Scholars Journal of Engineering and Technology (SJET) **ISSN 2321-435X**
Sch. J. Eng. Tech., 2013; 1(4):257-260

(An International Publisher for Academic and Scientific Resources)
www.saspublisher.com

Short Communication

Digitization: Establishment and Some Requirement in Cloud Age

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Abstract: Digitization is one of the important name in today's age of IT and Computing. Digitization is actually a scientific collection of information resources and service available electronically through internet or any offline Computing Mechanism. Digitization brings us so many things which include Digital Archives, Digital Library, Virtual Library and more important healthy Digital repositories. The Digital repositories may be online or it may be offline in the nature. Building Digital Mechanism and Digitization needs so many tools, procedure and availability. Without these, the whole efforts may be valueless. This paper is talks about Digitization; including its basic, nature and requirement for establishment of Digital object or Repositories.
Keywords: Digitization, Cloud Computing, Virtual Resource, Virtual Library, Digital Information Centre, Digital Library, Information Science and Technology [IST], Software Computing, Consortium

INTRODUCTION

Digitization is actually a collection of digitized resources which includes general document, text, Audio and Video files, Books, Journal, Article, News Paper, news clipping and so on. It is may also defined as combining an on-site collection of current and healthy materials in both print as well as electronic form [4, 5].

Other way, it may be define as the process, mechanism where all contents and objects are digital in nature and able in providing Information Services with the help of automated and scientific procedure and systems. In digital Repositories, basically no corresponding physical collection documents it's possible to acquire [6, 7]. In Digitization all the material first collect and prepare in the appropriate format with the help of Computing and Information Technology. However object available in digital format no need to scanned or digitized. Digitization helps Information Repository 'with out walls' or 'huge but small' in looks. Digitization put new oxygen in the Information Foundation; which are provides General Information Services or digitalized Information or Documentation unit resources [2, 8, 9].

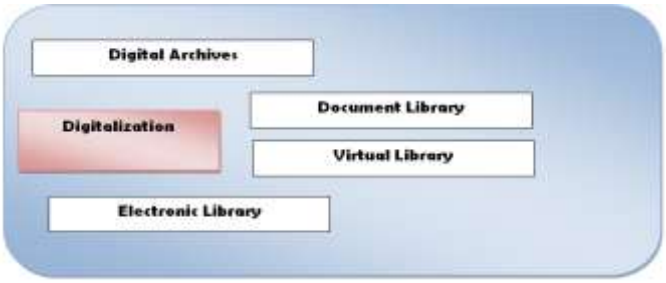

Fig. 1: Depicted some Facet and Dimension in Digitalization

Objectives

The main aim and objective of this study is includes:-

- To learn basic about Digitization, it's need and characteristics;
- To find out main role and benefit of Digitization and similar facilities;
- To find out main requirement of Digitization and similar services;
- To learn about main challenges and opportunity of Digitization and Digital Repositories; around the world;
- To find out main possibilities of cloud computing in Information or Digital Repositories.

Digital Repositories: Planning, Mission and Scope

Digital Repository is one of the important aspect and tool for Digitization [5, 9, 15]. For a healthy Digital

Repository building several things are essential which includes:

- First of all it is essential to establish a clearly defined goal or aim; for which it is going to established. Who will be the user and stakeholders and so on. Thus like any other project Building Digital Repositories needs healthy and sophisticated planning including mission, scope, potentiality and so on [10].
- Scope and periphery is another important matter to establish in Digitization project. It is essential that, there should be a clearly defined subject and discipline of the DR or if it is for the official purposes, then, what are services to be offered. Some other things are also essential to take care such as – The Digital Repositories is totally new or existing with new services, who will be the stakeholders and so on [3,13].

Fig. 2: Showing way of Digital Information Infrastructure building

- Service scope is another important issue for Digitization or Digital Repositories. Digital Repositories are able providing so many services such as – Internet, Websites services, E-Books, E-journal, E-documents, E-learning facilities, Information Services, CDROM or Recording service to the users for borrowing/lending, Time and Services and so on.
- User and stakeholders is another important thing for establishment of Digital Repositories and Digital Mechanism. It is essential to see about its user's; which includes in-house or external, off campus or on campus and so on. Though establishment of Digital Repositories some other stakeholders are also essential which includes – Authorities, Administration and Administrator, Faculty and Digital Repositories building expert and so on.
- Technologies are another important issue, which is essential to take care. The Technologies such as – software, hardware and application packages. It is essential to see that, what should be opt? Open source or close source software, free or commercial software or which one. It is also essential that, proper and up to date technologies should be provide;
- Tenure of the project is essential, starting of the project it is essential to fix a particular duration of the project. To complete the project within specified time before system analysis and system design are very much essential. To keep all in time extra and value added serve or facilities may be adopt;
- Collection of IT Information infrastructure a Digital Repositories building depends on some of the thing which includes computers and there are variety of computers are there with several platform and facilities, Building Digital Repositories also needs so many software which including operating systems [Windows/ Linux/ Unix/ Solaris] Application software for Digitalization, Multimedia packages such as – Photoshop, PageMaker, Corel Draw, Maya, 3D and so on. Particularly for Multimedia Information Systems building these softwares are needed [5, 6].
- Content and its availability is another important tools and material which is essential to build any kind of Digitalization project. Digitization including new Resources and old resources. For new resource it is essential to sure that, there is no copyright related matter problem and for old resource, digitalized healthy and sophisticated scientific scanning is essential. Thus to digitalized content it is essential to check out about copyright related matter and get acknowledgement from the authors/publishers[7, 8];

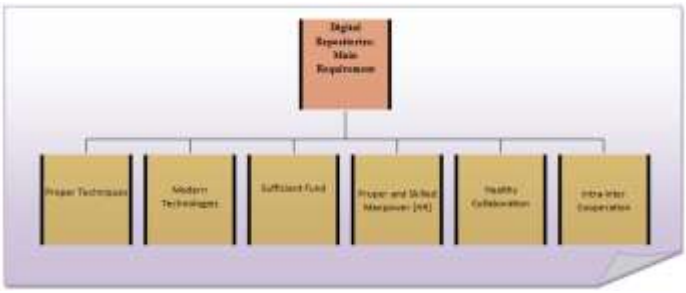

Fig. 3: Depicted core challenges and issues of Digital Repositories at a glance

- Human Resource is another matter to established Digital Repositories, healthy and sound knowledge about Digitalization is very much essential among the staff. Modern skill and technologies are very much needed building healthy Digitalization in among the staff;
- Interdisciplinary Knowledge is also essential in staff or human Resources. They should know the aspects of Information and Knowledge; its nature and types, value and related matters including Technologies. knowing Cognitive Science and Psychology is also essential to build user profile and user expectation based content collection[04, 09];
- Funding is another, most important and values name to build Digital Repositories, Technologies including several Hardware, Software tools, application packages, human Resource and their pay, physical infrastructure, communication funding and so many other financial ability much crucial[10, 12].

Cloud based Digital Repositories: Prospects and Problems

Cloud Computing is one of the value term in the field of Computer Science and Information Science and Technology [IST]. Cloud Computing is actually a mechanism or procedure or systems responsible for virtualization; which includes hardware, software, Application, Packages and so on. Cloud Computing not a tool or Devices it is actually a service which is offered to the IT infrastructure facilities to a remote place through the dedicated communication systems. And internet play an important role to offer such hardware and software services.

As building Digital Repositories and similar foundation establishment needs several Information Technology and Computing Infrastructure; thus with the help of Cloud Computing it is possible to avail such many ways, saves, time to established physical Infrastructure, save money to establish IT infrastructure of their own[06, 12].

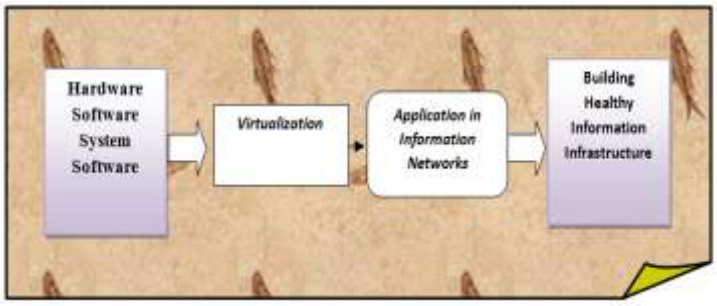

Fig. 4: Depicted way to build Information Networks

Apart from these, cloud computing may also serve in some other places in Digital Repositories, it allows only time and any where services thus, Digital Repositories Agency may use it as per conveyance[12, 13]. Apart from these, it provide demand based service, which allows Digital Repositories Agency to choose the service which is essential and Pay for that particular service. Though cloud Computing in Digital Repositories may face some problems which includes- healthy and sophisticated broadband services, interrupted connection, may not available in all the places.

Findings

- Digitization is helps in build Digital Repositories, Digital Archives, Digital Library, Information Systems and so on.
- With out all pre-requisite and requirement a sophisticated Digital Repositories building establishment is very;

- Building Digital Repositories needs funding and Finance;
- Cloud Computing may bring new age in Digital Repositories and easily it is provide to build Digital Repositories.

Suggestion

- During preparation of Cloud Based Digital Repositories available of service provider and their authentic is essential to check;
- Proper and adequate fund is essential to arrange;
- Transforming a manual Information System to Digital one need to check and easy step.

CONCLUSION

Building Digital Repositories needs sophisticated manpower and surrounding services. It is essential that manpower should be able in interdisciplinary skill which includes knowledge of Document, Computing, and Psychology and so on. Digital Repositories is helpful for building healthy information infrastructure. Digital Repositories for public and common mass may it helps in Removing Digital Divide and Information Divided and Information Divided easy ways.

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