



ARCHIVES

Jūratė Kupriena

COLLABORATION WITH DIGITALPRESERVATIONEUROPE

Electronic resources are a central part of our cultural and intellectual heritage, but these materials are at risk. Digital memory requires constant management which uses new techniques and processes so as to eliminate risks such as technological obsolescence. The risks begin even before the digital record is created, and they continue for as long as the object needs to be retained. Digital preservation is too extensive an issue for individual institutions or even sectors to address independently. Concerted action is required at the national and the international level. *DigitalPreservationEurope*, which is building on the earlier successful work of ERPLANET, facilitates the pooling of complementary expertise from the academic, research, cultural, public administration and industrial sectors in Europe.

Keywords: Electronic documents, digital memory, digital preservation, *DigitalPreservationEurope* (DPE).

The purposes of this paper is to present the *DigitalPreservationEurope* (DPE) initiative, which seeks to foster collaboration and synergy among existing national initiatives in the European Research Area, as well as to address the need for improved co-ordination, co-operation and consistency in ongoing activities aimed at securing the effective preservation of digital materials.

Objectives of the DPE project

DPE project partners seek to raise the profile of digital preservation, promote the ability of EU member states to work together in adding value to digital preservation activities throughout Europe, engage in cross-sectoral co-operation to avoid redundancy and duplication of effort, ensure auditable

and certificated standards for digital preservation processes, facilitate skills development through training programmes, support co-ordination and exchange of research, develop and promote a research agenda, and help local residents and professional specialists to recognise the central role which digital preservation plays in their lives and their work.

Digital Preservation Europe (DPE) has three main objectives, and each has one or more secondary goals:

- 1) To create a coherent platform for proactive co-operation and collaboration, as well as an exchange and dissemination of research results and experience in the preservation of digital objects. This involves:
 - a) Identifying and raising awareness about sources related to the protection and preservation of digital objects across the broad spectrum of Europe's national, regional, cultural and scientific heritage;
 - b) Helping to eliminate duplication of effort in research activities at various institutions, making it possible to identify, collect and share knowledge and expertise;
 - c) Creating a conduit between research and practice so as to foster collaboration in the area of preservation;
 - d) Stimulating further research on key aspects of digital preservation, encouraging the development of standards in those areas where gaps or opportunities have been identified, thus helping to promote and to develop research agendas.
- 2) To expand preservation services and their viability and accountability:
 - a) Supporting the development of a pan-European approach to the auditing and certification of digital repositories as an essential stage in creating content management and delivery services;
 - b) Stimulating ICT companies and software developers to create newer generations of relevant software;
 - c) Relating the digital preservation research agenda more directly to the development of exploitable product opportunities, as well as developing links with the relevant industrial sectors.
- 3) To improve awareness, skills and available resources:
 - a) Examining core issues which deliver essential guidelines, methods and tools to enable preservation activities in the European public and private sectors;

- b) Organising training seminars on the basis of best practice, identifying the training and staff development initiatives which can be undertaken for practitioners.

The Consortium

The *DigitalPreservationEurope* Consortium brings together a range of expertise and influence, as well as interests and skills in digital preservation. Partners are all researchers or practitioners in the area of digital preservation, and they are involved in various national, European and international projects. They largely come from communities of practitioners, researchers and educators. Some are from libraries, others hail from archives or universities. These are internationally respected experts in their areas of activity, and they have all been involved in the successful delivery of substantial projects. The consortium offers a well-balanced mix of expertise – researchers and practitioners in the area of digital preservation, cultural stakeholders, technology providers, as well as people from communications and training centres.

The partners: The Humanities Advanced Technology and Information Institute at the University of Glasgow in the UK, the Vienna University of Technology in Austria, the State and University Library and National Media Archive in Aarhus, Denmark, the Dutch National Archives, the National Library of the Czech Republic, the General Directorate for Library Heritage and Cultural Institutes in Italy, the Fondazione Rinascimento Digitale in Italy, the Faculty of Communication at the University of Vilnius in Lithuania, and the FernUniversität in Hagen, Germany.

The DPE survey

Under the auspices of the DPE project, the National Library of the Czech Republic conducted a survey of recent developments and plans for long-term preservation of digital documents at the national libraries of Europe. 54 questionnaires were distributed by print and electronic mail. The aim was to determine the importance of long-term preservation at the various libraries and to learn how far along they were in the establishment of digital repositories. Respondents were asked whether their library wanted or needed to co-operate with others and, if so, with whom they co-operated.

The absolute majority of respondents said that long-term preservation of digital documents is a key strategic priority, with only two dissenting. Four libraries did not list the subject as a key strategic priority, but did mention it as a priority for the future.

More than one-half of the libraries did not have a repository for the long-term preservation of digital documents. Most libraries are in the planning phase in this regard, and that should result in the establishment of trusted repositories in the near future.

Digital preservation is too big an issue for individual institutions to address independently, and that is the main reason why they try to work together. All of the libraries said that they co-operate with other memory institutions. Nearly two-thirds also work with research institutions, producers of digital documents, software developers and IT companies. In a few cases, respondents indicated co-operation with other institutions such as policy bodies and specialised archives.

The building and maintenance of digital repositories is a very complex and expensive business. It is clear that co-operation among institutions is very likely in this area. Just five libraries said that they already had a digital repository, one that is used only for their own needs. Almost all of the libraries co-operate with other institutions – mostly other libraries and archives – or plan to do so in the future.

The system used for repository management is of key importance in terms of performance and reliability. The majority of European libraries do not have a trusted repository at this time, so it was very difficult for them to state in the survey which software system is best for repository management and which would eventually be selected. Some libraries already use commercial systems or would like to do so. Others use open source systems, often in combination with commercial or in-house systems. Seven libraries have developed their own in-house system for repository administration.

The answers given in this survey show that there are many different issues and solutions in the long-term preservation of digital documents and access to same. This is certainly a very important topic at this time for all of Europe's national libraries. All of the players in the field consider widespread international co-operation to be extremely important in providing complex solutions. That is a good thing.

Training and education

The Faculty of Communication (Vilnius University) is focused on training and the ongoing development of digital preservation. The goal is to determine the main priorities in framing and guiding education and training initiatives in digital preservation, as well as to provide recommendations to course and curriculum designers at the university and in ongoing professional development programmes. An outline of training principles and objectives has already been prepared. A structured view of the area of digital preservation has been created through a definition of the concept, as well as the relevant research and practice landscape. The implications of changes created by digital preservation in terms of the demand among digital curators for knowledge and skills have been explored. The demands and objectives of education and training related to digital preservation have been delineated after discussions in the relevant archive, library and museum communities and a study of the relevant European politics. A thematic framework for education and training in digital preservation has been developed on the basis of an examination of those issues which have been discussed in earlier training sessions related to this matter.

A research roadmap

There has been much discussion in recent years about what kinds of research are needed in the area of digital preservation, but no concise and well-developed strategy which represents the views of the broader community has emerged. Based on an extensive study of existing research agendas in this area, the DPE has set up a so-called research roadmap, which is aimed at providing a concise overview of the core issues which must be addressed in digital preservation research in the future.

Building upon research agendas that have been developed over the course of the last 16 years, the DPE's research roadmap offers an assessment of the state of the art in digital preservation, a review of selected reports on relevant research, and an overview of core research issues that have been identified by the DPE.

The roadmap was developed on the basis of desk-based research – a study of the literature and an examination of ongoing and former activities. There were focus group discussions in meetings and conference calls, as well as

via E-mail and instant messaging. A number of interviews were conducted, and an online survey was posted on the DPE Website.

The DPE has recommended research into restoration, conservation, management, risks, significant properties of digital objects, interoperability, automation, context, storage and experimentation.

A repository audit

The DPE has worked with the Digital Curation Centre (DCC)¹ to develop the DRAMBORA (the Digital Repository Audit Method Based on Risk Assessment). This toolkit facilitates internal audits by providing repository administrators with a means for assessing their capabilities, identifying their weaknesses, and recognising their strengths. It complements other work on attributes and criteria for Trustworthy Digital Repositories. DRAMBORA can be used by a wide range of digital repositories, including the majority of those whose mandates do not yet include responsibility for long-term digital preservation.

The development of this toolkit followed a concentrated period of pilot audits of repositories, as undertaken by the DCC. This involved a diverse range of organisations, including national libraries, scientific data centres, and archives of cultural and heritage data. We understand that digital repositories are still in their infancy, and the model will respond to the changing needs which will be the rest of the rapidly developing situation.

While formal certification is still some time away, the DCC and the DPE are confident that there are many benefits to be gained through the process of self-auditing. Three tutorials have been announced to introduce the DRAMBORA toolkit so that it can be taken up in the UK, Europe and beyond.

Community building

The DPE's objective, in other words, is to create a network for disseminating consciousness about digital preservation issues through the encouragement of clustering, sharing and distribution of information about various aspects of same. The focus of co-ordination is on the clustering of different types of partners so as to develop a framework of members who will co-operate and communicate with one another in pursuit of a co-ordinating strategy.

The DPE network seeks to strengthen existing connections among all of the partners, bringing together efforts and competences in ongoing projects and refining actions and tools which are used to address and stimulate the user community, particularly that part of the community which remains unaware of these issues.

The main objective of the DPE project is to inform the widespread community of users about digital preservation issues so as to increase awareness and sharing of experience on the subject. The creation of a solid network is an effective means for achieving these objectives. The DPE believes that each partner is important in the dissemination of information about these issues and in the enlargement of the community.

The potential partners of the DPE network can be divided up into three categories:

1) International or institutional partners such as UNESCO, NRG, PADI, RLG, DPC, DCC and IFLA. These have been identified in accordance with the relevant strategic alliances so as to disseminate information about digital preservation activities and research. The partners all have specific tasks and advantages in this process. Some aspects of co-operation involve patronage of events or joint organisations, as well as shared communications channels such as newsletters, publications, Web tools and cross-referencing;

2) Research projects such as NESTOR, PLANETS and CASPAR which are involved in European research activities. Their involvement in the project is decisive in clustering and sharing European Research Area findings and in disseminating research capacities across Europe and worldwide. This will help in overcoming the fragmentation of European activity so that a common point of view can be developed about digital preservation. The partnership must be one in which the DPE and all of its partners can share experiences and best practice, test recommendations, develop common research agendas, facilitate training activities, organise joint publications or events, create Website cross-references and common calendars, organise help desks and develop educational materials.

3) The user community, made up of different kinds of users, both content holders and final users. These are people who have to cope with the various issues of preserving digital content. They will be policy makers, professionals from archival and cultural institutions, people from the research community

and industry, individuals who wish to become competent in the area of digital preservation, etc.

The DPE will set no limits to collaboration with various kinds of partners. There are two different levels of partnership:

1) Participating partners. Partners who wish to join in the DPE community can sign the “Registration Agreement”, which sets out the terms for participation and the benefits that are available. These include the ability to contribute toward the strategic direction of the DPE, public visibility on its Website, discounts on fees for DPE workshops, seminars and training events, the availability of the DPE’s Researcher and Practitioner Exchange Programme, a chance to join in the Federated Repository programme, and access to the DPE and DCC risk-based toolkit. The DPE asks that in return, partners provide it with data, not just at the moment of signing up, but also afterward, so that data can be collected to create a complete scenario of ongoing activities and practices among the various target groups.

2) Contributing partners – those who intend to co-operate actively with the DPE can sign a “Co-operation Agreement” to set out common objectives and declarations of interest and to list the types of co-operation that are to be pursued, how that is to be done, and when it is to be done.

There are also “Associate partners”, and the proposed DPE architecture foresees that in each country, one or a few partners will be the focal point for the network. They will have specific duties, rules and benefits. Benefits will include the ability to share national experience with other networks and initiatives at the international level, free access to all DPE publications, free access to all events such as seminars, workshops and courses for five people, official endorsement as the “DPE national representative”, with listing in all official documents and registers and Web visibility with links to the representative’s site, participation in the Associate Partners Group with one representative, influence in agenda-setting and the resulting dissemination of information and organisation of events, participation in expert workgroups set up by the DPE on specific topics, active participation at workshops and annual conferences, publication of reports on the state of the art, as produced by the DPE in collaboration with other EU projects, and authorisation to propose examples of good practice and advisory centres on specific topics.

For more information about the DPE and the development of the community, please go to <http://www.digitalpreservationeurope.eu/>.

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Jūrate Kupriene

SADARBĪBA AR DIGITALPRESERVATIONEUROPE

Elektroniskie resursi ir būtiska mūsu kultūras un intelektuālā mantojuma daļa, bet šie materiāli šobrīd ir riskantā situācijā. Digitālajai atmiņai ir nepieciešama pastāvīgs menedžments, kurā tiek lietotas jaunākās tehnoloģijas, kas sekmē riska, piemēram, tehnoloģiskās novecošanas, novēršanu. Risks faktiski sākās vēl pirms digitālā pieraksta radīšanas un ilgst visu tā esības laiku. Digitālā glabāšana parasti ir sarežģīta un ietver daudzus etapus, kas realizējami gan nacionālā, gan internacionālā līmenī.

DigitalPreservationEurope, kas veidota uz agrāk sekmīgā *ERPANET* darba pamata, sekmē akadēmiskās, kultūras, publiskās administrācijas un industriālā sektora vienotu darbību.

Atslēgvārdi: elektroniskie dokumenti, digitālā atmiņa, digitālā saglabāšana, *DigitalPreservationEurope (DPE)*.