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DIGITAL PRESERVATION IN LIBRARY

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ABSTRACT

The papers fixate on how to preservation of information which is available in digital form and in the printed form, we also discussion on different methods & procedures involved in converting printed form of documents in to a digital form for preservation.

Key words: Disseminating, Digital Preservation, Digital Obsolescence, Encoding and Formatting Schemes, Responsibility for Preservation, Conservation, Stewardship of Digital Information.

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DEFINITIONS

- Digital preservation combines policies, strategies and actions that ensure access to digital content over time.
- Digital preservation combines policies, strategies and actions 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 the accurate rendering of authenticated content over time.
- Digital preservation combines policies, strategies and actions to ensure the accurate rendering of authenticated content over time, regardless of the challenges of media failure and technological change. Digital preservation applies to both born digital and reformatted content.
- Digital preservation policies document an organization's commitment to preserve digital content for future use; specify file formats to be preserved and the level of preservation to be provided; and ensure compliance with standards and best practices for responsible stewardship of digital information.
- Digital preservation strategies and actions address content creation, integrity and maintenance.

INTRODUCTION

What is digital document preservation?

"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
- Library users responsibilities:

NEED FOR DIGITAL PRESERVATION

- Tremendous amount of born data, especially in the field of science and Technology.
- Physical deterioration
- Digital obsolescence: Digital technology is on a fast track.

DIGITAL PRESERVATION: ISSUES

- Data is maintained in the repository without being damaged, lost or maliciously altered;
- Data can be found pinpoint, extracted and served to a patron
- Data can be interpreted and understood by the patron; and
- The above can be achieved in the long term.

DIGITAL PRESERVATION PROCESS

The following four steps are involved in the process of digitization:

1. Document Image processing (DIP)
2. Electronic filing system (EFS)
3. Document management System (DMS)

ORGANIZATIONAL

- Justification for preservation
- Organizational and financial commitment
- Metadata creation
- High-level identification of roles and responsibilities
- Training and education

MANAGERIAL

- Preserving policy
- Developing strategy
- Responsibility for preservation
- Understanding with IT staff and Outsider service providers of preservation

TECHNICAL

Technical Standards should be followed during the digital preservation of libraries and the Information centers.

METHODS OF DIGITAL PRESERVATION

Bit stream copying

Bit stream backup (also referred to as mirror image backup) involves the backup of all areas of a computer hard disk drive or another type of storage media. Such a backup exactly replicates all sectors on a given storage device. Thus, all files and ambient data storage areas are copied. Bit stream backups - sometimes also referred to as "evidence grade" backups - differ substantially from traditional computer file backups and network server backups.

Durable Persistent Media

May reduce the need for refreshing, and help diminish losses from media deterioration, as do careful handling, controlled temperature and humidity, and proper storage. However, durable media has no impact on any other potential source of loss, including catastrophic physical loss, media obsolescence, as well as obsolescence of encoding and formatting schemes.

Standards

Standards should be followed during the digital preservation of libraries and the Information centers.

Migration

Migration is the preservation approach which has been most widely practiced to date. At its simplest it is defined as the copying or conversion of digital objects from one technology to another, whilst preserving their significant properties. Migration focuses on the digital object itself, rather than its environment; it aims to change the object in such a way that hardware and software developments will not affect its accessibility. It therefore applies to:

- Hardware: copying digital objects from one generation or configuration of hardware to another.
- Software: transferring digital objects from one software application or file format to another.

Emulation

Encapsulation, as described in the context of digital preservation, is the process of grouping digital objects and data along with everything else that is required to provide access to that object, together. Encapsulation was developed to combat the ever growing technological obsolescence problem by disregarding the file format vulnerabilities through the inclusion of details of how to interpret certain digital bits in the object within the encapsulated form. The final process of encapsulation involves the use of structures known as ‘containers’ to provide a relationship between all information components such as the digital object and its required information, such as identifiers, metadata and software specifications. (PADI, 2011)

The types of information that needs to be included along with the digital object in an encapsulation are:

- Representation information
- description of the source
- context of the object

- reference to provide one or more identifiers
- provision of evidence that the original object has not be changed

Preservation Metadata

Preservation metadata is an essential component of most digital preservation strategies. As an increasing proportion of the world's information output shifts from analog to digital form, it is necessary to develop new strategies to preserve this information for the long-term.

PRECAUTIONS OF DIGITAL DOCUMENTS

- Handle library materials carefully:
- always handle library materials with clean, dry hands
- Never pull head cap
- Safeguard library materials for future users.

THE DIGITAL PRESERVATION PROBLEMS

- Copyright: Digitization is the process of converting a work into a binary language that can be read by a computer. Digitization involves storing in an electronic medium such as the hard disk of a computer or a floppy disk of a CD-Rom. The copyright act classifies such storage as reproduction, which is an exclusive right of the owner of the copyright in the work if the work is still in the copyright regime.
- Speed of Access: Speed of the accessible information is in higher side. Networks connected through worldwide ,so easy to access
- Digitalization Cost is high: cost of digitization of the library is very higher side.
- Band width: Digital library will require high bandwidth for transfer of multimedia resources, but the band with is decrementing day by day.
- Efficiency: Due to digitization access and retrieve information efficiently.
- Environment: Digital libraries cannot provide a traditional environment, people would like to read printed materials; it is not possible in a digital environment.
- Preservation: Due to technological developments, a digital library can rapidly become out-of-date and its data may become inaccessible.

CONCLUSION

Preservation of library material is most serious problem in today’s librarianship. Libraries are more concentrating on dissemination of information than the preservation of library materials. Techniques for organizing and disseminating information are developing fast, but conservation field is still neglected. If due attention is not given for the conservation of library material, then there is every possibility that our cultural heritage and “nations collective" memory may disappear. The cultural heritage of the nation in the form of old books and manuscripts the knowledge contained in it may be permanently lost if it is not properly preserved for future generation.

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