

Preservation of Digital Collections: An Overview

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ABSTRACT: Transition from print format to electronic format has given rise to various issues in preserving the digital form. The problem of preservation is further complicated by the rapid obsolescence of the hardware and software required to interpret and present digital documents. The paper highlights on necessity in preserving the digital form, Digital preservation, Tools required for Digital Preservation, Preservation Strategies, Increasing in Digital Preservation and Developing Digital Preservation Guidelines.

Keywords: Digital library, Digital Preservation, Preservation Strategies

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1. Introduction

Digital Preservation ensure that the information remains accessible and useable, where it involves planning, resources allocation and application of preservation methods and technologies which combines policies and strategies to ensure access to reformatted and born-digital content regardless of the challenges of media failure and technological change, the goal of digital preservation is accurate rendering of authenticated content over time, adapting the concept of digital preservation solves the problems of managing risk of loss of digital contents due to rapid technological advancements.

2. Digital Library

Digital library is a library in which collection are stored in digitized format. It can also be defined as the library that contains digital material. The digital content may be stored in computer system for manipulation and retrieval. In academic setup a simple access to e-journal are also regarded as digital library. Some says that a digital library allows both online and offline access to its collection. Some defines an automated library is also digital library.

3. Digital Preservation

“Digital preservation” or “digital archiving essentially aims at taking steps to ensure the longevity of electronic documents. It applies the longevity of electronic documents. It applies to documents that are both “born digital” and stored on-line or to the products of analog-to-digital conversion, if long-term access is intended.

4. What is Digital Preservation

Digital preservation or digital archiving essentially aims at taking steps to ensure the longevity of electronic documents. It applies to the documents that are either born digital stored on line or available on CD-ROM diskettes or other physical carriers and for the product converted from analog to-digital if long term access is intended.

In other words digital preservation is defined as long term error -free storage of digital information with means for retrieval and interpretation for the entire time span that the information is required for digitization refers to the conversion of non-digital material to digital form (a form which uses a binary numerical code to represent variables).

Digital document preservation is a process by which digital data is preserved in digital form in order to ensure the

- Usability
- Durability and
- Intellectual integrity of the information contained therein

5. Tools Required for Digital Preservation

The following IT components are making available for the preservation of the digital collection:

- Personal Computer
- High Speed Processor
- Large Random Access Memory
- Hard disk with large space, Pen Drive
- CD drive (read and write)
- Modem, Scanner, Monitor
- Web Cam, Video Camera
- Open Source Software (OSS)

6. Preservation Strategies

Several strategies attempt to address the primary digital preservation problem of technological obsolescence. These include migrating information through successive generations of technology; using software to emulate the behavior of older machines; preserving original hardware and software to run obsolete programs, and creating hard copies of digital objects. Each of these strategies meets some, but not all, preservation goals.

- Migrations and Transfer
- Emulation
- Output to Paper or Microfilm
- Preservation Technology
- Control
- Standards

7. Increasing in Digital Preservation

Increasing concern about digital preservation there are numerous technical organizational legal and economic barriers to a comprehensive infrastructure for protecting and preserving digital asset. The most familiar problem in digital preservation is media failure or deterioration and rapid with technology in computer hardware and software. Ensuring ongoing access

therefore requires currency with technology changes, and moving digital objects from obsolete, to current file formats storage media and operating system and so on. There are other technical, social and legal issues creates difficulty of the task. They are as follows.

- The rapidly increasing number of digital objects and proliferation of document standards and format.
- The lack of planning to incorporate preservation needs in system and lack of availability of the shelf products access requirement supporting preservation needs.
- The lack of consideration of long term access requirement creating digital products.
- The absence of widely accepted standard which will assure access over time.
- Unstable storage media whose life span is limited.
- Lack of technical expertise in collection managers and preservation expert.

8. Developing Digital Preservation Guidelines

Archives and record-keeping bodies in Europe, North America and Australia have taken the lead in developing best practices and functional requirements that address some preservation issues. Common elements include.

- Recognizing the creator's responsibility to preserve his/her work initially;
- Identifying responsibilities if the archive;
- Adopting appropriate selection guidelines;
- Securing archived items from intentional or unintentional alteration;
- Providing contextual documentation including a history of creation, transmission and use, and audit trails;
- Describing digital objects completely.

9. Conclusion

Rapid technological obsolescence combined with relatively short-lived media means that collections must be actively managed. Simply collecting and "shelving" important works, a passive strategy that works to some extent for paper-based publications, is insufficient to ensure digital objects will survive in perpetuity.

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