

# ROLE USE AND ADVANTAGE OF LIBRARY PORTALS IN MODERN INFORMATION TECHNOLOGY ERA

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**Abstract** *In the Knowledge Management (KM) era, most of the libraries are adding e-resources to their collection. Thus, the library portal system are presumptuous a additional well-known role for universities to accumulate, control and proliferate informational assets in an computerized and accurate manner. In order to, accomplish their academic goals and processes, universities utilize portal to give a reliable customer border and to put together dissimilar information systems to present a subject matter cross-browsing service. The library knowledge portal (LIP), connects information resources, academic researchers and intellectual subject content in the information managing and distribution environment. Study concludes brief introduction and concept of library portals based on realated review of current literature and features provided by various LMS products in the market. The study comes up to Library portal as an expansion of the internet Open Access Cataloge. Discusses how Portals of Libary enhance users' everyday actions on information looking for knowledge managing with a case examine of MyLibrary. Evaluation of the quality of library portals from the viewpoint of Library portal's effectiveness and awareness about the Integrated Digital Library portal is presented. The dangers related to the issues of quality information retrieval as the library portals strength also replica of the similar information practice as web search engines, for the reason that of their easiness of utilize. Suggestions towards design and develop a unique type of integrated library portal for IITs is made. The advantage of library portals can be enhanced by designing a user friendly, in addition to the cross browsing facility.*

**Keyword:** *Library-Portals, Internet, Library, Researchers, Web OPAC, User Friendly*

## INTRODUCTION

The history of the IPL (The Internet Public Library) and its relationship to other important library portals is amply presented by Davidsenab (2005). He has conversed about one of the first library portals on the Internet, that of the University of Michigan School of Information. Presently University Libraries are occupied in the progress of personalized portals. These gateways of information are planned to reduce information excess due to excessive data flow and give improved way in to dispersed and different information resources, Mischoab (2001). He analyzed a portal purpose, expended by the Grainger Engineering Library Information Center at the University of Illinois at Urbana-Campus (UIUC). He noted that:

- The position for services of portal gives very appropriate information.
- Technologies involved in full-text linking capabilities that are built around a custom UIUC e-resource database, the Cross Ref metadata database are significant.

- Features instantaneous explore and forceful connecting capability over various information resources is mandatory in portal solutions that are deployed by libraries.

This work also addresses issues such as,

- Providing enhanced navigation and linking are increasing quantity of electronic assets especially full-text assets.
- Provided that the ability of exploring several resources of information such as journal Index database, the online Catalogs, and Search Engines from a particular user line outline are address by the research.

The assessment criterion for choose a library management systems (LMS) from a important range of latest goods of Library Portal Solution (LPS) developed by suppliers and uncertain prediction regarding the expansion of the marketplace in the after that five years was offered by Cox and Yeates (2003). This review study covers Supplier Internet sites and exist demonstration.

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The investigation of library portal service, "MyLibrary," was made by Zhang (2005). This paper presented the following aspects:

- Application of an included move toward to make library online service mechanism into single customer line.
- Development of modified and customized Library Portal Solution base on customer's preference and benefit.

This investigation is very important as the Cornell, and Virginia Universities. Afterwards numerous models contain and apply in various university libraries.

The customized portals are designed to decrease information overload due to excessive data flow and supply improved access to disseminated and different information assets. Role of portal services is becoming very important. Technologies involved in full-text linking capabilities are significant. Concurrent search and energetic connecting quality more various information resources are appropriate compulsory in portal solution that are deployed by libraries.

The investigation of library portal service, "MyLibrary," demonstrates application of an integrated advance come to construct library online service mechanism keen on single customer line, as well as development and deployment of Personalized and customizable Library Portal Solutions based on users' preferences and interests.

## ROLE AND USES OF LIBRARY PORTALS IN MODERN LIBRARIES

Usability testing has become an integral component of Web design and development in libraries. Nowadays, Library portals with personal customization are preferred by users. Ward and Hiller (2005) examined web usability testing. Libraries contain at all times function as portals to lay up information. Technologies deployed Library portal at Stony University was discussed by White (2002). The physical library has consisted of, the entire obtainable throughout in use hours simply and limited to the library's surface. Among start of OPACs, libraries contain an internet online portal existence. Now the precise areas, online catalogs, documents stack and e-journals and databases beside with an Internet-based OPAC are available 24 X 7 and globally. The HSC Library has deployed various technologies to build up an internet portal and portal services with the following objectives:

- To impart access to the library – resources, both externally and internally.
- To provide personalized access to the information.
- To gather statistical data on the use of automatically-base resources.

The Central Medical Library (CMK) website at University of Ljubljana, Slovenia was created in 1997, which evolved as a portal over time.

Rozic- Hristovski, Humar and Hristovski (2003) presented Web site usage analysis use dissimilar data mining procedures; the analysis exposed a growing attention between the Slovene biomedical society in CMK website. But at beginning the Users had following issues:

- Information overload and, resulting in an energetic reformation of the CMK Web site.
- Intricacies related with the Web site's enhancements and,
- Other related library portals issues.

These issues were resolved by:

- Customization of library portal, most notably by adding multilingual support.
- Personalization of library portal.

These goals were achieved by extending an accessible Portal software solution MyLibrary from Carolina State University.

Implementation of Fretwell-Downing's ZPortal software at Monash University Library is presented by Groenewegen and Huggard (2003). Various aspects related to, the seamless access provided by Z Portal software to the entire library's electronic online resources are discussed. The study outlines the following:

- Reasons behind adopting a portal.
- Expectations from the software.
- Practical maintenance issues.

Integration stages of MyLibrary campus-wide, one-stop shop of the campus portal, were discussed threadbare by Mc Geary, 2005. He focused on integration strategy adopted for the development and implementation of My Library, as an open-source solution at Lehigh University in August in the year 2004. Library's electronic resources were integrated into one complete stand-alone application. Implications of the Study are of immense importance for the success and usage of the campus portal.

A case study exposed condensed danger, quicker performance and reduced preservation expenditure. This case study covers implementing issues that arise during vertical, specialized library portals alongside horizontal institutional portals (Davies, 2007). The paper highlighted that:

- Vertical, specialized library portals and horizontal institutional portals are balancing.
- Some assimilation issue keep on a challenge.
- Organizations looking for to give incorporated entrance to disseminate information resources should reflect on library portals.

Review of the literature on the concerns during the conversion from the OPAC to the portal. This scrutiny by Khurshid and Ahmed (2007) of the dynamics of library portals revealed the following aspects:

- The information becomes obsolete within few months because of rapidly changing Library portals.
- Emphasized that the users must acquire access to an extensive diversity of e-resources by a solo mark-on.
- Library portal is dynamically improving with the new features and capabilities.

Research offered a picture of library portal. It presented the opinion of costumers, concerning library portal's usefulness. Concluded that respondents had indicated that information excellence of the library portal meet their prospect. This work would exist of importance to researchers and others concerned in library portal efficiency or plan.

In the findings of the opinions of a 400 users of portal at the University MARA Masrek, Jamaludin and Mukhtar (2010) noted:

- The entire the information excellence attribute, namely wholeness, richness, accurateness, appropriateness, consistency and suitability of set-up were rated greatly by users.
- Users also rated highly systems quality and service quality.
- Although these research findings are limited by the sample size.

The stage of attentiveness and utilization of library portals was investigated through Fatima, Ahmed and Ahmed (2011) at Aligarh Muslim University. Several inference were drawn:

- Majority of the students use library portals.
- Irregular usage.
- Lack of attentiveness, guidance and supervision.
- Lack of inside contents, course material and useful links of AMU library on the library portal.

The comprehensive figures of the Library Portal Kuvempu university throughout the academic year 2011-2012 put forth by Geetha, Mamtha and Farhana (2013) observed :

- 85 % of the users used the library portal with 70 % of respondents using the library portal for research .
- 5% of users felt that the portal has supplied well-organized right to use to e-resources.
- Problem of Low speed connectivity was inferred.

The recommendations that were made are:

- Appropriate guidance to the users as well as library staff.
- Promotion of assets and services all the way through advertisement.

- Printed guides, announcements of latest e-resources.
- Extra high-rapidity computers for more upgrading of library portal.

Explore is of help to the library administrators in increasing a extra total considerate of users information requirements. Usability test has turn into an essential part of portal development and customization. The Library portal must deploy several technologies to impart access to the library – resources (both externally and internally), to provide personalized access to the information and gather statistical data on the use of electronically-based resources. Customization and Personalization of library portal by adding multilingual support is essential. The information becomes obsolete within few months therefore Library portal must dynamically improve with the new features and capabilities. Users have to acquire right of entry to a broad range of e-resources by a solo sign-on. Portal information must meet Wholeness, richness, accurateness, properness, consistency and suitability of format attributes. For this appropriate guidance to the costumers the same as library employees promotion of assets and services throughout marketing, and printed guides, announcements of latest e-resources, deployment of extra high-rapidity computers for additional development of library portals.

## ADVANTAGE OF LIBRARY PORTALS

The main functional elements of “portals” and related technologies as used by library management system (LMS) information system-suppliers were outlined by Cox (2003). The concept of the semantic Web was propounded by (Sadeh and Walker, 2003). They highlighted the advantage of semantic Web for the researchers' community. Practical solutions to scholars were discussed. The utilize of negotiator expertise built interested in portals are answers to the issues of accessing the plethora of freely available and subscribed material. They demonstrated how the MetaLib (Ex Libris) addressed this issue.

A amount of portal goods and sophisticated complex systems solution were studied and the key-system appearance and several of the additional important example of portal goods (Ramsden, 2003). He observed the following:

- Portal solutions unlocked the prosperity of digital assets detained in libraries.
- The majority of these portal solutions require personalization by the individual libraries.
- The Return on Investment is more than the marginal cost of LMS products.

The author justified the investment in portal products and sophisticated complex systems solutions by maximized practice of enter excellence on electronic resources.

With the promulgation of the open source movement libraries are gradually more seeking user-oriented personalized portals. Portal software agrees to faultless access and release of library electronic resources throughout also open source portal solutions. In this context, the implementation of the My Library open source portal at the Auburn University Libraries was studied by Mc Donalda and Jannikb (2004).

The MyLibrary Web portal at the NCState was analyzed by (Fu Ciccone, 2005). He examined the relationships of the library portals with course pages. The inferences drawn from findings of My Library Web portal implementation were:

- It helped users reduce information overload.
- Assisted them to generate individual Web pages contain their primarily frequently consult library electronic services.
- Provided a latest method of communication linking librarians and subject-specific peoples.

The context on changes to the libraries websites and upcoming directions for development as well as, the implications of such systems are also presented. In the environment of information overloading online catalogs cannot supply universal and the latest access to the abundant digital resources. Most of the librarians preferring federated searching portal applications to manage this information overloading of digital resources that engulf users. The necessary utility of such tools and strategy for developing them are conferred upon by (Byrum, 2005). He described the conversion of the card into the OPAC increased its functionality. He also noted:

The OPAC performed an extended catalog of responsibilities relatively successfully.

Bibliographic uses, structure vendor, and unique libraries lying on to organize improve bibliographic recovery by provided that latest and improved services throughout the catalog.

The Conclusions Made are:

- The OPAC will persist for access of the library's physical collection.
- Eventually the federate search portal will perform as library's most important Web doorway to digital assets.

Now a days, librarians and knowledge managers are more concerned in choosing from the numerous commercial portal tools and investment in such tools. The features of horizontal or public, and vertical categories of library portals were examined by (Ubogu, Kekana and Roberts, 2005).

Authors established the characteristics and discussed the features of a few of the current portal solutions into the marketplace. Portal of particular put into practice on the University of the Witwatersrand was examined along with a text search and display sites were visited Authors suggested:

- Portals in specific subject should be stand on the values of the run on systematic information.
- User training and literacy element must be component of the portal.
- Portal should assist librarians and knowledge advisers to state undoubtedly the information literacy necessities of exact subject and course.

Into the he recent digital information environment; most of the libraries are adding e-resources to their collection. The portal of Scientific Information Source Centre of nautical corporeal and Oceanographic Labs of Defense R&D Organization and its features were described by Letha (2006). He highlighted the following points related to the library Web portals :

- It is highly beneficial and precise system to manage, store up, and retrieved information.
- Maximum usage of e-resources can exist enhanced by the utilization of a functional website.
- They improve access to the electronic-sources by given visibility to these.

Relevant images are images that are appropriate to the text information established on their common network page. The result that the images contain in Scholarly Library Web Portals has related to users' view, Smith (2008). He explained the fundamental concept of "mage pertinence" (Hildreth, 2004). The perception of scholars with experts were compared to derive usability ratings in three directions namely :

- The users' view of the portal's usability.
- The users' view of the usefulness of the portal.
- The users' view of the excellence of the information establish through the portal.

By access to huge quantity of information facilitate through the web, restrictions among distant and limited resource documents turn into virtual. A conceptual model with ontological classifications and relationships is presented, used for the propose of a intellectual internet portal at the University of Tébessa (Laouar, Hacken and Miles, 2009).

Three implications are of utmost interest for someone involved in aggregate online sources into a particular, faultless workstation, notably :

- Role of internet services to the faultless usefulness of a intellectual portal is essential: Interoperable feature, format and protocol be capable of cautiously personalized.
- The theoretical form helps not only in revelation but in performance phase of the procedure from appraisal of consumer requirements and behaviors throughout frame formation and continuing maintenance.

- A technique for recycle (or “porting”) obtainable application in construct latest library services is a key element.

Portal solutions require personalization by the individual libraries so these portals can release the riches of digital assets detained in libraries in customer favored way. They offered a latest system of communication among librarians and subject-specific users. It assists users decrease information excess. Currently librarians and information manager are extra disturbed in choose from the many commercial portal apparatus and asset in such tools. The come back on asset is extra than the marginal rate of LMS goods. Finally the federate searching portal will act as library’s primary motive. Gateways to digital sources. Role of web services to the faultless usefulness of a intellectual portal is essential: Interoperable feature, format and protocol be able to be cautiously custom-made. A technique for recycle (or “porting”) existing applications in building latest library services is a key element.

## BARRIERS OF LIBRARY PORTALS

The danger will be the issues quality information retrieval that is as the library portals may too duplicate the similar information behavior as web search engines, as of their easiness of utilize (Joint, 2005). The following conclusions were made:

- The portal technologies are acting as “one-stop shop” as web search engines, there are probable difficulty in their usage which will contain to go on noticed by useful value dimension technique. So care has to be designing such portals.
- An emergence of view on the probable pitfall of with portals to optimize users’ information access activity.

Stoffel and Cunningham (2005) explored the library contribution in wider campus portal initiative. They examined JA-SIG portal which is a open-source software project. They discussed Portal features and ascertained that

- All responder indicate have an active institutions portal.
- Major parts of responder have one library quality on their institutions portal.
- A few library features integrated computerized demonstrate of information precise to the portal client such as library account information.
- Cooperation among the institutions and library staff was a general subject between institutions effectively arranging library features.

The portal technologies are acting an Internet search engine, which means there are probable difficulty in their form of

handling which will contain to survive detect by successful excellence measurement methods. So care have to be in use though designing such portals. An appearance of view about the probable pitfalls of utilizing portals to optimize users’ information searching activity.

## CONCLUSION AND RECOMMEDATIONS

The need to design and build up a exclusive kind of library portals for IITs, which are leading institutes of higher academic and research in knowledge in India, was thought by (Vijayakumar, Kannappanvar and Mestri, 2009). Authors suggested:

- Too seriously design and build up a exclusive library portals contain digital sources and services of their separate libraries and also given that links to many IIT libraries.
- Collaboration among the libraries of IITs by form an academic network.

The significant approach and features that maintain such a cross-browsing center service be examined by Si, Obrien and Probets (2010). For this the investigator builds up a example middleware structure among dissimilar language sources in arrange to give a subject searching service for library portal. The investigator recommended that significant recovery requirements of cross-browsing features are missing in present library portal meta-search method. Their example middleware service is necessary to incorporate strictly and semantically the many language resources in arrange to help subject cross-browsing. The example concerned mappings among the computer science plan of the Dewey decimal classification and two controlled terminology, UKAT and ACM Computing Classification. Base on this, an easy software-supported model structure was build integrated of the knowledge acquired. The evaluation of the structure and response was presented to progress of the framework.

## REFERENCES

- Anaraki, L. N., & Babalhavaeji, F. (2013). Investigating the awareness and ability of medical students in using electronic resources of the integrated digital library portal of Iran: A comparative study. *The Electronic Library*, 31(1), 70-83.
- Byrum, J. D. (2005). Online catalogs and library portals in today’s information environment. *Journal of Library Administration*, 43(1-2), 135-154.
- Ciccone, K. (2005). MyLibrary@NCState a library portal after five years. *Journal of Library Administration*, 43(1-2), 19-35.

- Cox, A., & Yeates, R. (2003). *Library portal solutions*. *Aslib Proceedings*, 55(3), 155-165.
- Cox, A. (2003). Choosing a library portal system. *VINE*, 33(1), 37-41.
- Davidsenab, S. L. (2005). The internet public library and the history of library portals. *Journal of Library Administration*, 43(1-2), 5-18.
- Davies, R. (2007). Library and institutional portals: A case study. *The Electronic Library*, 25(6), 641-647.
- Geetha, M., Mamatha K. R., & Farhana (2013). Use of library portal by research scholars and faculty members at Kuvempu University: A survey. *DESIDOC Journal of Library & Information Technology*, 33(6), 509-515.
- Groenewegen, D., & Huggard, S. (2003). The answer to all our problems? Trialling a library portal. *Library Review*, 52(9), 452-459.
- Hristovski, A. R., Humar, I., & Hristovski, D. (2003). Developing a multilingual, personalised medical library portal: Use of My Library in Slovenia. *Program*, 37(3), 146-157.
- Joint, N. (2005). Evaluating the quality of library portals. *Library Review*, 54 (6), 337-341.
- Keller, T. E., Cusick, G. R., & Courtney, M. E. (2007). Approaching the transition to adulthood: Distinctive profiles of adolescents aging out of the child welfare system. *Social Services Review*, 81, 453-484.
- Kingston, J. (2012). Choosing knowledge dissemination approach knowledge and process management. *Wiley Online Library*, 19(3), 160-170.
- Laour, M. R., Hacken, R., & Miles, M. (2009). The role of web services in portal design: approaches for an Algerian university library. *Library Hi Tech*, 27(3), 460-479.
- Letha, M. M. (2006). Library portal: A tool for web enabled information services. *DESIDOC Bulletin of Information Technology*, 26(5), 11-16.
- Libo, E. S., Obrien, A., & Probeta, S. (2010). Integration of distributed terminology resources to facilitate subject cross browsing for library portal system. *Aslib Proceedings*, 62(4/5), 415-427.
- Masrek, M. N., Jamaludin, A. & Mukhtar, S. A. (2010). Evaluating academic library portal effectiveness: A Malaysian case study. *Library Review*, 59(3), 198-212.
- McDonalda, R. H., & Jannikb, C. M. (2004). From web server to portal: One library's experience with open source software. *Journal of Library Administration*, 40(1-2), 71-87.
- McGeary, T. (2005). My Library: the library's response to the campus portal. *Online Information Review*, 29(4), 365-373.
- Mischo, W. H. (2001). Library portals, simultaneous search, and full-text linking technologies. *Science & Technology Libraries*, 20(2-3), 133-147.
- Nishat, F., Naved A., & Shadab A. (2011). Use of library portal by engineering and technology students of Aligarh Muslim University: A survey. *DESIDOC Journal of Library & Information Technology*, 31(3), 168-174.
- Ramsden, A. (2003). The library portal marketplace. *VINE*, 33(1), 17-24.
- Sadeh, T., & Walker, J. (2003). Library portals: toward the semantic Web. *New Library World*, 104(1/2), 11-19.
- Smith, J. P. (2008). Academic library web portals: does the dose of images influence users' perception of the use experience. A Dissertation Doctor of Philosophy Long Island University. *UMI Microform 3337580*.
- Stoffel, B., & Cunningham J. (2005). Library participation in campus web portals: an initial survey. *Reference Services Review*, 33(2), 144-160.
- Ubogu, F. N., Kekana, A., & Roberts, C. (2006). Library subject portals an investigation of possibilities for the university of the Witwatersrand library. *Program: electronic library and Information systems*, 40(1), 27-47, DOI 10.1108/00330330610646799.
- Vijayakumar, M., Kannappanavar, B. U., & Mestri, M. (2009). Content analysis of Indian institutes of technology' libraries web portals: A study. *DESIDOC Journal of Library & Information Technology*, 29(1), 57-63.
- Ward, J. L. (2005). Usability testing, interface design, and portals. *Journal of Library Administration*, 43(1-2), 155-171.
- White, A. C. (2002). Using heterogeneous components to construct online library portals. *The Electronic Library*, 20(3), 224-230.
- Williams, J. H. (2008). Employee engagement: Improving participation in safety. *Professional Safety*, 53(12), 40-45.
- Zahiruddin K., & Syed S. A. (2007). From online catalogs to library portals: Empowering users. *VINE*, 37(3), 275-283.
- Zhang, D. (2005). Evaluating User Information Needs Through a Library Portal Environment: New Opportunity and New Challenges. *Advances in Librarianship*, 29, 247-268.