



Information Society  
Technologies

# erpastudies

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u n i o n   ( u p u )**

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[www.erpanet.org](http://www.erpanet.org)

ERPANET – Electronic Resource Preservation and Access Network – is an activity funded by the European Commission under its IST programme (IST-2001-3.1.2). The Swiss Federal Government provides additional funding.

Further information on ERPANET and access to its other products is available at <http://www.erpanet.org>.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>).

ISSN 1741-8682  
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## **Executive Summary**

A small international organisation, the Universal Postal Union is strongly rooted in a traditional paper culture. To assure the heritage of international postal collaboration, whose custodian it is, the UPU still relies on paper archives. However, the organisation is gradually benefiting from digital technologies to handle its information assets; this holds especially true for its electronic information systems. Up until now digital preservation concerns have hardly had any impact on the organisation, but it is acknowledged that they have to play a major role in the years to come, in order to assure the organisation's information assets. In particular, attention needs to be given to company emails, whose preservation has not been addressed so far.

One area where the UPU already greatly relies on digital documents is the online documentation of its meeting documents. This is available via the intra- and extranet and is envisaged to have an unlimited lifetime. Besides preserving the original document, the International Bureau of the UPU relies on the PDF format to preserve this documentation. However, the main objective of this digital documentation is to facilitate access, in particular for postal administrations all over the world, and the paper version is still the authoritative one.

## Chapter 1: The ERPANET Project

The European Commission and Swiss Confederation funded ERPANET Project<sup>1</sup> (Electronic Resource Preservation and Access Network) works to enhance the preservation of cultural and scientific digital objects through raising awareness, providing access to experience, sharing policies and strategies, and improving practices. To achieve these goals ERPANET is building an active community of members and actors, bringing together memory organisations (museums, libraries and archives), ICT and software industry, research institutions, government organisations, entertainment and creative industries, and commercial sectors. ERPANET constructs authoritative information resources on state-of-the-art developments in digital preservation, promotes training, and provides advice and tools.

ERPANET consists of four partners and is directed by a management committee, namely Seamus Ross (HATII, University of Glasgow; principal director), Niklaus Bütikofer (Schweizerisches Bundesarchiv), Hans Hofman (Nationaal Archief/National Archives of the Netherlands), and Maria Guercio (ISTBAL, University of Urbino). At each of these nodes a content editor supports their work, and Peter McKinney serves as a co-coordinator to the project. An Advisory Committee with experts from various organisations, institutions, and companies from all over Europe give advice and support to ERPANET.

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<sup>1</sup> ERPANET is a European Commission funded project (IST-2001-32706). See [Hwww.erpanet.org](http://www.erpanet.org)H for more details and available products.

## Chapter 2: Scope of the Case Studies

While theoretical discussions on best practice call for urgent action to ensure the survival of digital information, it is organisations and institutions that are leading the drive to establish effective digital preservation strategies. In order to understand the processes these organisations are undertaking, ERPANET is conducting a series of case studies in the area of digital preservation. In total, sixty case studies, each of varying size, will investigate awareness, strategies, and technologies used in an array of organisations. The resulting corpus should make a substantial contribution to our knowledge of practice in digital preservation, and form the foundation for theory building and the development of methodological tools. The value of these case studies will come not only from the breadth of companies and institutions included, but also through the depth at which they will explore the issues.

ERPANET is deliberately and systematically approaching disparate companies and institutions from industry and business to facilitate discussion in areas that have traditionally been unconnected. With these case studies ERPANET will broaden the scope and understanding of digital preservation through research and discussion. The case studies will be published to improve the approaches and solutions being developed and to reduce the redundancy of effort. The interviews are identifying current practice not only in-depth within specific sectors, but also cross-sectorally: what can the publishing sector learn from the aeronautical sector? Eventually we aim to use this comparative data to produce intra-sectoral overviews.

This cross-sectoral fertilisation is a main focus of ERPANET as laid out in its Digital Preservation Charter<sup>2</sup>. It is of primary importance that disparate groups are given a mechanism through which to come together as best practices for digital preservation are established in each sector.

### *Aims*

The principal aims of the study are to:

- build a picture of methods and match against context to produce best practices;
- accumulate and make accessible information about practices;
- identify issues for further research;
- enable cross-sectoral practice comparisons;
- enable the development of assessment tools;
- create material for training seminars and workshops; and,
- develop contacts.

Potential sectors have been selected to represent a wide scope of information production and digital preservation activity. Each sector may present a unique perspective on digital preservation. Organisational and sectoral requirements, awareness of digital preservation, resources available, and the nature of the digital object created place unique and specific demands on organisations. Each of the

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<sup>2</sup> The Charter is ERPANET's statement on the principles of digital preservation. It has been drafted in order to achieve a concerted and co-ordinated effort in the area of digital preservation by all organisations and individuals that have an interest and share these concerns.  
Hhttp://www.erpanet.org/www/content/documents/Digitalpreservationcharterv4\_1.pdfH

case studies is being balanced to ensure a range of institutional types, sizes, and locations.

The main areas of investigation included:

- perception and awareness of risk associated with information loss;
- understanding how digital preservation affects the organisation;
- identifying what actions have been taken to prevent data loss;
- the process of monitoring actions; and,
- mechanisms for determining future requirements.

Within each section, the questions were designed to bring organisational perceptions and practices into focus. Questions were aimed at understanding impressions held on digital preservation and the impact that it has had on the respective organisation, exploring the awareness in the sector of the issues and the importance that it was accorded, and how it affected organisational thinking. The participants were asked to describe, what in their views, were the main problems associated with digital preservation and what value information actually had in the sector. Through this the reasons for preserving information as well as the risks associated with not preserving it became clear.

The core of the questionnaire focused on the actions taken at corporate level and sectoral levels in order to uncover policies, strategies, and standards currently employed to tackle digital preservation concerns, including selection, preservation techniques, storage, access, and costs. Questions allowed participants to explore the future commitment from their organisation and sector to digital preservation activities, and where possible to relate their existing or planned activities to those being conducted in other organisations with which they might be familiar.

Three people within each organisation are targeted for each study. In reality this proved to be problematic. Even when organisations are identified and interviews timetabled, targets often withdrew just before we began the interview process. Some withdrew after seeing the data collection instrument, due in part to the time/effort involved, and others (we suspect) dropped out because they realised that the expertise was not available within their organisation to answer the questions. The perception of risks that might arise through contributing to these studies worried some organisations, particularly those from sectors where competitive advantage is imperative, or liability and litigation issues especially worrying. Non-disclosure agreements that stipulated that we would neither name an organisation nor disclose any information that would enable readers to identify them were used to reduce risks associated with contributing to this study. In some cases the risk was still deemed too great and organisations withdrew.

### Chapter 3: Method of Working

Initial desk-based sectoral analysis provides ERPANET researchers with essential background knowledge. They then conduct the primary research by interview. In developing the interview instrument, the project directors and editors reviewed other projects that had used interviews to accumulate evidence on issues related to digital preservation. Among these the methodologies used in the Pittsburgh Project and InterPARES I for target selection and data collection were given special attention. The Pittsburgh approach was considered too narrow a focus and provided insufficient breadth to enable full sectoral comparisons. On the other hand, the InterPARES I data collection methodology proved much too detailed and lengthy, which we felt might become an obstacle at the point of interpretation of the data. Moreover, it focused closely on recordkeeping systems within organisations.

The ERPANET interview instrument takes account of the strengths and weaknesses from both, developing a more focused questionnaire designed to be targeted at a range of strategic points in the organisations under examination. The instrument<sup>3</sup> was created to explore three main areas of enquiry within an organisation: awareness of digital preservation and the issues surrounding it; digital preservation strategies (both in planning and in practice); and future requirements within the organisation for this field. Within these three themes, distinct layers of questions elicit a detailed discovery of the state of the entire digital preservation process within participants' institutions. Drawing on the experience that the partners of ERPANET have in this method of research, another important detail has been introduced. Within organisations, three categories of employee were identified for interview: an Information Systems or Technology Manager, Business Manager, and Archivist / Records Manager. In practice, this usually involved two members of staff with knowledge of the organisation's digital preservation activities, and a high level manager who provided an overview of business and organisational issues. This methodology has allowed us to discover the extent of knowledge and practice in organisations, to understand the roles of responsibility and problem ownership, and to appreciate where the drive towards digital preservation is initiated within organisations.

The task of selecting the sectors for the case studies and of identifying the respective companies to be studied is incumbent upon the management board. They compiled a first list of sectors at the very beginning of the project. But sector and company selection is an ongoing process, and the list is regularly updated and complemented. The directors are assisted in this task by the advisory committee.

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<sup>3</sup> See Appendix 3. We include the questionnaire to encourage comment and in the hope that other groups conducting similar research can use the ideas contained within it to foster comparability between different studies.

## Chapter 4: The Universal Postal Union (UPU)

In 1874, representatives from 22 nations gathered at an international conference in Bern (at the suggestion of North German postal official Heinrich von Stephan and on invitation of the Swiss Government) to settle on an international postal agreement. On the 9<sup>th</sup> of October 1874 they signed the Treaty of Bern, thereby establishing the General Postal Union. The new organisation quickly grew and soon changed its name to Universal Postal Union. It is the second oldest international organisation after the International Telecommunications Union and has become a specialised agency of the United Nations on the 1<sup>st</sup> of July 1948. Its mission is to develop social, cultural, and commercial communication between people through the efficient operation of the postal service.

In comparison with other UN specialised agencies the UPU is a small organisation. Its permanent headquarters, the *International Bureau* in Bern, currently employs around 150 full-time staff from 40 different countries. Bern serves mainly as an office of liaison, information and consultation among UPU members, and provides logistical support for the Union's bodies. The International Bureau is chaired by a director general, assisted by the *comité de direction*, the organisation's management board.

The supreme authority of the Universal Postal Union is the *Universal Postal Congress*, representing all member countries, and meets every five years<sup>4</sup>. The Congress holds the legislative power, elects the director and council members, and decides on budget issues. The member countries all contribute financially to the Union's work, and they are free to select a contribution class according to their importance and financial power. To allow for more effective guidance, two councils ensure the continuity of the organisation's work between congresses: the *Council of Administration* and the *Postal Operations Council*, both consisting of 40 elected member states and meeting annually in Bern.

This case study focuses on the work of the International Bureau (IB) of the Universal Postal Union.

## Chapter 5: Circumstances of the interviews

ERPANET contacted the UPU's Press Office in order to gather contacts for this case study. With the gracious help of Mrs Nel of the Press Office three people were identified and interviewed: Mr Andrei Soudakov, market research and documentation centre expert; Mr Pascal Kerboas, director of IT; and Mr Michael Mauer, director of human resources. All interviews lasted for around one hour and were conducted on-site at the International Bureau in Bern, on May 15 and June 12.

ERPANET would like to thank the interviewees and the organisation for their assistance.

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<sup>4</sup> After the next meeting in 2004, they will be every four years.

## Chapter 6: Analysis

This section presents an analysis of the data collected during the case study. It is organised to mirror the sequence of topics in the questionnaire.

- Perception and Awareness of Digital Preservation
- Preservation Activity
- Compliance Monitoring
- Digital Preservation Costs
- Future Outlook

### **Perception and Awareness of Digital Preservation**

As a general rule, the International Bureau of the UPU is a heavily paper-based organisation. All documents in connection with its role as an international regulator, all administration documentation and records, and letters are kept in paper form as the official record. There are two main kinds of digital resources: first, the information systems that support business processes and human resources management, such as the salary system and the eMail system, and second, the meeting documents that are available through the organisation's intra- and extranet. The latter comprise working papers for the meetings of the different administrative bodies, as well as the outcomes of these meetings that form an important part of the UPU's legislative and rule-making work. This means that digital preservation from the outset has a still limited focus. In fact, no formal policies about digital preservation are in place at the International Bureau. This study therefore focuses on the digital resources mentioned above, in particular on the meeting documents.

While all interviewees agree that digital preservation merits the organisation's attention, all equally acknowledged that very few efforts are currently being undertaken at the IB. Digital preservation has not been a topic on the agenda of the board of directors for the last two years. The business information system's data are backed up daily and stored on-site and externally, but not preserved beyond the limit of one year. Email preservation has not been addressed so far. The meeting documents are subject to long-term preservation without a time limit, and the IB currently extends this preservation on the paper as well as the digital version, with the paper version being the authoritative one. This is detailed below.

### *Asset Value and Risk Exposure*

Participants in the study judged that the main value information has for UPU is of a business nature: information is needed to support all business processes and is generated accordingly. Beyond that, there is a strong awareness of the historical value of information. The UPU, being one of the oldest international organisations, is very conscious of its crucial role in international postal history. As an authoritative body of law-making, it not only has a rich history, but is heavily involved in its present. The relevant documents that are the landmarks of this history are preserved for an undetermined period of time, and the UPU thus is the keeper of the memory of international postal collaboration. This mainly refers to meeting and other administrative decisions.

### *Regulatory Environment*

As an international organisation and specialised agency of the United Nations, UPU is not subject to any national laws. Rather, the organisation is ultimately accountable to its member states, represented in the congress. Audit is performed both internally and externally. Although regulations, such as retention prescriptions, are managed internally, in case of confusion or missing instructions the UPU can rely on the regulations of other international organisations or the United Nations. These two levels of regulations cover all of the organisation's needs.

### **Preservation Activity**

#### *Policies and Strategies*

As has been mentioned above, no global policy for digital preservation exists. Guidelines that are in effect are of informal nature, and the IT department is responsible for those.

Collaboration with other UN organisations plays a role in developing policies and guidelines. This is mainly due to the fact that these share a large part of their regulations. However, there still exist differences in regulations putting limits on these collaborations.

Since the UPU is a small organisation, and its budget is limited, there is no possibility of engaging in digital preservation development projects, although for certain areas these would be interesting according to the head of IT. There is no doubt that the UPU, when it will begin to address digital preservation in a more embracing manner, will have to rely on off-the-shelf solutions. Given the low priority of such a solution, no in-depth investigations have been conducted until now.

#### *Selection*

No formal and continuous appraisal is being done. The information that is generated and preserved digitally is limited, and the parts of it that are to be preserved have been identified at the outset.

#### *Preservation*

The information systems supporting business processes are backed up on tapes on a daily basis, and copies are stored in a safe on-site and at a bank. However, these data are not of long-term value and are in fact only retained for one year and destroyed afterwards. Therefore, this information does not warrant even middle-term preservation efforts.

On the other side the meeting documents that form an important part of the UPU's heritage must be preserved indefinitely. For the time being this is done on a provisory basis and applying a low-level solution. The original document usually is composed using common office software. When users put it onto the intranet information

system, it is automatically converted to PDF<sup>5</sup>, and both versions are preserved and made available. The documents will be kept active on the intranet servers. Conversion of the original document to current software versions is done by the users, on request, and manually. Although this solution works well enough for the organisation's needs, the interviewees acknowledge the risk that documents may become inaccessible if they are not converted for a certain amount of time or if the software should become unsupported in the future. However, the problem of format and software obsolescence is not being addressed at present, and the PDF version and the paper version are judged to be a double bottom strong enough to prevent information loss.

### *Access*

Convenient access to the preserved information for all stakeholders is a high priority. Stakeholders include not only the IB staff, but also staff of the worldwide postal systems that are members of the Union. Access is enabled through the intra- and extranet, through a simple and user-friendly document system, where users have to identify themselves through user name and password. Only a restricted set of descriptive metadata is used.

### **Compliance Monitoring**

There is no formal, universal monitoring in place for the preservation of information, but several actors play a role in monitoring preservation processes. Responsibility for every document that is published ultimately lies with the respective heads of section, while the actual publishing work, either on paper or digitally, is taken over by the IB UPU chancelleries. Heads of section and chancelleries therefore assume part of the responsibility for compliance monitoring.

As for the meeting documents, the respective users are responsible to check if the PDF transformation went out well at upload time.

### **Digital Preservation Costs**

It has not proved possible to make significant estimates of digital preservation costs. Besides the hard- and software costs, many players are involved with small time investments, which makes estimating the total costs very difficult. Generally, the interviewees pointed out that gaining finances for digital preservation, as all investments into IT equipment, meet more difficulties than other budget items. The predominance of the traditional paper culture is strongly felt in these issues. However, the preservation strategy for the meeting documents met with much more interest. Their publication on the intranet is part of a strategy determined by the very mission of the UPU and their role as an international regulator, and is viewed as an effective means of dissemination. It is therefore access concerns that drive preservation efforts in this part of the IB's work.

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<sup>5</sup> PDF: Portable Document Format, <http://partners.adobe.com/asn/tech/pdf/specifications.jsp>. Some shortcomings of the PDF format are expected to be addressed by the forthcoming PDF/A standard, complementing it with archival elements. See [http://www.aiim.org/pdf\\_a/](http://www.aiim.org/pdf_a/) for details.

### **Future outlook**

All interviewees suggested that the solutions currently in place are able to guarantee the preservation of vital information. Nevertheless they named a number of desiderata they would like to see implemented. On one hand, the idea of digitising crucial parts of the paper legacy is viewed as increasing the security of tradition, but has been judged too costly so far<sup>6</sup>. On the other hand, there is awareness that for certain areas no or only scarce solutions are in place: emails are not being preserved for the moment, risks of version changes for documents are acknowledged. In general, the International Bureau of the UPU progresses at small steps towards the digital age. Gradually it is envisaged that digital materials and their preservation will play a more important role at the IB, but the predominant role of the conventional heritage is not likely to change soon.

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<sup>6</sup> It should be borne in mind that digitisation is mainly a means to improve access rather than a preservation method, and that it causes its own preservation problems.

## Chapter 7: Conclusions

Some points that were revealed by this study merit particular attention:

The Universal Postal Union is a model example of an organisation whose administration is heavily paper-based. This study highlights how such an organisation is facing the slow, but gradual transformation into the digital environment. This slow pace accounts for the provisory nature of digital preservation solutions. Since the essence of the UPU's documents and records is still on paper, risks involved in their digital holdings are comparatively small. However, certain areas need closer examination, especially email. In comparable institutions, email is slowly replacing paper mail, and many vital records remain in email systems without being printed and filed as paper copies if there is no strong records management regime or a digital preservation policy in place.

On the other hand, the slow transformation into the digital environment and the little pressure involved for the time being would allow for a systematic approach to developing a preservation policy. The organisation could take its time for addressing digital preservation in a comprehensive way, since it does not have to act in a hasty way to prevent imminent loss.

As with other organisations examined through ERPANET Case Studies, UPU does not have a central agency responsible for digital preservation<sup>7</sup>. Instead, there are different kinds of digital data in different sections, and responsibility is scattered among these. A central approach, supported if not initiated by management, would truly facilitate digital preservation efforts<sup>8</sup>.

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<sup>7</sup> As an example, see the reports of the telecommunications or the retail case study (both available from [www.erpanet.org](http://www.erpanet.org)). Compare this to the forthcoming ERPANET case study of a European Banking House, where a central agency is responsible for records management and preservation, which greatly enhanced the effectiveness.

<sup>8</sup> See, e.g., the report of the ERPANET Training Seminar on "Policies for Digital Preservation", Paris, January 29-30, 2003 (available from [www.erpanet.org](http://www.erpanet.org)) or the UNESCO Guidelines for the Preservation of Digital Heritage (2003) 52-63 (<http://unesdoc.unesco.org/images/0013/001300/130071e.pdf>).

## **Appendix 1: List of Resources**

The Universal Postal Union's website is at <http://www.upu.int>. Information about the organisation's mission, history, and structure is available from [http://www.upu.int/about\\_us/en/](http://www.upu.int/about_us/en/).

The organisation's address details are:

Universal Postal Union

International Bureau

Case postale 13

3000 Bern 15

Switzerland

+41 31 350 31 11

[info@upu.int](mailto:info@upu.int)

## **Appendix 2: List of Acronyms used**

UPU: Universal Postal Union

IB: International Bureau

PDF: Portable Document Format

## **Appendix 3: Interview Instrument**

## ERPANET Case Study

Administrative Section  
Interview Details  
Organisation Details  
Disclosure/Privacy Information  
Tracking of Activities



### **Perception and Awareness of Digital Preservation**

*We would like to begin by asking you a few questions about your general impressions of digital preservation. We will use the term 'digital information' throughout to refer to all forms of digital data, records and information.*

1. Is there a general awareness among international organisations that the long-term preservation (more than five years) of digital information is an important issue?
2. To what extent do international organisations recognise the importance of preserving digital information in the long-term?
3. From what sources have you heard about the issues surrounding digital preservation?

### **Understanding How Digital Preservation Affects Your Organisation**

*We would like to focus on how some of these digital preservation issues affect your own organisation*

4. What values does digital information for your organisation beyond the original purposes for which it was created?
5. What type of information is digitally preserved in the short and the long term in your organisation?
6. What are the reasons that digital information is preserved in your organisation:
  - Legal requirements
  - Financial requirements
  - Business requirements (e.g. document important decisions and activities)
  - Historical value
  - Other (Please specify)
7. What risks is your organisation under if digital information is not preserved in the long-term?
  - Legal risks
  - Financial risks
  - Business risks
  - Historical value
  - Other (Please specify)
8. Has the organisation conducted a risk analysis and/or business needs analysis with regard to the preservation of information? If yes, can you indicate the main results?

### **Actions Taken: Policies, Strategies, Standards and Practices Developed**

*The questions in this section aim to explore some of the actions that the organisation has undertaken to deal with the preservation of electronic records. It will examine the above as well as selection, preservation, storage, and access activities.*

### **Policies, Strategies, and Standards**

9. Is there any collaborative effort with other organisations to tackle common digital preservation issues?
- Conferences
  - Newsletters
  - Journals
  - Common Institutions
  - Collaborative Projects
  - Other (Please specify)

10. Has your organisation attempted to find external information regarding preservation?  
If yes, please indicate the sources

- Government agencies
- Higher education institutions
- Archives
- Libraries
- Museums
- IT Specialists
- Other (Please specify)

Please specify the kind of information provided and how useful it proved to be.

11. Do you cooperate with other institutions in the research and development of policies, strategies, and standards? In what way?

12. How useful is this common effort in applying it to your organisation's own needs?

13. Do you have any specific organisational policies that relate to the preservation of information?

14. Who (and what) was/is involved in the creation of these policies?

- Management
- Employees
- Special task force in the organisation
- Results of internal analyses (e.g. risk analysis)
- External sources, models, advice
- Other (Please specify)

15. Do these policies apply across the entire organisation?

16. How are these policies implemented?

17. Has your organisation developed preservation strategies, standards, and practices and implemented them?

- Yes
- No

If YES, Please specify.

18. How were they introduced and implemented (e.g. by department, with training)?

19. How, and under whose responsibility have these been established?

- External Advice/Sources/Models
- Survey of information resources
- In-house solutions developed
- Other (Please specify)

20. How often are your preservation policies and strategies updated and renewed?

### **Selection of Digital Information for Preservation**

21. Do you have a selection policy, or classification and retention policy that determines what information in your organisation is to be preserved?
- Yes
  - No
- If YES, Please specify.
22. Is your classification and retention schedule linked and implemented across the organisation?
23. Who is responsible for the maintenance and implementation of these schedules?
24. How do you ensure that selected information is complete, accurate and identifiable?

### **Preservation of Digital Information**

25. Does your organisation take care of its preservation activities itself, or are these outsourced?
- Outsourced
  - In-house
- If outsourced, what reasons were behind this decision, and who carries out the preservation activities?
26. Are there specific individuals in your organisation responsible for the preservation of digital information?
27. What positions do these people hold in the organisation, and what are their responsibilities and competencies?
28. What type of training or advice is available for them?
29. Is your organisation aware of any external standards, best practices, and guidelines available on preservation?
- Yes
  - No
- If YES, Please specify.
30. Where did you learn about them? Please specify your sources.
31. Which of these standards, practices and guidelines do you use?
32. What technologies do you use for preservation? For the following list of current techniques, please specify which ones you use and for what kind of information.

<b>Technique</b>	<b>Specify Type/Technology Used</b>	<b>Information Preserved</b>
Print to Paper		
Scanning		
Save on Disk		
Save on Other Media		
Emulation		
Migration		
Microfilm/Microfiche		
Other		

33. On what grounds were these techniques chosen? Please specify your answers.
- External Advice
  - Trials and Evaluations

- Recommendations
- Intra-sectoral standards available
- Other

Please provide as much information as possible about why these decisions were taken.

34. What data formats do you use for preservation?

- Standard data formats
- Others

Please specify for both answers

35. Do you convert the information to be preserved into other data formats for technical (or other) reasons?

36. What metadata do you use to describe both your digital information and the processes of storage and preservation? Does it follow any standards available (Dublin Core or others)? Can you provide a copy of the metadata set?

37. Is the collection and production of metadata automated?

38. Who is responsible for the transfer of information into long-term storage?

39. How often (if undertaken) does digital information migrated or refreshed?

#### **Storage of Digital Information**

40. Do you have a particular storage area for digital information to be preserved?

- Yes
- No

If Yes, how is this organised and equipped?

41. Do you keep redundant copies of the digital information to be preserved for safety (or other reasons)?

#### **Access to Digital Information**

42. How is information protected from inadvertent or unauthorised access and manipulation?

43. Does your preservation solution allow direct access to the digital information stored (i.e. are they stored in an executable format)? If no, how is the access provided?

44. What access issues does your organisation face?

- a. Copyright
- b. Privacy Issues
- c. Access Security and Privileges
- d. Others (Please specify)

45. How does your organisation intend to provide access to digital information into the future?

#### **Digital Preservation Costs**

46. Did your organisation attempt to undertake a cost benefit analysis concerning its investments in preservation?

47. Has this analysis been assessed in light of your actual preservation activities? Did it prove to be accurate?

48. To which section of the budget are the economic resources for your preservation programme allocated?
49. What percentage of the organisation's budget is spent on preservation? Can you compare that to some other area of the organisation's activity?
50. Is the organisation attempting to address amortisation issues in the preservation budget?
51. Are there available sources of funding from outside your organisation allocated for digital preservation issues?  
 Yes  
 No  
If Yes, please specify
52. Are you satisfied with these services?
53. If no, what would you like to see available? [i.e. what would you think could best be solved in common in your sector?] Would you be willing to engage financially in such information?
54. Are there other external sources available for digital preservation activities, (e.g. government grants, cross-sector funds)?  
 Yes  
 No  
If Yes, please specify

## Monitoring of Actions

*After having identified what has been undertaken in your organisation with regard to preservation activities, we would like to find out about how these efforts have been monitored.*

55. Is the preservation process audited on a regular basis?
56. Is compliance to policies, standards, and strategies audited on a regular basis?
57. Is compliance to other requirements (legal, business etc.) audited on a regular basis?
58. How often are checks made to the preserved material, (e.g. for signs of deterioration)?
59. Please specify the criteria used for these audits.
60. Who performs these audits? (e.g. Internal/External)

## Future Requirements

We would like to ask about the areas in which there is a need for additional attention in your organisation and the sector as a whole.

61. How long do you predict that your current preservation policies, strategies, and solutions will meet your organisation's preservation needs?
62. Is the amount of money allocated for preservation going to change in the future? Will it need to be changed?

63. If more funds were available, what could/would they be used for?
64. What conclusions has your organisation come to about its preservation efforts? Are these satisfactory?
65. What preservation efforts are remaining to be addressed within your organisation?
- Further data to be preserved
  - Revision and adjustment of preservation policies and strategies
  - Additional resources dedicated to preservation
  - Technological solutions
  - Other (Please specify)
66. Would you like to see more cross-sectoral or intra-sectoral activity with regard to preservation?
67. Are there any other areas in which you would like to have more information made available on digital information? Where do you expect this information to come from?

Thank you very much for your valuable contribution.

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