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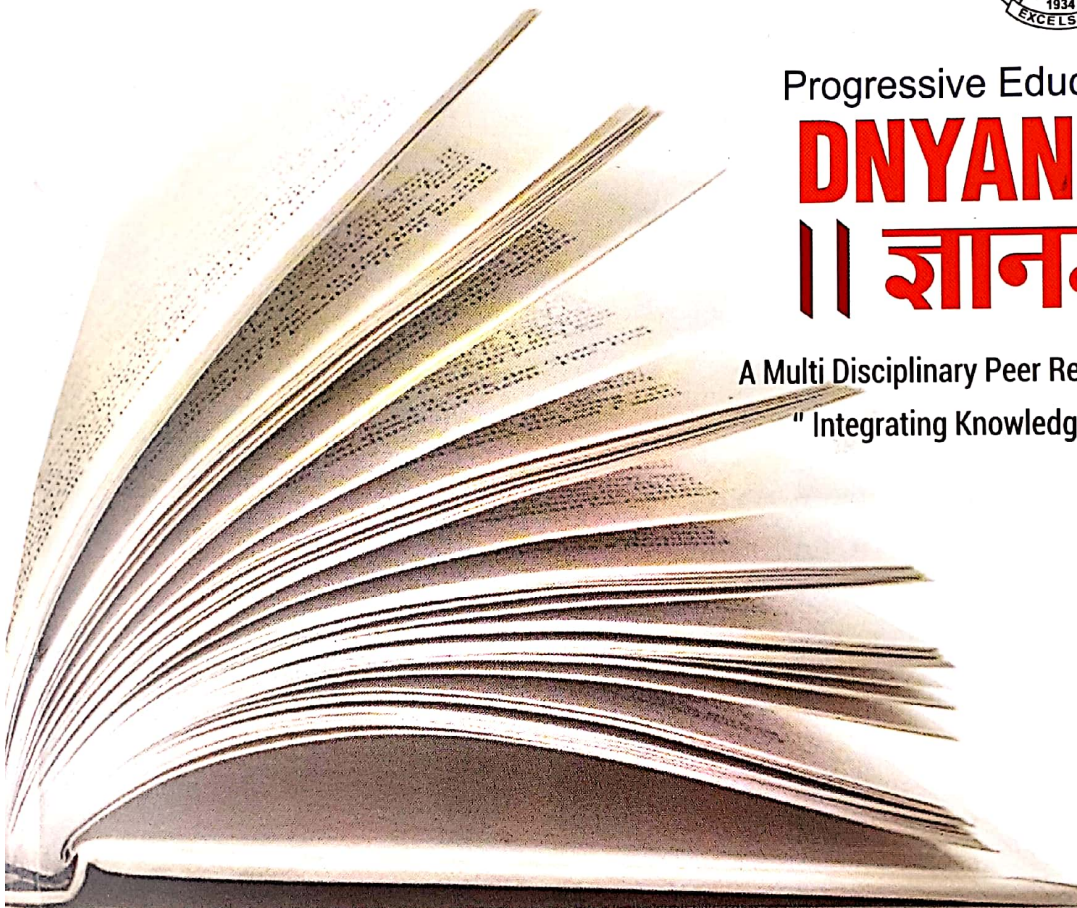


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DSPACE - A Pathway to Digital Library

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Digital Technology and internet connectivity has led the evolution of traditional library to Digital library. This has been possible due to the development of new software in the field of technology. DSpace is one such software. DSpace repository software serves a specific need as a digital archives system, focused on the long-term storage, access and preservation of digital content. Digital Libraries provide an effective means to distribute learning resources to the users. Rapid advances in information technology have brought about radical change in the role of libraries. Today Digital Libraries are gaining ground in India. Indian libraries are marching towards substituting print based information to digital based information right from elementary school to higher education level. The present research paper highlights the use of DSpace in Digital Library

Keywords : DSpace, Digital Library, Technology

Introduction:

The revolution of Information technology which began in India in 1990's has taken up number of initiatives towards digitization. One such initiative is in the field of digital library. Digital library is a library in which collections are stored in digital format as opposed to print, microform or other media and accessible by computers. The content may be stored locally or access remotely. Digital technology and Internet connectivity has paved way to digital library. Digital library of India (DLI) Project in India started in early 2000 with vision to archive all the significant literary, artistic, scientific works of mankind and to preserve digitally and make them available freely to everyone over Internet for education, study and appreciation for future generation. Today digital library in India has currently 5,50,603 books with 191,677,823 (191.657 Million approximately) pages in portable document format (pdf) This

project is funded by Department of Electronic and Information Technology. A lot of digital library management software are available for building digital library eg. Greenstone, DSpace, Eprints. These digital library management software (DLMS) present different services and architecture. It is upto the organization to propose any one(DLMS) system. The present paper highlights the use of DSpace and its applications in educational institutions.

Objectives:

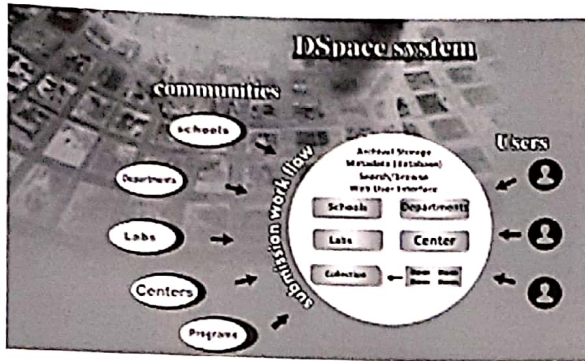
- To study the software used in digital libraries
- To understand the concept of DSpace software and its application
- To study the features and functionalities of DSpace software
- To know the advantages of DSpace in digital library

Concept of DSpace:

Digital library need good pathway to access their content which stored in digital form. Open source software is the good pathway to access these are content. Open source software which can modify and share easily. it's freely public accessible software Open source software example are Greenstone, Eprints, Fedro, D-space and many more. As compare to other open source software DSpace is quite popular. It provides durable access to digital resources. DSpace preserve and enables easy and open access to all type of digital content including text, images, moving images, map, datasets etc. DSpace was developed by Hewlett - Packard and Massachusetts Institute of Technology in the year 2000. Today DSpace project is handled by Duraspace.

The DSpace Information System Model and Application

DSpace is having a community based development model as shown in the above diagram.



DSpace team up with communities like lab, college, research center. Communities contain *collections*, which are groupings of related content. A collection may appear in more than one community. Each collection is composed of *items*, which are the basic archival elements of the archive. Each item is owned by one collection. Additionally, an item may appear in additional collections; however every item has one and only one owning collection.

DSpace's current user interface is web-based. There are several interfaces: one for submitters and others involved in the submission process, one for end-users looking for information, and one for system administrators. Items are logical units of content which consist Dublin core based metadata, as well as other metadata which has been encoded as bitstream. Bitstreams are individual digital files, which are having limited set of descriptive metadata like name, size of the file, format of the file etc. A pdf file, word document, jpeg or bmp picture, executable program etc. can be considered as bitstream.

Advantages of DSpace software

Fast set up

It helps in setting up the repository and lowering the cost effectively. Users of DSpace need not use local servers and system administrators. The management looks after the software and servers, thereby lowering the users cost.

It helps the users to choose the features based on the individual choice
 Dspace provide flexibility to choose the features such as based on local needs.

Cost setup automatically low
 The management provide upgradation of software and enables the users with latest stable

DSpace version and features. Helps in preservation of content, backing of the content automatically and content recovery option is made available. DSpace Direct comes automatically integrated with DuraCloud, ensuring long term access to the content

Anytime data access (24 x 7) DSpace Direct account is online and web accessible. One can add content and provide immediate access to the users wherever they happen to be located.

Managing your own data

DSpace is open source and has a global community of over 1,500 institutions. Hence the users can move their repository content to their own local server


DSpace helps the users to be the part of worldwide community DSpace provides the users to access, manage, and preserve their valuable digital assets. This ever-growing community of users becomes a part of the conversation around repositories and stewarding our shared cultural heritage.

Future challenges and opportunities:

With the ascent of digital technology, the role of library has been widely expanded. Various challenges have emerged. The challenges are not only manifold but seem to be threatening to the existence of libraries but simultaneously offers opportunities to library profession to frame proper strategies to fulfill the changing need of the user in the changing technological environment. Some of the challenges and appropriate strategies to overcome them may be enumerated as effective strategies for building 21st century libraries .

Conclusion:

The Digital Library Management software presents an ease to use, customizable architecture to create online digital libraries. These organizations help in disseminate the research work, manuscripts, or any other digital media for preservations and world over dissemination of digital items. Dspace software discussed above present different services and architectures. Dspace software development is managed by group of committers from different institutions to ensure that it continues to meet the



needs of the user community. Dspace will play an important role in future academic libraries and archives.

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