

# DIGITAL LIBRARY DEVELOPMENT AS AN EFFORT TO IMPROVE INFORMATION SERVICES

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#### **Abstract**

Digital libraries are the result of librarians' seriousness in providing maximum information services to all readers, hoping that the information available in libraries will provide maximum services to the wider community through digital information services. The purpose of this scientific article is to find out and examine the application of digital libraries in an effort to improve information services. Libraries as a supporting element in educational and teaching activities are currently carried out online and must adapt to the needs of their users. During this pandemic, digital libraries are increasingly in demand by the general public, especially users who are increasingly interested in studying and being scholars. The advantage of this digital library is that it can be accessed anywhere and anytime by users or users using the internet network to support operations and this system is considered the most suitable in the era of the millennial generation and can meet the need for information and library collections easily and at adequate speed. Based on the results of a review of several journals, it is stated that the implementation of digital library services is able to improve information services. With the existence of digital library services which are supported by comprehensive information quality factors, efficient service system quality, and service quality that meets user expectations. So that it can improve information services.

Keywords: Digital Library, Information Servicesm Servies

# PENGEMBANGAN PERPUSTAKAAN DIGITAL SEBAGAI UPAYA PENINGKATAN LAYANAN INFORMASI

## Abstrak

Perpustakaan digital menjadi hasil dari buah kesungguhan pustakawan dalam memberikan pelayanan informasi secara maksimal kepada segenap pemustaka, berharap informasi yang tersedia diperpustakaan dalam memberikan pelayanan yang maksimal kepada masyarakat secara lebih luas melalui layanan informasi digital. Tujuan artikel

ilmiah ini untuk mengetahui dan menelaah tentang penerapan perpustakaan digital dalam upaya meningkatkan layanan informasi. Perpustakaan sebagai unsur penunjang dalam kegiatan pendidikan dan pengajaran pada saat ini dilakukan secara daring yang mana harus menyesuaikan diri dengan kebutuhan pemustaka nya. Perpustakaan digital pada masa pandemi ini semakin diminati oleh khalayak ramai terutama pengguna yang semakin tertarik untuk mengkaji dan cendekiawan. Keunggulan dari perpustakaan digital ini adalah dapat diakses dimanapun dan kapanpun oleh pengguna atau user menggunakan jaringan internet untuk menunjang operasional dan sistem ini dianggap paling cocok di era generasi millenial dan dapat memenuhi kebutuhan akan informasi dan koleksi perpustakaan dengan mudah dan kecepatan yang memadai. Berdasarkan hasil telaah dari beberapa jurnal, menyatakan bahwa penerapan layanan perpustakaan digital mampu meningkatkan pelayanan informasi. Dengan adanya layanan perpustakaan digital yang didukung oleh faktor kualitas informasi yang komprehensif, kualitas sistem layanan yang efisien, serta kualitas layanan jasa yang sesuai dengan harapan pengguna. Sehingga dapat meningkatkan pelayanan informas.

Kata Kunci: Pelayanan, Perpustakaan Digital, Layanan Informasi

# **INTRODUCTION**

The development of information and communication technology has brought significant changes in various aspects of life, including in the world of libraries. Libraries that were originally synonymous with collections of physical books are now starting to transform into digital libraries. Digital library development is an important effort in improving information services to users. Ease of access, wider availability of resources, and efficiency in management are some of the advantages offered by digital libraries.

Digital libraries have similarities with other libraries, distinguishing conventional libraries from print-based collections while digital libraries use IT-based work procedures. Digital libraries have the task of managing some of the substance of a collection of computerized library materials as an alternative to libraries to complement conventional print in the form of micro currently dominating the collection of library materials. An explanation of the meaning of a digital library, according to "Borgman in Teed (2005) stated that: A digital library is a collection of electronic resources and related technical capabilities in creating, searching, and using information. In this sense, the expansion and improvement in information storage and retrieval systems that manipulate digital in any medium (text, images, sound) and exist in a distributed network.(Arum & Marfianti, 2021).

The above opinion is also corroborated by the theory that says the library must make changes from a conventional library to a hybrid library to a digital library, starting with changing its physical form into a non-physical or digital form that can be accessed anywhere and anytime. With the development of information technology, libraries can utilize it by creating digital libraries (Amaliah et al., 2022). Not only is it required to change in the form of digital collections, but the services provided by the library should also have followed the changes in the 4.0 era, besides that the services provided also require good information communication so that they can be maximally used by users (Iqbal et al., 2021).

With the development of technology, libraries are required to provide information sources in electronic form. The utilization of information in electronic form has now become part of the modern lifestyle in society. This must be done to meet the demands on the number and quality of library services, resource sharing, streamlining human resources, time efficiency, and the diversity of information managed. The packaging of this technology-based product can be done by building a digital library, where the contents of the digital library are on a computer server that can be placed locally, or in a remote location, but can be accessed quickly and easily via a computer network.

Conventional libraries and digital libraries have differences in terms of the library materials they have. While conventional libraries only store physical libraries, digital libraries can be in the form of document files, images, and even videos. Digital libraries, on the other hand, can be document files, images, or even videos. Collections held by digital libraries usually fall into five categories: text, images, sound, moving images (or video), and graphics. Digital text collections are easier to store and manipulate because they are in the form of SGML (Standard General Markup Language), but digital libraries can be document files, images, and even videos.

The International Federation of Library Associations and Institutions (IFLA) reveals that a digital library "a digital library is an online collection of digital objects, of assured quality, that are created or collected and managed according to internationally accepted principles for collection development and made accessible in a coherent and sustainable manner, supported by services necessary to allow users to retrieve and exploit the resources." Digital libraries are libraries that use online reading materials containing quality digital objects, seeded and functioned according to international digital library principles. In addition, existing reading materials can be used continuously supported by several services needed by users when using/needing information sources (Iqbal & Soleha, 2022).

Digital libraries, on the other hand, can be document files, images, or even videos. Library collections owned by digital libraries usually fall into five categories: text, images, sound, moving images (or video), and graphics. Digital text collections are easier to store and manipulate because they are in the form of SGML (Standard General Markup Language). because it is closely related to the information needs that users want to obtain. In general, users will feel satisfied if their information needs are met. This can be seen from the development of the collection in the library, the growth is arguably slow, all of which cannot be separated from the factor that the funds given / budgeted for the library are inadequate for the addition of collections that are highly expected by users.

## RESEARCH METHODS

The research method used in this article is a literature review. Literature review is a literature search and research by reading and analyzing various journals, books, and various other published manuscripts related to the research topic to produce a writing related to a particular topic or issue.

This literature study uses SPIDER which according to Methley (2014) can be used for qualitative research as well as other methods or a mixture of both. SPIDER stands for Sample, Phenomenon of Interest, Design, Evaluation, and Research type. SPIDER used by researchers includes the Sample category of quantitative and qualitative research conducted during the period 2011 to 2020.

However, when it comes to digital library development, many problems arise. For example, library information technology facilities are lacking or inadequate, library policies relating to the budget for access to digital collections still need to be improved, many human resources do not yet understand information technology relating to digitization issues, and the use of platforms against applications owned by digital libraries.

The articles selected were those that met the inclusion criteria: the journal publication deadline was a maximum of 10 years (2011-2020), using Indonesian and English, original articles (research articles), the research subjects in the articles were middle adolescents and the articles were available in full text. Search for research articles published on the internet through open access channels such as Google Scholar, prerplexty AI and Research rabbit.

## **RESULTS AND DISCUSSION**

# **Literacy Digital Library**

Definition Digital library can be defined as the transformation of collections as a form of information resources that are well organized and available in digital format so that the collection can be accessed through computer networks. Digital libraries have various types of digital content, including electronic books, electronic journals, databases, multimedia, and other resources. The benefits of digital library development in the era of information technology provide several significant benefits for libraries and users, among others: a. Wider access: Digital resources can be accessed from anywhere and anytime, as long as they are connected to the internet. b. Information preservation: Digitization of information resources helps preserve valuable content and prevent damage or loss. c. Cost

efficiency: Digital libraries can reduce costs associated with the storage, maintenance, and distribution of information (Iqbal et al., 2021).

Digital literacy is a form of change that occurs due to the development and ability of library users to understand and utilize information and communication technology (ICT) to search, find, process, and utilize information in digital form. For students in rural areas, digital literacy is very important to help them fulfil their library needs in getting the information they need. Here are some of the benefits of digital literacy for users, including accessibility of reference information, flexibility of time and place, improvement of digital skills and improving the quality of learning (Hari et al., 2023).

Libraries have an important role as a medium of information in society. The library functions as a provider of access to information for the wider community. Libraries are organized information resources, which provide various types of collections such as books, journals, magazines, newspapers, audio-visual recordings, and other electronic resources.

The library acts as a center of information and knowledge for the community. Libraries are a means to meet the diverse information needs of the community, both for the purposes of education, research, entertainment, and self-development. Libraries are also a place to access the latest information from various sources, as well as preserve the cultural and intellectual treasures of a nation (Pendit, 2009).

In today's digital information age, libraries have undergone a transformation of information services into hybrid libraries, which combine print and digital collections. Digital libraries allow wider and faster access to information for the community (Iqbal, RA, et al., 2022). However, the role of libraries as information media remains relevant, by providing services and facilities that help people find, evaluate, and utilize information effectively (Iqbal et al., 2021).

# **Information Digital Service**

Libraries play an important role as a medium of information and an unlimited source of knowledge for the community. However, in today's digital era, libraries need to continuously evolve to remain relevant and attractive to their users. Therefore, it is necessary to develop efficient and effective library service systems and methods with reliable information materials. All of these things should be done by information provider agencies/institutions in synergy to increase public trust in information provider agencies/institutions both at the central and regional levels. Technological advances and business competition force organizations to reorganize information technology systems

Organizations utilize information technology systems (STI) to implement their strategies. Information technology systems are strategic weapons (Supriyanto, 2015).

Some efforts that can be made to develop the library as an information medium include:

- 1 Digitizing Collections Libraries need to convert book collections and other information sources into digital formats. This will facilitate access and allow users to access information from anywhere. The library can also subscribe to e-books and online journals to enrich its digital collection.
- 2 A good search system An efficient search system is essential so that users can easily find the information they need. Libraries can use keyword-based search systems, subject-based search systems, or even technologies such as semantic indexing to make searching easier.
- 3 Collaboration with other institutions Libraries can collaborate with other libraries, research institutions, or universities to share resources and facilitate access to a wider collection.
- 4 Research Assistance Services Libraries can provide research assistance services, such as information literacy guidance, literature searches, and training in the use of library resources. This will help users utilize information effectively.
- 5 Discussion and Collaboration Spaces Libraries can provide discussion and collaboration spaces for users to share knowledge, have discussions or work on projects together. This will encourage interaction and information exchange.
- 6 Information Literacy Activities The library can organize information literacy activities, such as workshops, seminars or short courses to improve users' skills in finding, evaluating and using information effectively.
- 7 Utilization of Current Technology Libraries should keep abreast of the latest technological developments, such as virtual reality, artificial intelligence, or augmented reality technology, to present information in a more engaging and interactive format.

So, some libraries have used digital libraries to improve the quality of their services by implementing development strategies. This process explains that the development and management of electronic information resources in digital libraries use preservation strategies such as choosing the right structure system, choosing the appropriate information resource technology platform. As presented, digital libraries can be a means to significantly improve the quality of information when compared to traditional libraries.

This is due to the fact that the quality of information offered by digital library services provides accurate information, completeness of digital collections, relevance of information, and makes information easily understood by users. According to the literature review, the implementation of digital library services is capable of producing significant improvements.

# **Development of Digital Library Services**

Digital libraries offer users an organized set of e-resources to meet their information needs. The collection of e-resources must satisfy its users, both in terms of variety of materials and ease of access. The smooth operation of the library is a commitment of the library leadership, hence the supervision factor has also been emphasized in every leadership coordination meeting. Service improvement is a major concern to facilitate teaching and learning needs and identify problems for further development (Santosa et al., 2022).

Library development should consider what users need, such as user views, concepts, and strategies to improve digital-based library services. To assess a digital library, pay attention to the user's perspective; this includes accurate information sources, supporting technology, ease of use of services, data security, quick access to information, complete search design, and attractive application content management.

The transformation of information library institutions towards digitalization or electronics began to be implemented by all library institutions, whether national libraries, public libraries, special libraries, university libraries or schools, whether this transformation was carried out with semi-electronic or hybrid or full electronic libraries. The development of information services has become a must, this is in accordance with the library law which requires libraries to develop or transform or more perfectly evolve in the form of providing services to the community in the era of digitalization and internetization (Iqbal, Kusuma, et al., 2022).

Some forms of evolution that occur in the library world as a form of digital library service development occur, including (Toya, 2023).

## 1 Collection Digitization

- a) The process of converting printed collections into digital formats (e-books, electronic journals, etc.).
- b) Facilitate access and wide dissemination of information.
- c) Adequate planning, resources and infrastructure are required.

# 2 Integrated Library Management System

- a) Use of an integrated library automation system (e.g. processing, searching, circulation, etc.)
- b) Improve efficiency and quality of library services.
- c) Facilitate the management of collections, member data, and library statistics.
- 3 Digital Service Development
  - a) Provide online services such as online catalog access, institutional repository, virtual reference service, and electronic resources.
  - b) Enabling access to information without time and place restrictions.
  - c) Optimizing the use of technologies such as websites, mobile applications, and social media

## **CONCLUSION**

An important factor in providing information services today is user satisfaction, therefore, digital library management must be oriented towards user satisfaction and keep up with technological advances by implementing technology-based services, considering information quality, collection completeness, and information search design.

This library is also able to display information in the form of a web that can interact with its users and the general public to find the required information sources about the library. So that users can still access all information without visiting the library location. Several journals studied state that providing and improving information services can be achieved through the use of technology-based digital library services.

If the library is well managed by librarians with professional abilities and skills in library and technology. In addition, the implementation of digital libraries is influenced by the quality of information owned by the library, the quality of the system provided, and the quality of customer service in accordance with user expectations. Thus, the information services provided by digital libraries can be improved.

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