



Digital Preservation Policy
for
the State and University
Library Denmark

Version 4
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1. Introduction

The *Digital Preservation Policy* applies to preservation of all digital collections at the State and University Library. The policy has been developed by the library to ensure that the digital collections of the library are preserved in the best possible way for the future. The policy outlines the framework for carrying out digital preservation at the State and University Library. Preservation of analogue materials, including physical media with digital information such as CDs and DVDs, is covered by *Bevaringsplan* (the State and University Library's preservation plan for analogue materials).

In principle the policy aims to preserve "forever"; in reality the policy will enable the State and University Library to handle all changes in the prerequisites for carrying out preservation. Prerequisites cover e.g. finances, technology, legislation, volume and complexity of collections.

The *Digital Preservation Policy* for the State and University Library is based on the library's vision to:

- Be among the top major players working within the area of digital preservation in Denmark, to contribute nationally to the development of preservation systems as well as disseminate knowledge about digital preservation.
- Be part of the international community working on solutions for the resource demanding and challenging task of digital preservation.
- Complete regular audits and in time be certified as a Trustworthy Digital Repository. A digital preservation policy is crucial for this process.

The State and University Library's mission as a national library is to collect and preserve Danish cultural heritage according to the Danish Legal Deposit Law. The preservation task covers both analogue and digital material. The information found on very fragile analogue materials are often preserved by digitisation followed by digital preservation. Since a revision in 2004 the Danish part of the Internet as well as Danish radio and TV have also been covered by the Legal Deposit Law. Both types of material are collected electronically and stored digitally. As a result of this, the volume of digital material at the State and University Library is rapidly growing year by year - at present with approximately 500 Tbytes per year.

As a university library the State and University Library supports Aarhus University by offering relevant services to the university staff and students. These services become increasingly digital and gradually cover collecting and archiving of e.g. the university's Institutional Repository in preparation for digital preservation. Because of this the State and University Library's role as a university library also entails responsibilities which necessitate digital preservation.

Consequently, this policy is the result of a need to define the framework and guidelines for the library's work with digital preservation. At the same time the policy is based on the recognition that the world of digital preservation faces issues demanding special attention, e.g. issues like bit security and obsolete formats.

The State and University Library's *Digital Preservation Policy* must be seen in conjunction with a complex of policies, strategies, and guidelines for the work related to handling and preserving digital content at the library. The State and University Library's *Digital Preservation Strategy* must be seen in close connection with the policy since it states the priorities and implementation principles for preservation of digital material. In addition to this, the State and



University Library is preparing a digitisation strategy encompassing principles for digitisation, as well as an acquisition and discarding policy for digital material with guidelines covering material which the State and University Library has to collect and preserve by law as well as material the library itself would like to acquire and preserve. This includes guidelines for ingest of new collections, new formats and new types of material in the State and University Library's digital repository.

The *Digital Preservation Policy* for the State and University Library will be reviewed and updated annually or more frequently if needed. As the official collection owner, the Head of the National Library Department will initiate the annual revision, and any changes to the policy must be approved by the Strategic Management Group (SLG) at the library.

Paragraph 6 describes and clarifies definitions and words used in this document.

2. Objectives

The *Digital Preservation Policy* for the State and University Library must ensure the best possible conditions for long term preservation of the digital cultural heritage which is the responsibility of the library. This will be done in accordance with the conditions given by external factors at the time in question.

The intention of this policy is to create a framework for how to carry out preservation of digital material at the State and University Library. The policy states the overall guidelines for the library's work on digital preservation.

Digital preservation must be carried out in a way that ensures the trustworthiness of the State and University Library's digital collections over time, ensures that the collections can be accessed by users, including researchers and students, in all future, and ensures that the digital collections are preserved as a whole. The policy has been developed to make sure that all of this is possible. Bearing this in mind, the policy will contribute to securing the best possible access to digital collections for the present but also the future.

This policy is public and published on the State and University Library's website in both Danish and English to support national and international collaboration in the digital preservation field.

3. Preservation Framework

3.1 Roles and Responsibilities

Roles and responsibilities within the digital preservation area at the State and University Library are allocated in accordance with regulations in ISO27001 and the overall organisation of the functions at the library.

The State and University Library focuses on optimising the allocation of roles and responsibilities to ensure the efforts in the area of digital preservation. The allocation is updated when the policy undergoes revision.



The head of the National Library Division is the “owner” of the digital collections and as such has the overall responsibility for their preservation. The owner of the digital collections maintains a list of all digital collections and decisions concerning these. The owner is also responsible for coordinating preservation activities between the National Library Division and the IT Division.

3.2 Knowledge Sharing and Competency Development

The State and University Library ensures that its digital preservation staff have the competencies necessary for working in the digital preservation field and staying up-to-date on the topic. Competency development is performed e.g. by involvement in national and international projects and partnerships.

The State and University Library conducts research in digital preservation as part of the institution’s competency development and knowledge sharing. The library prioritises research subjects related to the library’s role as curator of Danish cultural heritage and to information technology. Research in digital preservation is conducted in agreement with the overall research policy and plans of the library.

Knowledge generated by working with digital preservation is disseminated via relevant websites, projects and conferences.

3.3 Digital Infrastructure

All collections are preserved in the State and University Library’s Repository. The Repository consists of a data repository and a metadata repository. Data is ingested into the Repository as soon as possible and is displayed via other systems as described in the State and University Library’s Strategy for Information Flow. Furthermore, the library’s Repository allows for setting-up software which analyse and enrich data and metadata.

When a collection is preserved in collaboration with other institutions it might be more desirable to use other software solutions. If this is the case, the principles described in the library’s Digital Preservation Strategy are used, but not necessarily the same infrastructure.

3.4 Trustworthy Digital Repository

The State and University Library seeks to achieve the status of Trustworthy Digital Repository and thereby meet internationally acknowledged standards. This ensures integrity and authenticity in digital preservation, including the correct and necessary metadata, it ensures that the library applies to relevant legislation and contracts, and that it maintains and updates its policy and strategy for digital preservation.

The State and University Library’s position as a Trustworthy Digital Repository is audited regularly, and the audit is supported by internationally recognised tools to the extent that this is possible.



3.5 Registry of Recommended and Accepted Data Formats

The State and University Library aims to preserve the digital collections in data formats suitable for digital preservation.

The library maintains a list of recommended and accepted data formats respectively and cooperates with other institutions about announcing recommended data formats and maintaining information about these recommended formats.

4. Requirements for Preservation of Individual Collections

4.1 Legislation and Guidelines

The State and University Library's preservation of digital material follows the legislation and guidelines which the library applies to at all times. The library responds continuously to relevant legislation and guidelines.

4.2 Finances

The preservation of the State and University Library's digital collections is carried out within the scope of the library's overall budget at any time.

The library works on clarifying the costs of digital preservation to ensure the necessary resources for the tasks.

4.3 Risk Management

Digital preservation at the State and University Library is based on the principles of risk management. The library continuously manages and updates its digital preservation risk analysis in accordance with existing legislation and international standards.

4.4 Access to Digital Collections

Continuous access to the digital collections is the basis of the digital preservation. Active use of the digital collections is important because it indirectly helps guaranteeing a high preservation quality.

The library wishes to provide access to all collections online through the library's website and by collaborating with relevant dissemination platforms. Access to the digital collections at the State and University Library will be provided through technology and formats relevant to the users.

Online access will be granted according to the copyright law and other relevant legislation.



4.5 Bit Preservation

As a minimum, the State and University Library carries out bit preservation on all digital collections.

The State and University Library seeks to preserve data in highly independent environments (geographically, technically and organisationally) in consideration of its financial possibilities.

4.6 Functional Preservation

As soon as possible after a collection has been received, all data and metadata are ingested into the library's Repository to preserve the functionality of the digital collection. Once a collection has been ingested into the Repository, a number of preservation actions can be carried out. The owner of the collections and the system owner coordinate the activities.

The State and University Library aims to preserve the functionality of a digital collection if necessary by migrating data to new formats or emulating the original systems to be able to access the data.

4.7 Metadata

The State and University Library uses internationally recognised metadata standards to ensure proper administration, retrieval and preservation of its digital collections.

The State and University Library uses universal, unique and persistent identifiers for identifying digital objects.

Metadata is preserved in the library's Repository.

4.8 Quality Control in Digitisation Projects

When a collection is digitised at the State and University Library's request, the validity and quality of the digital collection is investigated at reception.

4.9 Resource Persons

For every digital collection the State and University Library keeps a list of people with special knowledge of the collection.



5. Sources of Inspiration and Related Documents

5.1 Sources of Inspiration

The following documents have been sources of inspiration for the preparation of the *Digital Preservation Policy*.

Preservation Procedure Policy Catalogue. Wiki developed within the SCAPE project (2014)
<http://wiki.opf-labs.org/display/SP/Catalogue+of+Preservation+Policy+Elements>

Politik for langtidsbevaring af digitalt samlingsmateriale på Det Kongelige Bibliotek (2014)
http://www.kb.dk/export/sites/kb_dk/da/kb/downloadfiler/DigitalBevaringsPolitik-KB-DK-2014.pdf

ISO16363 Audit and certification of trustworthy digital repositories (2012)
http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=56510

5.2 Internal Documents Related to the Digital Preservation Policy

The following documents and draft texts have been used in the process of developing the Digital Preservation Policy Version 3.

Statsbibliotekets *Strategi for digital bevaring Version 4* (2016) (Digital Preservation Strategy for the State and University Library)

Statsbibliotekets *IT-strategi* (2012)
(<http://www.statsbiblioteket.dk/om-statsbiblioteket/filer/it-strategi>)

Statsbibliotekets *Indsamlingspolitik for pligtafleveret radio/tv* (2014) (*Acquisition Policy for Legal Deposit radio and television*)
(<http://www.statsbiblioteket.dk/om-statsbiblioteket/publikationer/indsamlingspolitikferradiotvfinalaugust2014.pdf>)

Statsbibliotekets *Indsamlingspolitik for audiovisuelle materialer (analoge og digitale)* (2014) (*Acquisition Policy for audiovisual material (analogue and digital)*)
<http://www.statsbiblioteket.dk/om-statsbiblioteket/publikationer/indsamlingspolitik-for-audiovisuelle-materialer>

Statsbibliotekets *Digitaliseringsstrategi* (Digitisation Strategy for the State and University Library - in preparation)

Statsbibliotekets *Bevaringsplan* (2003) (Preservation Plan)



Statsbibliotekets *Strategi for informationsforsyning* (2012) (Strategy for Information Flow)

6. Definitions

The State and University Library's definition of the following phrases:

- **Digital collection**
Collection of digital files and metadata which can be seen as a whole, e.g. defined by content or data formats
- **Copy**
One among a number of identical duplicates of the same file which is preserved for the purpose of completing regular integrity checks
- **Migration copy**
A new version of a file in a different data format. A migration copy can be created from both the original and from a previously generated migration copy
- **Original**
The original file which is used for generating subsequent copies
- **Owner of digital collections**
The role responsible for the digital collections, including maintenance, preservation, and dissemination of the digital collections. At the State and University Library the Head of the National Library Division is the owner of the library's analogue and digital collections
- **The State and University Library's Repository**
The total amount of digital collections at the State and University Library and the preservation and organisation of these

The State and University Library defines the following terms in accordance with the descriptions at www.digitalbevaring.dk.

- Bitbevaring (Bit preservation) - check www.digitalbevaring.dk
- Checksum (Checksum) - check www.digitalbevaring.dk
- Dataformat (Data format) - check www.digitalbevaring.dk
- Digital bevaring (Digital preservation) - check www.digitalbevaring.dk
- Emulering (Emulation) - check www.digitalbevaring.dk
- Format (Format) - check www.digitalbevaring.dk
- Metadata (Metadata) - check www.digitalbevaring.dk
- Migrering (Migration) - check www.digitalbevaring.dk
- Museal strategi (Technology preservation) - check <http://www.digitalbevaring.dk>
- Risikovurdering (Risk management) - check www.digitalbevaring.dk