# PERSONALIZATION; AS A REFLECTION OF MEDIATED INTERPERSONAL COMMUNICATION IN THE DIGITAL ERA

Sri Sediyaningsih<sup>1</sup>, Kani Launggu<sup>2</sup>, Rudi Susilo Darmawan<sup>3</sup>, Cherry Rahman<sup>4</sup>

<sup>1, 2, 3, 4</sup>Universitas Terbuka (INDONESIA)

rudi@ecampus.ut.ac.id

## **Abstract**

This article provides an overview of how libraries offer better services to users so that they can use library collections more effectively and efficiently through digitizing the library service process and taking the Open University as a data source, with very heterogeneous student characteristics and academics spread across Indonesia. In more than 52 countries, digital services are necessary so that users can get and utilize reference services according to their needs. The three main concepts in this writing, namely media interpersonal communication, library personalization, and library digitalization are the basis for analysing service needs in this digital era. With the Design Science Research Methodology (DSRM) methodology, steps can be taken to initiate, develop, and measure the impact of artifacts in the context of certain problems. DSRM activities involve the stages of Problem Identification and Motivation, Setting Solution Objectives, Design and Development, Demonstration, Evaluation, and Communication, which are used to design searches, process, and analyse data to provide an overview of library service design in the digital era through its Smart Library. Through Smart Libraries, it is hoped that the level of library personalization will increase in providing services to its users.

Keywords: Mediated interpersonal communication, Library Digitalisation, Smart Library

## 1 INTRODUCTION

Implementation of the tri dharma of higher education. Therefore, libraries must provide more services to their users or patrons. In the digital era, the use of technology to improve library services is a need that cannot be ignored, because efforts are needed to improve the services provided. One of them is in the form of ease of access and utilization of references in the library, through personalization of communication which is the main key in providing a better experience to users, by increasing engagement, and ensuring individual needs are met.

In the digital era, libraries are leveraging technology to improve their services and provide personalized experiences for users. By leveraging digital platforms and innovative technologies, libraries can offer personalized recommendations, customized reading lists, and

interactive learning experiences. Personalization in this digital library allows users to access information quickly and efficiently, meeting their individual needs and preferences. One of the key components of library digitization is the development of an easy-to-use digital catalogue. This catalog will provide easy access to an extensive collection of resources, including e-books, audiobooks, and online databases. Apart from that, the implementation of a digital circulation system will simplify the borrowing and return process for library users, making it more comfortable and efficient

Additionally, the incorporation of virtual library services such as virtual book assistance, and webinars will enrich library offerings and engage users in a variety of educational and cultural activities. Additionally, leveraging data analytics will enable libraries to gain insight into user behavior and preferences, thereby enabling continuous improvements to personalized services and collections. Meanwhile improving the quality of library services (smart library design) for Increased User Satisfaction, More effective and focused service, and Utilization of technology for library efficiency through a mediated communication strategy

## 2 METHODOLOGY

The library digitalization methodology will involve a systematic approach to ensure a successful transition to a digital environment and effective implementation of proposed digital initiatives.

The first stage,

- Needs Assessment: The first step in this methodology is to conduct a comprehensive needs
  assessment of the library and its users. This involves gathering feedback from library
  visitors, staff, and stakeholders to identify specific digital services and resources that best
  suit their needs and preferences.
- 2. Technology Selection: After understanding the needs of the library and its users, the next step is to research and select the most appropriate technology for digital catalogs, circulation, and virtual library services. This process will include evaluating different software and platforms to ensure they align with the library's goals and user needs.

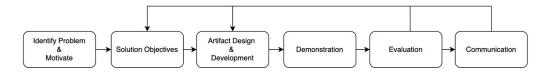


Figure Metodologi DSRM (Design Science Research Methodology)

## DSRM consists of six main steps:

## 1. Identify Problems and Motivations

Identify problems that need solutions and motivate research. In this case, researchers must explore user needs and understand the impact of the problem. Clear motivation helps direct focus on relevant solutions. For example: In the context of developing a smart library application, problems identified could be difficulties in accessing resources or library materials or library catalogs for the academic community, especially for students studying remotely at UT.

## 2. Solution Objectives

Once the problem is identified, the objectives of the proposed solution need to be formulated. These goals should be specific and measurable, explaining how the proposed solution will solve the problem. For example: The goal might be to provide a Smart Library mobile application that allows users to easily access and personalize the library catalog.

## 3. Artifact Design and Development

At this stage, the artifact (technological solution) is designed and developed. This artifact can be a software system, model, or framework that functions to solve the problem that has been identified. For example: Development of the "Pustaka Pintar" mobile application which can manage data on borrowing, returning and reading books offline and not forgetting a reliable security system using SSO.

#### 4. Demonstration

The developed artifacts need to be demonstrated to show how the solution works in a real context. This could be testing the system in a user environment or testing a prototype on a small group of users. Example: The Smart Library application that has been developed is tested on Civitas to see the effectiveness of personalization features and ease of navigation.

## 5. Evaluation

The developed solution is evaluated to see whether the goals set at the beginning were achieved. Evaluation is carried out based on certain criteria, such as effectiveness, efficiency, or level of user satisfaction. Data from this evaluation can be used to identify areas that need improvement. Example: Feedback from users about the Pustaka Pintar mobile application is obtained through surveys and interviews to measure user satisfaction and application performance.

## 6. Communication

The results of research and artifact development need to be communicated to a wider audience, either through scientific publications or presentations to related parties. The goal is to share the knowledge gained as well as validate solutions within the scientific or industrial community. Example: Publication of research results in scientific journals and presentations to universities or librarians to introduce newly developed library applications.

By following these steps libraries can navigate the digitalization process with a structured and strategic approach, ultimately leading to the successful implementation of the proposed digital initiatives.

## 3 DISCUSSION

There are four main functions of the library, namely procurement, processing, preservation and service. One of the things so that the products from the procurement provided can be put to good use by users is that good service is needed. Apart from that, the UT Library is different in providing its services, because it is located at a long distance university, where students and teachers are spread across various corners of the country and abroad. The journey towards the Smart Library concept at UT began with the need for faster and easier access to information in the digital era. This includes the digitization of books and documents, as well as the use of computer-based library management systems. The needs analysis begins with data on student distribution, mobility and the unequal availability of internet access, leading libraries to look for a way to serve them well by bringing services closer to students through interpersonal but media-based forms of communication. Apart from that, considering the limited internet access, in order to provide more benefits to the service, efforts are made so that users can read library products easily without any obstacles, namely by developing applications that can make it easier for users to read offline.

Through the DSRM method, all service and coverage issues are studied to see whether this Smart Library can be developed and is useful for users, especially students, through the stages of preparation, creation, implementation and evaluation. This time this article only reaches the implementation stage which consists of the development and integration of personalization. Which will later be followed by evaluation through user feedback, and analysis of personalization effectiveness. Communication, in library services, is the heart of the library's life because without good communication, the products in the library will not help and support the teaching and learning process as expected. UT as a distance education institution (PTJJ)

prioritizes the process of interaction through media, therefore the approach to students needs to be improved so that users feel closer and feel cared for like other library services that use the face-to-face method.

Mediated interpersonal communication is the main thing that must be considered so that all information can be received well by users. Besides that, social presence is key in interacting so that users feel like they are not interacting with a machine. On the other hand, Ideally smart library was created by taking into account several main components:

- 1. Remote Access: Allows users to access library services remotely
- 2. Automation: Use of automated technology such as automatic doors, public access computers, and self-service kiosks.
- 3. Digital Interaction: Integration of technologies such as artificial intelligence, machine learning, and the Internet of Things (IoT) to provide innovative solutions in recording, organizing, and processing information.
- 4. User Experience: Provides an interactive interface that allows users to explore, learn, and interact with content dynamically.

(Md. Harun Ar Rashid, 2022. and Md. Azzikushaman, 2024).

## 4 CONCLUSION

Design Science Research Methodology (DSRM) shows that this approach effectively develops and implements innovative and efficient technology solutions, including in libraries.

With a DSRM approach, libraries can ensure that the services provided are efficient, relevant, and useful for users.

From several definitions regarding "Pustaka Pintar" and the results of the application development above, a conclusion can be drawn that "Pustaka Pintar" is an innovative form of interactive service that prioritizes mediated interpersonal communication both via media and directly online and offline to reach its users so that the library can provide users a solution with responsive, interactive, informative and effective services.

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