural Heritage Agency's participation in the EU-sponsored project EMII-DCF (European Museums' Information Institute – Distributed Content Framework). It is important to note that this work makes a conscious choice to focus on practical aids, not on policy issues. The agency's work focused especially on efforts to produce a manual detailing the legal IPR-issues and a set of license templates to aid institutions in overcoming the obstacles (see `http://www.emii.org/` and `http://www.emii-dcf.org/`).

Cooperation developments

From early on, the Danish participation in the NRG has focused on making the results achieved from the initiative available across the many sectors that have stakeholders in the process. Awareness about the need for coordination across sectors, especially with respect to standards and interoperability has been growing.

International cooperation

As stated in the first progress report, all the major institutions involved in digitisation take part in various European and international networks within their fields, and it is widely recognized, by the ministry and the actors themselves, that such participation yields significant returns in terms of knowledge of relevant practices, standards, technologies, etc. on the one hand, and opportunities for networking and participation in relevant projects on the other.
One interesting new area of cooperation is that of "new

media". A joint research project among the Nordic countries, entitled Nordic media culture: actors and practices and funded by the Nordic Council of Ministers, was carried out in 2002-2003 (see http://www.m-cult.org/ for information about the initiative and the report produced). The Danish involvement in the project was sponsored by the Danish CultureNet and pointed to a need for increased attention to the area, both in terms of funding opportunities, shared physical spaces to provide opportunities for interaction, and increased research in the field.
Since involvement in such international cooperation initiatives is not (and, typically, should not be) nationally coordinated, it becomes important to focus on informal national networks for knowledge sharing. Examples of such networks are given below.

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As local projects have emerged to realise the vision of providing services to the end-user, which draw on data from across several sectors (specifically Archives, Libraries and Museums), there has been an increase in the awareness of the requirements that such projects impose with respect to cross-sectoral coordination. Realising the importance of an increased focus on the convergence towards common standards across the sectors, the Ministry of Culture decided to form a steering group and a working group for the purpose of considering the prospects for possible common recommendations with respect to data content, format and transport (protocols for interoperability) and the possibilities of a common presentation of these data. Both groups were formed from key decision-makers from the three sectors.

The working group made its initial recommendations in August 2003. In many ways, these recommendations echo the recommendations given in the work of the MINERVA project and the discussions in the NRG in general. Specifically, the group made recommendations for the adoption of the Dublin Core metadata set as a way to bridge the structural differences across sectors. Recommendations were made for the increased adoption of XML, and for the adoption of OAI-PMH and/or Z39.50 (with an eye to the developments in SRW for the future) as protocols for data transport. An initial framework for adopting these recommendations across a number of national databases that span the three sectors was also described by the group, and a recommendation was given to follow up the initial work of the group with specific tasks for the implementation of the framework.

Formal and informal networks

In order to reap the full benefits from knowledge obtained from such initiatives as MINERVA and the ones mentioned above, it becomes critically important to provide forae and networks in which information sharing and new liaisons between the various actors in the field of digitisation can occur. Once again, it is impossible to give a complete catalogue, but some important examples include the following. CultureNet Denmark is the sponsor of frequent events centered around particular themes of interest to actors within the field of digitisation, including such topics as usability, accessibility, XML, e-government, content-management systems, etc. These events are open to participation from cultural institutions and stress a peer-to-peer form of communication, in which lessons learned from particular dissemination projects are

made available to other actors. At the same time, the events provide an important opportunity for actors to expand and cultivate their personal networks. A spin-off from the Nordic Media Culture project mentioned above was the establishment of a "new media forum", an informal group of interested actors within the field of "new media" that exchange ideas and points of view with a specific aim to cultivate networking opportunities within this ephemeral and heterogeneous area. The forum has participation from both art museums, educational institutions, artists and relevant government agencies, and has focused (among other things) on the issues involved in cataloguing new media art pieces.

Disseminating the results from and soliciting relevant expert input to the NRG and the MINERVA project requires additional networking. As mentioned in the first progress report, the Danish co-ordination group for the initiative was established in the fall of 2001, comprising relevant experts from the various sectors. As a matter of strategy, it is important to continue to leverage the expertise of this group and their secondary networks in order to benefit from and add to the initiative.

Emerging issues

Major emerging issues in Denmark include the issue of preservation and the continued search for creative ways to activate and aid institutions in digitisation projects.

Long-term preservation of digital memory

As advertised in the first progress report, the work of two policy-level working groups on the issue of preservation has now been completed.

In May 2001, the Parliamentary Committee on Culture asked the Minister of Culture to prepare a report on the state of preservation of Danish Cultural Heritage. The report was to, among other things, suggest alternative strategies for preservation of both physical and digital cultural heritage, and to assess and prioritise the issues according to specific criteria. On the preservation of digital memory, the report recommends, among other things, a centralised harvesting of Internet-based cultural heritage rather than imposing this requirement on the many publishes to the media. It also points to the importance of registering the necessary metadata to enable searches in collected materials. A number of specific recommendations are given with respect to methodology, priorities, policy and delegation and guidelines for accessibility. The report is available for download at `http: //www. kum. dk/sw5937. asp` in Danish only; however contact points for further information are noted as well.

State of participation of small- and medium-sized cultural institutions in digitisation

Because small- and medium-sized institutions are, by definition, constrained by budget in any enterprise, and because of the significant investment necessary to take full advantage of the new dissemination opportunity that the Internet provides, it becomes necessary to find creative solutions to the problem of gathering momentum for such projects. This is true in terms of funding, and it is certainly true with respect to the many new competences that institutions must acquire to live up to quality requirements.

One approach that has proved important and fruitful in Denmark is the funding and networking opportunity

provided by the CultureNet project. Through the project, institutions are able to gain access to the accumulated experience of dissemination projects already completed, and it remains a very important function of the CultureNet to leverage this knowledge repeatedly. At the same time, it provides some insight into the level of activity and state of the art of current dissemination projects. A supplementary approach is to leverage technological opportunities to centrally service needs that are similar across institutions and, in the process, streamline, standardise and make accessible the knowledge contained within institutions. One project that attempts to do just that is the Museums' Collections project. Initiated by the National Cultural Heritage Agency in order to provide Danish museums (primarily museums of cultural history) with access to a modern collections management system, the project implements a three-tiered, open source architecture that enables a centrally located database to service the needs of a large number of museums. In doing so, several critical goals are served:

- the museums are given access to a platform-independent collections management system that they require at negligible cost to the museum and at reduced total operating cost;
- all registration of items in the system are required by the design of the system to conform to the Danish Museums' Documentation Standard;
- collections are immediately accessible over the Internet to other museums, researchers, and, indeed, to anyone with an Internet connection; and with nearly all state-recognized museums of cultural history as users, participation is near total.

The system is scheduled for delivery in 2004, and a follow-up project will aim to provide similar solutions for art museums. A Danish language version pilot study for the project is available at http://www.kulturhistorionline.dk/

Use of NRG/MINERVA results and impact

It is, of course, impossible to gauge the cumulative impact of initiatives such as NRG, MINERVA and related initiatives. Information and results from the NRG and MINERVA have been made available to the Danish coordination group and, through them, has influenced both institutions and actors within them and provided a focus and guidance on particular issues. Eventually they reach the end-user through the multiplication of services in the cultural domain and an increase in their quality.
Through the participation of government bodies such as the National Cultural Heritage Agency, such results find their way into the practical implementation of projects such as the Museums' Collections project mentioned above, providing both a paradigm and expertise for other actors to follow and benefit from.
It is an important aspect of the agency's coordination strategy to continue to maximise the practical use of such results. Current discussions and deliberations focus on how to accomplish this goal by finding the right balance between various distribution channels, including the Web, formal and informal networks, workshops, and guidance attached to particular government-funded projects.