Chapter 3
Digital Preservation:
Principles and Policies

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ABSTRACT

It is a typical day. The computers start normally, but you think that it should not take that long to get the UPS going. Then you wonder about other obstacles. Thus, this chapter is about Digital Preservation and how it relates to shaping the principles and policies regarding the organization, improving performances of preserving the data that has been digitized. Thus, the scholars in the various disciplines concerned with the tendency towards the fragmentations of knowledge and the increasing complexity of the data have sought a unifying approach to knowledge. Notwithstanding the different strategies that will be necessary for different categories of digital objects at different stages in their lifespan, several principles have been identified that underpin all strategies. All of these generalizations are interdependent and no one principle is more important than any other principle. Individual principles should not be considered in isolation. Thus, the emphases are on the generalizations of preserving the data in all the formats that elaborate the concepts that are relevant to preserve the data and illustrate the knowledge of digital objects and their analyses.

INTRODUCTION

The most important component of a digital library is the digital collection as it holds or has access to viability and extent of usefulness of mustering up the collection of the digital objects and it may include the wide range of the resources i.e. the collections include books, journals, newspapers, maps, printed music, pictures, manuscripts and oral history recordings. This information content may includes the combination of Structured /Unstructured text, numerical data, Scanned images, graphics, audio and video recordings. Thus, the different types of resources need to be mustered differently and the policies must be made accordingly.

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Vision. By the year 2015, the Digital Libraries will be implementing the strategies and the policies which will enable accurate, appropriate, and equitable continuing access and providing the preserved digital World.

STATEMENT OF POSTULATES FOR THE PRESERVATION OF AND LONG-TERM ACCESS TO DIGITAL OBJECTS

At a workshop on the preservation of digital objects hosted by the former National Preservation Office (NPO) on 6 December 1995, 35 invited representatives discussed and revised the 'Statement of Principles for the Preservation of and Long-Term Access to Digital Objects.' These principles underwent several revisions following consultation with organizations represented on the PADI Working groups in which rather than storing all the enterprise data in one data warehouse, many organizations have created multiple DATA MARTS, each containing a subset of the data for the single aspect (Jessup, 2007). This section proceeds as follows:

- Introduction
- Principles (with Overriding Statement)
  - Synchronization
  - Role of Database Administrator (DBA)
  - Distribution of Responsibility
  - Appositively
  - Assessing Risks
  - Controlling Access
  - Strategies
  - Role of the Government

Introduction

In the today's world, all the organizations are charged with the responsibility of preserving and making their cultural and intellectual heritage available, which will need to develop a range of strategies to ensure the preservation of and access to various categories of digital objects. Custodial and non-custodial arrangements will need to be considered both from preservation and an access perspective. For preserving, the digital objects will need to be planned prior to creation if possible and considered throughout the life of the object. Points at which we should take care while mustering and building up the digital data access needs includes:

- System analysis and design.
- Information creation.
- Creation and capture of metadata.
- Creating the Data Marts (Jessup, 2007).
- Identification/appraisal/selection/collection of objects by libraries, archives and museums.
- Intellectual control and provision of access facilities to the objects by libraries, archives and museums.
- Management, maintenance, migration and Emulations of the objects over time.
- Continuous assessment of the significance and value of the objects for the future retention and access.

Principles (Holdsworth, 2010)

These are some of the postulates which should be used in order preserve the data digitally.

Principle 1: Synchronization

There must be proper synchronization in the generation, use, management, distribution, and preservation of digital objects which is essential.

For providing the continuous access to digital objects is solely be dependent on the cooperation of information creators, information system designers, manufacturers, publishers/distributors and information custodians and providers.