WEB-BASED DIGITAL LIBRARY IMPLEMENTATION STRATEGY TO PROMOTE ACCESS TO INFORMATION AT SDIT ALIYA

Tiara Aulia Natasya

Program Studi Administrasi Pendidikan, Universitas Muhammadiyah Bogor Raya, Indonesia
e-mail: *taulna436@gmail.com

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ABSTRACT

This study aims to analyze the implementation strategy of web-based digital libraries in an effort to encourage access to information at SDIT Aliya. This topic was chosen based on the limited use of information technology in the integrated Islamic elementary school environment. This research was conducted using a descriptive qualitative method with data collection techniques through interviews and documentation. The research subjects were carried out to the two main informants, the Head of Library and Literacy and the school librarian. The research location is located at SDIT Aliya, Bogor, Indonesia. The result of the research is that the implementation of digital libraries at SDIT Aliya provides ease of access to information. From the visitor statistics, it can be seen that every month there are visitors so that it shows the interst of users in facing the SDIT Aliya digital library. However, there are still challenges in the implementation of digital libraries in the form of budget limitations, lack of understanding by library heads and librarians related to digital library management so that it needs to be developed, and lack of student awareness of literacy. In conclusion, the implementation of web-based digital libraries at SDIT Aliya provides ease of access to information anywhere and

anytime, but still requires strengthening resources and guidance on digital library management so that its use is more optimal.

Keyword: Digital Library; Strategy Implementation; Access Information

I.   Introduction

The library is an information center in physical form by providing direct services to users. Libraries usually have a special physical room to store books with neatly arranged physical forms. Technological changes have undergone developments, especially in education. With the development of technology, it changes the way people or audiences access information. Libraries are undergoing a transformation from traditional libraries to digital libraries. This study aims to find out how the strategy for implementing web-based digital libraries at SDIT Aliya in an effort to encourage access to information. The benefits of this research are expected to provide new insights related to the transformation of libraries, from traditional libraries to digital libraries that occur at SDIT Aliya, further with this research it is expected to be used as a consideration for the library world related to the implementation of web-based digital libraries in encouraging access to information.

As explained by Hartono (2017) that in the modern information era like today, libraries produce various new innovations, such as information and communication technology in digital libraries can build more efficient and effective services. Fatmawati (2017) also said that M-Library like the iJateng application is a form of digital library that can be used anytime, anywhere, and can be accessed through privately owned devices. Natalea & Christiani (2019) added that as an

information system, digital library applications must have several things to provide satisfaction to users such as system quality, information quality, and service quality.

Digital libraries can be used anytime and anywhere. This is in line with Mubarok (2021) that in the world of education, digital libraries are no longer printed books that are neatly arranged on shelves but books in digital form that can be accessed more efficiently, can be used at home so as to increase students' insight in getting information anywhere and anytime. Meanwhile, Arum & Marfianti (2021) said that the developments that have occurred in digital libraries do not only focus on the application of technology, or how to manage it, legal issues, and multicultural, but also with the development of digital libraries it is necessary to provide or increase accessibility to information to users.

SIT Aliya has a conventional library and a web-based digital library. This is in line with the explanation of Tjiptasari (2022) in his research that conventional libraries and digital libraries are used simultaneously called hybrid libraries. Kristyanto (2019) in his research said that potential users of their digital libraries have difficulties in getting information because they cannot directly come to the library with various obstacles. Therefore, in increasing access and literacy in the information age, it can also be done by holding training and workshops for users as in the research (Gustiana & Satria, 2024).

Based on the explanation from Amin et al. (2022) open system services can build a literacy culture by facilitating access anytime and anywhere. Strategies that can be carried out by utilizing an online access to information, by training users to understand the use of libraries, collaborating with educational institutions to encourage literacy and access for students, conducting promotions related to libraries, providing quality information, and organizing activities such as literacy

workshop. In the transformation of libraries in the digital era, libraries face several challenges as explained by Ilhami et al. (2024) such as budget limitations, the ability of users and librarians related to digital literacy, the existence of security issues, and various of digital platforms cause competition. The opportunities that will be obtained are wider access to information, physical collections of books can be digitized into digital books, and encourage digital cooperation.

This research was conducted with a focus on how the gaps in the implementation of web-based digital libraries, by examining the effectiveness of the strategies used, how their impact is in efforts to encourage access to information at SDIT Aliya. Some researchers generally discuss digital libraries in the context of universities, as well as public libraries, with this research offering novelties regarding implementation strategy models that are tailored to the SDIT level to be able to answer challenges such as infrastructure, and resource readiness.

Thus, this research is expected to present practical guidelines for library implementation in supporting information access efforts in the modern era. With the formulation of how the web-based digital library implementation strategy can overcome challenges related to information access in integrated Islamic schools, the role of digital libraries in efforts to encourage student access in the information age, and how the use of web-based school digital libraries can support distance learning in integrated Islamic schools.

II.   Methods

This research uses a qualitative method, because this qualitative research is descriptive research. In line with Murdiyanto, (2020) in Ridwan et al. (2023) that this qualitative method is the correct research

to understand the phenomena experienced by the subject. This research was conducted with a case study approach at SDIT Aliya related to the implementation strategy of web-based digital libraries.

SDIT Aliya is located in Bogor City, West Java, Indonesia. The location of this research was chosen because SDIT Aliya is an educational institution that has integrated technology in the library. The population of this study consists of school library staff only, namely the head of library and literacy and the school librarian. A purposive sample of two main respondents was selected based on their position as key stakeholders in library management.

The data collection technique was carried out with semi-structured in-depth interviews conducted face-to-face in the school library room to facilitate discussions and support the explanations provide, followed by a direct visualization of the use of the school digital library, as well as audio recording for transcription accuracy. The research instrument used was an interview guide. Inductive thematic analysis was used to analyze the interview results data composed based on themes such as implementation strategies and implementation challenges. Performance benchmarks or success indicators are measured from the perspective of respondents, with a focus on qualitative indicators. The steps taken during the study were first to prepare by developing interview guidelines, scheduling and conducting interviews with both informants at the same time. So as to produce a holistic understanding of the implementation strategy of web-based digital libraries in the school.

III.   Result and Discussions

From the results of the research conducted, it can be stated that

the implementation of a web-based digital library at SDIT Aliya is an effective strategy in encouraging access to information. Based on the results of thematic analysis from in-depth interviews conducted with the head of library and literacy as well as school librarians, there are several themes that emerge including background, implementation and support, as well as use and promotion. These findings are in line with the basic hypothesis that digital libraries can promote students' information literacy with easy and interactive access, despite being faced with technical and resource challenges.

One of the keys in this finding is the background of the formation of digital libraries which is driven by the need to adjust to the role and function of students during the Covid-19 pandemic. The name of the digital library at SDIT Aliya is ADIL (Aliya Digital Library). The head of library and literacy said "This digital library was formed because we are required to have a library role even during the pandemic, finally trying to develop a digital library". Meanwhile, according to Musyaffa & Utami (2024) with the development of information technology, digital libraries are produced that function in improving access, literacy, and strengthening digital-based library services. The purpose of the establishment of this school digital library is to channel students' hobbies in reading, as conveyed by the head of the library and literacy "The purpose is to be a place for literacy at home and so that children are still attached to the Aliya library even during holidays, during the pandemic period, if now during school holidays". Anwar et al. (2024) stated that the use of information technology is expected to make it easier to find and utilize resources for learning. This school digital library provides convenience so that parents and children can easily access the school digital library, as conveyed by Arief et al. (2024) with the existence of digital libraries, access to information can be done
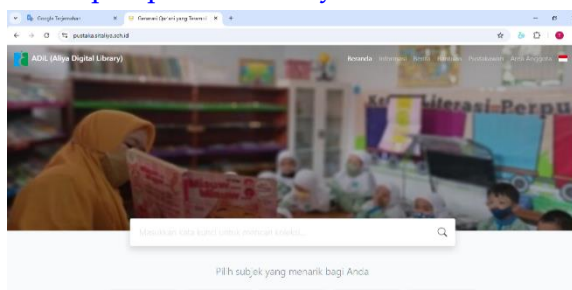
anytime and anywhere. Likewise with Yunita et al. (2022) which states that the existence of digital libraries with easy access to information helps in efforts to encourage students' interest in reading digitally. The school digital library at SDIT Aliya was formed in 2020 during the Covid-19 pandemic.

The implementation aspect arises with the main step taken, which is to find the application to be used. The technology infrastructure in the form of SLiMS (Senayan Library Management System) software is used. Supported by training and assistance provided to school librarians related to the use of SLiMS software. This SLiMS software was selected based on the recommendations of fellow librarians. According to Wasilah et al. (2025) it states that the training does not only introduce digital technology but also covers how to access, manage, and utilize libraries in the digital era. Not only to training, but there is still maintenance using SLiMS software. The next step is to optimize how to use and utilize digital libraries. The digital library at SDIT Aliya is managed directly by the head of the library and the school librarian. The number of digital collections when this study was conducted amounted to 707 digital collections including electronic books, videos, and audios that can be accessed through the SDIT Aliya school library website in the form of links. Digital libararies according to Jannah et al. (2025) digital collections vary not only in the form of electronic books but also scientific journals, and databases. The collections owned continue to be updated by school librarians such as from the government of the Ministry of Educational and Culture, and national libraries. The selection of collections is done by sorting to avoid insecurity, and the selected books are adjusted to the student's needs.

In the use of this digital library, the researcher directly accessed the web-based digital library of SDIT Aliya. Access can be done easily,
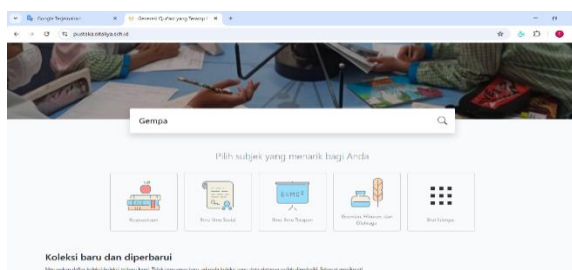
not only accessible by students, parents, and teachers but because this library is in the form of a link so that it is easily accessible to anyone and anytime. How to access SDIT Aliya digital library is as follows:

The first step is to visit the official website of the school digital library. Which is https://pustaka.sitaliya.sch.id.

Picture 1. 1 Step 1

The next step, we will be directed to the view of the subjects of the library's collection, by doing a search for the related ones we want to read.
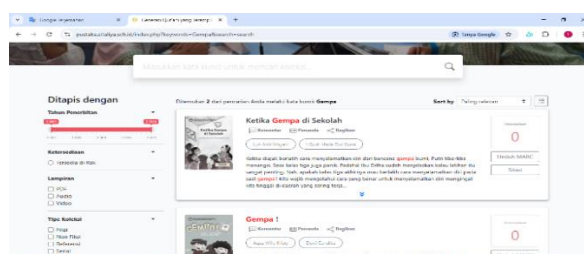

Picture 1. 2 Step 2

The next step will be directed to a recommendation page that is displayed based on the user's search, then clink on one of the books to read.
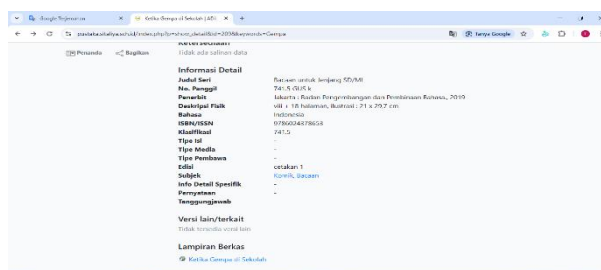
Picture 1. 3 Step 3

After clicking on the book to be read, a bibliography related to the book will appear.
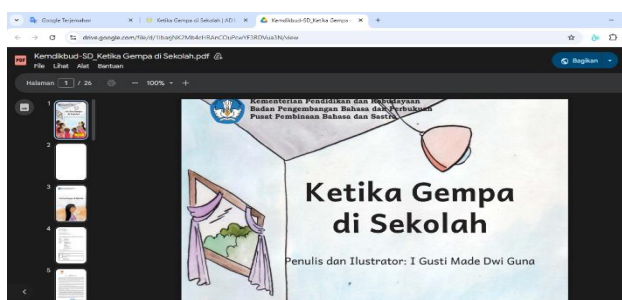

Picture 1. 4 Step 4

In the bibliography at the bottom of the attachment file, click on the globe which will later be directed to the previously selected e-book.

Gambar 1. 5 Langkah 5

After that, we can immediately read the book that has been selected beforehand.
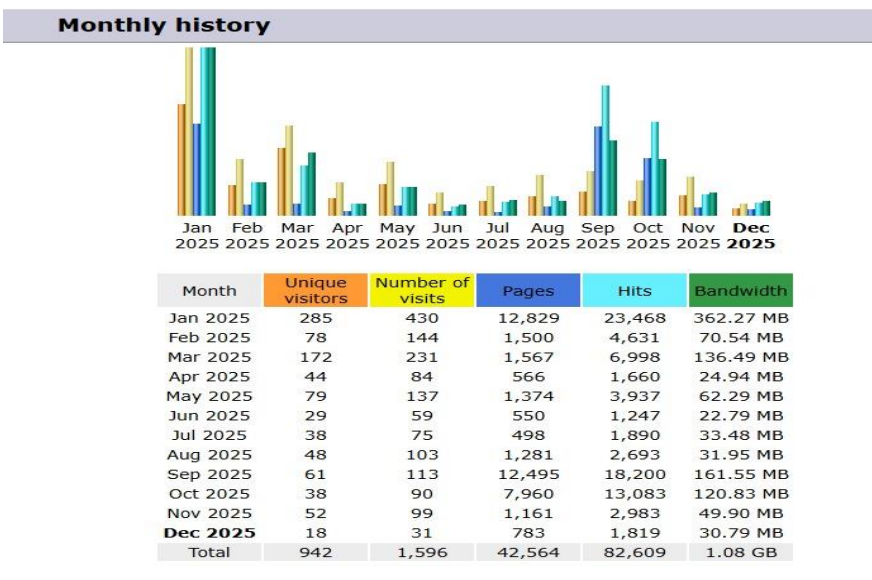
Picture 1. 6 Step 6

In accessing it in accordance with Dewi (2019) digital libraries in their use require adequate internet access. Harahap et al. (2023) in his research, it is stated that expanding access to digital collections can be done by collaborating between domestic libraries and foreign libraries. In line with Wahyuni et al. (2024) which states that to handle limited collections, collaboration with other libraries can be carried out to complement each other's sources of information with online cross-collections.

The promotion strategy is carried out by the head of the library and librarians in a class to class way in each class to promote the school digital library. Along with the development of the times and information technology makes it easier to do promotions, usually through school social media such as WhatsApp class groups. In addition, there are several challenges in the implementation of digital libraries at SDIT Aliya, namely, limited knowledge of librarians and library heads to the management of digital libraries, this is line with Oktavia (2024) in his research, resources such as budget, infrastructure, are challenges in the management of digital libraries. Ridwan et al. (2023) in his research at one of the universities, not all librarians have an understanding of the development of digital information technology.

Other challenges that arise during the implementation of digital libraries at SDIT Aliya are the low student literacy and lack of understanding related to digital libraries among elementary school student. Currently the digital library at SDIT Aliya has not been integrated with learning.

Monthly history

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2025	285	430	12,829	23,468	362.27 MB
Feb 2025	78	144	1,500	4,631	70.54 MB
Mar 2025	172	231	1,567	6,998	136.49 MB
Apr 2025	44	84	566	1,660	24.94 MB
May 2025	79	137	1,374	3,937	62.29 MB
Jun 2025	29	59	550	1,247	22.79 MB
Jul 2025	38	75	498	1,890	33.48 MB
Aug 2025	48	103	1,281	2,693	31.95 MB
Sep 2025	61	113	12,495	18,200	161.55 MB
Oct 2025	38	90	7,960	13,083	120.83 MB
Nov 2025	52	99	1,161	2,983	49.90 MB
Dec 2025	18	31	783	1,819	30.79 MB
Total	942	1,596	42,564	82,609	1.08 GB

Picture 1. 7 Digital Library Statistical

The number of visitors to the digital library can be seen through statistical data. In the digital library web there are daily statistic that can be seen at the bottom. Unique visitors are unique visitors or the number of users, number of visits is the total number of library visits, pages are the pages visited by the user during a visit to the digital library, hits are the number of technical requests to the server such as calling images, files, and other elements, and bandwidth is the total amount of data transferred between the server and the user in a given period.

The statistical data above contains that when viewed from January to November 2025, the school's digital library showed dynamic

performance with the number of unique visitors as many as 924 users. The total number of visits was 1,565, the pages visited were 41,781, the number of technical requests to the server was 80,790, and the total amount of cumulative data used was 1.05 GB. The traffic pattern depicts the highest spike in January with 285 visitors with the highest number of technical requests to servers at 23,468. This shows that there is interest and interaction between users and digital libraries. Although the number of visitors every month has changed, both up and down, it can be seen that SDIT Aliya digital library is able to attract the interest of readers and is easy to access. This statistical data is used as a reporting related to the effectiveness of the use of school digital libraries.

The head of the library and school librarian until now continue to develop digital libraries to make them more optimal. Currently, digital libraries can not only be accessed through links, there are barcodes to make it easier to access the school digital library website, and the number of collections that are constantly updated. Currently, schools have not conducted a user satisfaction analysis, so they cannot assess user satisfaction with the use of digital libraries.

IV.   Conclusion

Based on the results of the research, it can be concluded that the web-based digital library at SDIT Aliya (ADIL) is effective in encouraging access to information. Digital libraries can be accessed anytime and anywhere to become a literacy forum for users, especially students. With this digital library, it encourages remote literacy so that it is more flexible and students still have an attachment to the school library even from home. The collections available vary with a wide variety of reading categories and various forms such as e-books, videos,

and audio. In its implementation, there are several challenges in resources such as limited budgets, understanding of library heads and librarians that still need to be developed, and student awareness of literacy and access to information in school digital libraries.

Based on the results of the discussion and analysis related to the web-based digital library implementation strategy at SDIT Aliya, the autor provides several recommendations for digital libraries, namely by adding customer satisfaction features or comments as assessment materials for the effectiveness of the use of school digital libraries, integrating digital library collections with learning, even though schools do not have the concept of homework by taking advantage of opportunities so that students can access the digital library, and improve promotional strategies related to the digital library students.

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