Norway

Lars Egeland
Department of Information
Norwegian Archive, Library and Museum Authority

The Norwegian government's policy aims for IT development and how it is planned to achieve these aims are set out in the report *eNorge 2009*. Last Autumn, the Minister for Modernisation, Heidi Grande Røis, presented an interim report stating that "as of October 2006 there had been a marked advancement in the status of a number of these aims. Compared with other countries, there is a high level of use of and a well developed infrastructure for ICT in Norway".

The interim report points out some basic challenges to be met on the work due to be carried out over the coming years in order to achieve the aims of *eNorge*. These include:

- Attaining digital inclusion. Currently it is largely the well-educated and the young who seek frequent access to and make use of online services.
- The use of ICT in schools stops increasing at too early a school level. Despite massive investment in ICT training for schools, the majority of Norwegian pupils in years 7 and 9 used a computer for less than an hour a week in the period 2003-2005 – and the use is continuing to stagnate.
- There is a need for more and improved digital services aimed at the general population and at industry.

In relation to the creation of digitized access to our cultural heritage, the interim report states that «The digitization of the sources of culture and knowledge is an important step in the democratization of society. The creation of access to the materials includes both the actual conversion of these to a digitized format and the establishment of standards for searches and presentations. In addition, the use of restricted materials should be clarified with the rights holders. The work is demanding, and there will be a need for considerable efforts over the next several years, both in terms

of equipment and organization. Comprehensive programmes of digitization have been initiated under the auspices of the National Library and the Arkivverket¹. The Norwegian Archive, Library and Museum Authority (ABM-utvikling) plays a key role in the ongoing development of a national strategy for work on digitization in this domain.»

A national policy on digitization

In Summer 2006, The Norwegian Archive, Library and Museum Authority published the report A Cultural Heritage for all. (A digital English language edition is available at http://www.abm-utvikling.no/ publisert/ABM- skrift/2006/32_eng_web.pdf>). The report is about digitization, digital preservation and digital dissemination in the archive, library and museum sector and was made by a Working Group on Digitization appointed by the Norwegian Digital Library under the aegis of The Norwegian Archive, Library and Museum Authority. The report is currently under discussion. The White Paper no. 48, Cultural Policy towards 2014, stated the Ministry wanted The Norwegian Archive, Library and Museum Authority to take the initiating and co-ordinating responsibility for preparing a status report providing the basis for more uniform thinking and planning of future work on the digitization of cultural heritage materials." (The Report on Culture, p. 169). The Working Group proposed the following initiatives:

- A concerted and co-ordinated national effort should be undertaken to create access to the sources of knowledge and culture managed by the archives, libraries and museums.
- A critical part of the national effort should involve the creation of a programme for retrieval which would permit a high level of production of digital materials by the whole domain. The aim is to create access in a digital format to a wide and representative proportion of the original analogue collections.

- When establishing a national programme for digitization of materials in the archive, library and museum domain, a set of the general principles and criteria for selection should form the basis for the primary aims of the programme.
- The Norwegian Archive, Library and Museum Authority should, in co-operation with the major relevant organisations, initiate training programmes and education in the field of digitization.
- Concerning the development of a national infrastructure for digitization, the databases Asta (for Archives) and Primus (for Museums) should be developed to allow them to function as tools for national online production databases for catalogue information.
- Integrated digital repositories for long-term preservation of digitized materials at a national level should be defined.
- The Norwegian Archive, Library and Museum Authority should prepare an overall plan for the development of instructions and guidelines where required.
- When allocating funds from a national programme for digitization in the archive, library and museum domain, emphasis should be placed on the degree to which the digitized material can be made accessible to user groups.
- A steering committee for the initiative should be appointed at a high, even political level, with representatives from the Ministry of Culture and Church Affairs, the Ministry of Education and Research, and the Ministry of Government Administration and Reform.
- As part of a national effort for digitization in the archive, library and museum sectors, regional centres of expertise should be set up to encourage digital cohesion. These should in part be government-funded.
- Institutions at the national level should receive resources and funding to allow work on digitization of their own materials to progress at a reasonable pace.

Shortly before Christmas 2006 the Ministry of Modernisation launched a white paper on ICT-policy (Report to the Storting No. 17 (2006-07) *An information society for all*). The report states that «At its best, the Internet is based on a sharing of culture and a repeated use of its resources. The common

ground created by the Internet should be as large as possible and contain information and materials of a high quality. In this territory the focus should be placed squarely on the needs of the users; it should be possible to use digitized materials repeatedly for non-commercial purposes, and this use should be available free of charge to the individual user. It would, of course, be a precondition that the materials are not made generally available without the agreement of the right holder.»

The government is of the view that, in addition to the provision of public information, the possibility of entering into licensing agreements to release materials covered by copyright should be examined, thereby ensuring access to all Norwegians to information which is otherwise the reserve of a smaller, privileged group.

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As a first step, the government has set aside NOK 10 million for digitization purposes in the archive, library and museum domain for 2007.

Users and content

In association with the report A cultural heritage for all, a survey was carried out which asked a number of the archives, libraries and museums to give an account of the current status of the work of digitization in their institutions. Of the institutions that answered the survey questionnaire, three quarters already possess or are in the process of developing digital catalogues of their own collections. Of these, those in the library and archive sectors are the most advanced, with almost all the library and 80% of the archival institutions having digital catalogues. The museums appear to lag behind, with only around two thirds possessing digital catalogues. It is most apparent in the museum sector that smaller institutions are less likely to have digital catalogues than their larger counterparts. Only just over a third of the institutions are working on the digitization of the actual content of their collections. In this area, the archive sector is in the lead, since more than half have started to digitize their collections. Around three quarters of the institutions report that they have digitized only a small part of their collections (0-25%). It is probable that in many cases the reality is closer to zero than to 25%.

Textual materials are the most common type of original

material in the digital collections. Far more handwritten texts are digitized than printed texts. The largest collections of handwritten texts consist of church registers, folk tales and language archives. Of the printed texts, periodicals and literary texts are the most common. The digitized texts constitute in roughly equal measure full texts (transcribed or OCR processed) and facsimile (scanned) texts. The reduction in price for the production of facsimiles has led to a sharp increase in this type of digitization, even though transcriptions often provide more opportunities for different uses of the materials. Scanned photographs also make up a large part of the digitized materials. There is considerably more digitized material available covering more recent history than from the more distant past. This should, however, be considered in terms of the amount of available analogue material covering the different periods. When considering the large quantity of extant analogue materials from the 1800s, and in particular the 1900s, the albeit extensive digital collections from these periods represent a much lower proportion of coverage than that achieved for the Middle Ages. However, the period with perhaps the poorest coverage of digitized materials is the early Modern Period (from around 1500 to around 1800), at least when compared with the Middle Ages and the 1800s. Concerning accessibility, the survey showed that approximately one third of the digital catalogues were inaccessible to the public, while just over a third were openly accessible and something under a third were partly accessible. The catalogues in the libraries are largely accessible; those in archives are accessible to a fairly large degree. Only a few digital catalogues in museums are generally accessible. Almost half of the digitized collections identified in the survey are openly accessible to the public, while almost a quarter are partly accessible. Again, it is evident that the collections in the archive and library fields are to a large extent accessible, whereas digital collections in museums are less accessible to the general public.

As regards the proportion of collections that

and video that reveal a lack of public access.

The proportion of the collections of texts that

the collections of photographs, artefacts, sound, film

is accessible to the public, it is particularly

is generally accessible is greater.

In approximately half of the cases there are particular obstacles, often of a legal nature, that underlie the lack of general access. When in certain cases these limitations do apply, it is rarely a question of cost. Not surprisingly, the most common obstacle to the digital publication of the collections in libraries is related to copyright, whereas questions related to the protection of individual privacy play a greater role in the archives.

In order to support long-term policy aims

and co-operation, it is important that plans

and priorities are stated in writing. The survey showed that the museums are in the lead in this respect, although only about half of them reported that they have prepared written plans and stated priorities with regard to digitization work. Just under half of the archives and only a third of the libraries have prepared such work. Here again, the trend shows that the larger institutions are in front. The financing of major digitization projects tends to come from project funding, indicating a lack of long-term financial planning, and thus preventing organised investment in the future. Nevertheless, the greatest number of projects have been financed through the institutions' own budgets in some form. Among the findings of the survey is the fact that few standards are mentioned in connection with digitized materials, and much of the material does not appear to be covered by standards. However, where standards do exist, there appears to be wide use of these, which indicates a willingness to use them when possible. In relation to catalogue materials, the same point is illustrated by the number of catalogues based on MARC. No corresponding standards for museums and archives are mentioned. However, it is positive that in most cases of catalogued materials, national solutions and systems are used. Also positive is the fact that digital collection files are on the whole stored in open formats and on hard drives.

Out of the darkroom

The report *Out of the darkroom* which deals with the preservation and digitization of and access to photographic materials, was published in 2006 by The National Archive, Library and Museum Authority. The conclusion was made that there are in existence at least 60 million photographs

in an analogue format which are potentially worthy of preservation. Of these, around 22 million are today owned or administered by the institutions of the archive, library and museum sector, distributed as follows: 14.5 million in the museums, 5.3 million in various archival institutions, and 1.6 million held by the libraries. In addition, there are around 600,000 photographs that are roughly equally distributed among historical associations, the municipalities, and others. Thus, at least two thirds of the photographs that are potentially worthy of preservation are in private hands, indicating the challenges involved with the collection and preservation of the materials. The greatest funding challenge, however, is the fact that more than 95% of photographic materials owned by public institutions have not been converted to a digital format and neither are they electronically catalogued or accessible online. Experience has shown that the cataloguing of photographs for use in public databases often requires much greater competence and more time than the process of digitization itself. From work carried out in Sweden, it is reasonable to calculate a production of 17,500(?0) pictures per full-time equivalent cataloguer, including digitization and (serial) cataloguing. On this basis, there is a need for 1,260 full-time equivalents based on current production methods and infrastructure, or a cost of NOK 725 million, or almost 100 million Euros.

Monitoring progress

There is an on-going process of digitization and access creation in both national and regional institutions. Work is continuing to develop standards to report the volumes of accessible material and the use made of it, but these have not yet been completed.

Digital Archive

Digitalarkivet (The Digital Archive) is the Norwegian National Archives' channel for the publication of digitized archive material in the form of images, transcribed texts and databases. The content includes archive material both from electronic sources and traditional paper sources, that is either digitized from an original or a microfilm. The Digital Archive contains all Church books, which hold records of births and deaths and many

other genealogy sources. This explains why they receive approximately 80 million searches a year, or 20 searches for every Norwegian.

The National Library

The National Library is pursuing a dynamic strategy of digitization; a comprehensive digitization programme, to cover the entire collection, was begun in March 2005 and is intended to be completed in 15 years. The object is to facilitate access for the highest possible number of users to that part of our cultural heritage which is in the charge of the National Library. At the same time, it is important to ensure that the contents are preserved even if the original documents should fall into disrepair or disintegrate, or because public access is limited for security reasons. It is equally important to provide wide public access to those parts of our cultural heritage that are created in an electronic format, or archive material worthy of preservation which has been and continues to be created in the electronic archives of administrative bodies and private organizations. As a part of this task, an issue requiring clarification is that of pledges of confidentiality that have been given for reasons of personal privacy.

Norwegian Broadcasting Corporation

The Norwegian Broadcasting Corporation (NRK) is currently carrying out a programme of digitizing its archival materials. Particular progress has been made in respect of radio programming; around two thirds of the radio programmes stored on analogue audio tapes have so far been converted to a digital radio archive. The digitization is carried out in collaboration with the National Library. In the area of television, NRK's progress has been slower, a factor which is largely due to the particular problems that arise in the digitization and handling of files. The Corporation has stated that work on the digitization of documentary materials made before 1985 may take as much as 15 or 20 years.

The Norwegian Film Institute

The Norwegian Film Institute is highly developed in the field of digitization technology; it was the first film archive in the world to launch a service of online film rental by the click of a button. Around 4% of The Norwegian Film Institute's collection of 10,000

Norwegian titles have been converted to a digitized format and made available online, and work is continuing to increase the number of titles available this way. 150 titles were digitized in 2006, and there are plans for a further 200 titles to be added in 2007.

The Norwegian Library of Talking Books and Braille

The Norwegian Library of Talking Books and Braille's collection of talking books will be fully digitized during Spring 2007. This will mean that around 9,000 titles will be available for online loan. Currently there are approximately 8,500 titles available in a digitized format.

Culture Net Norway (Kulturnett.no)

Culture Net Norway is produced and maintained by The Norwegian Archive, Library and Museum Authority on behalf of the Ministry for Culture and Church Affairs. Culture Net Norway aims to provide knowledge and experience through digital culture and digital information about cultural resources to the general public. It is a marketing body for Norwegian cultural institutions/artists and provides information on their activities. It consists of a national Web portal and 10 regional portals. Two new regional culture nets were launched in 2006. It has a database of artists linking for example to digital versions of visual art, a base of cultural institutions, and a knowledgebase on topics in the cultural sphere in Norway, in a wide meaning of the sense. Culture Net Norway also sponsors the production of culture in a digital format by other institutions. Culturenet.no including the regional nets, had 1,250 million user-sessions in 2006, which was a 50% increase from 2005.

The Documentation Project

The Documentation Project is a co-operative project between the university libraries and the university museums. It contains a vast number of archaeological and lexicographic sources. These include The Norwegian Collection of Folklore, a collection of Folk Music, collections of Coins and Medals, The Runes Archives, and large collections of place names and other aspects of the Norwegian language. Also included is Diplomatarium Norvegica, a large full text collection of medieval letters, contracts and other documents.

^{1 &}quot;Arkivverket" consists of the National Archives, eight regional state archives and the Sami Public Records Office.