

# Digital Resources Management

Jagadish T. Patange

## How to cite this article:

Jagadish T. Patange/Digital Resources Management/ Indian J Lib Inf Sci 2023; 17 (3):177-181.

## Abstract

In this fast digital age we all are know everything is available on one click. Physical and electronic versions of scholarly resources serve different purposes: the former may be preferred for embedded graphic objects, whereas electronic versions are easier to access, often in varying combinations of portable document format (PDF), hypertext mark-up language (HTML), MS Word, extensible mark-up language (XML), and text. As libraries build ever larger collections of electronic resources, finding ways to manage them efficiently becomes a major challenge. The number of electronic journals, citation databases, and full-text aggregations held by most libraries has grown rapidly.

**Keywords:** Digital Resource management; System; Serials; Electronic Resource.

## INTRODUCTION

Managing these electronic resources involves providing the library's user with convenient ways to find and access them and providing library staff with the tools to keep track of them. Libraries subscribe to electronic content in a number of different ways.<sup>1</sup> Some publishers offer packages that include many electronic journals, some products may include electronic journals from many different publishers, and libraries acquire

some electronic journals individually. Abstracting and indexing (A&I) products include citations to articles in journals from many different publishers. And since not everything is in electronic form, print resources cannot be neglected.

### *There are two Fundamental aspects to Managing Electronic Resources:*<sup>3,4</sup>

1. **Back-end Management Tools:** Managing the digital resource details of back-end staff functions related to acquisition, payment, and licensing.
2. **Front-end Management:** The front-end details of delivering the content to library users.

### Digital Resource Management (DRM)/ Electronic Resource Management (ERM)

- Digital Resource Management is the practices and software systems used by Libraries to keep track of important information about electronic information Resources, especially internet-based resources such as electronic

**Authors Affiliation:** <sup>1</sup>Librarian, Government First Grade College, Navabag, Vijayapur 586101, Karnataka, India.

**Corresponding Author:** Jagadish. T. Patange, Librarian, Government First Grade College, Navabag, Vijayapur 586101, Karnataka, India.

**E-mail:** [jtpatange@gmail.com](mailto:jtpatange@gmail.com)

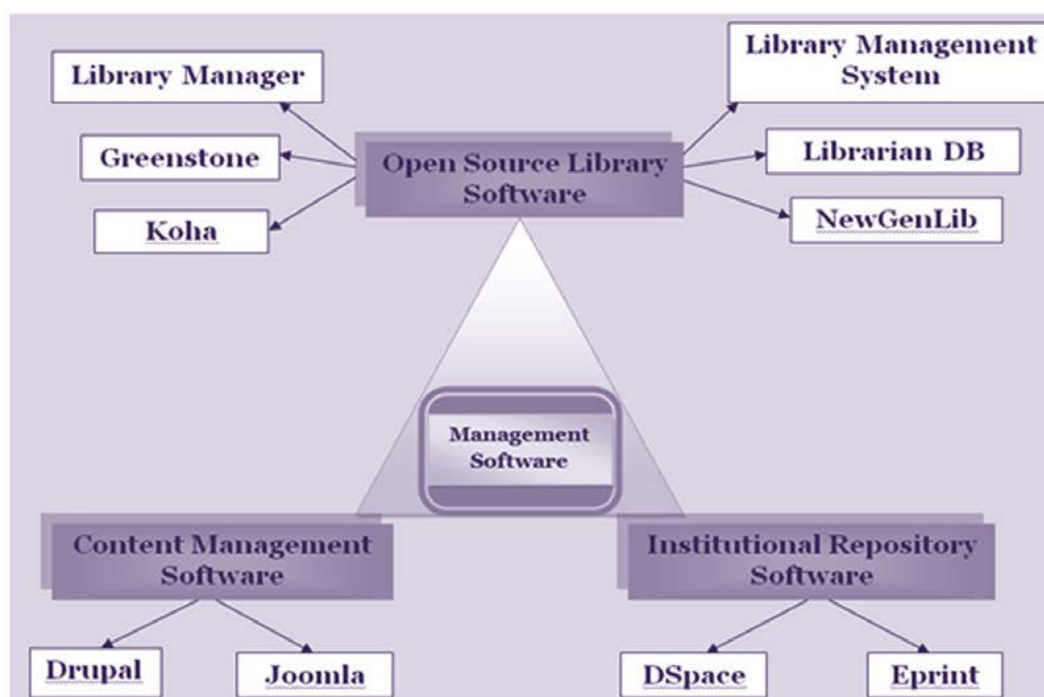
**Received on:** 08.06.2023

**Accepted on:** 31.07.2023



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0.

- ▶ journals,<sup>2</sup> Databases and electronic books.
- ▶ The development of ERM became necessary in the early 2000s.
- ▶ The idea of developing electronic resource management systems emerged in 2001-2002, growing out of research by Tim Jewell at the University of Washington.
- ▶ The Digital Library Federation and NISO began work in May 2002 to develop<sup>5</sup> standards for ERM data.
- ▶ These standards were published in the 2004 as Electronic Resource Management: Report of the DLF ERM Initiative.
- ▶ LIRC are manage e-resources as per their institutional requirements.
- ▶ There are various ways to manage e-resources like open source library software, content management software, and institutional repository software.
- ▶ The offering of some vendors consists of an electronic resource management System that forms an integral part of their integrated library system, whereas for others such as Ex LIBRIS-the offering consists of a stand-alone module that works with a range of library systems and can also be packaged with other products<sup>6</sup> From the same vendor.



### *Needs of Electronic Resource Management on Priority Basic*

Needs	Description Summary
Workflow management	Support across e-resources including resource tracking, reminders, status assignments, routing and redistribution of workflow and communication or notifications to stakeholders or patrons as necessary.
License Management	Manage license details, agreements.
Statistics Management	Obtain, gather and organize usage statistics. Auto uploads statistics.
Administrative Information	Store and make accessible administrative information such as institute ID or usernames and passwords.
Acquisitions Functionality	Provide acquisitions support for budget management, fund management, financial reporting, repository of cost data and invoicing.
Integration/Interoperability with other systems	Interoperate across systems, to support auto feeds, data loads and auto updates.
Subscription Management	Manage and maintain library subscriptions to electronic content (new, dropped, cancelled, transferred), vendor changes, maintenance of subscription history, and verification of continued access.

User display	Support a variety of user display options to the public including A-Z journal listing, database lists and article-level linking.
Vendor contact information	Store and provide access to vendor information including contact data and account numbers.
Support for collection evaluation	Align and report data as appropriate to support the evaluation of the collection and cost analysis.
Consolidate ERM information	Store and provide access to ERM-related data in one place.
Package management	Track titles within packages appropriate to institution
Holdings Management	Identify and maintain appropriate coverage and URLs per title; support holdings display in the catalogue.
Reporting	Provide query-based reporting on desired characteristics.
Usability	Provide clean, easy to use interface with consistent displays.

### Advantages of Electronic Resource Management<sup>7,8</sup>

1. Innovative ERM saves staff time
2. Improves collection analysis
3. ERM makes the most of scarce budgetary resources
4. Easily accessible Web-OPAC
5. ERM makes it easy for patrons to find the e-resources they need, elegantly presenting important information such as renewal dates, authentication, proxy data, and complete content descriptions
6. Libraries can use Electronic Resource Management as a stand alone solution
7. Libraries can enjoy the benefits of ERM's ability to maintain resources, track licenses, and manage coverage data
8. ERM is tailor-made to take advantage of Innovative Quick Start implementation program that includes hundreds of easy-to-use e-resource records

### Virtualized Management System

1. Virtualized management system effectively work for efficient digital resource management in libraries and resource centres.
2. Virtualized management systems energy efficiently manages by virtualized cloud data centres that reduces operational costs and provides required quality of library services.
3. Utility of modern resources create growing demand for high performance computing infrastructures.<sup>10</sup>
4. This has led to the construction of large-scale computing data centres consuming enormous amounts of digital e-resources.
5. Virtualization technology allows one to create

several virtual machines on a physical server and therefore, reduces amount of hardware in use and improves the utilization of digital resources.<sup>9</sup>

6. Benefits of virtualization are improved fault and performance isolation between applications sharing the same resource; the ability to relatively easy move from one physical host to another using live or off-line migration; and support for hardware and software heterogeneity.
7. The recently emerged Cloud computing paradigm leverages virtualization technology and provides the ability to provision resources on-demand on the pay as-you-go basis.
8. Organizations can outsource their computation needs to the Cloud, thereby eliminating the necessity to maintain own computing infrastructure.
9. Cloud computing strongly supports NPTEL Lectures, online free as well as chargeable courses, lecture series, distance learning, audio visual conferencing etc.<sup>11</sup>
10. Virtualization plays important role for accessibility in 24x7 connectivity.
11. Cloud computing naturally leads to energy-efficiency by providing the following characteristics:
  - Economy of scale due to elimination of redundancies.
  - Improved utilization of the resources.
  - Scaling up and down resource usage can be adjusted to current requirements.
  - Efficient resource management by the Cloud provider.
  - Providing quality of services environ

## DISCUSSION

1. **Digital Asset Management (DAM) Systems:** Implement a robust DAM system to centralize and organize your digital assets such as images, videos, documents, and other media files. DAM systems provide features like metadata tagging, version control, search functionality, and user permissions, making it easier to manage and retrieve digital resources.
2. **Cloud Storage and Backup Solutions:** Utilize cloud storage platforms like Google Drive, Dropbox, or Microsoft One Drive to securely store and back up your digital resources. Cloud storage ensures accessibility, scalability, and disaster recovery for your valuable assets.
3. **Metadata Standards:** Define and implement metadata standards to describe your digital resources. Metadata provides essential information about the assets, including title, description, keywords, creator, date, and copyright information. Standardizing metadata ensures consistent and meaningful resource discovery.
4. **Content Management Systems (CMS):** Implement a CMS platform like WordPress, Drupal, or Joomla for managing and organizing your digital content. CMS systems enable you to create, edit, and publish web content efficiently, making it easier to manage digital resources associated with websites and online platforms.
5. **Digital Preservation Strategies:** Develop and implement a digital preservation strategy to ensure the long-term accessibility and usability of your digital resources. This includes strategies for file format migration, periodic data integrity checks, and backups to mitigate the risks of file corruption or loss over time.
6. **User Access and Permissions:** Define and enforce access controls and permissions to manage who can view, edit, or download digital resources. This is especially important for sensitive or copyrighted materials. User access management ensures data security and compliance with legal requirements.
7. **Digital Rights Management (DRM):** If you deal with copyrighted or licensed digital content, consider implementing DRM solutions to protect and control access to your resources. DRM systems prevent unauthorized copying, distribution, and usage of digital assets.
8. **Collaboration Tools:** Utilize collaboration tools such as project management software, communication platforms, and document sharing platforms to facilitate teamwork and streamline digital resource management workflows. Tools like Trello, Slack, and Google Docs enhance collaboration and ensure efficient resource management.
9. **Data Analytics and Reporting:** Leverage data analytics tools to gain insights into how your digital resources are used and accessed. These tools can provide valuable information about user behavior, popular assets, and trends, helping you optimize your resource management strategies.
10. **Training and Documentation:** Provide training and documentation to your staff members on effective digital resource management practices. This ensures that everyone involved understands the processes, tools, and best practices, leading to more efficient and consistent resource management.

Remember that the specific digital resource management requirements may vary depending on your organization's needs and industry. These suggestions provide a starting point to enhance your digital resource management practices.

## CONCLUSION

Digital presence in libraries and proliferation of electronic resources in terms of production, acquisition and usage the management of e-resources remains a cumbersome process. The process involved in the management of e-resources has often overwhelmed the library personnel. In the library and resources center activities are easily and effectively maintain by ERM. ERM fluently performing activities like trial access, selecting the specific resource from the gamut of other resources followed by acquisition of the specific resource into the library realm and then felicitating access to the users and then the follow-up of studying the usage of the resource for further continuation of those resources. In between these processes there is the cumbersome chore of going through the licensing agreements and keeping the records correct. All

these processes are time consuming and involve a lot of work. These relentless arrays of work have made librarians to look for systems which can save their time and energy and provide efficient management of E-resources.

## REFERENCE

1. Baker Thomas. A Grammar of Dublin Core. D-Lib Magazine, Vol.6No.10,2000, Retrieved from [www.dilib.org](http://www.dilib.org) on 07/08/2023
2. Bhattacharya Sanat. Metadata Harvesting, 4th International Convention, CALIBER- 2006.
3. Bridstevan, Simaon Gary. Extending Dublin Core Metadata to Support the Description and Discovery of Language Resources, Computers and Humanities, 37 pp 375-388.
4. [www.Dublin core.org](http://www.Dublin core.org).
5. Kapoor Kanta. Metadata: A Pathway to Electronic Resources, Annals of Library and Information Studies, Vol.49, No.1, 2002, pp 7-11.
6. Madali Devika P, Prasad ARD. Harmonization of Standards for Bibliographic Data and Metadata Representation, International Conference on Knowledge For All ,12-15 Nov 2008, Tata Institute of Social Sciences, Mumbai, pp 89-98.
7. Murugan C. Metadata, Library and Information Networking, NAACLIN 2004, Developing Library Network, New Delhi, 2004, pp 13-21
8. Nagarkar Shubhada. Metadata: A Tool to Enhance Resource Discovery, Library and Information Networking, NAACLIN 2004, Developing Library Network, New Delhi, 2004, pp 1-12.
9. Nair Saji S, Jeevan V K. A Brief Overview of Metadata Formats, DESIDOC Bulletin of Information Technology, Vol.24, No.4, 2004, pp3-11.
10. Naufal P P Metadata: Automatic Generation and Extraction. Retrieved From [www.scholar.google.com](http://www.scholar.google.com) on 16/08/2023
11. Anagnostelis, B.; Cooke, A. and McNab, A., "Never mind the quality, check the badge-width!", Ariadne Issue 9.

