TECHNOLOGICAL SKILL FOR LIBRARY PROFESSIONAL TO STRENGTHEN THE ROLE

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Abstract

This paper discuss about necessary technologies which are useful for the library professionals to enhance their role in academics and research. Through the technologies LIS professional can modify their status and importance from the traditional concept of the library professionals. With the knowledge of latest technologies, LIS professionals cope up with latest and advance information needs of the academician and researcher. This paper discuss such important technologies like Content Management System, Reference Management System, e-Learning Management, MOOCS, Research Information Management System, Standards in Research Administration Information, Altmetrics & tools, E-Resources Management & Identity Providers, Google Apps.

Keywords : Technology; Library professional; Content Management; Reference Management; MOOCS; Altmetrics; E-Resources Management tools

Introduction

Libraries have gone from a building that housed a physical collection to fully networked library management system with web based catalogue and introduced web services such as websites, e-books e-journals and database in to our services that allow users to use our collection without entering the library, all within 24/7 access. Libraries become quite powerful in what and how provide these services to the community but if libraries are to remain relevant, must continue to change to enable to better meet community needs. Recently library professional have struggled to understand their relationship to a new breed of web services and tools that libraries connects users with the information they need. So it is very understandable that libraries persist to offer exclusive and valuable services to their communities. They need to propose latest service models, techniques and technologies that can be settle in to develop library services. Besides that because of extensive use of these services and information applications, there are intellectual changes affecting information seeking behaviors of library users.

Basic approaches to reference and advance service have not altered in recent decades dramatic changes in user needs, customer services technologies and transformation in other areas of the library. By reengineering organizations in techniques that fetch librarians and technologists together within a general service environment, information service agencies can more effectively meet our users' needs by moving more fully and flexibly into the network as changing circumstances demand. The vital role of technology has motivated a rising body of research literature, exploring the application of technology applications and tools in the place of work as well as within LIS education, to efficiently organize tech-savvy professionals. Such work is instrumental to the progression of the field, and with the rapidly-changing technological landscape, requires ongoing attention from the research community.[9,7]

Content management system

Develop Websites without knowledge of HTML or programming.

- ✓ Easy to install

- ✓ Plug-in

- ✓ Support

- ✓ Navigation management

- ✓ Good looking URLs

- ✓ Updates

- ✓ Advanced administration

- ➢ Sources such as Drupal, WordPress, Zumla

Reference management system

Reference Management / Citation Management / Personal Bibliographic Management software is software for scholars and authors to store bibliographic citations. Once a citation is stored, it can be used time and again for generating lists of references for books and articles in different styles

- ✓ Easily store bibliographic information and references for the institute publication or faculty members

- ✓ Discover new articles and resources

- ✓ Share references with your peers

- ✓ Find out who's reading what you're reading

- ✓ Import, store and search your PDFs

- ✓ An altmetrics parameter

Who is using: Zotero, Mendeley, CiteuLike

E-learning management system

The e-Learning is used to deliver course content to the student community within an organisation or to the remote location. Librarians can play a pivotal role in designing and developing e-Learning system for the organisation for effective course content delivery. More than 90 e-Content projects are at different stages of development under the NME-ICT, including NPTEL (Phase II), e-PG Pathshala, CEC e-Content, e-acharya, etc.

- ✓ 24/7 Accessibility

- ✓ Improved Pedagogy

- ✓ Enhanced Collaboration And Reach

- ✓ Greener & Cost-Effective

- ✓ Suitable For Millennials

aTutor, Moodle, Sakai

MOOCS [13]

MOOCs are a relatively recent online learning phenomenon, they are now generating considerable media attention and significant interest from higher education institutions. They can be seen as an extension of existing online learning approaches, in terms of open access to courses and scalability.

E-Learning: Learner-centric

MOOCS: Teacher-centric

- ❑ Udacity, EDX, Udemy, KhanAcademy, MIT Open Courseware, Coursera

Research information management system

Research Information Management System is the web-based tools to discover and use research and scholarly information about faculty, scientists and resources. These tools connect institution level / enterprise systems, networks of national research, Open available research data and controlled / proprietary data by assembling information from various sources into accumulated expertise profiles for academicians and researchers.

Major Features

- ✓ Profile information can be automatically imported from authoritative institutional

- ✓ Data sources.

- ✓ Individuals can log in using institutional authentication procedures to modify their profiles.

- ✓ Information like research interests, publications, presentations, etc. can be easily customized on the site.

- ✓ Identify current work and find scientists with precision and veracity.

- ✓ Simplify reporting tasks and provide visualizations of personal networks.

- ✓ Route information based on interests

Open Source Profile Management Tools: VIVO, Profiles, Digital Vita (DV), Egle-I

A semantic web application that enables the discovery of research and scholarship across disciplines in an institution.

• Populated with detailed profiles of faculty and researchers, presenting items such as publications, teaching, service and professional associations.

• A prevailing search functionality for situating people and information within or crossways institutions.

Standards in research administration information[4,11,12]

Research Admin.

- ✓ CASRAI

- ✓ euroCRIS

e- Learning

- ✓ SCORM

- ✓ Tin Can API

CASRAI-Consortia Advancing Standards in Research Administration Information is a non-profit standards development organization. CASRAI is an international initiative of foremost research funders and organizations join effort to ensure flawless interoperability of research information. They jointly develop and preserve a common data dictionary and progressive best practices for data exchange and reprocess between research teams, organizations and funding agencies throughout the whole life-cycle of research movement.

euroCRIS - European Current Research Information System: A Current Research Information System usually known as "CRIS" is one informational tool offered to provide access and disseminate scholar information. A CRIS consists of a data model relating and describing objects of significance to R&D and a tool or arrangement of tools to manage the data.

A CRIS aims at assisting the users in the reporting, recording and executive concerning the research process either they are developing programmes, assigning funding, projects assessing and executing, results generating and assessing or technology transferring.

Tin Can API is a latest and developing learning technology design (from ADL – the SCORM people). It tackles many of the constraints of SCORM such as the following:

- SCORM requires a web browser (no support for apps).
- It requires a steady Internet connection.

- It needs an LMS to commence learning.
- It could trail only prescribed learning activities.
- It does not support platform transitions (such as computer to mobile)
- It has boundaries in sequencing, interoperability and ensure security of the learning content.

SCORM - Sharable Content Object Reference Model

Standards and Protocols[8]

Information Retrieval

- ✓ Z39.50

- ✓ OAI-PMH

- ✓ SRW and SRU

- ✓ REST

- ✓ SOAP

Usage Statistics

- ✓ COUNTER and SHUSHI

Bibliographic Standards

- ✓ MARC, MARCXML and Dublin Core

- ✓ BIB-1 and TEI

- ✓ METS and MODS

Preservation Standards

- ✓ PREMIS

- ✓ OAIS

Encoding Standards

Unicode and ASCII

ALTMETRICS[1,2]

Altmetrics capture ways in which articles are circulated throughout in the escalating scholarly ecosystem and achieve beyond the range of traditional followers and filters. By monitoring and capturing the imprint of research from the moment of publication circulates across the community, altmetrics also assess the aggregate impact of the research endeavour itself.

Scope of Article Level Metrics (ALM) in the Academic Institution or R&D organisation

- ✓ Incorporate ALM into institution's research assessment exercises

- ✓ Ask researchers to report their article-level metrics in all professional evaluation activities (hiring, promotion, etc.)

- ✓ Encourage display of ALM across departmental researcher and laboratory pages

- ✓ Feature relevant metrics when showcasing noteworthy researchers

- ✓ Librarians to communicate the value of ALM in their work with researchers

Adopt ALM for articles in the institutional repository

- ✓ Viewed - HTML views and downloads

- ✓ Discussed comments of journals, science blogs, wikipedia, Twitter, Facebook and other social media

- ✓ Saved - Mendeley, CiteULike and other social bookmarks

- ✓ Cited - citations in the scholarly literature, tracked by Web of Science, Scopus, CrossRef and others

AltMetrics-Tools

- ✓ Plum Analytics

- ✓ Impact Story

- ✓ PLOS

- ✓ Altmetrics.com

- ➢ Plum Analytics - Service provider with API. Profile page and analytics. state the cover more metric basis than someone else

- ➢ Impact Story - Displays data in a CV like format. Could become the Linked-In for Scientists. Has API.

- ➢ PLOS - One of the former publishers to apply article level metrics.

> ➢ Altmetric.com - Service provider with API for publishers, bibliographic websites and more. also offer bookmarklet.

E-resources management tools & identity providers[3,4,6]

- ✓ CORAL

- ✓ ERMes

- ✓ 360 Resource Manager

ORCID is a non-profit, open, community based endeavour to offer a registry of exclusive researcher identifiers and an apparent platform of connecting research activities. ORCID is exceptional in its aptitude to reach multiplicity disciplines, research segments and national margins and its collaboration with other identifier systems. ISNI-International Standard Name Identifier

ISNI having public records of more than 7.49 million identities, including 7 million personages (of which 800,000 are researchers) and 490,000 organisations. The ISNI database is a cross-domain resource contributed by 29 institutions and databases and 40 main national and research libraries

Ringgold ID (4,25,000+ Institute record)

The Ringgold Identifier was applied as a main solution in a project undertaken with a foremost scholarly publisher looking for best practices for the identification and clear information of institutional subscribers. It has become one of the most everywhere accepted identifiers in used by publishers and intermediaries to exclusively identify every customer and precisely connect their records across all components of their organization.

Publishers and inter - mediatise now normally access and download data from various sources and stored it in part silos. Without exclusive identifiers, data connecting becomes inefficient and the results of reports are not reliable. Linking the entire customer data from across all enterprise can notify decisions about individual interactions with customers and give information with which one can manage business. This is the function of the Ringgold Identifier, to give individual with standardized information which allowed connecting records efficiently.


Google application and services
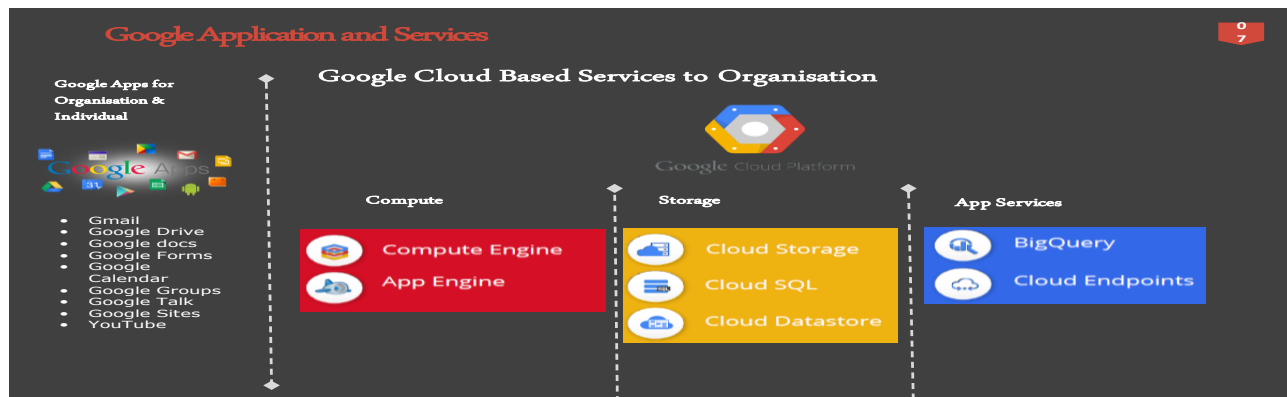
What is Google Apps[5]

Google Apps is a service from Google providing independently customizable versions of several Google products under a custom domain name

• Web applications with related functionality to traditional office groups plus Gmail, Google Groups, Google Calendar, Talk, Docs and Sites, Rajen Sheth, a Google employee who later developed Chromebooks
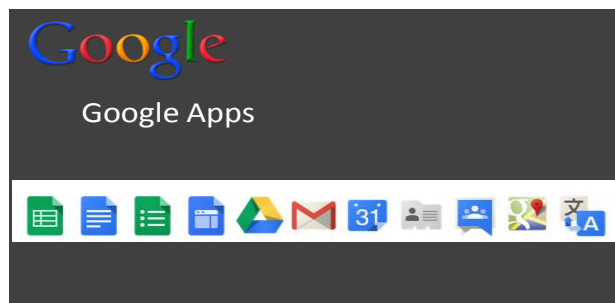
Other Important Technologies

- IRs

- RSS Feeds and RSS Feed Aggregators

- Streaming Media and YouTube

- Personalization and MySpace

- Social Networking Sites (Facebook)

- Photos (Flickr, Picasa)

- Wikis and Blogs

- Social Tagging

- Instant Messaging

Conclusion

More than the past numerous decades, technology has quickly moved from a specialized setup tools to a vital element of the library and information science workplace and now it is woven throughout all features of librarianship and information professions. Information professionals connect with technology in conventional ways such as working with incorporated library systems and in latest innovative activities for example mobile-app development or the creation of makerspaces.[9]

This Paper provides information of the technologies that LIS professionals need to use and desire to learn, across a variety of types of libraries. Libraries have become technology leaders by integrating cutting-edge tools to enhance users' experience. Today's most current web and mobile technologies are providing libraries a latest scope of opportunities to connect patrons. Library professionals are facilitated to share and build communities, store and analyze large collections of data, construct and create digital collections, access information and services in ways that never thought about before due to the evolution and adoption of advance devices, tools and technology .[14]

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