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STRENGTHENING DIGITAL LITERACY AS AN EFFORT TO BUILD LIBRARIAN SKILLS IN PROVIDING REFERRAL OPTIONS TO USERS

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Kata Kunci:
STRENGTHENING DIGITAL LITERACY AS AN EFFORT TO BUILD LIBRARIAN SKILLS IN PROVIDING REFERRAL OPTIONS TO USERS

ABSTRACT.

The information society era 5.0 not only requires librarians to master information literacy, but also master digital literacy considering that the rapid flow of information occurs legally and illegally in cyberspace. Digital skills require librarians and users to interact interactively through the virtual world and the real world. Unfortunately, digital skills are still the main problem for librarians in carrying out their activities as professionals. Practical ways such as providing references to users by relying on individual knowledge and individual preference tendencies cause users to be confused with the minimal references available and the librarian’s ideology that affects references, when in fact it is not because of the availability of reference collections that availability is problematic but rather complicated collection classification methods and services. As well as the objectivity of selecting the right reference, technology, especially in the field of communication and information, is actually used to simplify activities, not to complicate them. Problems such as complex collection and service classification methods can be solved by mastering digital skills. This research tries to provide an overview of strengthening aspects of digital literacy for librarians. by using exploratory qualitative methods, aspects of digital literacy will be described through literature review and exploration of findings in the field. This research is expected to be able to answer the problem of information disruption which causes the need for library users to be hampered.

Keyword:
A. INTRODUCTION

Information and communication technology changes the joints of life with the speed of its development. The impact of these decades is even more pronounced after the Covid 19 pandemic hit. One of the sectors affected is public services. Libraries as one of the public service providers are required to accelerate the visiting interest and reading interest of prospective users. All librarians seem to have known the wave of technological developments that led to absolute innovation, especially in terms of service. The integration of information literacy and digital literacy is finally done. When a librarian helps a patron search for articles in a database, there is an interplay between information literacy (which database to search, which terms to use, which limiters to employ, how to evaluate the articles in the results, how to use the information found effectively and ethically, etc.) and digital literacy (how to navigate the library web site, how to get to a search page or find the advanced search page, how to find the help files, how to save or export the citations and full text, how to set up an account in a social media site, how to upload files to that site, how to comment on others’ postings, etc.). The exact distinction between information literacy and digital literacy has not been determined, but we know they are related and suspect that they are not the same thing (Cordel, 2013).

The theory from Plessis (2007) assumes that knowledge management helps create work plans, and processes for tacit knowledge creation, sharing and leverage play an important role in the innovation process. The implementation of knowledge management in general and knowledge sharing in particular is expected to reduce the competency gap between librarians and assist in the selection of referrals more objectively. In line with this theory, several studies to prove the relationship of knowledge management in this case the digital literacy of librarians, Pratama., et al in the Journal of Library and Information Science\(^1\) underline that knowledge management is highly correlated with manager innovation and affects other variables such as referral selection and others. This study uses a quantitative method with a correlational approach.

Meanwhile, Cordell (2013) describes the relationship that exists between information literacy and digital literacy, to define the relationship more clearly for its members, and to see the existence of the digital literacy concept

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\(^1\) Yoshua Gilang Pratama.2021.Hubungan knowledge sharing dengan inovasi pengelola taman baca masyarakat di Jawa Barat, Informatio: Journal of Library and Information Science Vol. 1(1), 1-16, Januari 2021 ISSN 2775-0043 (Online)
as an opportunity to re-engage academic colleagues in a meaningful discussion of the knowledge and skills students especially librarian need today. Mathews and Purdue (2009) observed that “librarians continue to look more like IT [information technology] professionals” (p. 257), pointing out that as technology continues to change so too do the skills sets required by librarians. They challenge the library and information science (LIS) profession to “examine what skills are necessary in the age of technology” (Mathews & Pardue, 2009, p. 257).

Whilst this may seem a relatively straightforward challenge, Harvey and Higgins (2003) point out that as the profession is complex and ever changing generally it does “not speak with one voice about the attributes and skills it expects” (p. 154). So do the topic of standardization and conformity assessment (SPK) which is scattered in various forms is small and less meaningful. All of that will be valuable and useful information if the librarian is able to provide added value by collecting relevant sources of information, analyzing, and repackaging (repackaging) them in various information products according to the needs of users. This research background aims to provide an overview of digital literacy that librarians should have through the classification of their competencies and how much influence the digital literacy skills of librarians have on satisfying the needs of users in choosing their needed and appropriate reference sources through in-depth exploration in the field and literature review.

B. RESEARCH METHOD

This research uses observation in data collection. To support the validity of the data, the researcher conducted in-depth interviews with 6 librarians in institutions that use ICT in the reference selection process. The data were then collected and analyzed using the conclusion method after the researcher explored the signs that appeared in the communication texts that existed between librarians and users as well as interactions in the field. from the initial conclusion, the researcher reduces the data according to the needs and answers of the informants so as to minimize the occurrence of data gaps. using mass

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media theory and digital literacy, making it easier for researchers to develop conceptual frameworks and describe them in the form of exploratory data presentation.

C. DISCUSSION AND RESULT

1. Paradigm Shift and Practical Consequences

Library science develops according to the history of the discovery of recorded and disseminated information. In the beginning, the history of the revolution proved the development of information through the discovery of books as rare items and highly guarded so that information was still scarce. In the west, for example, information began to be shared through human-readable and portable forms, but because several centuries later paper became scarce and experienced a very high price increase, the invention of the Fourdrinier machine as a medium for mass production was more efficient and cheaper greatly helps accelerate the process of disseminating information. Books, magazines, and newspapers became much less expensive and much more abundant throughout the nineteenth and twentieth centuries.

By technological revolution, the computer chip was introduced to be relatively inexpensive personal computers and worldwide telecommunication systems, has now made information superabundant. For the first time in human history, information is not a scarce commodity. Each of these three revolutions in information technology from moveable type, the paper-making machine, and the computer chip strongly advanced the democratization of knowledge. The transformation of information and communication technology eventually brings the consequences of a paradigm shift in libraries. Broadly speaking, information is no longer a rare commodity but is becoming more frequently encountered and even spills over into informational waste whose existence becomes a nuisance.

First, Paradigm that exist in library practices and learning is reader centered paradigm. This concern about books are decisively in the service of readers. In the Western world, this paradigm of library space design springs from the monastic scriptorium and library. The defining feature of a monastery was its cloisters, the space set apart for secluded prayer and reflection and for access to the scriptorium and library. Contemplative and library space are closely interconnected. Because books were few and precious, the space was designed primarily for readers. This design paradigm has been extraordinarily strong. As late as the 1920s, when James
Gamble Rogers was designing Yale’s magnificent Sterling Memorial Library, he used the Gothic church as his design idiom. Immediately adjacent to the nave-like entrance to Sterling is a large courtyard, on two sides of which are walls with large windows illuminating small bays for reading. This focus on readers is reinforced by a set of reading rooms opening off the nave, rooms dominated by light and reading tables, not by books. 

Second, they shift into book centered paradigm which is designed that was so well suited to the particular character of teaching, learning, and scholarship concern. This allocation of space signals the defining characteristic of a second paradigm for the design of academic libraries and the shelving of large collections. Throughout the nineteenth century, most academic library collections were comparatively small. They could often be accommodated in a single room or set of rooms in buildings with other academic purposes. Libraries built as late as the 1890s were, like those in Lunt and Altgeld Halls, dominated by reader spaces, not by shelving. But the explosion of paper-based publications in the nineteenth century caught up with academic libraries, making Lunt, Altgeld, and Gilman obsolete within just a single generation. These libraries did not need simply to be redesigned; and, in the case of Gilman, the library could not be redesigned or expanded. A new paradigm was needed, one that would accommodate large and growing collections. This dominance of books over readers appeared in a survey of academic library projects completed between 1992 and 2001, in which library directors were asked what motivated new capital investment in library space. (Bennet, 2009;p.185).

The shift of paradigm continues to become learning centered paradigm. The information commons offer both and represents a new element in the traditional panoply of library service space reference, circulation, technical services, and departmental libraries. The information commons require a fundamentally new degree of collaboration between librarians and information technologists, who bring different professional training and cultures together in newly designed spaces in support of student and faculty learning. The information commons are now a well-established feature of library space design and has spawned its own professional literature.

The first concern of a learning-centered design practice will be to create

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spaces that foster intentional learning. In the twenty-first century, we need constantly to affirm that the most important educational function of physical library space is to foster a culture of intentional learning. Bereiter and Scardamalia conclude by saying that a list of the various factors that constitute intentional learning fails “to convey the sense of a whole educational environment geared to the pursuit of learning goals.” They reference, instead, the community of scholars, in which “the degeneration of knowledge building into schoolwork or other routines, although it inevitably occurs, is actively resisted.” John Seely Brown strongly reinforces the ideas of community and intentional learning when he observes that it is through participation in communities that deep learning occurs. People don’t learn to become physicists by memorizing formulas; rather it’s the implicit practices that matter most. Indeed, knowing only the explicit, mouthing the formulas, is exactly what gives an outsider away. Insiders know more. By coming to inhabit the relevant community, they get to know not just the “standard” answers, but the real questions, sensibilities, and aesthetics, and why they matter.4

From this phenomenon, we strongly agree that information and technology practically give consequences to librarian skill especially in digital literacy. The more information, the more references add to librarian and user list, so there will be greatly share of information and so do interactively connected into enrich providing referral options.

2. Digital Literacy as Competency Towards Information and Critical Society

Digital literacy skills are absolutely necessary in the face of today’s onslaught of information. In the past, lack of information was considered a serious problem by several countries so that they competed in advancing literacy, especially in the field of information. Along with the development of technology, especially digital, information becomes abundant which is finally called information disruption. It is undeniable that overlapping, confusing and ambiguous information causes other problems such as hoaxes and other information waste. The term of social media that use for making an identity, lose an identity and much of information cannot be denied. Identity is considered

4 John Seely Brown, “Learning in the Digital Age,” in The Internet and the University: 2001 Forum, ed. M.
as a noise and information trash in communication through social media form.\(^5\) (Quroatun ‘uyun and Hakim 2020).

The definition of digital literacy was written with full consciousness of the existence of the Standards, which had been written more than a decade previously. The digital literacy definition was meant to apply to all types of users and in all types of libraries. It suggests a curriculum only in the broadest sense since many of the providers of digital literacy instruction and programming do not identify their programming as a “curriculum,” and the lessons they provide are not part of an institution-wide curriculum that is meant to encompass clearly-defined student outcomes for an entire program of study. Although the language used in the digital literacy definition is similar to that used in the information literacy definition, that is in part because both definitions refer to general educational goals, not because the Task Force thought digital literacy initiatives were necessarily formal curricular initiatives. They might be for some libraries, and they might not be for others. Information literacy and digital literacy are not competing concepts; they are complementary areas for students in higher education.

Further, digital literacy concepts and skills can provide the fundamentals of managing digital environments that students need to succeed in Information Literacy and their other areas of study. Librarians have an obligation to their institutions to inform broader discussions of curricula whenever we have significant input to offer, and this is such a time. In line with the definition of digital literacy, for librarians, digital literacy skills are directly proportional to the willingness to maintain their careers.

Partridge, Helen L et al in The contemporary librarian: skills, knowledge and attributes required in a world of emerging technologies illustrate that not only the trust of the user is needed for a librarian and his personality but also the critical ability to adapt to technology.

Mathews and Purdue (2009) observed that “librarians continue to look more like IT [information technology] professionals” (p. 257), pointing out that as technology continues to change so too do the skills sets required by librarians. They challenge the library and information science (LIS) profession to “examine what skills are necessary in the age of technology” (Mathews & Pardue, 2009, p. 257). Whilst this may seem a relatively straightforward challenge, Harvey and Higgins (2003) point out that

as the profession is complex and ever changing generally it does “not speak with one voice about the attributes and skills it expects” (p. 154). The present study invited Australian librarians to identify and discuss the skills, knowledge and attributes required by the library and information studies/science (LIS) professional in the web 2.0 world (and beyond).

Librarians as long as they master information and technology skills absolutely implement their digital literacy. This is reflected in the dynamics of librarians in the era of information disruption in dealing with various problems that arise. Christine Mackenzie (2007), suggests that librarian has forever changed the “library brand” (p. 120). Libraries are no longer about books or even information. Instead, libraries are about “facilitating people to participate, interact and create, to provide the means for that to happen” (p. 120).

In the last few years there has been extensive discussion and heated debate exploring librarian in journals, conferences and most notably the “biblioblogosphere” (blogs written by LIS professionals). Much of this discussion has focused on developing a clearer understanding of what library 2.0 actually is. However, the discussion has also included an acknowledgement that regardless of how library 2.0 is ultimately understood, it will require a new type of LIS professional. It needs a LIS professional that is “better equipped and broadly educated than one just ten years ago” (Feng, n.d., p. 1). In the last few years blogging librarians have begun to compile their informal list of core competencies needed by librarian 2.0.

The call to the LIS profession is becoming clear: “it is essential that we start preparing to become Librarian 2.0 now” (Abram, 2005, p. 46). Beyond the informal blog discussions few systematic studies have taken place to identify the skills and knowledge required by librarian 2.0 so they may successfully provide library 2.0.

King (2007) moved the focus from attitudinal qualities to IT skill and knowledge and identified a list of over a dozen basic IT competencies of a librarian 2.0. This list included: write and post to a blog; create, upload and edit photos, short videos, podcasts and screen casts; edit an avatar’s appearance; and, know how to pick up a new device and figure out how to use it. He also identified larger scale skills that include understanding how the basic IT competences work within a library setting, and how they complement a physical, traditional library. But most importantly, King felt that librarian 2.0 must be able to tell the library’s story, through various media – writing,
photography, audio, and video.

The role and influence librarian 2.0 can and should have within their organization was explored by Cullen (2008) who argued that librarian 2.0 does not work or think of their role at the level of the library or information service “they work at the organizational level and challenge assumptions about what the business thinks it knows” (p. 256). Librarian 2.0 creates value for every individual in the organization and has become “a critical organizational resource whose influence transcends departmental silos and professional boundaries and can catalyze management innovation throughout the business” (p. 257).

Meanwhile, the development of digital literacy has gone far beyond just individual concepts and abilities. Allan Martin & Jan Grudziecki in "DigEuLit: Concepts and Tools for Digital Literacy Development" describes the forms of its development into a digital society. Digital technologies have enabled the globalization of business processes and of commercial cultural output, and also the capture of massive amounts of data. In this context notions of literacy are relevant, since they focus on the individual’s engagement with and articulation of the symbols and meanings of daily life.

Bélisle (2006) characterizes the evolution of literacy concepts in terms of three models. The functional model views literacy as the mastery of simple cognitive and practical skills, and ranges from the simple view of literacy as the mechanical skills of reading and writing to a more developed approach (evinced by e.g. UNESCO, 2006) regarding literacy as the skills required to function effectively within the community. The socio-cultural practice model takes as its basis that the literacy is only meaningful in its social context, and that to be literate is to have access to cultural, economic and political structures of society; in this sense, as Brian Street (1984) has asserted, literacy is ideological. The intellectual empowerment model argues that literacy can bring about the transformation of thinking capacities, particularly when new cognitive tools, such as writing, or new processing tools, such as those relying on digital technology, are developed. In viewing literacy within the context of a digital society as, at one level functional, at another engaged with the social context, and at a third as transformative, we can see it as a powerful tool for the individual and the group to understand their own relationship to the digital.

We can identify several “literacies of the digital”, mostly originating in the pre-digital period, but presented as
routes to understanding phenomena which have become more significant or even transformed in digital contexts. Computer, IT or ICT literacy has been identified as a need from the late 1960s. We can see concepts of computer literacy as passing through three phases, the Mastery phase (up to the mid-1980s), the Application phase (mid-1980s to late-1990s) and the Reflective phase (late-1990s on) (Martin, 2003). In the Mastery phase the computer is perceived as arcane and powerful, and emphasis is placed on gaining specialist knowledge and skill to master it. “Computer Basics”, whatever they may be called, consist of how the computer works (simple computer science), and how to program it (using whatever languages were current at the time), sometimes with additional input on the “social and economic effects” of computers. The Application phase began towards the end of the 1980s with the appearance of simple graphical user interfaces and easy-to-use mass market applications, which opened computers to mass usage. In this phase the computer is seen as a tool which can be applied in education, work, leisure and the home. Use of applications software becomes the focus of literacy activity, and definitions of computer or IT literacy focus on practical competences rather than specialist knowledge. This is accompanied by the appearance of mass certification schemes focusing on basic levels of IT competence.

Reflective phase was stimulated by realizations that IT could be a vehicle through which student-centered pedagogies, championed by innovators since the 1960s, could at last be realized. A criticism of these developments is that, despite the rhetoric, the critical element of technological literacy is insufficiently developed or implemented, and it must engage the industrial application of technology with deeper understanding of the social and political involvement of technology (Michael, 2006).

Focusing on the idea of a range of distinct but interrelated literacies, some commentators use plural terms: thus Kellner (2002: 163) prefers the term “multiple literacies” which “points to the many different kinds of literacies needed to access, interpret, criticize, and participate in the emergent new forms of culture and society”, but also refers to “techno literacies” (Kahn & Kellner, 2006). Snyder calls her 2002 book Silicon Literacies but tends in the text itself to refer to “literacy practices”. Tyner (1998: 63-68) recognizes the need to refer to multiliteracies but prefers to identify groups of linked literacies while retaining “literacy” as an overarching concept. Kress (2003) also supports developing a new theoretical framework.
for literacy which can use a single set of concepts to address its various aspects.

It is clear that there is considerable overlap between the literacies outlined above. In some cases, the definitions of the different literacies are almost identical, and only nuanced in different directions, as a result of their pathways from pre-digital foci, and their sense of the concerns of the particular community whom they have developed to serve. Part of the convergence also involves the evolution of literacies from a skill focus through an application focus towards a concern with critique, reflection and judgement, and the identification of generic cognitive abilities or processes, or meta-skills. In this way the digital literacies define themselves as being concerned with the application of similar critical/reflective abilities in slightly different fields of activity. So do digital literacy of librarian can be shape the movement of society in digital era.

Gilster identifies critical thinking rather than technical competence as the core skill of digital literacy and emphasizes the critical evaluation of what is found on the Web, rather than the technical skills required to access it. He also emphasizes, in the last sentence, the relevant usage of skills “in your life”, that digital literacy is more than skills or competences. The digital is implicated in the genesis and maintenance of this “post-modern” society, but it is the major actors in that society who have driven it so, directing research and investment in “new technology” in order to reap financial or political gain. For the ordinary individual (one who is not a member of the international economic, political and media élite), the choices may seem very limited. To be part of the consumer society has for many become a source of meaning and identity.

From the framework above, we can consider digital literacy of librarian includes some skills like; a.) awareness of the ICT and information environment; b) confidence in using generic ICT and information tools; c.) evaluation of information-handling operations and products; d.) reflection on one's own digital literacy development; e.) adaptability and willingness to meet digital literacy challenges.

The basic skill in digital literacy is digital competence. This covers a wide range of topics, encompasses skill levels from basic visual recognition and manual skills to more critical, evaluative and conceptual approaches, and includes attitudes and awareness. A problem here is the varying meaning of the term’s skill and competence. Skill is sometimes seen as representing only lower order attributes (e.g. keyboard skills) but sometimes as including also higher order attributes (e.g. thinking skills or...
analytical skills). Competence (or competency) is sometimes construed as the application of skills in specific contexts but also seen as synonymous with skill or sometimes with higher level skills.

The next level is the central and crucial level is that of digital usage: the application of digital competence within specific professional or domain contexts. Users draw upon relevant digital competences and elements specific to the profession, domain or other life-context. Each user brings to this exercise his/her own history and personal/professional development. Digital usages are thus shaped by the requirements of the situation. The drawing upon digital competence is determined by the individual’s existing digital literacy and the requirements of the problem or task. Digital usages are therefore fully embedded within the activity of the professional, discipline or domain community. They become part of the culture of what Wenger has called “communities of practice”. (p.257). The informed uses of digital competence within life-situations are termed here digital usages. These involve using digital tools to seek, find and process information, and then to develop a product or solution addressing the task or problem. In this section, practically librarian may have habit to give many references that can be used to give an effective optional reference.

The ultimate level is that of digital transformation and is achieved when the digital usages which have been developed enable innovation and creativity and stimulate significant change within the professional or knowledge domain. This change could happen at the individual level, or at that of the group or organization. Whilst many digitally literate persons may achieve a transformative level, transformation is not a necessary condition of digital literacy. Activity at the level of appropriate and informed usage would be enough to describe as digitally literate.

D. CONCLUSION

After direct observations and in-depth data exploration, several conclusions were obtained that represented the entire research process, including:

1. The use of ICT in library management makes it easier for librarians and users to communicate and find compatibility
2. The selection of library reading references is one of the reasons for the choice of appropriate and effective reading references from the librarian
3. Changes in the world towards digitizing all forms of activity, one of
which is in the world of libraries, negating changes in scientific studies and library practices as well as the value of reading

4. The three stages of digital literacy of librarians starting from basic knowledge of IT, usage skills in offline-online world interactions, selection of various references, reading materials and transformation of digital use into applicable ideas.

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