The response of the Koninklijke Bibliotheek to the i2010: Digital Libraries online consultation on digitisation and digital preservation

Introduction

The Koninklijke Bibliotheek (KB), national library of the Netherlands, welcomes the opportunity to take part in the online consultation on digitisation and digital preservation of the European Commission. We have a longstanding experience in both fields.

Since the mid-1990s, the KB has gained experience with digitisation in a large number of projects. As initiator and coordinator of the long-term national programmes *Metamorfoze* (national programme for the conservation of paper-based heritage) and *Het Geheugen van Nederland* (Memory of the Netherlands, national digitisation programme) the KB has built up a successful technical and organisational infrastructure for mass digitisation.
The House of Representatives of the Dutch Parliament has recently commissioned the KB to start on the project *Staten-Generaal Digitaal*. This project, the digitisation of all parliamentary documents since 1814, also makes use of the knowledge the KB has acquired.
As a result of these programmes and this infrastructure, some 90 scientific and cultural institutions in the Netherlands and abroad have been served in recent years.
This year the KB will start a new mass digitisation project aimed at the development and exploitation of a *digital databank for newspapers* as a large text corpus for scientific research. This digital databank will be filled with about 8 million pages from Dutch newspaper titles.
Furthermore, the KB runs the European search service, *The European Library*, and is involved in the TEL-ME-MOR project.

Over the last decade the KB has invested a great deal in researching, developing, and putting in place an electronic deposit system. Since 2003 we run a fully operational electronic deposit system, the e-Depot. Over the last four years the KB has concluded archiving agreements with the largest international publishers for the long-term storage of their electronic academic journals.
The long-term storage of electronic material is a complex problem. Digital material has a brief lifespan. The rapid pace of technological change means that the techniques and procedures for long-term storage and accessibility need to be constantly adjusted and improved, regardless of the chosen strategy. Therefore, since 1994 research and development on long-term digital preservation has been a topic of growing importance for the KB.
Furthermore, the KB is involved in the international process to develop a certification system for digital repositories. The international Task Force on Digital Repository Certification (initiated by RLG and NARA) has developed an audit instrument which is now being tested. Three digital archives have been chosen as pilots for the test-audit, among which the e-Depot of the KB. The test-audits take place in February 2006 and will involve the investigation of the archive's organisational and technical infrastructure and processes. This external audit should ultimately result in the certification of the e-Depot.

Digitisation

The creation of digital content is a vital prerequisite for a successful European Digital Library. Despite many national digitisation initiatives, the necessary critical mass of digital material is still lacking within Europe. This situation will continue unless European funding for mass digitisation becomes available.
Mass digitisation within Europe requires the development of coordination processes for the identification of priorities and selection criteria in order to present thematic and coherent collections.

A European funding programme should go hand in hand with a European organisational framework. The European Library (TEL) already offers a networked organisational structure on which to build the European Digital Library. This national libraries network could easily be extended to other sectors (archives, museums).
Such a distributed organisational structure of the European Digital Library demands a high level of interoperability between data from all contributing institutions. Therefore, work on technical and metadata standards will be needed. The distributed solutions of TEL could be of interest in this respect.
Copyright issues are a key challenge for digitisation. They form a significant barrier for digitisation projects. To offer copyright free material alone will never satisfy the users. Therefore, harmonised copyright laws and clear regulations are needed at a European level. Within this context special attention should be given to the issue of orphaned works. A common European code of practice for dealing with this material is needed to give security to the rights holders and the digitising institutions. Finally, a European register is needed to avoid duplication of digitisation efforts within Europe.

Digital preservation

Organisation
In Europe many organisations and researchers, ranging from the natural and engineering sciences to the social sciences and humanities have been very active in developing digital data collections. However, from the perspective of long-term preservation, a much smaller number of researchers and organisations have been actively engaged in raising awareness and working on solutions that may be relevant to long-term preservation and access. In the context of successive EU RTD Framework Programmes several networks have been built, but these were mainly focused on information exchange.
Long-term preservation and permanent access have now become crucial issues within the strategies of many of the organisations concerned. There seems to be a growing basis for a more comprehensive initiative aimed at bringing together the key players involved at a strategic level. The many small initiatives in the field of digital preservation need coordination preferably at a supranational level.

The European Task Force Permanent Access, that was established as a result of the conference "Permanent Access to the Record of Science" organised by the KB, proposes a three-pronged approach to tackle the challenge of long-term preservation and accessing of digital data in Europe. A strong Alliance of committed parties needs to be formed. These parties should agree on, and work together to implement a common Architecture that identifies the core elements of the infrastructure for preserving and accessing digital data. Furthermore, they should carry out and seek further support for a Strategic Action Programme. The final report of the Task Force has recently been presented to the European Commissioners involved, to the European Strategy Forum for Research Infrastructures (ESFRI), and to the European ministers of science.
The Alliance will start its work in the coming months. It will consist of a small number of major stakeholders in Europe, from the world of science, publishers and libraries, which is open to collaboration with others. The Alliance wants to strengthen existing initiatives in the area of digital libraries and digital heritage. It will focus on preservation and on an action-driven approach in scientific areas where the huge interests of economically powerful stakeholders enable rapid progress. The Alliance will bring together a crucial group of stakeholders who are convinced that their strategic development necessitates common action. It aims to be a strong counterpart for the EU and national governments in Europe as they pursue their policies to strengthen Europe as an information society.

Research and Development
The development of a European R&D-programme in the field of digital preservation is one of the essential components of strategies to manage permanent access to the digital record in a way that is sustainable over the long term. It is critical that a future R&D programme focuses on developing solutions which can be implemented in the short term, while at the same time developing and evaluating technical and management strategies for the medium, long and very long term. Therefore

an R&D programme needs to cover a range of research approaches, from exploratory and innovative computer science to developing test beds to implement solutions.
The Task Force Permanent Access developed a proposal for a European R&D-programme to be carried out as part of the 7th Framework Programme for RTD of the EU. This proposal was presented to the European Commission last autumn.
The proposal differs in two essential ways from previous and ongoing efforts at the European level. It is focused much more on research and on prototyping and testing (developing new knowledge), and much less on networking or working groups to exchange information.

The Task Force believes that Europe would benefit from adopting this next step forward and highlights six focused technology themes as the primary categories for the research and development programme. These are:
- *Developing and deploying technical tools to support different preservation strategies;*
- *Representation information, registries, and object identification;*
- *Managing complex dynamic datasets and databases;*
- *Developing distributed archives and network solutions from a preservation perspective;*
- *Devising new approaches to the development of IT solutions from the perspective of the durability of information.*

To these technology themes a sixth theme can be added which the Task Force considers to be equally essential:
- *developing life-cycle costings, value chain analyses and other economic models, as well as digital access management guidelines and tools to support sustainable long and very long term preservation and access.*

The KB strongly supports the proposals of the European Task Force Permanent Access. We welcome the announcement by the Commission that as a companion to the Communication on Digital Libraries, there will be a similar Communication that focuses on scientific information. The KB is convinced that the experience and the position of the organisations participating in the Task Force, and its successor the Alliance, make their proposals a vitally important input for this Communication.

See for more information on the Task Force, the R&D proposal and the final report: http://tfpa.kb.nl.