Information Professionals in The Disruptive Era: Academics and Practitioners Perspectives

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Abstract—**The aims of this paper are to identify the academics and practitioners' perspectives about librarian competencies and roles in the disruptive era and what the librarianship community should do. The academics and the practitioners are lecturers and librarians in Syarif Hidayatullah State Islamic University of Jakarta. The study used a qualitative method by interviewing several academics and practitioners in the library field. The data in the forms of opinions, ideas, or thoughts about professionalism in librarianship were analyzed qualitatively using relevant theories and approaches. The study revealed important perspectives to build and strengthen the librarians' professionalism. The librarians should always improve their competencies in the digital era, they have to be closer to the community that they served, and the librarianship community have to do their roles to support the development of librarian competencies and changing roles.**

Keywords—Librarian, Disruptive era, Changing role of the librarian

I. INTRODUCTION

We have often heard the discussion about improving the competence of librarians. That every librarian must develop his competence, each of us must also understand it. But are the competencies developed, improved according to the needs of the world community?

The era of disruption is a period in which every profession reviews its role in society. Technical jobs that can be replaced by machines must be immediately abandoned, and move on to jobs that are more related to relationships between people, attitudes and behavior, culture, communication skills, collaboration, critical thinking, creative to problem-solving [1]. Rhenald said, for people who celebrate change, disruption is the future. However, for those who are already comfortable with the present situation and are afraid of change, they will think that this is the beginning of extinction [2].

People now use the internet for various needs, including obtaining information, entertainment, socializing, networking, running businesses, and hobbies. In various surveys, it was proven that they also preferred to start the information search process with search engines compared to other information sources, including libraries and librarians [3].

The librarian profession gets a huge challenge in the current era of disruption. Not only in Indonesia but also throughout the world. Thus, we need to look at disruptive technologies as opportunities. Instead of trying to ignore the changes occurring around us, and in the library profession, the librarian needs to embrace these technologies because they provide the opportunity to shape their own destinies. The role of librarians is now changing from technical librarians to strategic librarians whose roles are more to social relations with users. Currently, librarians should no longer just be behind the desk to determine the class number of a book, create a catalog, enter data collection into a database, or serve circulation only. But they must be in the reading room, collection room, discussion room, where the visitors are gathering and discussing.

Librarians should meet visitors who are utilizing various library services and facilities, providing guidance, consultation, direction, education, and also other things related to it. They are not just teaching how to get the collections that the users need in the library, but also giving advice on solving various problems in obtaining the sources of information they need for their various needs, including, for example, providing input on research ideas for final-year students.

The role of librarians in this era must be felt more strongly by the community. Librarians must be mentors, facilitators, motivators, even inspire to develop imagination, creativity, character, and teamwork needed in the future. Librarians must play a role in improving the competence of the library community needed in the 21st century, such as critical thinking, creativity, communication, collaboration, and problem-solving.

Librarians also need to create a positive learning ecosystem in a managed library, which is able to facilitate users to recognize themselves and be able to manage their behavior and character. The performances of librarians are not only measured by competency tests that are administrative in nature but their ability to present ecosystems in libraries that are humanizing and liberating. The ecosystem will make visitors passionate about learning and persevering in winning battles in the digital age. And the ecosystem requires librarians with a new mindset, rich in innovation, flexibility, and adaptive to the rapid changes of the world.

II. Literature Review

A. Librarianship industry in Disruptive Era

The era of disruption is strongly related to technology that changes existing business models, or customer expectations. College libraries and scientific communication are likely to be disrupted by new technologies and their application [4].

The library industry is on the list of those disrupted by technological innovation. The Internet search engine and electronic journals and books are technologies that disrupted traditional library work. Physical books and bound journals have disappeared. Librarians and end users alike search online databases for information on topics. At the same time, the number of users of our physical libraries has decreased. They get their information online, off-site, at their work desk, at the point of care, and in the research lab. Basically, the principle is that industries decline when they fail to adopt innovations to meet customer needs. Disruptive innovations can lead to successful change.

Our industry, librarianship, is challenged by disruptive innovations, but we have to meet the challenge. Libraries need to create value in an environment where major web presences have changed how people search for information, [5]. We have to recognize players in informatics, evaluate information systems, a semantic approach to scholarly networking, not just use them. We also understand and participate in the data lifecycle, create gold standard search filters used to retrieve high-quality information, devise a better way to evaluate the impact of scientific publications. Furthermore, we can survive and even increase services in spite of budget cuts, we can understand our users' needs to create effective ways to get information to them [6].

Ryan and Grubbs [7] said that they used their window of opportunity to make disruption a strategic priority. They chose three broad areas for our strategic direction: teaching and learning, collaboration, and innovation. Academic Libraries have evolved from focusing on the management of physical resources and related services to transforming resources and services into digital formats to support teaching, learning, and research [8]. School library should become an area where students can search, connect, communicate and make throughout the school day and before and after school [9]. Public libraries are no longer just places to check out a book, but they can be meeting places, media centers, digital repositories, creative technology spaces, writing centers, and areas where patrons can simply relax and have casual conversations with their peers or others [10]. Transformed libraries, also need to be supported by transformed librarians.

B. Librarian Transformation

To answer the challenges of this disruptive era, librarians must change attitudes and behavior, and change the way to provide information to users. Innovative services also need to be done to respond to digital disruption. Reinvention and rethinking of strategies, policies, cultures, systems and work processes need to be carried out. Patrons like new disruptive products and services and for the librarian, if wish to keep the institutions, as well as their own skills continually improving, they need to embrace this.

Various changes brought about by the disruption era require a transformation in the librarian, in the form of increased capacity, competence, intelligence, and improvement of attitude. Librarians must have the willingness to share, be friendly, cheerful, adept at writing, and active in various social networks. They are active in building user literacy skills, both in the real and virtual world, being proactive, and able to transfer knowledge. There are several competencies, characters, and roles, that librarians must have in the era of disruption, which are able to (1) combine digital and printed collection formats; (2) access information in various formats; (3) use non-textual information, such as images, sounds, moving images; (4) use and develop social networks to get maximum benefits; (5) communicate with others through various technologies, such as telephone, Skype, IM, SMS, texting, e-mail, virtual references, etc. [11] :

TABLE I. LIBRARIAN COMPETENCIES

Competencies	Characters	Roles
Combine digital and printed collection formats Access information in various formats Use non-textual information, such as images, sounds, moving images Using and developing social networks to get maximum benefits, Communicate with others through various technologies, such as telephone, Skype, IM, SMS, texting, e-mail, virtual references, etc.	Capacity for continuous learning Flexibility Fostering change the capacity to work independently Enthusiasm and self-motivation Reflective thinking The ability to respond to others' needs Adaptive skills to keep up with changes and challenges within library and information environments	Gateway to both the future and the past. Teacher or empowering Knowledge managers Organizers of information resource networks Advocates for the development of information policies Community partner Collaborators with the provision of technology services Technician Information consultant.

Zuntriana pointed out the McMaster University Library has appointed 7 new librarians:(1) gaming librarian, (2) digital strategist, (3) digital technologist, (4) e-resources librarian, (5) archivist librarian, (6) marketing and communication librarian, and (7) teaching and learning librarian. In addition, there are other types of librarians, those are: (1) Library communication specialist, (2) Library media specialist, (3) Library technology specialist, (4) Technical specialist, (5) Technology and reference [12].

III. Method

In this study, the authors uses a type of descriptive research with a qualitative approach. Determination of informants was carried out by purposive sampling, namely selecting informants

with certain criteria that were considered most appropriate and having adequate knowledge of the object of research. The criteria for selecting informants that are in accordance with the context of the study and who most understand the object of research are four people, those are: (1) Ade Abdul Hak and Pungki Purnomo who are academics, and (2) Muhammad Azwar and Lolita Sari who are librarians in UIN Jakarta. This research comes from two types of data, namely primary data and secondary data. The primary data were data taken directly from the field using observation and interview. Secondary data used as a compliment in the research were obtained indirectly (through intermediaries) from written documents. The data that had been collected were then analysed to understand the meanings implied or expressed through the steps: data reduction, presentation of data, Conclusion Withdrawal.

IV. FINDINGS AND DISCUSSION

Armed with the data analysis result, we are able to identify necessary competencies a librarian has to acquire. To perform the jobs and works well, the librarian has to master personal and professional competencies. Related to these competencies, all informants agreed that the librarians must change, according to technological developments. They have to always improve their skills and competencies, especially the Information and Communication Technology (ICT) skills. Technical and administrative tasks must still be mastered, even more so with the automation system. It needs to be done more effectively and efficiently so that strategic roles can be carried out. Automation systems only help in facilitating various activities in the library. Here are the competencies that the librarian needs to acquire as available on table 2.

TABLE 2. LIBRARIAN COMPETENCIES

Personal Competency	Professional Competency
learning and teaching Ability	Being literate in various types of electronics (digital literacy, media literacy, internet literacy)
Communication Ability	The ability to build networks, both with fellow librarians, associations, and various communities
The ability in presentation	Acquiring ICT skills in library
Foreign language skills, especially English	The ability to use social media
Entrepreneurship Ability	The ability of work collaboratively with various parties
Skill in Management and Leadership	The ability to conduct studies by synthesizing and repackaging information
The ability to do in teamwork	Being familiar with organized digital collection formats
Information Sharing Ability	The ability to seek a research and scholar publication
Having empathy to others	The ability to cope with digital and nondigital library problems

Internalizing both competencies needs good educational institutions that understand their roles. Therefore, library science study programs as one of educational institutions, must continuously upgrade their curriculum and lecturer competencies in accordance with technological and industrial developments, so that graduates produced are relevant to industry needs. It would be better if they always keep in touch

with the librarian associations to be regularly updated. The associations must carry out its role in supporting the improvement of lecturer competence, for example, encouraging the government to issue policies on library, and accommodating various kinds of librarian needs, conveying important issues and bridging among librarians and libraries to collaborate. Collaboration among individual and institutions becomes very important to conduct to share current information to be more up to dated. If they are always up to dated, they will serve better that in turn the students can carry out all duties assigned. They can get relevant sources more effectively for their researches or other studies. In addition, the students as the users should develop their information literacy in order not to be left behind. Completely the roles of each party are present on table 3. However, there must be any obstacles everyone to cope with. The institutions, library, librarians, and the users should be wiser to deal with problems, especially technical and nontechnical matters as seen on table 4.

TABLE 3. ROLES IN LIBRARIANSHIP

Party	Roles
Librarian	• improve their skill and competencies to survive • be able to use technology to help them work more efficient
Educational institutions	• continuously upgrade their curriculum in accordance with technological and industrial developments, and other market needs. • upgrade lecturer competencies • build collaboration with educational institutions and librarian associations
The association of librarianship	• support the improvement of lecturer competence, for example, by encouraging the government to issue policies • accommodate various kinds of librarian needs and share information to others • build collaboration among educational institutions and librarian associations
Students	• improve their ability, for example, by doing internship and other programs, • conduct research that produces useful findings for library science study programs

TABLE 4. OBSTACLES IN LIBRARIANSHIP

Internal	External
Conventional library design	No contribution and support
Satisfaction with the existing conditions	Leadership weakness in the library
Having no wider network	Strict regulations and laws that are not flexible in their application
Doing routine activities	

V. CONCLUSION

The librarian should always improve their competencies in the digital era, especially in the ICT aspect. They also have to be closer to the community that they served, and the librarianship community has to do their roles to support the development of librarian competencies and changing roles.

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