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Digital Collaborative Governance of Library in Developing E-Library in the Technical Implementing Unit of Universitas Sebelas Maret's Library

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Abstract

Abstract: Rapid information technology development leads to temporally and spatially borderless information. Library is required to manage library and information technology-based services innovatively. This research aims to study digital collaborative governance of library in developing e-library in Technical Implementing Unit of Universitas Sebelas Maret (UNS) Library. The research method used was descriptive qualitative. Data collection was conducted using observation, in-depth interview with users, librarians, and IT manager of UNS' library, and documentation. Data was validated using source triangulation, and data were analyzed using an interactive model. The result shows library activity managed using information technology-based hybrid system, in which the collections were transferred into digital media with online- and offline-based library service. Technical Implementing Unit of UNS Library facilitates the need for smooth and fast internet access, software and hardware are always updated, and socialization about UNS e-library is conducted through website: library.uns.ac.id. Intense collaboration of digital libraries between universities, schools, governmental and private institutions is improved and sustainable. In digital maintenance of library, IT Division of library collaborates with IT Division of UNS Communication Center. Digital collaborative governance of library makes the library services faster, more efficient and systematic.

Keywords: Digital Collaborative Governance of Library, Library Service, Hybrid Service

1. Introduction

Library development is an attempt of improving library resource, service, and management, either quantitatively or qualitatively. The development is conducted based on characteristics, function, and objective, and in accordance with the user's and the public's needs by utilizing information and communication technology (Undang-Undang Republik Indonesia Nomor 43 Tahun 2007 Tentang Perpustakaan [Republic of Indonesia's Law Number 43 of 2007 about Library], 2007)

The development of information technology creates acceleration in various aspects of life. Library development is inseparable from information technology development and thereby, the library should change the old paradigm related to its management. Originally, library was a place for storing a collection of information, and then, it develops into semi-modern library using catalogue in its searching process. Information development encourages library to apply technology to get convenience and to provide information service in the form of online information search (Azwar, 2018).

Library as the provider of information for the users is inseparable from the use of information technology. As the information center, library always follows technology advance (Ismaya Ridwan et al., 2020). It is a collection of information managed, stored in digital format and accessible and serviceable through network (Arms, 2000). Digital library is the one whose collection content and management process are all presented in the form of combined digital data. Library management gives more convenience through the library's automating function, and thereby make the library management process more efficient (Arum & Marfianti, 2021). This digital library is developed in the library to facilitate the users to search for information, procedure of borrowing, and utilizing library for 24 hours.

Hybrid library is a combination of conventional library or the one with printed-form collection materials and digital library where information packaged in electronic or digital and printed media are used simultaneously and in overlapping manner (Pendit, 2017). Providing a variety of digital collections can be done without abandoning the printed-form collection using system to meet the users' need for information without temporal and spatial borders, and technology will help the performance of library. The printed collection materials are still needed as the source of reference until today. Printed collection material is also a unity inseparable from library and the use of printed and non-printed collection materials is called hybrid library.

Internet service is a digital service available most widely in the library, and most of librarians have computer operating skill. However, inadequate electricity supply becomes the main problems affecting digital service in the university library (Atanda et al., 2020).

The three factors underlying the implementation of collaborative governance in improving information literacy are inadequate human resource, budget, and policy regulation. The strategies taken to improving information literacy, are among others, to increase the quantity of collection, constructing reading corner, mobile library service, library as the activity center to hold competition and to cooperate with each other. Collaborative governance is a starting condition, an institutional design, a facilitative leadership, and collaboration; supporting factors are stakeholders, information sharing, and private grant and the inhibiting factors are inadequate support from village government and inadequate commitment from the management of village library (Sekedang, 2021). Open Library makes collaboration to improve the library's service and as the branding to make its existence more recognized. Collaboration is built by referring to a specific strategy. The selection of collaboration partner refers to the shared vision and mission. The type of activity done is to hold a variety of literacy events for academic community and people, and to improve access to information source. Evaluation process is conducted by holding a meeting following the completion of an event and distributing questionnaire to the participants. The constraint often encountered is misunderstanding, and thereby good communication and relation should be established with all partners. Open Library has public relations librarian serving actively to built collaboration (Komariah et al., 2021). Digital era makes presenting service in digital form an imperative; it is in line with the following statement: *"E-government refers to the delivery of government information and services online through the Internet or other digital means"* (Nico, 2007).

This article aims to analyze digital collaborative governance of library in developing e-library in the Technical Implementing Unit of Sebelas Maret University's Library

2. Method

The research method used was descriptive qualitative. The subjects of research were user, library staff, librarian, and IT organizer in UNS's Library. The research was conducted in April-July 2022 in UNS' Library Technical

Implementing Unit (thereafter called UPT Perpustakaan UNS). The instruments of research were observation and in-depth interview. Data validation was conducted using source triangulation and data analysis using an interactive model of analysis.

3. Results and Discussion

Technology development and situation occurring in Universitas Sebelas Maretcampus environment require the library to be creative and innovative in improving a variety of library services. The availability of internet and information technology-based applications facilitate everyone to access information without the need for coming to the library closely related to the presence of staff, opening hours, and technology utilization, because they can get it regardless temporal and spatial borders. Varying information can be accessed easily from home, boarding house, office, shop and even restaurant, as long as internet and its connecting equipment are available.

A library, as an institution that should update various services, is required obligatorily to catch the technology development. Library provides books/journals (printed collection) and completed with e journal/e book collection (electronic collection) that can be accessed through cellular phone or computer. Seeing majority of people are smartphone users, library prepares the service applications that can also be accessed through smartphone. Smartphone will be a standard vehicle to access internet replacing computer-based ware soon (Kubat, 2017).

In addition, the activities held offline previously in the library can be held in hybrid system in the presence of varying technologies, for example the organization of webinar and online workshop. Workshop can be held online by utilizing communication applications like zoom, Gmeet and other applications. The availability of such applications enables the consultation to be done online as well. Technology use in library service aims to facilitate the users to access various services provided by library more effectively and efficiently. Technology advance accelerates the use of library resource, improve library performance, and improve academic performance and service, and thereby improve the productivity of library services (Zhang, 2022)

UPT Perpustakaan UNS provides a variety of collections, either printed or electronic. Printed collection is provided in each of collection rooms and the facility of searching data of literature material in UPT Perpustakaan UNS through link: https://unsla.uns.ac.id. Electronic collection can be accessed at https://digilib.uns.ac.id/ (local content collection). e-journal and e-book collections are electronic journal or book collections packaged in the form of electronic file and the information can be traced using internet network, and can be accessed at https://ezproxy.uns.ac.id/.

The borrowing of collection is conducted manually by borrowing directly to the library staff, and then the staff processes the book. All collections managed gradually to be borrowed and returned independently. Currently, only few collections have been served independently using RFID (Radio Frequency Identification). The extension of collection borrowing can be done directly by both coming to the library and using Telegram application.

Due to Covid-19 pandemic occurring globally bringing many changes, the library is required to keep existent to provide service without face-to-face contact with the users. The presence of communication technology becomes a vehicle to provide service conveniently that has been done rarely or never been done before. User education, as an activity to introduce library to the students, particularly new students, can be done online compared with that done face-to-face previously, even the library tour activity to the new students, can also be done online (virtual library tour) (Foley & Bertel, 2015). Seminar and workshop events are also held online. Some online activities held by UPT Perpustakaan UNS are, among others, Online Workshop series to improve the literacy of UNS academic community in using journal database and tools that can be used to help research and lecturing such as database Scopus, turnitin, and etc (UPT Perpustakaan UNS, 2022b), User education, the activity to introduce collection and service provided by UNS library to the 2021/2022-generation new students was held online (UPT Perpustakaan UNS, 2022a) and some others library activities are held using digital devices.

Digital era leads the people in this era, particularly college students, to have lifestyle inseparable from internet. Technology becomes a tool that can help hold some activities, particularly teaching-learning process. It makes

internet the basic need of students. UPT Perpustakaan UNS is equipped with wifi facility available for free, using Single Sign On (SSO) UNS. The students can access wifi for free by registering using SSO they have.

Some hardware needed are, among others, electricity network, internet network, computer network to connect data and to store data of manuscript that ha been scanned. Scanner is used to scan the page that will be transferred into other media. Rope to bundle the manuscript that has been cut to be scanned to prevent it from being mixed with other manuscripts. The collection digitalized is the collection of final projects and Javanese manuscript. Meanwhile, to provide the paper cutting tool, the library cooperates with the third party. Software available includes digilib system and application in pdf format to convert the file. The procedure of digital media transfer in UPT Perpustakaan UNS can be seen in Figure 1.
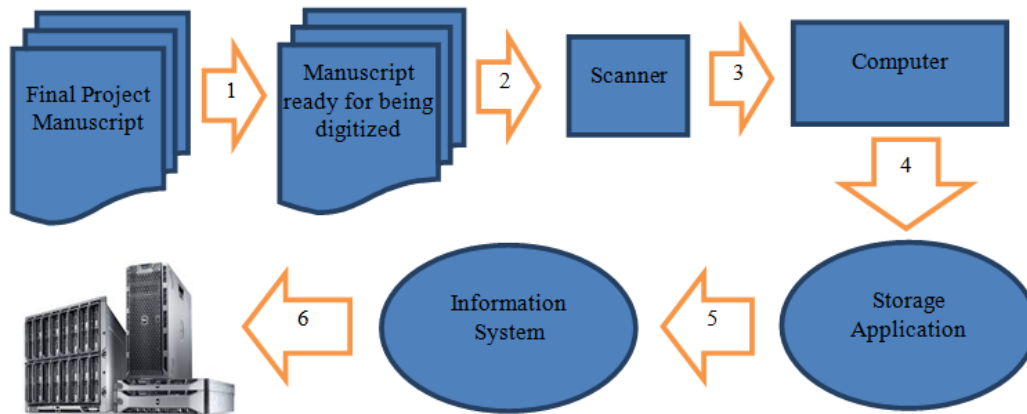

Figure 1: Procedure of media transfer for the final project

Notes:
1. The manuscript of final project is released from its bundle
2. The pages of manuscript are scanned
3. The scanned manuscript is stored in the computer
4. The output stored in the computer is then processed in such a way using the application employed, such application to collate and to give watermark.
5. Soft-file is then uploaded into system
6. Storage is in the server

UPT Perpustakaan UNS always collaborates with many government institutions and colleges or universities, either public or private. The signing of Memorandum of Understanding (MoU) is conducted with various institutions including, among others, UMS (Muhammadiyah University of Surakarta) library, Politama Surakarta, and the libraries of STIKES (Health Science College) Kusuma Husada, STIKES (Health Science College) BHM, Universitas Wahidiyah Kediri, STIE AAS (Economics College of Surakarta Academician Mandate), STKIP PGRI Pacitan (Teacher Training and Education College of Republic of Indonesia Teacher Association of Pacitan), and Sekolah Tinggi Ilmu Ekonomi (STIE) (Economics College) AMA Salatiga, PT. Telkom, Regional Library and Archive Board (BPAD) of Daerah Istimewa Yogyakarta (Yogyakarta Special Region), SMPN 3 (Third State Junior High School of) Karangpandan Karanganyar, Musamus University and other institutions. Through the collaboration, mutualistic symbiosis is expected to grow between the two institutions and thereby can improve institutional relation in both formal and non-formal education, research, and service to the people, library field development in the term of providing joint collection utilization service and library development.

In addition, building closer cooperative network is related to institution accreditation, campus development, sharing the library's collection, and optimizing information and communication technology mastery. Institutional collaboration and access to information literacy as widely as possible particularly the parties, and thereby can create a smart, superior, and competitive generation and can provide entrepreneurship library and provide income

generating to the library. The cooperation is expected to be synergic and sustainable (UPT Perpustakaan UNS, 2016).

It is in line with BF, a student of International Relation, Faculty of Social and Political Science, UNS, stating that the presence of collaboration can support the existence of digital library because in ever-changing era, the library is required to follow the existing development. Library needs to makes some innovations particularly in developing its digital feature to keep surviving. In creating the innovation, collaboration is, of course, needed. Collaboration needs to be done to create more interesting innovative ideas. For example, both government and public or private company have collaborated to provide digital reading sources, digital journal, and turnitin service desirable to the students. The collaboration should be prevented from producing undesirable output to the market.

In this ever developing era, all institutions, groups, units and even company should collaborate. Collaboration is intended to share knowledge and idea to be shared (exchanged) to create new innovation. For example, the government has had Freedom-to-Learn – Independent Campus activity (Merdeka Belajar – Kampus Merdeka or MBKM) with collaboration being the main point. This opportunity should be used by UNS library to exchange knowledge and idea with other university. Thus, digital service knowledge/technology existing here and in other universities can be overlapping and create advance.

However, in collaboration, sustainability aspect is required to make the collaboration running not only once or twice but continuously particularly with new parties and thereby results in new innovations that makes digital library surviving in facing the change of time.

Digital libraries should always collaborate in the attempt of improving literacy, this collaboration is made through one data library with national coverage using big data technology, and thus, the availability of data or information originating from one data library can improve knowledge, help the author access all digital information, help solve information gap, and enable the information to be accessed evenly by the users (Wasitarini, 2019).

The requirement of students' graduation is, among others, to write scientific work in the form of Final Project to Undergraduate (Diploma) students, Minithesis to Graduate (S1) students, thesis to master (S2) students, and dissertation to doctorate (S3) students. A very wide space is required to store these works. The more the works produced, the more overloaded the space will be. UNS yields ± 1,000 students annually. The number is followed with the number of final project manuscript received by the library. In the attempt of storing the students' work, the Chairperson of UPT Perpustakaan UNS makes a policy to convert the existing works into other media, while for the further works, the manuscripts are delivered in electronic format that can be uploaded independently online through sending it via email. The work will be stored in the repository that can be accessed at digilib.uns.ac.id. The content that has been uploaded or stored in the digital library application is then stored in the existing service in Information and Computer Technology-Technical Implementing Unit of UNS, including all database available in the library.

It is in line with DH, a student of History Study Program, FKIP UNS, stating that the maintenance of digital library is required between IT of Library and UPT ITK UNS when IT of Library finds unsolvable technical problem. Thus, cooperating with UPT ITK UNS can make the problem solved well and immediately.

UPT Perpustakaan UNS always updates itself as it is required to serve everyone who needs information, from the manual one originally into the technology-based one; thus, the users will expectedly acquire information needed and the existence of library can be maintained amid the very large number of other information providing institution. If library does not follow the development, it will be abandoned by its users.

The presence of digital collaborative governance will offer the users the convenience to access electronic sources, and thereby can improve the users' satisfaction in using library. The users utilize information sources regardless the operating hour of library, and they can access it anywhere, anytime regardless spatial and temporal border as long as the computer internet works well. Through handphone (cellular phone), the users can access information

existing in the library. Digital library is a solution to the problem of limited access. Somehow, library will keep innovating to develop the users' appeal to use library more and more.

It is in line with AV, an accounting student of FEB UNS, stating that there is an increase in the use of facilities and infrastructures in UPT Perpustakaan UNS during the transition period from online to offline learning activity. For example, the return of book conducted using self-service concept in the entrance of library lobby is something new to the students. In addition to being more efficient and effective, such self service-based service builds digital library's future image among the users.

The digital-based information tracking service in UPT Perpustakaan UNS, OPAC SLiMS 8.5 (Akasia), is available to facilitate the search for library collection. Online Public Access Catalog (OPAC) is a facility to search for the data of literature collection. OPAC can be accessed at https://unsla.uns.ac.id. Computer facility is provided to access OPAC in every room; in addition, the users can use their own gadget and it enables the users to search for the collection material needed easily. OPAC will provide information related to the collection owned by UPT Perpustakaan UNS.

The procedure of searching using OPAC starts with entering one or more keywords from title, author, or subject, and then clicking search; in addition, it can be done through specific search. Furthermore, the detail of collection selected will appear, if the status of available appears, it means that the collection is available in the room and on the shelf, and ready to be borrowed, but if the status of borrowed appears, it means that the collection is borrowed and has not been returned.

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The students can get recommendation, after they have fulfilled certain conditions. The requirements or conditions to be fulfilled by the students who will attend graduation ceremony are to submit the file of final project that has been approved, not borrowing any book, not having fine to be paid for the delayed book return, and submitting the donation of book. Meanwhile, the students who will move to other university or resign should meet two conditions: not borrowing book and not having fine to be paid for the delayed book return.

The service of free-of borrowing statement (surat bebas pustaka) is implemented online during pandemic through the email of library. The students who want to get the free-of borrowing statement but still have book borrowed and fine to be paid can send the book they have borrowed through expedition service like gosend, JNE, post office, etc. The payment of fine for the delayed book return can be transferred to the bank account specified. The submission of final project file is done via the library's email. Meanwhile, book donation program is nullified during pandemic, but for the students who have submitted donation, it will be received and processed further.

The students who will attend graduate ceremony, move to other university and resign are required obligatorily to submit the free-of borrowing statement. D3, S1, S2, and S3 students who have graduated should upload their final project scientific work (minithesis, thesis, dissertation) independently, because the library no longer receives it in hard copy or printed format. Since January 2022, the UPT Perpustakaan UNS has applied the procedure of uploading final project independently through https://digilib.uns.ac.id/ by login SSO; the procedure also applies to the process of free-of-library book borrowing.

In the presence of independent upload service, the students can upload the document of final project report independently, without the need for coming to the library. Librarian will verify the document uploaded and then the students can print the statement of final project submission to the library themselves. This independent upload service is expected to facilitate the service to the users.

UPT Perpustakaan UNS always attempts to facilitate social media such as telegram application to provide book borrowing extension service independently. Thus, the students no longer needs to come and to bring the book to the library to extend the book borrowing period, as it can be done anywhere and anytime. The regulation of extension through telegram is as same as the manual one, in which the borrowing period can be extended twice since the first borrowing for a seven-day period since the date of extension, as long as the borrowing period of the book to be extended has not passed the borrowing due date. The book borrowing extension service using SMS is no longer effective since September 2, 2019 and transferred into telegram application.

Book delivery order is a delivery service for borrowing and returning book. It is a service adapted to follow information technology development aiming to facilitate the users in the library basic activities, book borrowing and returning. The book borrowing activity during pandemic takes a sufficiently long time because the users should come to the library to search for and to find the information on the book needed.

The delivery order service in UPT Perpustakaan UNS is a solution to the problems occurring in online book borrowing service system. Using the book delivery order system, the users can borrow and return the book without coming to the library, and everything can be done quickly and appropriately.

Scientific literature clinic is a service providing consultation and guidance to all S-1, S-2, S-3 students and lecturer likely still finding difficulty in accessing e-journal and e-book subscribed by UNS. The Scientific Literature Clinic Service Program is intended to accelerate and to empower all subscriptions of electronic journal and book subscribed to all academic community and to improve the students and the lecturers' reading interest and need to make library the center of reading, research, community service, and information service.

During pandemic, librarian consultation can be done through whatshap, sms, phone, email and chatting. Librarian can serve direct (offline) consultation during operating hour only, but online consultation can be done anytime and anywhere according to the agreement. This online consultation involves consultation about access to electronic information, plagiarism checker, and reference tools (zotero/mendeley), administration service, and final project writing.

UPT Perpustakaan UNS provides turnitin software to check scientific and writing works of students, lecturer, and other academic community. Every student who is writing final project is required obligatorily to check his/her work to ensure it is free of plagiarism in the library. Lecturers and librarians can get this service for free. The file of scientific work can be sent to the library's email, and then the staff will check the plagiarism rate using software existing in the library. The result of checking will be sent to the email of corresponding persons.

UPT Perpustakaan provides Self Access Terminal(SAT) room to give internet access to users and academic community and non-academic community of UNS to trace information online. SAT is currently located in the first (1st) floor of UPT Perpustakaan UNS west building. The users can access it using their own laptop or PC available, in which internet cable and wifi are available for fast and good internet connection.

4. Conclusions

The information technology development can be caught as an opportunity of innovating. Library serves to provide service to all stakeholders either online or offline; thus, the users' need for information supporting the learning process can be fulfilled for lecturer, students, and educating staff. Service and collection are developed into digital format gradually. E-library can be built through digital collaborative governance, through collaborating with related units such as Information Technology and Computer Technical Implementing Unit (UPT Teknologi Informasi dan Komputer) in developing digital service, students, and other institutions. The improvement of devices is needed, including hardware and software, to ensure that the system can run smoothly. The intensity of digital library collaboration between universities, schools, government and private institutions should be improved and sustainable. The collaboration in developing e-library can improve service into the faster, more efficient and systematic one.

5. Funding

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