

LIBRARY DEVELOPMENT IN 21ST CENTURY

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Abstract

Library is one of the important institutions in searching information. Towards the technology development how library changes as aligned with the technology changes. This brings physical library changes to digital library or hybrid library. This research focus the development of library in 21st century and it aims how library meet the needs of users by adjusting their systems aligned with changing technology environment. Apart from that, it also states the challenges and the impact in implement the technology in library.

Keywords: Technology, digital library, challenges, impact, development of library,

1. Introduction

The development of technology nowadays has changed a little bit of infrastructure in the library. Compared to the library in the past, libraries nowadays have been upgraded in terms of classification catalog the diversity of sources of reading material (other than books, reading material now available on DVD, sound recording, journal, non-printed material (online sources), electronic sources and so on), and also in terms of facilities that provided in the library itself.

In the 21st century, the development of many technological changes affects the library. The changes can be seen is where the first library not have self-checkup machine, but now many libraries whether academic, public and also special library have these machines. Similarly, the book return activities, now they no longer need go to the counter to return books but only use the book drop to return books. In the past, users or librarian using book library catalog to find books on the shelves, but now with the existence of OPAC (Online Public Access Catalog), it enables users to access the reading material you're looking for and speed up time to find reading materials on the shelves.

The development of technology needs the librarian to locate new services within typical organization charts, put things like digital publishing, scholarly communication support, or information management consultation, and also about the structure and metadata for library databases and Web sites. It is because these are increasingly important services (Pritchard, 2008).

Now, most of the institutions create a hybrid library where users can go to the physical library or access to the library's website. However, even with the establishment of a virtual library, not all users know how to use. It requires explanation and guidance to know how to use the system. In fact, not just be trained to the users but also need

training to librarians so they can use the system and apply it to help the user library. Then, despite the availability of such a virtual library that allows users to search in terms of reading materials and information, but there is still using the traditional way.

Through the development of 21st century technology, we come out with this research about the study on library relevancy in 21st century. This research mainly focus on the role of library in the era of 21st century and how the technology change library and it impact to the users.

In this paper, several issues are discussed regarding on what library faced due to the changes of technology environment. Even we are in the era of 21st century but we still have a library that use the traditional way in their daily operation (Shill & Tonner, 2004). Virtual library is not exposed to school's library due to the perception that virtual library have no use to school's teachers and students. Then, not all the users can adapt with the changes in the library especially the older and some of citizens. This is because to build library with full technology it too costly. Other than that, not all the collection in digital form. The aim of this study is to identify the challenges and it impact facing by library when technology is developed in management library. In order to achieve this aim, we review previous study on related topic to identify the gap that need to be studied.

The remainder of this paper is organized as follows. Section 2 is literature review. Proposed framework is in Section 3. Section 4 contains some concluding remarks.

2. Literature Review

In the 21st century, the digital revolution rapidly increasing. To remain relevant with the changes of technology, any institution, including one as established as libraries, must evaluate its place in a world increasingly lived online, (Hendrix, 2010). With technology changing so rapidly, sometimes it gives a bit of a challenge to the institution of the library itself, in making changes in line with the existing technology. Challenges facing library in the digital age can be classified in the terms of classification, facility, staffing, and funding.

Aligned with the development of technology, in terms of collection should also be emphasized that the library needs to balance the collection in printed form and also in the development of digital form. According to Buckland (2017), he state that collection development in digital age is the most important. Despite with all the digital resources, but there are challenges where library users come from with different level computers competencies (Bandyopadhyay, 2016). The system uses in searching the collection in library have limitation in retrieve the collections (Jervis, 2010).

Secondly in terms of facility, the context of mass digitisation, internet search engines may be many people's research instrument of choice (Haigh, 2006). The challenge in creating facilities that are aligned with current technology is where the limits of knowledge about consumerism facilities such as self-checkup machine, book drop, and also of the use OPAC (Online Public Access Catalog) in the process of finding the collections available in the library. Users today are experts in technology, even Generation Y or Gen Y itself are born in technology world. This matter have stressed out by (Gardner & Eng, 2005).

Third, staff library also faced the challenges towards the changes of technology. The age limit of librarians working in libraries, sometimes it's a challenge because they take time to understand the use of this technology. And some of them refuse to adapt and work with technology because they think it's something complicated. According to Hendrix (2010), there need to the librarian, as they know what the system have being use in the library. Due to changes of technology, librarian have faced privacy issue, where they need to secure the personal information in the library (Hess, 2015).

The fourth challenge is from the funding aspect. According to Le (2015), to create access to facilities which are aligned with the digital era requires high cost. Even in terms of the development of digital libraries also initially a high cost. Provision for libraries is sometimes not enough and need more funding. According to Nutefall (2012), state that the changes of technology required a high budget allocation but the allocation provided is insufficient. Today, most public libraries have faced budget cuts (Karas, 2011; Buchanan, 2012) due to that, how the technology can be implemented in library institution.

We also come out with the impact of digital library, in terms of librarian, citizen and also from negative aspect. The existence of digital library in this digital era will not change the main role of the library itself as the main centre of information and knowledge even though there are Internet as the main source of gaining information nowadays. According to Buckland (2017), the implementation of technology in library to become a digital library will make sure that the reliability of the technology is good which make we can depend on the technology better than the human thought and memories as the ability of the technology to retrieve the right information so fast.

In terms of librarians should being updated with the new technology so that they can assist the library user to use those kind of technology (Pun, 2014). This statement was supported by Nutefall and Chadwell (2017), where they stated that the technology that they should know any changes that occur and should always being updated with the current technology or system being implemented. The competencies of the librarians also will be increased because of the need for being updated with the current technology that require some other skills rather than skills required to be a normal physical librarian (Michnik, 2014).

Then, the impact to citizen since nowadays people wanted to get something quickly as the world is on the finger tips, the existence of digital library can solve the problem (Yalman & Kutluca, 2012). This is because digital library can be accessed from anywhere as long as there are Internet connection. Access through Internet also can make sure that the material can be accessed by many people at the same time, rather than traditional library where it has limited copy of the material, and the other user have to wait for the user who are using the material returning it back.

3. Proposed Framework

Even though digital library can contribute more to the management and the users, it also have disadvantages. Besides the collection of digital library come from the digitization of traditional library's collection, there are also database that being subscribed by the library in as additional collection for their users. Besides, the need for

having reference librarian also becomes an issue when there already have the implementation of digital library. There is no more needed for reference librarian position in the library as the digital world can do the same thing (Cordell, 2013; Bandyopadhyay & Boyd-Byrnes, 2016).

From the figure 1 below is an illustration of the research framework from the article that I have study. From our research, we have come out our two independent variables based on our study. From the past research, have the researcher mention this two independent variables which are the challenges facing library in the digital age and the impact of digital library, while the dependent variable of this two independent variables is the development of library in 21st century.

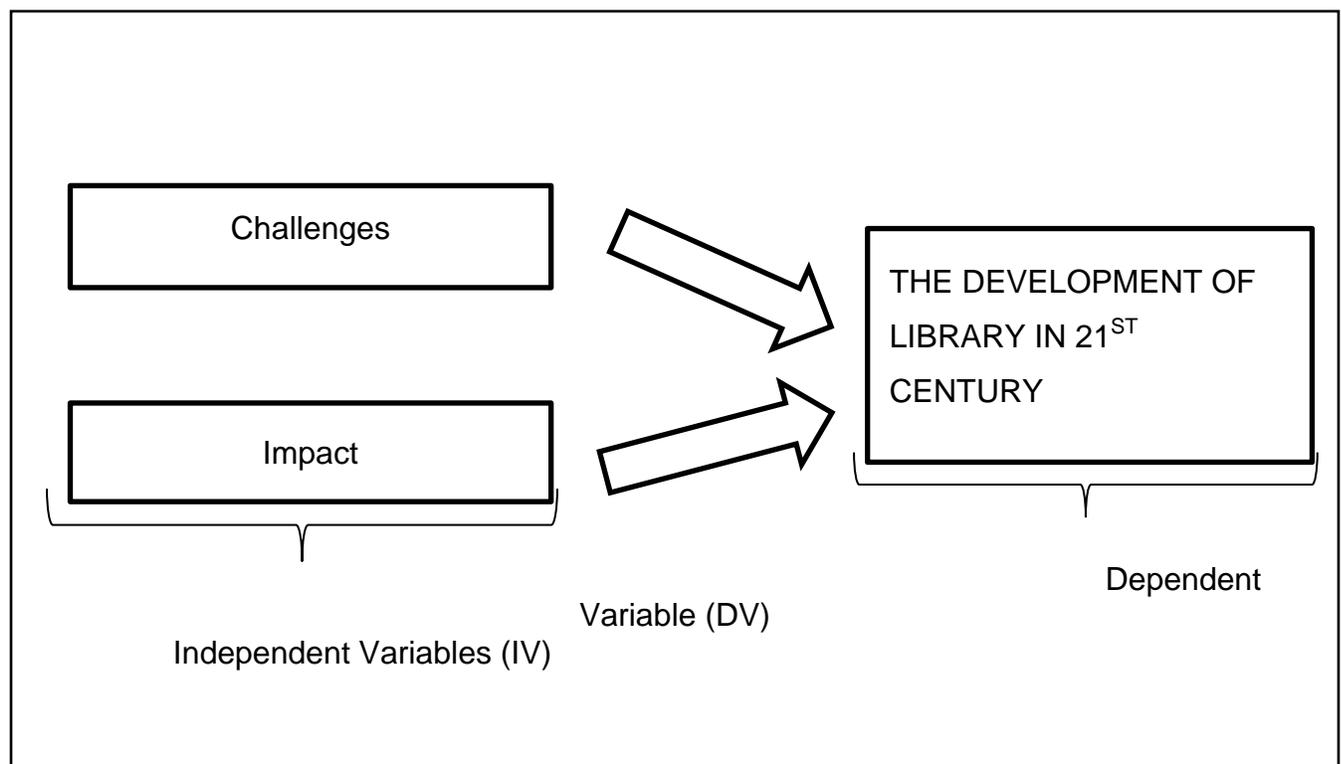


Figure 1. Research Framework

4. Conclusions

Library as the main institution that community use it in information seeking. Towards the technology changes, library institutions should aligned with the current technology because it is a necessity nowadays. Changes in technology have altered the usual library system. Even though the development of technology in library can help to solve most of the problem by traditional library, we have to consider the risk that we might face when we implementing the technology.

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