

Repository as a Digital Preservation for Grey Literature Collection

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Abstrak. *The development of information technology encourages libraries to transform in providing access to digital information, especially to grey literature collections such as, research reports, and internal scientific works of institutions. 2025 is an important momentum year for STIKES Bhakti Husada Mulia to optimizing the role of institutional repositories as a digital platform for storing, managing, and disseminating grey literature collections along connection with the upcoming change in the institutional structure at 2026. This study aims to determine the role of repositories in increasing information accessibility for the academic community and identify the effectiveness of implementing repositories as a digital platform for preserving scientific works. The research method used is descriptive quantitative, through questionnaires given to users of repository services at the library. The results show that in terms of ease of access 60% choose easy in access, in terms of ease of searching information 85% choose easy, in terms of the suitability of search results 80% choose easy, and in terms of ease of downloading 90% choose easy. The conclusion of this study is that the repository at STIKES Bhakti Husada Mulia Library is effective as a digital access medium for grey literature collections, especially in supporting student needs in academic activities, especially research and writing final assignments. However, the ease of access aspect still needs to be improved in order to provide a more optimal user experience.*

Keyword: repository; grey literature collection; information search; digital

INTRODUCTION

Universities, research institutions, and government organizations annually produce various types of grey literature, such as research reports, theses, dissertations, working papers, proceedings, technical guidelines, and policy documents (Koten & Suharso, 2021). Grey literature holds high scientific and informative value, but it is not commercially published and is often only available in limited scopes. As a result, these documents are vulnerable to loss, damage, or difficulty in accessing them when needed. This situation highlights the need for serious preservation and management efforts

to ensure the knowledge produced by institutions remains sustainable and easily accessible to future generations of researchers (Nurdiansyah et al., 2025).

Institutional repositories offer a strategic solution to address these issues. Through digitization and system-based management, repositories enable long-term storage while opening up broader access to grey literature collections. Features such as standard metadata, interoperability, regular backups, and access control make repositories not just storage but also digital preservation tools that meet the requirements of integrity, authenticity, and accessibility (Peniarsih, 2018). Thus, repositories play a crucial role in safeguarding an institution's intellectual heritage and supporting the openness of scientific information.

However, repository implementation is not without challenges. Issues such as a lack of awareness among academics about uploading work, unclear institutional policies, limited human resources, and suboptimal metadata standards often hinder digital preservation. Therefore, a more in-depth study is needed to determine how repositories can function optimally as a means of preserving and disseminating grey literature.

Several previous studies served as references for this repository research. The first is a study by (Reza et al., 2022), which states that institutional repositories are a necessary system for managing collections within an institution, particularly theses, final projects, and journals. Another study that also discussed repositories examined repository utilization by students at the University of Mataram. The results showed an average score across all indicators ranging from 3.15 to 3.69, indicating good to excellent performance. These results indicate that the Institutional Repository has become an effective and efficient digital information source in supporting academic learning and research (Ridwan et al., 2025).

Therefore, the researchers aimed to expand their research on this institutional repository, focusing on its preservation and ease of user access. Based on this description, it can be concluded that repositories play a vital role in the preservation and utilization of grey literature. However, their effectiveness is greatly influenced by institutional policies, completeness of metadata, management commitment, and user participation. This calls for further research on how repositories can be optimized as a digital preservation tool from the user's perspective, by examining ease of access, ease of information retrieval, relevance of search results, and ease of document download.

METHOD

This study used a descriptive quantitative approach to obtain an empirical picture of the extent to which institutional repositories function as a digital preservation tool for grey literature collections. This approach was chosen because it provides measurable and objective data regarding the perceptions, experiences, and utilization levels of repositories by the academic community.

The population in this study was all library users who were in the grey literature collection room when the questionnaires were distributed. The research sample was determined using a non-probability sampling technique, namely purposive sampling, considering respondents with relevant experience using repositories (Sugiyono, 2017). A total of 100 respondents participated in this study. This number was deemed sufficient to represent general user perceptions and provide a descriptive picture of the actual condition of institutional repositories.

Data were collected through a questionnaire distributed using Google Forms. The use of a digital questionnaire instrument was chosen because it could reach respondents efficiently, expedite the data collection process, and

minimize input errors. The questionnaire consisted of two main sections: general respondent data and closed-ended Likert-scale statements designed to measure respondent perceptions.

The collected data were analysed using descriptive analysis techniques, including percentage calculations, frequency distributions, and average values for each research indicator. Descriptive analysis was chosen to describe the pattern of repository utilization as a digital preservation medium by users.

RESULT

General Data

Table 1. Frequency Distribution of Respondents by Majors

Majors	Frequency	%
Nurse	61	61%
Midwifery	2	2%
RMIK	24	24%
Pharmacy	3	3%
Public Health	10	10%
Σ	100	100%

Table 2. Frequency Distribution of Respondents by Access Needs

Access Need	Frequency	%
Final Task	46	46%
Collage Task	44	44%
Another	9	9%
Σ	100	100%

Table 3. Frequency Distribution of Respondents by Access Duration

Access Duration	Frequency	%
Everyday	37	37%
2-3 x a week	9	9%
1x a week	18	18%
1x a month	9	9%

Rarely	27	27%
Σ	100	100%

Table 1 shows that the largest number of students responding were from the nursing study program, with 61 respondents (61%). This is consistent with the distribution of the number of students at Stikes BHM, where the largest number of students are from the nursing study program. The need for repository access, as shown in Table 2, is highest for final assignments, with 46 respondents (46%). Table 3 shows that respondents access the repository most frequently, with 37 respondents (37%) accessing the repository daily.

This aligns with previous research, which found that repositories are highly utilized by the academic community, particularly students, in their academic activities (Rahmi & Manita, 2020).

Table 4. Frequency Distribution of Respondents by Ease of Access

Ease of Access	Frequency	%
Very Easy	5	5%
Easy	60	60%
difficult	35	35%
very difficult	0	0%

The results in Table 4 indicate that for the variable ease of access, 60% of respondents answered that accessing the repository was easy, whether via smartphone, laptop, or computer. However, 35% of respondents still answered that accessing the repository was difficult.

Table 5. Frequency Distribution of Respondents by Ease of Information Search

Ease of Information	Frequency	%
Very Easy	12	12%
Easy	85	85%
difficult	3	3%
very difficult	0	0%

The results of the study in Table 5 show that regarding the ease of information retrieval variable, 85% of respondents answered that searching for information in the repository was easy, and 12% answered that searching for information through the repository was very easy.

Tabel 6. Frequency Distribution of Respondents Based on the Suitability of Search Results

Suitability of Search	Frequency	%
Very Appropriate	19	19%
Appropriate	80	80%
Inappropriate	1	1%
Very Inappropriate	0	0%

The results of the study in Table 6 indicate that for the suitability of search results, 80% of respondents answered that the suitability of information search results in the repository was appropriate, and 19% answered that the suitability of information search results through the repository was very appropriate.

Tabel 7. Frequency Distribution of Respondents Based on the Ease of Document Download

Ease of Document	Frequency	%
Very Easy	10	10%
Easy	90	90%
difficult	0	0%
very difficult	0	0%

The results in Table 7 indicate that for the variable ease of document downloading, 90% of respondents answered that downloading documents from the repository was easy, and 10% answered that it was very easy.

DISCUSSION

Repository Accessibility

Theoretically, ease of access is a critical factor in the success of a digital information system. According to Davis (1989) in his Technology Acceptance Model (TAM), perceived ease of use directly influences users' attitudes toward

accepting and utilizing a technology system (Davis et al., 1989). When users perceive a system as easily accessible, their level of acceptance and frequency of use will increase (Aljarrah et al., 2016). The results of this study align with this theory, as the majority of respondents stated that the repository was easy to use, indicating that the system met most of their accessibility needs.

The success of a digital repository system is measured not only by the availability of collections but also by the level of ease of access perceived by users. A good repository should provide a simple interface, stable access speed, and be compatible with various devices. The digital preservation of grey literature manuscripts and their subsequent access to the repository aims to facilitate access, so the primary purpose of a repository is to facilitate user access to grey literature collections (Maryono & Pramono, 2020).

However, the percentage of respondents who reported access difficulties (35%) indicates that real issues still exist in the field. This obstacle is primarily due to technical constraints within the IT department of Stikes BHM, as there have been three hacking attempts within the past year, resulting in periodic maintenance, which disrupts repository access.

In addition to technical aspects, user factors also play a role. According to (Rogers, 2003), in his Diffusion of Innovations theory, the level of technology acceptance is influenced by an individual's ability to adapt to a new system (Sanjaya et al., 2025). Therefore, the continued difficulty experienced by respondents could be due to a lack of understanding of how to use the repository or a lack of socialization and training related to the repository.

Ease of Information Search

According to (Faturrahman, 2016), there are various types of information search models used by users, including visiting the library in person and accessing the collection, or accessing the collection online. There has been a shift in the way information is searched today. According to (Cahyaningtyas et al., 2020), boomers, millennials, and Generation Z search methods differ significantly, but their goal is to retrieve the information they need.

A quality information retrieval system is characterized by the search engine's ability to display relevant, consistent, and easy-to-understand results. In the context of this research, a high level of searchability reflects the repository's ability to systematically manage metadata, keywords, and

database structure, making it easier for users to navigate available academic information (Reza et al., 2022).

Empirically, the results of this study indicate that the repository is capable of providing effective and efficient information retrieval services. However, managers are advised to continue improving the quality of the information retrieval system by standardizing metadata, improving search guide documentation, and providing easily accessible advanced search features. These efforts will further optimize the user experience and ensure that all users, including those with limited technological literacy, can maximize the repository's use.

Search Result Relevance

Information retrieval studies state that the effectiveness of a search system is measured by the level of relevance of the results to user needs (Pradana et al., 2024). The higher the level of relevance of the information displayed, the better the quality of the system. The results of this study indicate a very high level of relevance, thus concluding that the repository is functioning optimally in providing information that meets user requests.

According to (Baeza-Yates et al., 1999), relevance in an information retrieval system is strongly influenced by index management, keyword selection, and metadata quality. The accuracy of search results in this repository indicates that the indexing and database management processes have been carried out effectively, enabling the system to display documents relevant to the keywords entered by users (Winarko, 2009). Managers are advised to continuously improve indexing quality, enrich metadata, and provide filtering features to enhance search results. These developments aim to minimize search result inconsistencies and improve overall user satisfaction.

Ease of Document Downloading

Technically, (Laudon et al., 2013) state that the quality of an information system is determined by access speed, system reliability, and ease of user interaction (user-friendliness). A high number of positive responses to the ease of downloading variable indicates that the repository has a stable system and a simple interface, ensuring that users do not encounter technical obstacles when downloading documents.

A good digital information service must provide full access to documents, including ease of downloading. Repositories that restrict access or have a complicated download process will decrease user satisfaction (Amin et al., 2023). In this study, the absence of respondents experiencing difficulties indicates that the repository has successfully provided optimal open access services.

Thus, the results of this study indicate that the repository has provided excellent document downloading services. However, management is advised to maintain server stability, increase storage capacity, and conduct regular system monitoring to maintain service quality. Continuous optimization is crucial to ensure the repository remains reliable as a source of scientific information.

CONCLUSION

The results of this study indicate that the institutional repository of STIKES Bhakti Husada Mulia has performed an important role as a digital preservation and access platform for grey literature collections. The majority of respondents perceived the repository as easy to use in terms of information searching, relevance of search results, and document downloading, demonstrating that the system has effectively supported academic activities, particularly research and final assignment preparation. These findings confirm that the repository has succeeded not only as a digital storage system, but also as a functional information retrieval tool that enhances information accessibility among the academic community.

Nevertheless, the study also reveals that the ease of access aspect still requires improvement, as a considerable number of users experienced difficulties, mainly due to technical issues and system maintenance disruptions. This indicates that while the repository has strong functional performance in search and download features, infrastructure reliability and system stability remain critical challenges. Therefore, continuous system development, improved security management, enhanced user guidance, and wider user education are recommended to ensure long-term sustainability.

Future research is encouraged to explore usability testing and system performance evaluation to further optimize repository services as a reliable digital preservation platform for institutional knowledge

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