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Research Article

A Data Repository System for the Information Technology Department using Google Site

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ABSTRACT

The study describes the development of the data repository system for Bulacan State University's Department of Information Technology that was accomplished using Google Sites. The system is an orderly, accessible mechanism for storage, conservation, and administration of digital resources. Quantitative research was conducted to utilize questionnaires and document analysis to investigate whether there is a need for a central repository. The respondents were randomly chosen using simple random sampling, and they comprised domain experts and department members who were lecturers. The repository was analyzed using the ISO 25010:2011 method to optimize the appreciable challenges presented in document fixing, including duplicating files and links, the lack of ample space, data corruption, the inadequacy of keywords in the search, and the issue of migration. Using Google Sites to implement it, thus making the system more accessible and usable thus this can be a practical example of a departmental document repository. It supports its purpose in improving productivity, accessibility, and long-term preservation. The study demonstrates that the use of the developed system largely reduces errors associated with document management and presents an organized, efficacious, and dependable central mechanism in addressing the common challenges in digital resource conservation and retrieval.

Keywords: *Google Site, Data Repository, College of Information and Computing Sciences, Bulacan State University - Bustos Campus*

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Background

An Online Document Repository is a centralized document repository that efficiently saves space and protects essential files in a single digital space (Kuligowski,2023). It is seen by individuals given administrative privileges and managerial authority. A Data Repository is also known as a data library or data archive.

Google Sites is great for small businesses, anyone and education as well who wants to apply technology and build a simple website without requiring technical expertise. The site has builder tools that can be easily used to build a website that displays the business's products, services, and brand in real time (www.crm.org, 2023).

Organizing documents using a data repository can be efficient and convenient, but it also comes with challenges and problems. Some common issues that the faculty of the Information Technology department in BulSU-Bustos Campus include data loss, keyword search limitations, and migration challenges. A clear document management strategy, the use of the proper software and tools, and user education and training on best practices for organizing and managing digital documents are all necessary to effectively handle these issues.

A data repository, also known as a data warehouse or data repository system, can make a big difference for an organization in a number of ways. The proponent finds that the faculty of the Information Technology Department needs data centralization, and that the system acts as a single site for organizing and managing data from multiple sources inside the institution. Institutions typically collect data from different departments and systems. A data repository's ability is to incorporate data from different sources that facilitate the analysis and generation of insights from aggregated datasets. Permission and access restrictions are implemented so that only individuals can ensure the necessary permissions to access certain data. Additionally, using a data repository promotes collaboration between the departments and its members by offering a similar data access and manipulation platform.

An Institution can benefit from a well-executed data repository, which facilitates better decision-making, effective data management, improved stakeholder communication, and increased data security. Maximizing data's potential as a tactical asset for the institution's development is essential.

Objective of the study

The primary aim of this study is to develop a data repository for the faculty of the Information Technology Department at Bulacan State University - Bustos Campus using Google Sites, which will be used as a basis for developing a data repository suited to the needs of the respondents.

Particularly, the researcher sought answers to the following objectives:

- To create a data repository for the faculty of the Information Technology Department BulSU - Bustos Campus using Google Site
- To provide an organized and visible repository to store and preserve digital assets for the Information Technology Department
- To provide service to its faculty members and administrators for managing and disseminating digital materials.
- To assess the created data repository using Google site with the use of ISO 25010 in terms of:
  a. Function Suitability;
  b. Performance Efficiency;
  c. Compatibility;
  d. Usability;
  e. Reliability;
  f. Security;
  g. Maintainability; and
  h. Portability.

Conceptual Framework

This study used the IPO or Input-Process-Output Model. In this model, a procedure is represented as a sequence of boxes linked by inputs, processes and outputs. This IPO model will show the general structure and guide the direction of the study.

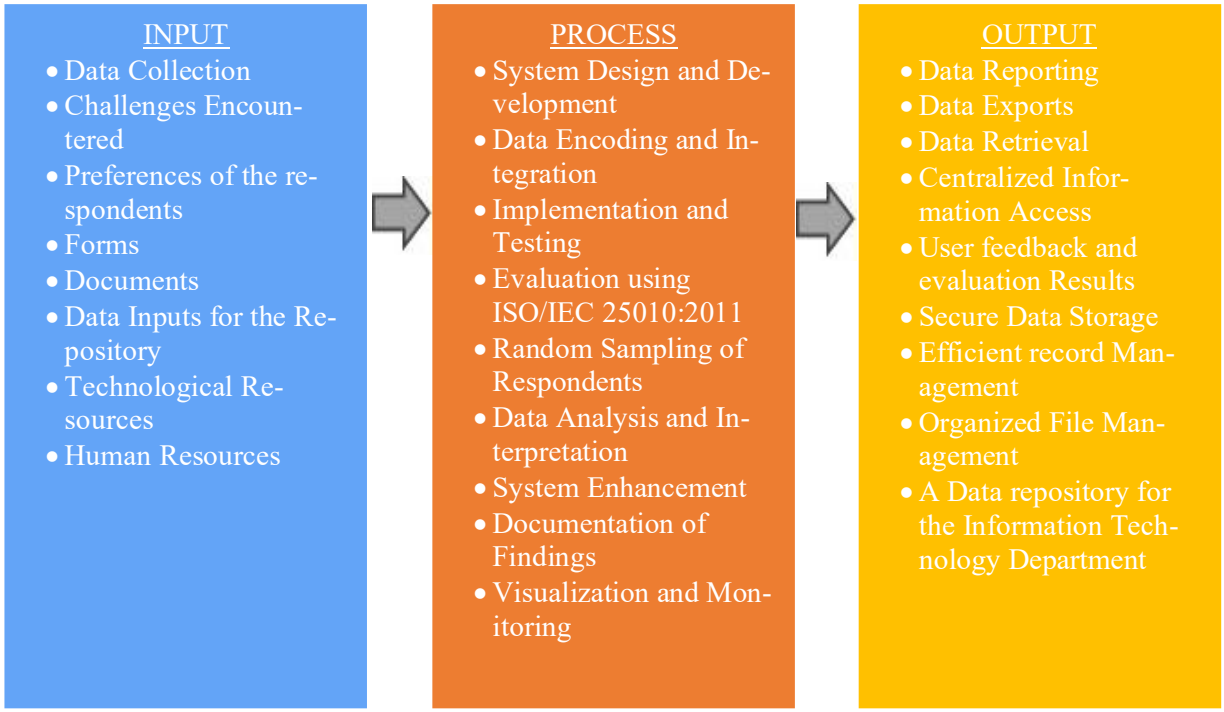

Figure I. IPO Paradigm of the research.

Figure I shows the study outcomes is a fully functional Data repository that provides ease of access to the faculty of the IT department regarding needed documents within the institution.

The Input component covers the most crucial aspects that serve as the framework of the study. Overwhelmingly, these include the data obtained from completed surveys and documents that capture the challenges evident in data management, and the preferences and feedback received from IT professionals and faculty to navigate the proper system design. Various institutional forms, document templates and completed work, and the document themselves are sources of reference and actual data deposited into the repository. With the right available technology and humans aids, these are the inputs that have the capability of providing comprehensive information and material resources needed to build a handy and conversional data repository in line with ISO/iec 25010 standards.

The Process phase encompasses the logical and planned design, construction, and assessment of the data repository. In terms of action, the element entails the structuring and coding of institutional forms and documents on Google Sites, which is accomplished through testing and changes according to user input. In terms of measurement, the element includes an analysis of the system through a random sample of IT experts and faculty members. According to the ISO/IEC 25010:2011 parameters on quality, the test shall check the system's functionality, usability, and reliability. Additionally, the records from assessments will be quantified and analyzed to enhance performance and harmony between the repository and the institution's demands and user specifications.

Outputs of the study will be the complete functional Data Repository of Information Technology Department that will serve efficient data reporting, data exports, and data retrieval. The system is a centralized platform which coordinates and stores institutional documents and thus enables the authorized individuals to access and manage information easily. The repository provides better access to data through its well-organized and intuitive interface, facilitates the administration and academic workload, and provides smooth management of information in the department.

Methodology

This part of the study provides a systematic approach to conducting the research. It outlines the steps, techniques, and processes researchers follow to collect, analyze, and interpret data.

Research Design

This research employs a quantitative approach that incorporates a random sampling technique. Which is a data collection technique utilizing questionnaires and documentation to determine the need of creating a data repository. The quantitative research approach is a methodology that emphasize the use of measurable and numerical data to systematically examine a phenomenon or research question.

Respondents of the Study

The study respondents were the IT experts and Faculty of the Information Technology Department of Bulacan State University - Bustos Campus selected using a random sampling technique.

Particularly, the participants were ten experts in the field of IT also known as the Alpha evaluator, and twenty faculty of the Information Technology Department of Bulacan State University - Bustos Campus also known as the Beta evaluator. Out of thirty survey questionnaires floated, 28 were answered completely by the respondents. The questionnaire was distributed through Google Forms and retrieved two weeks later.

Research Instrument

The research instrument used in this study was adapted from the ISO/IEC 25010:2011 software quality standards to evaluate the system in terms of Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability of the developed data repository using Google Sites. To ensure the validity of the instrument, it underwent content validation by three (3) Information Technology experts who reviewed the items for clarity, relevance, and consistency with the study objectives. After validation, the questionnaire was administered to 30 respondents, consisting of IT experts and IT faculty members, with 28 responses returned and considered valid for analysis.

Data Gathering and Analysis

The researchers sent a communication letter to the Campus Dean, asking permission to conduct a research survey inside the institution specifically to the faculty members of the Information Technology Department. Upon approval, the researcher approached the faculty of the department and some IT experts. The researchers explained the study's purpose to the selected respondents and ensured they corresponded to the predetermined criteria. The researchers collected the data utilizing the validated questionnaire sent to the participants using a Google survey.

Results and Discussion

This section of the research does a good job of presenting and discussing the findings and deepening the understanding of the topic that is being investigated.

To create a data repository for the Information Technology Department in BulSU - Bustos Campus using Google Site

The data repository structure for the Information Technology Department of Bulacan State University – Bustos Campus, developed using Google Sites as the primary platform for organizing and managing departmental resources.

The developed data repository has the Home Page (shown in Figure II) that offers a general introduction and is the main navigation point of the users. The Usability feature of ISO/IEC 25010 standard is reflected on this page as it has a clear and systematic interface that enables users to find the necessary documents, announcements, and departmental updates easily. The simple design reduces the chances of the user getting lost and helps to facilitate easy navigation, which are two key aspects that made the repository score an Excellent rating in Usability. Presence of quick-access tabs to the common resources also solves the aforementioned problem of not being able to find and retrieve files easily hence making key information on departments now available

with a few clicks. Also, the introduction being friendly creates better user interaction and purpose of intent which encompasses the Functional Appropriateness requirement, as the site serves the purpose it was created to be an informational center of the IT Department.

Figure II. Home Page

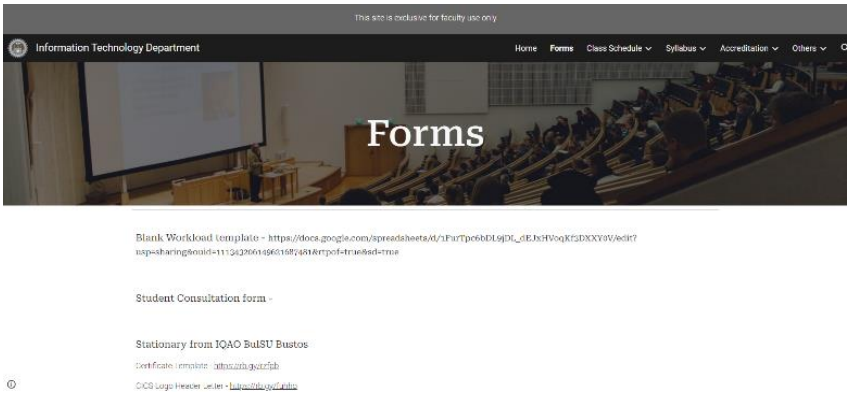

Figure III. Downloadable Forms

Figure III shows the Downloadable Forms page, which is a centralization of several departmental forms that are needed by the IT faculty. This design responds to the previously mentioned problem of the inability to find and handle the documents related to administration, which used to cause inefficiency and loss of data. This page has shown Excellent performance in Functional Suitability and Usability, as measured in ISO/IEC 25010:2011 because it provides a well-organized and easily navigable repository. Its simple design and ease of access saves time in which faculty members would spend on searching after particular forms hence enhancing workflow and productivity. Another way that facilitates the Maintainability is by keeping the prevailing versions of the forms on the repository so that revisions and updates made on the forms become more efficient in form and they are not done with confusion or redundancy.

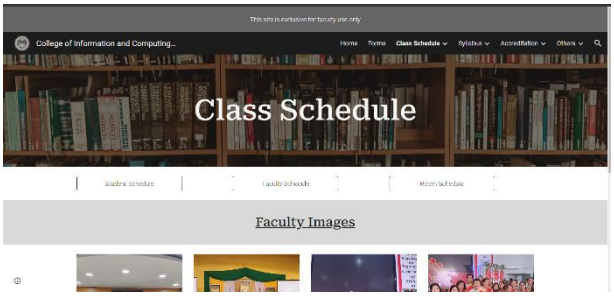

Figure IV. Class Schedule

Figure IV is the Class Schedule page that gives relevant and current data on courses, room assignments, and faculty information to both students and faculty. This characteristic solves the earlier problem of manual or inconsistent access to the scheduling information, which was confusing and inefficient most of the time. The effective design and constant updates promote Usability and Functional Suitability since users do not have to work hard to find correct data. Moreover, the fact that the system is capable of showing schedule changes in a timely manner reflects Excellent Reliability, which is assessed in accordance with the ISO/IEC 25010:2011 standards. This ensures that time is spent efficiently and there is less miscommunication in the IT department.

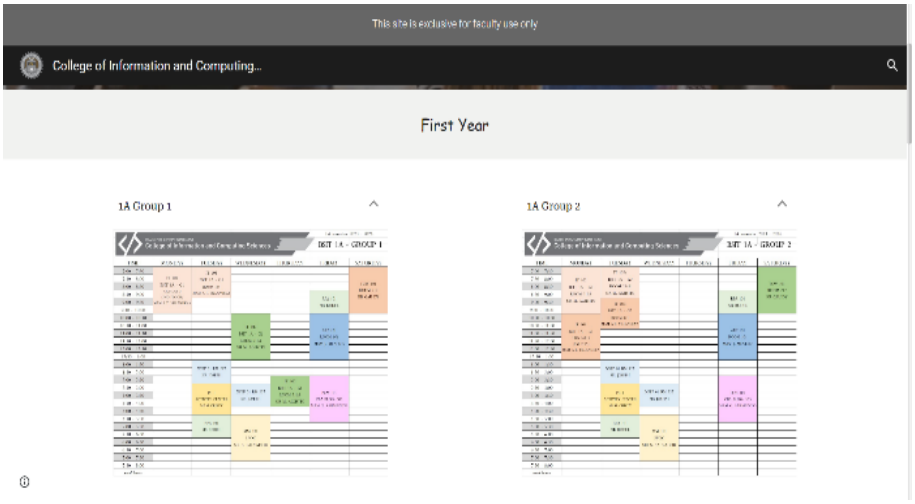

Figure V. Class Schedule (Student)

The figure V depicts Student Class Schedule page which gives a systematic and individualized outlook of section, subject and faculty assignments of classes. This aspect eliminates the old problem of inaccessibility to current schedules, where students can basically check their schedules online. Excellent Usability can be seen in the consistently structured output and easy navigation as the visitors have no problems with finding the information without any delays and misunderstandings. Also, the responsiveness of the page, as well as its fast loading rates, contribute to Excellent Performance Efficiency and the capability to demonstrate the correct and up-to-date schedules, respectively, proves the Excellent Reliability, according to the ISO/IEC 25010:2011 standards. In general, this aspect leads to more effective coordination and transparency between the faculty and students.

Figure VI. Class Schedule (Faculty)

Figure VI presents the Faculty Class Schedule page, which allows IT faculty members to conveniently view their teaching assignments, office hours, and other academic commitments. This feature promotes efficient time management and reduces confusion caused by manually distributed or outdated schedules. The intuitive layout and easy navigation demonstrate Excellent Usability, as it enables faculty to quickly retrieve their information. Moreover, the page's capacity to update schedule changes in real time reflects Excellent Performance Efficiency and Functional Suitability, ensuring that the repository delivers accurate and relevant data aligned with users' needs. By centralizing schedule access, the system effectively addresses earlier challenges in managing and tracking academic timetables within the department.

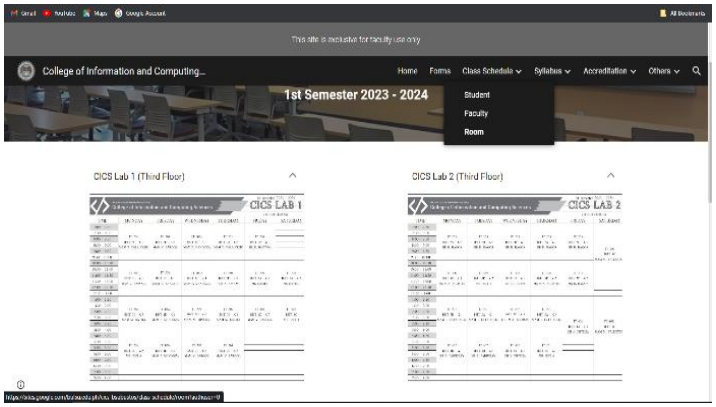

Figure VII. Class Schedule (Room)

Figure VII gives the Room Schedule page, which is used to get real-time data regarding the classroom utilization and availability within the IT Department. This feature is helpful in managing the institutional resources efficiently through the reduction of the conflicts over the room and the optimization of the facilities. Excellent Functional Suitability can be observed in the fact that the system allows showing the most recent information on room assignments, providing the necessary information that is relevant and accurate to schedule rooms. Its high functionality and fast data access points to Excellent Reliability and Performance Efficiency where users can easily access it without delays or errors. In sum, this element is directly connected to the past issues of scheduling the rooms and allocate the resources and enhances the coordination and visibility of the activities throughout the department.

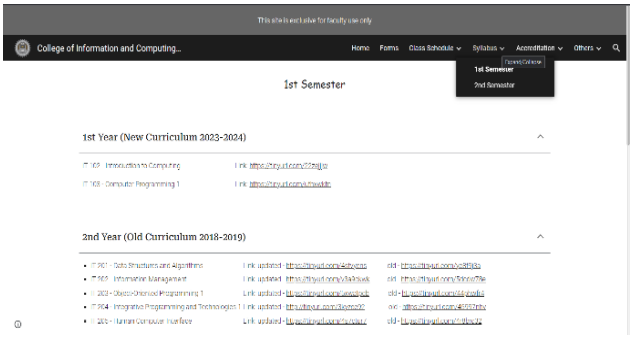

Figure VIII. Course Syllabus

The Course Syllabus page is shown in Fig. VIII and offers a centralized access to comprehensive information about the courses that the college offers, such as objectives, content outlines, and academic requirements. This feature adds to Functional Suitability the ability to have

accurate, complete and easy-to-find course documents. It has received an Excellent Usability rating because it has a clear layout and intuitively structured syllabuses which allows both faculty and students to follow and access syllabuses without a lot of effort. Furthermore, the repository being online in nature equates to a high Portability level as it can be accessed anywhere and anytime, hence minimizing the possibility of the loss of the document as well as guaranteeing the academic transparency. In general, this aspect enhances the dedication of the department to effective information control and facilitates the systematic academic performance.

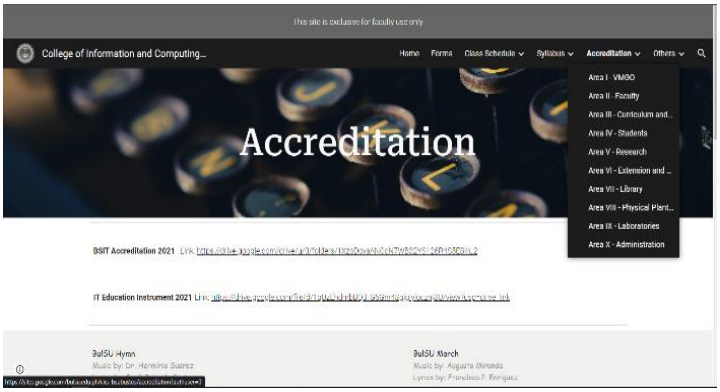

Figure IX. Accreditation

The Accreditation page in Figure IX is a centralized storage of all accreditation-related documents, which guarantees that all the necessary records are arranged, accessible, and safely stored. This aspect has an Excellent Reliability as it updated and accurate information on accreditation is always available. It is also an exhibition of Strong Security in the form of limited access and data protection protocols that secure the sensitive departmental records. In addition, the hierarchical design facilitates Maintainability, and any required updates and revisions to accreditation files can be made with ease. This page enhances transparency, accountability, and adherence to the standards of academic quality assurance by making the accreditation documents easily accessible and by keeping their integrity intact.

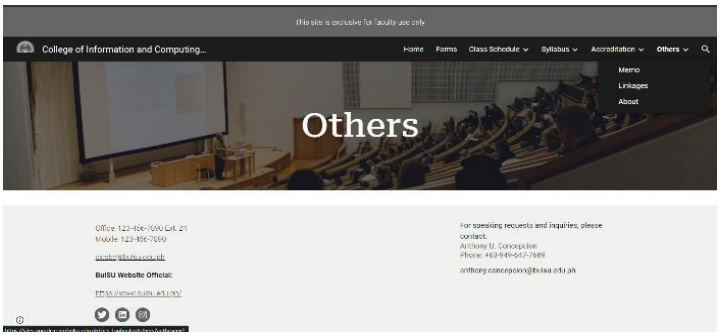

Figure X. Others

Figure XI is the Other page, which is a storage of other resources and supplementary materials that are impossible to be organized into the sections of the main categories of the data repository. This page improves on Functional Suitability, which makes all the relevant departmental materials to be accessible within a centralized system that is able to overcome the challenge of scattered or missing information. It has an excellent Usability due to its great organization and easy navigation where faculty and staff can easily find and use

supplementary resources. The structure also promotes Maintainability that facilitates easy updating and addition of structure to meet the changing department needs. Such additional resources allow making this page stronger in its functionality and richer in the user experience.

To provide an organized and visible repository to store and preserve digital assets for the Information Technology Department

A repository is a central hub for storing and preserving valuable institutional knowledge (Zhang and Gourley, 2009) by providing a repository to the faculty of the IT department at Bulacan State University Bustos Campus for easy access to information and resources that they need. Centralizing resources streamlines workflows and improve overall efficiency that allows the IT faculty and staff to quickly locate necessary information, reducing time wasted on searching.

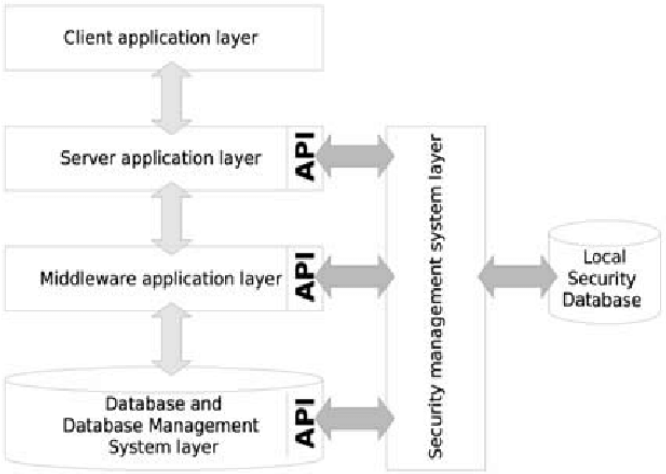

Figure XII. Data Repository Diagram
(source: https://www.researchgate.net/figure/The-architecture-of-the-data-repository_fig2_262238271)

Figure XII shows the architecture of the data repository in terms of security and accessibility, which is ready for realization in more than one security service. In this presented architecture, one can ensure the non-repudiation of security services in the data repositories (Ksiezopolski and Kotulski, 2010). Also, a shared repository facilitates collaboration among team members, it fosters sharing and problem-solving. Using this can be a best practice for the department by applying digital assets to improve efficiency and productivity by saving time for employees and improving overall productivity and competitiveness.

To provide service to its faculty members and administrators for the management and dissemination of digital materials.

Creating and providing this centralized platform for managing and disseminating digital materials can effectively serve as a digital asset management (DAM) tool for faculty members and administrators. Google Sites can provide a valuable and efficient solution for managing and disseminating digital materials within an organization.

The faculty will benefit from the following: First, centralized storage and organization by providing a single repository for other various digital materials, including documents, presentations, images, videos, and more. Second, Easy access and sharing easily share individual files or folders with specific members or groups with appropriate permission. Certain materials can be made public and accessible for external sharing and collaboration. Third, cooperation and teamwork by working on the same docu-

ment simultaneously enable real-time collaboration and reduce the need for multiple versions. Fourth, security and privacy allow administrators to restrict to specific materials or groups of users then lastly, Integration with other Google tools.

To assess the created data repository using google site with the use of ISO 25010 in terms of:

The findings of the test performed by the Alpha group of IT experts who evaluated the system in order to certify that it meets the quality standards according to the aspects of Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability are illustrated in Table I below.

The data obtained with the aid of the evaluation instrument which is directed on the ISO/IEC 25010:2011 software quality model were processed with the help of the Weighted Mean (WM) to identify the degree of acceptability of the system according to its quality aspects. The formula used was:

$$WM = \frac{\sum fx}{N}$$

Where:

- f = frequency of responses
- x = numerical value assigned to each response
- N = total number of responses

The evaluation utilized a 5-point Likert scale, where 5.00–4.21 is interpreted as Excellent, 4.20–3.41 as Very Good, 3.40–2.61 as Good, 2.60–1.81 as Fair, and 1.80–1.00 as Poor. The results, as shown in Table I, indicate that the system achieved an overall grand mean of 4.52, verbally interpreted as Excellent, signifying that the evaluators found the system highly functional, efficient, and compliant with the prescribed software quality standards.

Table I. Summary Of It Experts' Evaluation (Alpha Evaluators)

	INDICATORS	WM	VERBAL INTERPRETATION
FUNCTIONAL SUITABILITY	FUNCTIONAL COMPLETENESS	4.45	VERY GOOD
	FUNCTIONAL CORRECTNESS	4.35	VERY GOOD
	FUNCTIONAL APPROPRIATENESS	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**
PERFORMANCE EFFICIENCY	TIME BEHAVIOUR	4.49	VERY GOOD
	RESOURCE UTILIZATION	4.31	VERY GOOD
	CAPACITY	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**
COMPATIBILITY	CO-EXISTENCE	4.40	VERY GOOD
	INTEROPERABILITY	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**
USABILITY	APPROPRIATENESS RECOGNIZABILITY	4.45	VERY GOOD
	LEARNABILITY	4.40	VERY GOOD
	OPERABILITY	4.40	VERY GOOD
	USER-ERROR PROTECTION	4.35	VERY GOOD
	USER-INTERFACE AESTHETICS	4.40	VERY GOOD
	ACCESSIBILITY	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**
RELIABILITY	MATURITY	4.45	VERY GOOD
	AVAILABILITY	4.35	VERY GOOD
	FAULT TOLERANCE	4.40	VERY GOOD
	RECOVERABILITY	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**

	INDICATORS	WM	VERBAL INTERPRETATION
SECURITY	CONFIDENTIALITY	4.40	VERY GOOD
	INTEGRITY	4.40	VERY GOOD
	NON-REPUDIATION	4.40	VERY GOOD
	ACCOUNTABILITY	4.40	VERY GOOD
	AUTHENTICITY	4.40	VERY GOOD
	AVERAGE MEAN	**4.40**	**VERY GOOD**
MAINTAINABILITY	MODULARITY	4.90	EXCELLENT
	REUSABILITY	4.95	EXCELLENT
	ANALYZABILITY	4.90	EXCELLENT
	TESTABILITY	4.85	EXCELLENT
	AVERAGE MEAN	**4.90**	**EXCELLENT**
PORTABILITY	ADAPTABILITY	4.85	EXCELLENT
	INSTALL ABILITY	4.85	EXCELLENT
	REPLACEABILITY	4.85	EXCELLENT
	AVERAGE MEAN	**4.85**	**EXCELLENT**
	GRANT MEAN	**4.52**	**EXCELLENT**

Table I presents a summary of the IT experts' evaluation of the system during the alpha testing phase. The findings reveal that the system obtained a grand mean of 4.52, which is interpreted as Excellent, indicating that the evaluators found the system highly functional and reliable in meeting its intended objectives. Most of the quality characteristics, including the different indicators from ISO 25010: Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, and Security, were rated Very Good shows that the data repository performs its functions accurately and efficiently with minor areas for improvement. Meanwhile, Maintainability and Portability received the highest weighted means and were interpreted as Excellent, suggesting that the data repository is both adaptable and easy to update or transfer to other environments. Overall, the predominance of "Very Good" ratings, supported by several "Excellent" assessments, demonstrates that the system is well-designed, user-oriented, and capable of supporting the operational requirements of its intended users.

Following this, the BulSU Information Technology Faculty who encompass the Beta group of evaluators, were accessed to ensure adherence to quality standards of Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability, as shown in Table II.

Table II. Summary of Information Technology Faculty Evaluation (Beta Evaluators)

	INDICATORS	WM	VERBAL INTERPRETATION
FUNCTIONAL SUITABILITY	FUNCTIONAL COMPLETENESS	4.67	EXCELLENT
	FUNCTIONAL CORRECTNESS	4.67	EXCELLENT
	FUNCTIONAL APPROPRIATENESS	5.00	EXCELLENT
	AVERAGE MEAN	**4.78**	**EXCELLENT**
PERFORMANCE EFFICIENCY	TIME BEHAVIOUR	4.67	EXCELLENT
	RESOURCE UTILIZATION	4.33	VERY GOOD
	CAPACITY	4.00	VERY GOOD
	AVERAGE MEAN	**4.33**	**EXCELLENT**
COMPATIBILITY	CO-EXISTENCE	4.00	VERY GOOD
	INTEROPERABILITY	4.00	VERY GOOD
	AVERAGE MEAN	**4.00**	**VERY GOOD**

	INDICATORS	WM	VERBAL INTERPRETATION
USABILITY	APPROPRIATENESSRECOGNIZA-BILITY	5.00	EXCELLENT
	LEARNABILITY	4.00	VERY GOOD
	OPERABILITY	4.67	EXCELLENT
	USER-ERROR PROTECTION	4.00	VERY GOOD
	USER-INTERFACE AESTHETICS	3.67	VERY GOOD
	ACCESSIBILITY	4.33	VERY GOOD
	AVERAGE MEAN	**4.29**	**VERY GOOD**
RELIABILITY	MATURITY	4.67	EXCELLENT
	AVAILABILITY	4.67	EXCELLENT
	FAULT TOLERANCE	4.00	VERY GOOD
	RECOVERABILITY	4.00	VERY GOOD
	AVERAGE MEAN	**4.34**	**VERY GOOD**
SECURITY	INTEGRITY	4.67	EXCELLENT
	NON-REPUDIATION	4.67	EXCELLENT
	ACCOUNTABILITY	4.00	VERY GOOD
	AUTHENTICITY	4.67	EXCELLENT
	AVERAGE MEAN	**4.50**	**EXCELLENT**
MAINTAINABILITY	MODULARITY	4.67	EXCELLENT
	REUSABILITY	4.67	EXCELLENT
	ANALYZABILITY	4.67	EXCELLENT
	TESTABILITY	4.67	EXCELLENT
	AVERAGE MEAN	**4.67**	**EXCELLENT**
PORTABILITY	ADAPTABILITY	4.67	EXCELLENT
	INSTALL ABILITY	4.67	EXCELLENT
	REPLACEABILITY	4.00	VERY GOOD
	AVERAGE MEAN	**4.45**	**EXCELLENT**
	GRANT MEAN	**4.42**	**EXCELLENT**

Table II presents the summary of evaluations conducted by the BulSU Information Technology Faculty (Beta Evaluators) based on the ISO/IEC 25010:2011 software quality standards. The system achieved an overall grand mean of 4.42, verbally interpreted as Excellent, signifying that the evaluators strongly agreed that the mobile application meets the expected quality characteristics in terms of functionality, efficiency, usability, and reliability. The result implies that the system is well-designed, stable, and suitable for operational deployment with only minimal refinements needed.

Table III presents the overall evaluation results of the IT Experts and IT Faculty based on the ISO/IEC 25010:2011 software quality standards. The system obtained a grand mean of 4.47, which is verbally interpreted as Excellent. This indicates that the evaluators found the system highly compliant with the prescribed quality characteristics. All indicators Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability were rated Excellent, demonstrating that the system performs effectively, is stable, and meets the expectations of both groups of evaluators.

Table III. Summary of It Experts and It Faculty Using ISO/IEC 9126-1:25010:2011 Quality Standards

Indicators	WM	Verbal Interpretation
Functional Suitability	4.59	Excellent
Performance Efficiency	4.37	Very Good

Indicators	WM	Verbal Interpretation
Compatibility	4.20	Very Good
Usability	4.35	Very Good
Reliability	4.37	Very Good
Security	4.45	Excellent
Maintainability	4.79	Excellent
Portability	4.65	Excellent
Grant Mean	**4.47**	**Excellent**

Table II summarizes the collected evaluation scores of the IT Experts which was labeled as Alpha and the IT Faculty which was labeled as Beta as per the ISO/IEC 25010:2011 software quality standards. The grand mean score of the system evaluation on the quality standards is 4.47, which can be verbally interpreted as Excellent. This indicates that the system's evaluators agree on the strong adherence of the system with the preset qualities based on the submitted indicators. The highest qualities in the evaluative indicator are maintainability and portability with individual scores of 4.79 and 4.65, respectively. This indicates that the system is easy to modify and customize through the consistent adjustment of features. On Performance Efficiency, Compatibility, Usability, and Reliability, the evaluative indicator was coded Very Good indicting an effective working system although more optimization on one indicator can enhance performance. Generally, the composite scores of the evaluative indicator are compatible with system development, functionality, and nearness to operation within the intended environment.

In addition to the quantitative results obtained through the ISO/IEC 25010:2011 quality standards, the researchers also considered the qualitative feedback of the respondents. Comments and suggestions from the IT Experts and IT Faculty were collected to identify areas for improvement and to further enhance the Data Repository System for the Information Technology Department. The following sections summarize their insights and recommendations.

The related word cloud list reviews the most frequently occurring response, which is the application is useful to the faculty and future users like students and admin staff.

Conclusion

To fully realize its potential benefits, careful planning, ongoing practice maintenance, and user engagement are required. Data plays a vital role in institutions investing in a well-structured data repository can be a strategic decision contributing to the institution's competitiveness and success.

Creating and implementing data repository in an institution can be a game-changing project that is positively impacts data management and decision-making procedures. Also, establishing a data repository within an institution is a significant numerous benefits, but it also comes with specific difficulties and considerations.

The importance of a system like this can be fully realized with careful planning, training, and ongoing support can help maximize the benefits of such a system. To improved management and dissemination of digital materials in the academic setting it should practice better distribution and administration of digital resources in the educational environment by organizing documents using a data repository offers significant advantages for faculty and administrators. It is recognized to be aware of and address the associated challenges.

Recommendation

Based on the findings and conclusions support the following recommendations:

Continue to improve the clarity of defining the objectives and scope of the data repository project. Decide which types of data to be included, categorize, the intended audience, and the main goal of the repository. Provide training and support to users and data providers can utilize the effective use of the repository.

Provide guides, and tools that can support submitting and retrieving data. Actively encourage to promote wider adoption of the repository within the institution and to external partners, showcasing its value and encouraging broader benefits. Be versatile and adaptive to evolving technology institutional needs and technological advancements. Regularly revisit and update the repository's strategies and features

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