A Study on Assessing Digital Library Software: With special Reference to the Greenstone Digital Library Software

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Abstract

The disclosure of digital libraries grants many opportunities and question for the settlement of centered collections of digital oppose. As librarians in the India seek to appraise the existent software and systems, and to ID the most appropriate technology and methods of construction digital libraries, several scrutiny egress emerge for muse and analysis. These egress include, Internet-supported apportionment, the profession to furnish cleaving and compatible views of the resort held, metadata elaboration, representation of multimedia and hypermedia dogma, interoperability, portability, data commute, and the performance of the mortal-electronic computer interface. This paper identifies types of digital libraries full digital libraries, special and "hybrid" collections, and examines definitions currently in use. The focus is on collections built for specific user communities. Open-source and commercial software are briefly examined as well generic and specific library applications.

Keywords: Digital Library; Open-source; Software; Green Stone.

INTRODUCTION

The India has the potential to lay open digital libraries as a abject of lengthen the comprehend of library and instruction systems. Users are demonstrating better capabilities in admission and searching for information, software and hardware is ready decrease cost, and an influential arrange of this possibility has been the increased accessibility of the Internet to individuals, libraries, reprove, universities, corporations etc. Figures if by the Surveys show that in around 400 Internet Service Providers in the Wider India and this reckon is increasing (prenominal) as avail and accoutering cause are being conquer.

The Indian University libraries swell other digital, energizing and electronic libraries with varying figure of bestowal. There is no unmixed disagreement between the three name and there is some override with "submissive gate" and "portals". In this papery the expression "digital library" will be application to cover this wander of wording. Christine Borgman who has analyzed several definitions of digital libraries has recognized the mayor elements of digital libraries as comprehend:

- A set of electronic resources and associated technical capabilities for creating, screening and using information;

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- Construction for a given user community;

- Functional capabilities to support the information needs, and uses of that community.

In addition to the above emphasis on the needs of a given community of users, Borgman also identifies other elements including:

- Full content of the information resources in

- Electronic forms; accommodation of multimedia formats;

The 1998 explanation of digital libraries by the Digital Library Federation which Borgman express as the "first succinct definition" induce the issues of "an rudimental base" and "betroth the obstinacy extra time of collections of digital performance."

The cogency of digital libraries trust on the ability of the digital library software to furnish the exact form to concede creators and users to paroxysm, require powerful use, and betroth security of the desired several-format collections. Building digital libraries is now being done for the evolution of collections of precept, rudimental repositories of monument, comparison document, collections of electronic theses etc. The outgrowth of charged and selecting software can be accomplished as gift two expanded areas of selection, the choice between commercial and exposed-origin software.

Table 1: lists some commercial and open source library application software.

Some Commercial and opensource library application software	Open-source generic	Open-source specialized
Contentdm generic http://www.oclc.org/contentdm	Koha library system generic http://www.koha.org	E-prints self-archiving and open archives - designed for refereed research literature. http://www.eprints.org
DL Box generic	D Space generic designed for research literature http://www.dspace.org	ETD-db designed for e-theses http://scholar.lib..edu/ETDdb
	Greenstone digital library software generic http://www.greenstone.org	

Open origin software which is based on the delivery of open standards, dividend fountain code, and collaborative deduction, afford an economical disjunction to libraries' trust upon commercially contribute software. Such software is familiar of cost but there are detriment of documentation, school and sometimes customization, and change.

With obvious-rise software, the intelligence technology infrastructure that is indispensable for library operations and services can be shape harmonious to uncovered standards and as such would be potentially interoperable with other substantial software and systems. Some of the requirements of digital libraries terminate:

Facilitating networking;

- Ubiquitous availability to libraries;

- Capability of being tailored to suit the needs and circumstances of individual libraries;

- Adequate documentation-printed or online;

- Existence of an active user group.

Open-source software is usually the effect of scrutiny jut and may be well protect by the plan abound at least for an drop cap period. The Greenstone Digital Library Software is produced by the New Zealand Digital Library Project at the University of Waikato, Department of Computer Science,

and improved and diversified in coworking with UNESCO. Documentation has so greatly has been well distributed on the Internet and the Greenstone use assembly is nimbly duty.

Another open-source software bale D Space was exhibit by the Massachusetts Institute of Technology (MIT) in collaboration Hewlett Packard. Members of the D Space Federation outshoot are cupellation and implementing D Space and MIT periodically landlord use assemblage meetings. The idea of exposed-source software most often animate ideas of unobstructed available software which comes with an abundance of upright. Altman in examining Open Source Software for libraries resume "the broad equitable it crown to the destroyer" "to custom qualify and assign the software" as:

- Rights to use without discrimination;

- Full rights to create derived works and access to Source Codes, freedom to modify and distribute and integrity of authorship;

- Rights to redistribute under the same license as the original.

In assessing open-fountain software for digital libraries in the India we can respect the three main-hamper moral code proposed by Christine Borgman: "interoperability, portability and data exchange". As databases fall easier to constitute we can envisage the eduction of numerous uncommon collections

contageous advantageous of the accessibility of open-source software, and expanding advice and communications infrastructure. Development of these specific collections is also expedited by the accessibility of multimedia arrange, and collections of a diversity of digital show. The royal blame in Levy digital library software is therefore to settle the creature of characteristic which can go to "interoperability, portability and data traffic". Such further must be even against the availableness of thirst-word nurture, compatibility and stableness.

The Greenstone Digital Library Software furnish an interesting warning of an frank source software bale free under the terms of the GNU General Public License. It is described as" a suite of software for construction and distributing digital library collections which furnish a renovated passage of organizing intelligence and declare it on the Internet or on CD-ROM". Greenstone is make by the New Zealand Digital Library jut at the University of Waikato, and distributed globally in collaboration with UNESCO and the Humanity Libraries Project. Greenstone was first acquit in 2001 and has had several versions trial since then.

An examination of the desirable features listed above in relation to Greenstone can be used to assess the suitability of this package for India libraries.

The system should be able to distribute collections via networks and via the Internet.

Greenstone provides access to collections via the Internet and local networks e.g. The New Zealand Digital Library is made up of a number of collections and is accessible at http://www.sadl.uleth.ca/nz/cgi-bin/library. Collections once created and —built can be previewed in a Web browser and accessed via the Internet.

There should be options for use of popular operating systems

Greenstone operates on MAC OS X, Windows, and POSIX (UNIX/LINUX). Users are given the choice of operating system at the point of downloading.

There should be security features to ensure proper administration of access to the collections.

Greenstone offers administration and security features with sign in procedures which use passwords. At the time of installation the user is able to establish a password. The Administrator also has a different status from the user in a networked environment.

Capability to provide not only metadata but also full text access to items.

Greenstone offers full-text collections which can be also browsed, searched and accessed by chapters and sections of items.

Immediate creation of indexes

With the Greenstone software all searching and browsing structures are built directly from the documents themselves. Links are not inserted manually, but existing links in originals are maintained. When new documents in the same format become available, they can be automatically integrated into a collection. Metadata is used to create indexes while the collection is being "built". There is automatic execution of the information, which is searchable, the ways of browsing through the items, languages and where search buttons appear.

Automatic extraction of metadata from digital objects and the ability to import required metadata sets.

Greenstone automatically extracts selected metadata and permits the import of Dublin Core and other metadata sets. Automatic extraction can be done for Language, Source, Title, ISO codes, ISBN etc.

The software should have multimedia capabilities.

Greenstone compose a variety of digital opposed in theme, images, sound and video hold. A group may have origin writing in distinct figure. Images and other non-textual important are either linked in to the textual school or accompanied by descriptions (such as outline sophism) to permit full-text searching and browse. The workmanship also let implementation of plugins and classifiers even for no-textual data.

The software should permit the development of expandable and extensible collections.

The designers report that Greenstone is "designed for multigigabyte collections and collections can contain millions of documents". The collection structures are extensible in that new features can be added by making modifications to the configuration file for each collection. This is one area which is considered as requiring some careful study, preparation and application.

Free or low-cost software without restrictions or costs for numbers of users or on distribution

Greenstone is open source software issued under the GNU General Public License and therefore attracts no direct costs. There are consequently no limitations on the numbers of users or the extent of distribution. Any modifications of the software should however, be made available to other users.

The software should have multilingual capabilities

The user interface can be used in various languages including Spanish, French, and English. Documents in a variety of languages can be processed. Unicode is used throughout the software, allowing any language to be processed in a consistent manner. Conversion is done from Unicode to an alphabet supported by the user 's Web browser.

GENERAL CONSIDERATIONS

From the optable characteristic debate above it seems that the Greenstone Digital Library Software equals the majority of the requirements. One general consideration is the circumstance that Greenstone is still relatively fresh, and seems to be principally nurture technically by the purpose team. It is still very soon to smack what the uptake will be among librarians globally and in the India. Greenstone and other digital library software attempt a unspent interval of systematize information. Staff will claim training at the conceptive horizontal and also in the itemized cosecant of the software. A likely strategy could be the disclosure by each library of a few guide collections containing digital images in formats rep of their collections. This would endure practical in-dwelling assessments and valuation of the applicability of the software to remedy use communities.

DISCUSSION

One should keep in will that Greenstone and other digital library software offer a modern way of organizing advertisement. At the instant though, it is too forward to decide how librarians in the India and globally would respond to the software. The need for stanza training at both the concipient as well as in the particular functioning of the software was distress. It was commend that each library project the generalship of worn a few pilot collections with digital effigy that would admit practical in-household assessment and evaluation of the applicability of the software to limited user communities.

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