

Chapter 17

Preservation Initiatives in E-Environment to Protect Information Assets

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ABSTRACT

The libraries have been slow to commence an action to preserve scholarly journals' content. Since the appearance of e-resources and consortium, there has been serious thinking of digital preservation. There have been continued and concerted efforts for preservation of e-resources and as such digital preservation of subscribed consortium content remains a serious threat for the consortia administrators. This study investigates the global initiatives taken to ensure access to perpetuity to electronic resources.

INTRODUCTION

In recent decades, the core practice of institutions, organizations, governments and individuals have progressively more dependent on digital objects of all kinds including documents, images, videos, audio files, spreadsheets, datasets and integrated combinations thereof. But the swiftness of technological change and the character of digital objects make them obsolete and unusable in a short period time. Preservation is the umbrella terms now apply to a wide variety of collection management responsibilities intended to preserve collections of print and non-print materials (e-resources) for future generations. The archival material may be preserved in original form after getting digitized as the original copy can be easily kept away from users since they may use the digital copy. Digital Preservation is the management and maintenance of digital objects (the files, or groups of files, that contain information in digital form) so they can be accessed and used by future users (University of Michigan Library, 2015). It combines policies, strategies and actions to guarantee 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 American Library Association (2015). Digital preservation strategies and actions address content creation, integrity and maintenance.

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Content creation includes clear and complete technical specifications, Production of reliable master files and sufficient descriptive, administrative and structural metadata to ensure future access. In Content integrity Documentation of all policies, strategies and procedures, Use of persistent identifiers and Routine audits. Content maintenance take account of a robust computing and networking infrastructure, Storage and synchronization of files at multiple sites, Continuous monitoring and management of files, Programs for refreshing, migration and emulation, Creation and testing of disaster prevention and recovery plans and Periodic review and updating of policies and procedures (American Library Association, 2015)

BACKGROUND

Electronic resources have gradually become the core of the academic libraries' collection. So there Preservation and the archiving are very much essential to ensure seamless, uninterrupted access to them in posterity. The generation of new scientific knowledge is not possible, until and unless access to already generated knowledge of past is made probable. The faculty members, researchers, and students are highly dependent on e-resources for their research work. In conventional milieu, libraries are maintained as proper physical infrastructure, including brick and mortar building with racks and shelves for ensured safeguarding and access of back files of journals for years together for the user community. In digital milieu, libraries have access to e-resources, but the permanence access is not ensured for various reasons for example in future the publisher may go out of business, the physical infrastructure may collapse due to natural/made calamities or the publisher may cease publication of journal. When libraries subscribe to e-resource, they do not have copies of content at their servers but they get access to content of journals, for limited period, held at remote servers of publishers. Once the subscription is dropped (or publication becomes a ceased one), libraries are rundown of back issues of journals. This ambiguity of continuing access is a major obstacle which thwarts libraries from going to electronic only subscriptions Hockx-Yu (2006) So that libraries call for to archive electronic journals before they can completely move to e-journals only. Since the libraries spent a large part of their budget on e-journals, they must guard the assets they make on e-resources Kirchhoff (2009). Hence, digital archiving of back files of journals is very essential in order to provide seamless access to the digital content to the future generations. The endeavor of archiving is to make e- resources available, accessible and usable to the posterity. Libraries would exercise their preservation obligations in part by paying fees to support the archive" (Waters, 2005).

STRATEGIES FOR DIGITAL PRESERVATION

There are several strategies that individuals and organizations may use to actively combat the loss of digital information. The following different option for preserving digital content for future use are (Day, 2003):

- **Medium Refreshing:** It is copying digital files from one storage medium to another medium to avoid physical decay or the obsolescence of that medium. Refreshing is necessary in order to achieve longevity.
- **Data Migration:** It is transfer of digital materials from one hardware/software configuration to another.

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