Indonesian LIS professionals' understanding of Library 2.0: a pilot study

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Abstract

The literature around Library 2.0 remains largely theoretical with few empirically studies and is particularly limited in developing countries such as Indonesia. This study addresses this gap and aims to provide information about the current state of knowledge on Indonesian LIS professionals' understanding of Library 2.0. The researchers used qualitative and quantitative approaches for this study, asking thirteen closed- and open-ended questions in an online survey. The researchers used descriptive and in vivo coding to analyze the responses. Through their analysis, they identified three themes: technology, interactivity, and awareness of Library 2.0. Respondents demonstrated awareness of Library 2.0 and a basic understanding of the roles of interactivity and technology in libraries. However, overreliance on technology used in libraries to conceptualize Library 2.0 without an emphasis on its core characteristics and principles could lead to the misalignment of limited resources. The study results will potentially strengthen the research base for Library 2.0 practice, as well as inform LIS curriculum in Indonesia so as to develop practitioners who are able to adapt to users' changing needs and expectations. It is expected that the preliminary data of this study could be used to design a much larger and more complex future research project in this area.

Keywords Library 2.0, participatory library, Library and Information Studies, librarians, information professionals, Indonesia.

Introduction

Library and information science (LIS) professionals in developing countries are beginning to investigate the possibilities of implementing Library 2.0 principles and tools into their library practices. In other parts of the world, the concept of Library 2.0 has been discussed extensively in the last decade and is therefore not an entirely new concept. However, Library 2.0, whether called the "participatory library" (Nguyen, Partridge, and

Edwards 2012) or other terms, is of increasing interest to Indonesian LIS professionals. To avoid wasting already severely limited library funding in developing countries such as Indonesia, it is important that those involved in library services have a strong understanding of Library 2.0 principles before they begin implementing them. By determining the current state of knowledge of Indonesian LIS professionals' understanding of Library 2.0, this study aims to provide a foundation for further research and development of Library 2.0 services.

Nguyen Linh Cuong, Helen Partridge and Sylvia Edwards (2012), using the term "participatory library," noted the need for empirical studies that explore professionals' understanding of this concept. However, few empirical studies have been reported. Additionally, research on this topic is either limited or non-existent in developing countries. This paper explores Indonesian LIS professionals' understanding of Library 2.0 and provides suggestions for effectively putting Library 2.0 principles into practice. This research is concerned with the specific context of Indonesia, but many developing countries share the same limiting characteristics that can make innovation in libraries challenging, such as tight budgets, varying levels of technological infrastructure, and resistance from governing bodies. Additionally, even in more affluent countries, individual communities may have more limited standards of living or economic prospects. Libraries everywhere have budget challenges, limiting their abilities to experiment with costly investments in potentially unnecessary technology. By closely examining the responses of the participants in this study, we can begin to understand how professionals with limited resources think about Library 2.0, which then can lead to the development of more effective programs and services.

Indonesian Context

Indonesia comprises approximately 17,508 islands, 6,000 of which are currently inhabited (CIA 2013) with a total population of approximately 242.3 million in 2011 (The World Bank 2013). Indonesia has more than 100,000 libraries and information centers serving this large and scattered population (Liem 2014). [2] According to the Law of the Republic of Indonesia number 43 of 2007, concerning libraries (2007, s.7), Indonesia has five types of libraries: national libraries, public libraries, school/Islamic school libraries, academic libraries, and special libraries. In addition, since 2010, the National Library of Indonesia also has seven floating libraries to reach users in isolated areas (Ali and Rahmawati 2013).

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[2] This quote is a translation by the author.

LIS education in Indonesia is less well-developed than in more wealthy nations. There are not many LIS programs available due to limited LIS academics. Ina Liem (2014, B) notes that "there are only about 20 schools that offer Diploma and Undergraduate study, five schools offer Postgraduate study, and only one school offers Doctoral studies (first Doctoral-granting class started in 2012)." [3] Limited LIS programs result in limited LIS school graduates. As a result, there are many people who work in the LIS sector who have not graduated from LIS academic programs. Moreover, some LIS workers have not attained degrees beyond high school diplomas. This condition blurs the concept of LIS professionals in Indonesia.

Furthermore, the Indonesian library and information association Ikatan Pustakawan Indonesia has not maximized its role to provide certification for Indonesian LIS professionals. Instead, the National Library of Indonesia took the initiative to provide certification. This certificate must be renewed every five years. To gain this certificate, Indonesian LIS professionals have to apply for the certificate, provide required documents, and take a written test to show that they are competent and eligible as LIS professionals. Indonesian LIS program graduates do not automatically get certification as LIS professionals after they finish their study even though they have graduated from accredited LIS programs. This happens because IPI has not built a partnership with the National Accreditation Board for Higher Education, which acts to assess and provide accreditation for higher education programs in Indonesia. Consequently, many Indonesian LIS professionals do not have a professional certificate even though they graduated from accredited LIS programs and have worked in the LIS sector for years.

In addition, as a developing country, Indonesia faces many socio-political issues including infrastructure development across the islands, social cohesion, and economic development. With so many pressing demands, library funding does not enjoy primary attention from the government. A survey conducted in 2003 by the Indonesian University Libraries Forum, Forum Perpustakaan Perguruan Tinggi Indonesia, found that "only five of 125 universities have allocated five percent of their budgets [as library budget] while 40 percent of them allocated less than two percent" (Fahmi 2005, 38). With such restricted library budgets, it is important for librarians to have a strong understanding of Library 2.0 in order to strategically employ these concepts in their library services.

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[3] This quote is a translation by the author.

Literature Review

A brief review of the literature relevant to this study is presented below. It is not intended to be exhaustive; the theories and relationship between libraries, technology (particularly Web 2.0), Library 2.0, and the concept of the participatory library are discussed. Theories provided in this literature review were used in developing the survey instrument, coding, and as a benchmark for working with the data.

Library 2.0 and Participatory Library

The term Library 2.0 was first coined by Michael Casey in his blog *Library Crunch* in 2005. Since then, Library 2.0 has had multiple definitions from different sources, which has led to some confusion (Lankes, Silverstein, and Nicholson 2007; Nguyen, Partridge, and Edwards 2012). In general, Library 2.0 refers to a combination of the library's physical and virtual space and services in creating a "user-centered environment" to fulfill users' needs and facilitate content creation and community building (Casey and Savastinuk 2006; Chad and Miller 2005; Courtney 2007; Sodt and Summey 2009, 98).

Adding to the ambiguity of the term, "participatory library" is sometimes used interchangeably with "Library 2.0." For example, Nguyen, Partridge and Edwards (2012) advocated using the term "participatory library" to maintain focus on the central role of participation. Regardless of the recommendation from these scholars, in this study the researchers chose to use the term Library 2.0 due to the popularity of the term in the pre-study survey. Despite the waning popularity of the Library 2.0 term, the core principles are still important and worth investigating further.

Michael Casey and Laura Savastinuk (2007, 5) describe Library 2.0 as:
- a model for constant and purposeful change;
- empowering library users through participatory, user-driven services;
- a way to improve services to current library users while also reaching out to potential library users.

They also note that Library 2.0 gives users "the opportunity to assist in the creation and content management of services" to improve library services (Casey and Savastinuk 2007, 6). The fact that technology is not mentioned in their discussion of Library 2.0 illustrates that it is not the main component; technology is just one tool for reaching library users. In contrast, a traditional book suggestion box in rural libraries is one example of Library 2.0 implementations without the use of technology. Moreover, Casey and Savastinuk (2007, 6) emphasize that "those libraries that change their operations and ways of thinking to include

the fundamental elements of Library 2.0, user empowerment and constant change, will be better able to reach current and potential users than will those who just buy a bunch of new cool toys."

Although technology is not necessary for Library 2.0, many argue that the implementation of technology—specifically, participatory Web 2.0 tools—is important to more fully support Library 2.0 principles (Lankes, Silverstein, and Nicholson 2007). Web 2.0 is also referred to as participatory Web, social Web, participative Web, or read/write Web (BBC 2005; O'Reilly 2005; OECD 2007; Parameswaran and Whinston 2007). The "correct" definition and most appropriate term for these Web services are still heavily debated. Tim O'Reilly (2005) argues that some people define the term Web 2.0 as a marketing buzzword, while others acknowledge it as the new conventional wisdom. Similarly, San Murugesan (2007, 35) assumes there will not be adequate agreement on a single term or definition of these participatory Web services because "the underlying phenomenon is huge." For the purpose of maintaining consistency within this paper, the term "Web 2.0" will be used to refer to these user-centered Web services.

Libraries can take advantage of Web 2.0 tools to facilitate users' participation in the Library 2.0 concept. Casey and Savastinuk (2006, 40) argue that Web 2.0 technologies "play a significant role in a library's ability to keep up with the changing needs of its users." Furthermore, Ken Chad and Paul Miller (2005) highlight the need for Web 2.0 applications for libraries to meet the expectations of today's users, who are accustomed to evolving and increasingly user-friendly Web interfaces. These user expectations are paramount in other studies that found that libraries must be in the same virtual spaces their users inhabit or risk losing them (Sodt and Summey 2009; King and Brown 2009). Understanding the implementation and advantages of Web 2.0 is "the key to librarians' abilities to conceptualize Library 2.0" (Stephens and Collins 2007, 253).

Library 2.0 Research

As mentioned above, Library 2.0 issues have been discussed in the literature since 2005. However, it was noted that user empowerment, arguably the most important element in Library 2.0, has received less attention (Casey and Savastinuk 2007). Even though the underlying concept of Library 2.0 is complex, Michael Stephens and Maria Collins (2007, 255) argue that "cool technologies" still tend to be a focus in the literature and in conference presentations. Therefore, it is not surprising that the use of Web 2.0 tools in libraries is well-

covered compared to empirically-based research on Library 2.0 principles. For example, the use of Web 2.0 tools in academic libraries to build Library 2.0 services has been studied in the United States (Cooper and May 2009; Xu, Ouyang, and Chu 2009), Australia, Canada, and the U.K. (Tripathi and Kumar 2010).

This focus on technology has also been true for studies conducted in the developing world. In Africa, implementation of Library 2.0 services, with the main focus on the use of Web 2.0 technology, has not been embraced in a number of African academic and research libraries (Munatsi 2010). Ivan Chew (2009) explores how library institutions in the South East Asia region (Hong Kong, India, Indonesia, Japan, Malaysia, Republic of China, Philippines, Singapore and Taiwan) have implemented Web 2.0 technologies. The study found that more academic libraries were using Web 2.0 technologies than public libraries, with blogs and RSS feeds featured as the most commonly used tools. In both studies, the authors focus on the use of Web 2.0 technologies to conceptualize Library 2.0 services.

However, there are currently very few articles on Library 2.0 practices in Indonesia. Studies by Hendro Wicaksono (2010) and Rosa Widyawan (2010) note the implementation of Web 2.0 tools in libraries to improve services. However, these studies focus on the use of Web 2.0 technology without a deeper discussion of the characteristics and basic principles of Library 2.0 itself. Another study by Blasius Sudarsono (2010, 4), specifically explores the non-technological aspects of Library 2.0 principles concluding that "participation is the main concept of Library 2.0, not technology." [4] There appears to be no evidence-based research exploring how Indonesian LIS professionals' understand the basic concepts of Library 2.0.

The current study aims to fill this gap, taking into consideration the vagaries of Library 2.0 definitions and current usage. The researchers included both of the terms "Library 2.0" and "participatory library" in the questions to tease out what effect the words themselves have on participants' comprehension and understanding. Additionally, the study explored how the description of Library 2.0 principles in the literature has actually been translated from theory into practice.

Methods

This study used a survey to learn about Indonesian LIS professionals' knowledge of Library 2.0. Heidi Julien (2008, 846) notes that "survey research refers to the set of methods

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[4] This quote is a translation by the author.

used to gather data in a systematic way from a range of individuals, organizations, or other units of interest." The researchers chose this methodology to further test the results from a sample of 39 participants.

Data Collection

Data was collected for four weeks in March and April 2013 using a Google Forms online survey. An online survey was the most suitable way to collect data for this study because Indonesia is a geographically dispersed country and an online survey "can be logistically easier to handle for both the researcher and the respondent ... [and] more cost-effective when balancing investment against the potential number of respondents who are not bound by geographical barriers" (Julien 2008, 847).

A combination of closed- and open-ended questions was used to investigate the research question. Closed-ended questions were used to collect demographic information. Open-ended questions, which provide participants "the freedom to respond to the questions in unique ways" (Julien 2008, 848), were the primary focus, allowed participants to express their opinions and experiences in their own words. This survey consisted of thirteen questions and is included in the Appendix.

Participants

As described earlier, the concept of LIS professionals in Indonesia is continuously evolving. For this reason, clear restrictions for participant recruitment were necessary for this study. To minimize bias, the researchers decided to include Indonesian LIS professionals who have attained at least an undergraduate degree in LIS. Information was provided on the recruitment material to facilitate self-screening on the part of participants, and help them to decide for themselves if they matched the researchers' criteria.

As a starting point for participant recruitment, the researchers used convenience sampling techniques through a recruitment posting to seven Indonesian LIS professionals' Facebook groups in the researchers' professional network. Due to the difficulty in precisely identifying the target group, convenience sampling is appropriate for this study (Phua 2004). The advantage of this technique is that it "involves selecting sample units that are readily accessible to the researchers" (Phua 2004, 198). However, the researchers were also aware that although studies using this technique "may yield intriguing findings, they suffer from the inability to generalize beyond the samples" (Phua 2004, 198). Due to this fact, the researchers also used snowball sampling to minimize bias potentially introduced by convenience

sampling. The snowball sampling in this study involved a viral promotional technique by inviting the original participants to distribute messages about the study to their own networks. Information sharing using viral promotional techniques is commonplace in social media (Thackeray et al. 2008; Mangold and Faulds 2009).

Submitting the completed online questionnaire was considered an indication of participants' consent. Due to the nature of the anonymous and non-identifiable data collection, there was no way of knowing how many participants came from the original sample and how many came from referrals. In total, thirty-nine subjects participated in the study (see Table 1). Participants are referred to in this article by their identification number (ID1 to ID39).

Total 39 participants

Gender		Age		Sector		Location	
Female	17	18 - 24	4	Academic	14	Central Java	5
Male	22	25 - 30	11	Public	2	East Java	6
		31 - 40	17	School	3	Jakarta	9
		41 - 50	7	Special	15	North Maluku	1
		50+	0	Others	5	South Sumatera	3
						West Java	13
						West Sumatera	1
						Yogyakarta	1

Table 1 Description of participant demographics

The number of male participants (22) was slightly higher than the number of female participants (17). Participants' ages ranged from 18 to 50 with the largest number of participants belonging to the age group 31 – 40 years old. All library sectors were represented, however the academic and special library sector had the most participants. The participants came from various locations in Indonesia, with the highest number of participants (32 percent) from West Java. According to Indonesia's population census in 2010, West Java is the most populated part of Indonesia with 43,053,732 residents (Badan Pusat Statistik 2010). As such, it was expected that West Java would have the highest number

of participants. Unfortunately, data describing Indonesian LIS professionals' demographics as a whole does not exist, so the researchers are unable to speculate as to how representative this sample of participants is. Therefore, this sampling might not scale up to the overall Indonesian LIS professionals' population, which is explained further in the limitations of the study section.

Data Analysis

Though the survey questions were in English, the participants were allowed to answer in either English or Bahasa Indonesia to help them express their ideas confidently. The researchers translated the few Bahasa Indonesia responses into English. Microsoft Excel was used to support the analysis of the quantitative data. Analysis of the qualitative data was conducted via manual coding using descriptive and in vivo coding techniques.

The researchers chose descriptive coding and in vivo coding as the most appropriate and flexible methods for this study. In the first cycle coding process, descriptive coding, also sometimes called topic coding, clarifies the main topic of a passage rather than a detailed description of the content. This allows the researchers to gain an overall or summative understanding of the recurring topics which can then be further distilled to the main themes (Saldana 2009). In vivo coding draws directly from the words of the participants, so it is appropriate for "studies that prioritize and honor the participant's voice" (Saldana 2009, 74). Therefore, in vivo coding was a highly useful approach for this research study, which aims to explore an abstract concept and understand how it relates to practice.

After the initial coding was finished, the researchers then "themed the data" (Saldana 2009, 139). This study used a constant comparative technique to interpret the data with the intention to discover "different aspects of the same phenomenon" (Corbin and Strauss 2008, 74). This method has been commonly applied in qualitative, quantitative and mixed-approach studies (White and Marsh 2006; Julien 2008). The data analysis process revealed three main themes in the data, which are discussed in the next section.

Results

The themes identified from this study were:
- Theme 1: Technology
- Theme 2: Interactivity
- Theme 3: Awareness of Library 2.0

Each theme is discussed in detail in the following sections.

Theme 1: Technology

Participants mentioned technology frequently, specifically Web 2.0 and social media tools. Typical words used were "internet," "online," "Web 2.0," "Web services," "IT" and "digital." In total, 46 of the responses across all questions specifically mentioned technology. This total does not include question number 12, which explicitly asked about Web 2.0 and was purposely placed at the end of the survey. For example, when asked to define Library 2.0 (question 6), two typical responses were:

ID1 - Internet, Online (email, chat, video call, etc.), Interaction (two-way communication).

ID29 - Information technology, Interactive, Online, Internet, Digital, Up to date.

When comparing Library 2.0 to a conventional library, the theme of technology was also prevalent with ten respondents (25 percent) citing technology, digital, or online tools as setting Library 2.0 apart. There were only eight respondents (20 percent) who indicated an understanding of technology as just one aspect of the Library 2.0 concept. For example:

ID15 - Library 2.0 is different from a conventional library because it has different concepts in delivering library services. It has a different approach in determining what services to deliver and puts more value on users' opinions and inputs to create the services. For further applications that rely on technology, Library 2.0 means that the services enable interactivity between the users and the library, such as online reference services, etc.

However, others made stronger distinctions between the two based solely on technology:

ID23 - Library 2.0 is different from a conventional library, in Library 2.0, everything is online, and there are no physical books, pages, library, and librarian; the applications are presented virtually, while in a conventional library, we will find physical books with actual covers and pages.

Despite the large number of technology-related responses, when asked directly what they thought the relationship was between Web 2.0 and Library 2.0, 15 of the 39 participants (39 percent) did not answer. The other 24 respondents responded with varied answers with 11 respondents drew clear connections between the two concepts, for example:

ID1 - Library 2.0 is a Web 2.0 for libraries.

ID12 - Web 2.0 is the main concept of Library 2.0.

ID34 - Library 2.0 is Web 2.0 in the library.

The overarching theme of technology contained two interesting sub-themes discovered in the research data: the need to incorporate Library 2.0 strategies because of the changing expectations of library users and the need to improve access to services. Twenty-five respondents (64 percent) mentioned that user expectations in general are important, for example:

> ID5 - It is important for libraries to incorporating Library 2.0 concept to help them fulfil the users' needs and expectations.

Four respondents noted the need for libraries to take into account the changing expectations of Generation Y users in particular:

> ID15 - Library 2.0 is important because a lot of things are changing. Rapid change in technology caused changes in users' information behavior. Moreover, today's users (Generation Y) have different expectations from library services than the previous generation. I think issues should be addressed by incorporating Library 2.0 in my library.

Another respondent highlighted the other side of the issue by pointing out that users may want advanced technology but still need guidance.

> ID21 - Our users are not ready to use Web tools in an ethical manner. When communicating in a digital world, which can be done anonymously, they tend to express negative statements. We are still working out how to educate them to be digitally literate.

Across all questions there were 15 participants who argued that through technology, Library 2.0 would improve information access for clients. Furthermore, seven participants highlighted the constant accessibility of online environments.

> ID28 - Library integrated with the Internet (social media)…Kind of a 24-hour library on the Internet.
>
> ID39 - Users can easily get access to library resources from wherever they are and whenever they need it.

Theme 2: Interactivity

Another key theme identified from the participant responses was interactivity. Terms such as "interaction" or "interactivity" were explicitly used by participants when asked to define Library 2.0 and the participatory library. Responses to other survey questions elicited similar concepts such as "community", "networking", "two-way communication", and

"collaboration". Interaction between clients and library services was described in a variety of ways. For example, libraries could provide online reference in order to interact with clients digitally. Another aspect mentioned was to allow clients to make changes to the library's public catalogue in the form of tagging. One respondent (ID3) envisioned a participatory library that encourages client participation through "Democratic indexing...Patrons involved in promoting the library. Patrons involved in collection development."

Twenty responses noted important aspects of interactivity that go beyond the benefits of giving feedback or assisting with library services such as tagging. Facilitated by technology, interaction can lead to active participation by users, which can then support openness and community creation. This ideal is represented in the following responses:

ID18 - A participatory library creates a sense of belonging.

ID24 - The library as a place for nurturing culture.

ID23 - Library 2.0 is not about access, but sharing. Library 2.0 recognizes that human beings do not seek and utilize information as individuals, but as communities and there is user participation.

ID12 - Library 2.0 is a kind of open-minded library, which is open to any ideas that come from its users.

Theme 3: Awareness of Library 2.0

Thirty-one of the participants (79 percent) reported that they had heard the term *Library 2.0* before. This level of awareness may reflect the length of time since the concept was first introduced. Interestingly, recognition of the term "participatory library," which has been discussed in the literature for roughly the same length of time, was nearly the inverse. In total, there were 28 of 39 participants (72 percent) who had not heard the term participatory library. This indicates a high awareness of Library 2.0 as jargon or the brand name description of the concept. However, the survey respondents did not make clear connections between the concept of Library 2.0 and its core aspects: participation and user empowerment.

When asked for a description of a participatory library, three participants demonstrated uncertainty about this concept:

ID10 - I am not sure. I think it is an old version of Library 2.0 without Web 2.0 technology.

ID34 - Libraries managed by community.

However, some respondents were able to make explicit the role of participation between both the library and its users in a participatory library:

ID2 - Participatory library is a library which enables and facilitates people/patrons to share their knowledge and produce new ideas as a result of that.

When directly asked to describe the relationship between Library 2.0 and a participatory library, respondents again either thought they were interchangeable or highlighted the role of technology in Library 2.0:

ID19 - It is the same concept, but Library 2.0 is supported by massive ICT and uses multimedia devices.

ID6 - I think Library 2.0 was born because of Web 2.0. Because Library 2.0 uses Web 2.0 as its tools.

However, there were two respondents (five percent) who showed an understanding of the relationship between Library 2.0 and participatory library:

ID15 - I think the concept of the participatory library already existed long before "Library 2.0" emerged as a new term. But when the technology of "Web 2.0" became a new trend, then people began to realize that they have the same concept and therefore changed the term of "participatory library" into "Library 2.0."

ID23 - Library 2.0 is adopting a concept from Web 2.0 and tightly integrating it (the concept) into their library services.

Discussion

As mentioned in the literature review, Library 2.0 has multiple definitions, which may lead to confusion. For this reason, rather than choosing one particular Library 2.0 definition, the researchers chose to use the characteristics of Library 2.0 as described by Casey and Savastinuk (2007) to inform the data analysis.

This study found that 79 percent of participants had heard of the term Library 2.0. The term participatory library, however, had significantly less name recognition among participants at only 28 percent. Additionally, 21 respondents (54 percent) were not aware that these two concepts share the same core aspects. Despite familiarity with the term Library 2.0, 51 percent of the respondents did not demonstrate an understanding of the term beyond its connection with information technology, especially Web 2.0 tools. Library 2.0 has proven itself as a recognizable label, even in non-English speaking countries like Indonesia, but actual understanding of the concept is not at the same level. Therefore, Library 2.0 is a successful marketing buzzword that can be used to raise awareness, but more education is needed to promote the essential role of participation in libraries.

When asked for their definitions of Library 2.0, 20 survey participants (51 percent) identified important aspects of the Library 2.0 characteristics as discussed in the literature without prompting. For example, there were 15 general comments about change, particularly in the way libraries communicate with their users. Survey respondents also noted that Library 2.0 encourages this interaction between the library and its users, going so far as to suggest that the community should be involved in "managing the library" (ID34). This participation can nurture a "sense of belonging" (ID18) for users, which could lead to the creation of community centered at the library.

Although many comments touched on the interactivity of services and the opening of communication between organizations and patrons, there were no obvious or direct links between increased interaction and genuine user participation and user empowerment. Instead, the emphasis was on the technology used to improve communication, and in turn, participation. The emphasis was not placed on the potential effects of participation on user empowerment. More detail was included about the impact on library services, such as improving organization of the public catalog to provide better information access. For example, one person noted that through participation "users can contribute to solve library problems" (ID19). Again, there is not much detail in the comments about how respondents envisioned participation taking place. The primary benefit of participation from the users' perspective as envisioned by these respondents is that a Library 2.0 institution will be "always open and invite user feedback" (ID37) and that the community would have their "voices heard" in library processes (ID14).

A unique description of Library 2.0 was as "a fun library" that is "full of 'new' knowledge" (ID39). This response could indicate that branding something as "2.0" brings to mind new technology and a fresh, exciting image. Twenty other respondents (51 percent) only related Library 2.0 with the use of technology, in particular social media. The theme of technology was a major thread running through the responses to most of the survey questions. Interestingly, there were only eight participants who noted that technology was only one part of Library 2.0 with the main aim to deliver better library services to its users. Despite the consistent theme of technology, there were still 15 participants (39 percent) who did not respond to a question about the relationship between Library 2.0 and Web 2.0. There were other 24 participants who did answer this question, with eleven participants who clearly stated that Library 2.0 is basically Web 2.0 in the library.

New technology and use of Web-based tools were generally considered to be a positive step for libraries and patrons. Particularly, respondents noted that younger generations in Indonesia have changing needs, which leads to higher expectations from public institutions such as libraries. Three survey respondents pointed out that libraries have to accommodate these new expectations but instead tend to focus on technology-based solutions. These three respondents suggested that the library first help patrons improve their digital literacy and understand ethics before the library offers true Library 2.0 services. Despite a few reservations, the majority consensus is that technology in Library 2.0 can improve access to information for communities. However, one respondent reminded the researchers that "Library 2.0 is not about access, but sharing" (ID23).

The survey results demonstrate that Library 2.0 concepts such as interactivity between users and libraries and the role of information technology in providing library services are generally understood by these Indonesian respondents. However, 20 participants (51 percent) did not give answers that went beyond the idea of technology. It appears that the "crucial ideas, principles and philosophy of participation" are still missing (Partridge et al. 2010, 271). The importance of participation was mentioned by several respondents but only superficially. This may be an indication of limitations in the survey's design, which did not allow for probing questions by an interviewer. However, it is also likely a symptom of a somewhat misleading label that should be supported with explicit examples to help educate LIS practitioners.

To create an environment in Indonesia for true Library 2.0 practices, it will be vital for Indonesian LIS professionals to deepen awareness and cultivate "reflective practitioners who stay abreast of changes in technology to serve their community in a way that not only allows but requires user participation" (Partridge et al. 2010, 271). With a better understanding of this theoretical framework, the next step for Indonesian LIS professionals should be to develop strategies to create a sense of community in and around their libraries. Then they will be able to welcome users as true partners whose contributions can be harnessed to create a user-centered library that provides services within the restricted budgets common in developing countries such as Indonesia.

Finally, the researchers hope the findings of this study will strengthen the literature on Library 2.0 research in general and provide a better understanding of the current state of knowledge on Indonesian LIS professionals' understanding of Library 2.0. Additionally, this research has the potential to inform the curriculum of LIS education in Indonesia to support

the education of future LIS professionals in Library 2.0 principles. For example, LIS educators might consider allocating more time and providing more detailed explanation on the Library 2.0 concept before explaining its connection with technology to help avoid misunderstandings regarding this term.

Limitations and future directions

The intention of this study was to gauge Indonesian LIS professionals' understanding of Library 2.0. It is hoped that the preliminary findings can be used by LIS curriculum designers in Indonesia as well as other interested organizations outside Indonesia. The study met this goal successfully, but some limitations might have affected the results. For example, the survey required English language ability to understand and answer the questions. Also, participants were limited to active users of social media due to the recruitment process. Therefore, the findings based on this study's sample cannot be generalized to the Indonesian community as a whole. It is also noted that the results of the current research might not be typical for other countries (both developing and developed) due to different cultural and economic conditions. As such, there is a need for others to conduct similar research to explore the current understanding of Library 2.0 in their own LIS professional networks.

The researchers intend to explore the themes discussed in this paper in a larger research project. The current study will contribute to refinement of the project design, analysis methods and survey questions. Additionally, interviews conducted in Bahasa Indonesia could elicit extended reflection from participants and allow researchers to be able to ask follow-up questions to gain a deeper understanding of the participants' knowledge.

Conclusion

Library 2.0 has been explored extensively in the last nine years. However, most of the literature focusses on theoretical aspects with few empirical studies, particularly in developing countries where research in this area is limited. This study explored Indonesian LIS professionals' understanding of Library 2.0, and identified three themes: technology, interactivity, and awareness of Library 2.0. The survey results demonstrate that Library 2.0 concepts such as interactivity between users and libraries and the role of information technology in providing library services are generally understood. However, most participants put too much emphasis on technology and Web 2.0 tools as key aspects of

Library 2.0. Few indicated a wider application or understanding of the core characteristics and principles of Library 2.0.

In particular, there were several clear gaps between the principle and philosophy of participation and user empowerment that need to be addressed before Library 2.0 practices are effectively employed. Through this study, a better comprehension of the current state of knowledge of Indonesian LIS professionals' understanding of Library 2.0 has emerged and can be used not only to strengthen the research base for Library 2.0 practice in general, but also in specific cultural contexts such as Indonesia.

Acknowledgement

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Bekti Mulatiningsih is an independent researcher from Indonesia. Her main research interest lies within the domain of social media applications and the implications they can have on individuals and communities.

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Appendix - Survey questions

Demographic questions

1. What is your age?
   - 18 – 24
   - 25 – 30
   - 31 – 40
   - 41 – 50
   - 50+

2. What is your gender?
   - Female
   - Male

3. In what type of library do you work?
   - Academic
   - Public
   - School
   - Special
   - Others

4. In what city do you live?

Research questions

5. Have you heard the term "Library 2.0" before? Y/N
6. What does Library 2.0 mean to you?
7. In your opinion, how is Library 2.0 different from a conventional library?
8. Do you think incorporating Library 2.0 concepts in your workplace is important? Why or why not?
9. Have you heard the term "participatory library" before? Y/N
10. How would you describe the concept of a participatory library?
11. How do you think Library 2.0 relates to the concept of a participatory library? Please explain.
12. What do you think is the relationship between Library 2.0 and Web 2.0? Please explain.

Additional question

13. Do you have any other comments?