

Role and Competencies Development of Librarians in Digital Era



Peran dan Pengembangan Kompetensi Pustakawan di Era Digital

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Abstract

Background: Technology advancement has experienced a rapid increase in digital era, but not all librarians possess the qualified competencies to address the associated challenges.

Objective: This study aims to analyze role and competency development of contemporary librarians in the digital era.

Method: The methodology used includes bibliographic content analysis and descriptive study.

Results: The result showed that contemporary librarians should take the initiative to meet information requirements of users. Librarians need to stay abreast of information technology advancement, keep pace with development in digital libraries, act as problem solvers, and enhance their skills. The discussion concerning role and competencies of contemporary librarians showed that they should serve as trailblazers in the field of information and technology.

Conclusion: In conclusion, competencies required for contemporary librarians in digital era include the ability to analyze and use information, manage time, and use information technology. Contemporary librarians must be capable of collaborating with other staff to achieve organizational goals

Keywords: contemporary librarians; information; competencies; information technology.

Abstrak

Latar Belakang: Kemajuan teknologi mengalami peningkatan pesat di era digital, namun tidak semua pustakawan memiliki kompetensi yang mumpuni untuk menjawab tantangan terkait. **Tujuan:** Penelitian ini bertujuan untuk menganalisis peran dan pengembangan kompetensi pustakawan masa kini di era digital. **Metode:** Metodologi yang digunakan meliputi analisis isi bibliografi dan studi deskriptif. **Hasil:** Hasil penelitian menunjukkan bahwa pustakawan masa kini harus mengambil inisiatif untuk memenuhi kebutuhan informasi pengguna. Pustakawan perlu mengikuti kemajuan teknologi informasi, mengikuti perkembangan perpustakaan digital, bertindak sebagai pemecah masalah, dan meningkatkan keterampilan mereka. Pembahasan mengenai peran dan kompetensi pustakawan masa kini menunjukkan bahwa mereka harus menjadi pelopor di bidang informasi dan teknologi. **Kesimpulan:** Kompetensi yang diperlukan bagi pustakawan masa kini di era digital antara lain kemampuan menganalisis dan menggunakan informasi, mengatur waktu, dan memanfaatkan teknologi informasi. Pustakawan masa kini harus mampu berkolaborasi dengan staf lain untuk mencapai tujuan organisasi

Kata Kunci: pustakawan kontemporer; informasi; kompetensi; teknologi Informasi.

I. INTRODUCTION

Background. Contemporary librarians are important in enhancing access to information and promoting literacy worldwide. They serve diverse information needs across various fields, assist users in obtaining information, and aid in development of literacy skills. Contemporary librarians also play a significant role in development of information technology and the application of technology to harness information resources. They contribute to improving the quality of information services globally.

Contemporary librarians play a significant role in fulfilling the needs of the community and promoting literacy at all levels. They are expected to take an active role in enhancing information access, building communities, and providing services aimed at assisting users to maximize their use of information resources. According to Ardiansyah (2019), librarians can serve as activists in promoting information literacy, which can be defined as the awareness of individuals concerning their information needs, effective and efficient identification, access, evaluation, and legal integration of information into knowledge. They also play a critical role in supporting information management. Given the high demands in academia and business, librarians should act as leaders and advisors in information-related matters, identifying, accessing, and disseminating relevant information. Librarians also need to provide guidance and training, build networks, as well as develop technology applications required for efficient information management. This constitutes an overview of the responsibilities of contemporary librarians, including their duties, required skills, information technology, and its applications, as well as job prospects.

Contemporary librarians play a significant role in providing access to information needed to fulfill community objectives. Their primary goal is to offer informative content and relevant services to the community, both within and outside the library space. They can promote knowledge development, provide useful information, motivate and facilitate knowledge discovery, as well as enhance information literacy skills. Through an extensive and diverse range of services, contemporary librarians are responsible for ensuring the accurate, timely, and efficient accessibility of available information by the community.

According to Husna (2019), librarians and library activities have the capacity to engage users who enjoy creating creative content. Librarians can overcome the challenges faced in their role as digital content creators through the discovery and development of open-source applications, with solutions available in open-source applications and reducing expenditure burdens on libraries. They are in the midst of rapid and dynamic technology changes, which offer opportunities to adapt in various ways to fulfill the needs of customers. However, several challenges arise along with these changes, necessitating librarians to innovate and adapt swiftly. They should also continue learning and evolving to cater to the highly diverse needs of their customers.

Based to Rahmadanita (2022), some librarians are still incapable of searching digital collections. Meanwhile, the fundamental skills required of contemporary librarians include computer proficiency, internet use, and basic digital searching skills. This point is further emphasized by Ulum (2017) that one of the challenges faced by libraries is the presence of digital native generations. This suggests that libraries should provide human resources and

facilities to address the needs of these digital natives. Therefore, this study was conducted in response to previous results, which emphasize that libraries need to prepare contemporary librarians to carry out their functions in digital era.

Problems. The various challenges of digital era need to be balanced with the potential and capabilities of contemporary librarians to be adaptive and innovative, specifically in providing digital library services. However, most libraries do not have librarians resource capable of addressing these challenges. This posed the question of what role and competencies development are required for librarians in digital era.

Previous Literature Review. Previous studies have been quite extensive, including Farida (2018) who stated that one of the challenges faced by librarians in digital age is related to their abilities and skills, particularly in the field of information technology. Supriyanto (2015) emphasized that digital era required the collaboration of libraries to expand the provision of collections and facilitate optimal use by users. Concerning the provision of library collections, librarians are required to be proactive in preparing for information needs of users (Nugrohadhi, 2013). More specifically, Anwar & Rusmana (2017) suggested the use of social media as digital communication tool that can be provided by libraries to enhance competence of their managers. The use of Mobile Library applications was also viewed as a way to facilitate librarians in managing library collections in digital era (Dewi, 2019). According to Krismayani (2018), several steps can be performed by libraries in fulfilling their tasks, such as establishing rapport with users, improving librarian's aspects, and mastering technology. Libraries should become a source of information that adapts to the changing needs of their users in order to preserve their existence (Fitriah, 2020).

State of The Art. Based on the description above, this study differs from various previous investigations. It focuses on role of contemporary librarians, particularly in fulfilling competencies in digital era. Meanwhile, some previous studies focused more on the challenges and preparations of libraries in facing digital era. The focus of this study is on contemporary librarians who have the function of providing fast and accurate information to users who tend to experience rapid environmental changes. Therefore, it can be stated that this study has not been previously undertaken.

Purpose. This study aimed to analyze role and competencies development of librarians in digital era.

II. METHODS

In this study, the bibliographic content analysis was adopted with a descriptive method, facilitated through a comprehensive literature review. The object is librarians, specifically library managers, who face various challenges and demands in digital era. Data were collected through a literature review of various national journal articles and books, particularly those relevant to the study topic. Literature search is done through Journal article search on Google Scholar database. Selection is done by entering keywords that are relevant to the focus of research. The collected data is analyzed using content analysis methods.

III.RESULTS AND DISCUSSION

The Concept of Contemporary Librarians. Contemporary librarians are professionals who use the latest technology to enhance user experiences and information services. The various tasks engaged in are organizing book collections, providing information and documentation, offering digital information services, as well as providing technical support. Information technology enables contemporary librarians to be more productive and efficient in delivering services, as well as improve the accessibility and availability of information. It also provides various types of services, including online information access, content evaluation, presentation creation, and library content generation.

Librarians are responsible for ensuring that information services provided are accurate, timely, and up to date. Therefore, they can collaborate with content creators to ensure that information available on their websites is accurate and relevant. Technology can also be used to promote their information services, such as creating websites and blogs.

The essential skills required by contemporary librarians include the ability to analyze and use information, effective communication, time management, and technical proficiency. It is also important to grasp information technology and have a comprehensive understanding of its application to enhance information services. Contemporary librarians should be capable of collaborating with other staff to achieve organizational goals. This is consistent with the report of Uswatun (2016) that librarians should work professionally, assess, and pay attention to information needs of the community.

Contemporary librarians have undergone fundamental development in their methods of handling and managing information. The presence of digital technology has enabled librarians to store, access, and manage information more quickly and efficiently. However, scientific concepts still apply to control and use information to support their goals within libraries, such as classification, cataloging, and information assessment. Classification refers to grouping information based on specific criteria, such as subject, category, or keywords. On the other hand, cataloging is the process of linking information to a catalog list to facilitate easy access to required information by enable. Information assessment includes evaluating the quality of information before it is uploaded into the system and searched by users. According to Paidjo (2012), librarians play a significant role in collecting, processing, and managing information within a specific system to facilitate effective and efficient use by users.

In addition to traditional scientific concepts, contemporary librarians must keep pace with evolving technology. Some of these technology innovation, such as the internet, digital libraries, and library information systems has allowed librarians to manage and access information more swiftly and efficiently, as well as provide better services to users.

Scientific concepts form the foundation of contemporary librarian's practices. Librarians are required to understand these concepts to effectively manage information and technology platforms, such as the Internet. Furthermore, library information systems can assist librarians in implementing scientific concepts into their practices. By comprehending scientific concepts and technology, librarians can ensure quick, accurate, and timely access to available information in libraries.

Role and Competencies Development of Contemporary Librarians in digital Era.

This study focused on competencies development of contemporary librarians in digital era. This is consistent with the statement of Kurniasih (2017) that librarians qualifications in digital era can be grouped into two main aspects, namely professional and personal abilities. Professional abilities refer to the skills and knowledge that should be possessed by every librarians and other information professionals to perform their role in digital environment effectively. Meanwhile, personal abilities are the qualities that should be owned by librarians, such as the ability to analyze, negotiate, adapt, collaborate, engage socially, use creativity, and motivate themselves to continue learning (Kurniasih, 2017).

Based on the discussion above, several outcomes can be identified, developed, and evaluated by librarians. Contemporary librarians should understand their role in providing information and services to users. Their role is also to provide information, grant access to resources, assist users in obtaining information, and offer assistance services. Furthermore, they should comprehend information and services needed by users and have insights into information technology, available resources, and diverse needs within libraries. This can be easily achieved by collaborating with various parties, such as IT, study, and administrative staff, as well as other library staff. Librarians need to understand the operation of each division and use the available information to assist users in obtaining the required information.

An understanding of information technology is also crucial, necessitating librarians to grasp the use of information technology to provide services and access to resources. They need to understand the understanding mechanisms of information systems, share with users, and develop systems that can help users obtain information. To develop services, contemporary librarians need to innovate in providing services for users. They should identify services that can help users achieve goals and ensure their availability online. Furthermore, contemporary librarians need to establish strong relationships with users, recognize and understand their needs, and make efforts to promote the services offered.

Based on the insights regarding what, how, role, and actions that should be undertaken by contemporary librarians, several outcomes that should be achieved by librarians can be obtained.

A. Understanding role and responsibility of contemporary librarians

Role and responsibility of contemporary librarians have changed drastically compared to the past. They should be able to adapt to their environment and take the initiative to enhance the quality of services provided. One of the tasks of contemporary librarians is to assist users in obtaining the required information. Contemporary librarians can carry out this task by providing access to the appropriate information sources or offering helpful information to aid users in making informed decisions. They should also help users understand the available information and provide tips on the best use method, as well as assist users in obtaining and accessing the right information on the internet. This result is consistent with the report of Hermawan (2016) that librarians work in service areas, such as reference, internet, and others. Librarians should perform their routine tasks but also be capable of fulfilling the requests of users through the Internet. Users often require

specialized services, such as requesting information via email, social media, phone calls, and so forth.

Contemporary librarians should ensure that their collections are always preserved and updated according to the needs of users. They need to identify and arrange the collections needed by users for easy accessibility, while also ensuring that their collections are consistently available and accessible through proper maintenance and care. Furthermore, librarians are expected to provide appropriate information services to assist users, possess the proficiency to deliver precise information services, as well as offer clarification and guidance to users. They also need to maintain relationships and collaboration with other parties, such as information service providers, suppliers, and others.

In the current digital era, librarians should take the initiative to promote and market the services offered. Librarians should also endeavor to enhance their proficiency in using information technology and strive to improve the quality of the services offered. Furthermore, they need to show a willingness to adapt to their environment and learn new ways to provide better services. There is also a need to comprehend and leverage the advancement of information technology to enhance the services offered.

Role and responsibility of contemporary librarians are crucial to ensuring that users receive appropriate and impactful services. They should constantly update their knowledge and strive to provide better services to users.

B. Understanding the Needs of Users

Contemporary librarians face new challenges in fulfilling the needs of users. They need to comprehend and cater to the diverse and evolving needs, both physically and digitally. Furthermore, there is a need to understand the various aspects that determine the needs of users, such as age, abilities, interests, and preferences. Contemporary librarians should use various methods to study users, such as surveys, interviews, and direct observations. They can also use various information sources, such as user surveys, literature reviews, and study reports. According to Mustar (2019), most contemporary library managers (librarians) are professionals in the field of librarianship. Employees are predominantly individuals well-versed in library science, equipped with professional competencies, and keeping up with the times through various works and innovations in their field.

Contemporary librarians can provide better and more relevant services to fulfill the needs of users and also use digital technology to offer more efficient and effective services. An understanding of the needs of users enables librarians to enhance their experience and build better relationships. Through hard work and commitment, librarians can become a powerful force in catering to the needs of users in the future.

C. Contemporary Librarians Collaboration

Contemporary Librarians Collaboration is defined as the process of cooperation between librarians and others to enhance their knowledge and understanding of information and technology. This collaboration can occur between librarians and users, staff, and policymakers to create a more high-quality, user-friendly, and productive environment for everyone included. It has evolved from simply including librarians in the collection and organization of information. Recently, librarians have begun partnering with users to

develop more complex services and programs, as well as creating richer information products. This collaboration includes development of new information products, the offer of broader access, and new technology that facilitates easy accessibility of information.

Contemporary Librarians Collaboration also includes the provision of digital content, including e-books, videos, and audio. They can work with users to develop content related to their interests and needs as well as contribute in various ways, such as creating customized content and helping users understand the available information. This term can be performed by engaging in providing education services, including counseling and guidance. It can also be carried out by engaging in providing technology assistance services, such as software installation, computer configuration, and training on users to use available resources. Librarians can collaborate with users to develop technology solutions tailored to their needs. Additionally, this collaboration has been widely implemented in many libraries to help librarians provide the required information and technology needs of users. In this way, they can work with users and staff to ensure that everyone included has easy and smooth access to information and technology needed.

D. Understanding information technology

Contemporary librarians need to understand and leverage information technology to enhance services for users. Rapidly evolving information technology can assist librarians in providing more efficient and effective services. Therefore, there is a need to keep up with and find ways to use advancements in technology to improve library services. The available software and applications enable librarians to access information from various sources, allowing for the discovery of relevant and current information. These tools also allow librarians to manage collections and maintain the quality of provided services.

Online services offer many benefits to librarians, such as providing remote access to collections for users. This allows for the provision of services to more people without having to leave their homes. Online services can also help manage their collections more efficiently, allowing librarians to quickly obtain relevant information. Additionally, information technology helps librarians enhance the experiences of users. By using applications, librarians can enhance interactivity with users as well as provide relevant and up-to-date information. With information technology, librarians can also increase their awareness of trending topics and assist in developing relevant programs for users.

E. Developing Services

Contemporary librarians face different challenges, necessitating the adaptation of their services to technology changes as well as the evolving needs and expectations of the community. One of the methods to develop their services is by enhancing the use of technology, such as using software to manage catalogs and help users obtain the books needed. Technology can also enable librarians to conduct online searches, provide access to digital resources, and create virtual libraries.

Librarians can also develop their services in other ways, such as offering various programs and activities for children, including reading classes, performances, and more. These initiatives play a crucial role in developing the reading skills of children and enhancing their interest in reading. Librarians can also provide training to impart knowledge about information technology and others to adults. Moreover, they can use social

media to raise awareness about the services offered, run campaigns and promotions, as well as enhance community awareness of library services.

The combination of all these strategies will help contemporary librarians to develop their services. It will also assist librarians in fulfilling the needs and expectations of the community as well as enhancing the interest of readers.

F. Building Relationships with Users

Contemporary librarians have the responsibility to build positive relationships with users. This is crucial as good relationships assist librarians in enhancing the quality of library services provided. Furthermore, the quality of library services is highly influenced by the ability of librarians to provide information to users. This means they need to develop interpersonal skills in library services, such as the ability to connect with others, including empathizing, communicating, influencing others, negotiating problem-solving, leading and organizing groups, fostering relationships, as well as collaborating (Gani, 2021).

Some ways that can be used by librarians to build good relationships with users are as follows: Use technology to connect with users: They can use technology to facilitate communication with users as well as social media, email, and other applications to share information about programs and services available at libraries; Provide friendly and quality services: They should strive to deliver friendly and high-quality services to users, such as promptly answering queries, as well as providing accurate and useful information; Allow users to participate: They should allow users to participate in activities held at libraries, including the invitation to speak in panel discussions or provide feedback on the services available at libraries; Offer support to users: They should always be ready to support users, including guiding users in obtaining information, assisting in locating desired books, and addressing their queries.

Librarians can develop positive relationships with users by using these methods, thereby facilitating the provision of quality services and the fulfillment of user needs. Establishing and maintaining positive relationships with users is necessary for librarians, given their role in disseminating information and constant engagement with users, both directly and indirectly. Such positive relationships assist librarians in delivering well-received information to users.

Discussion of Result Finding. The main results of this study revolve around role and competencies development of contemporary librarians in digital era, which can be described within the framework of 5M + 1K. This framework consists of understanding role and responsibility of contemporary librarians, understanding the needs of users and information technology, contemporary librarians collaboration, developing services, and building relationships with users. These aspects are drivers for more effective and efficient library functioning. In the context of understanding role and responsibility of contemporary librarians, rapid changes in the era can swiftly impact information needs of users.

Understanding this role and its associated responsibility is contingent upon the mindset of librarians to be adaptive and innovative, rather than solely focused on manual and conventional activities. This result is consistent with the report of Sulistiorini (2016) emphasizing the necessity for librarians to shift their mindset, recognizing that the

conventional era differs from digital era, and this awareness should be acknowledged in carrying out their functions. Rodin (2018) also emphasized that nurturing creativity among librarians requires passion, time management, networking, a sense of competition, and humility. Librarians need to recognize their mindset and thoughts to select a positive mindset in their work, including setting aside thoughts like "If only I were still 30 years old, I would like to..." (Intarti, 2013). Another change that needs to be acknowledged by librarians pertains to collaborative strategies (Yudisman, 2021) and development of new methods to advance library services (Junaedi, 2019).

Role of contemporary librarians in fulfilling the needs of users is not a new concept, considering the crucial function of providing information to users by library management. The transformation of libraries is perceived not only as an information hub but also as an activity center (Ali, 2018). This statement is consistent with the results that contemporary librarians cannot escape their role and function as information providers.

Various survey tools are needed to understand the needs of users, aiding librarians in fulfilling their role. The provision of library collection includes both physical and digital accessibility, allowing users to access resources anytime and anywhere (Nurhayati, 2018). According to Rodin & Mulliati (2019), expanding access to digital services and increasing digital collections is expected to ease challenges for users, specifically in the Industrial Revolution 4.0 era. Saifuddin (2016) showed that the establishment of an information system with digital access is a crucial aspect of current libraries. Some initiatives include the existence of library service automation application programs (Fatmawati, 2020), the use of aggregators to expand collections (Saputra, 2016), and social media to support the function of libraries and contemporary librarians (Gunawan, 2017; Islamy & Laksmiwati, 2020; Suharso & Muntiah, 2020).

Contemporary Librarians Collaboration plays a significant role, which is consistent with the results of Istiana (2016) stating benefits, such as enhancing library services, maximizing resources, as well as fostering creativity and innovation among librarians. This collaboration can occur through collaboration with librarians study (Nashihuddin, 2019), students/users (Aini, 2014), volunteers (Nuraini, 2022), and among librarians and across professions (Prabowo, 2019). Libraries with actively collaborating librarians are deemed to enhance their services, gaining recognition within and beyond the institution. According to Komariah et al. (2021), the success of such collaboration is influenced by dedication, commitment, skills, and communication.

In addition to emphasizing collaboration in performing their role, contemporary librarians need to comprehend technology advancement. Dewi (2020) stated that one of technology applications that need to be mastered by librarians pertains to the use of library big data. This statement is reinforced by Hapsari (2020) who found results related to the significant influence of big data use in libraries on their services and competencies of librarians. Other technology applications that can be learned and mastered by librarians include the use of the Internet of Things (IoT), cloud-based services, and artificial intelligence (AI) (Sanjaya, 2018). Adaptive librarians are deemed capable of addressing challenges posed by rapidly evolving technology. This statement is consistent with the report of Mulyadi et al. (2019) that adaptation requires the ability to accommodate dramatic

changes. Therefore, long-term and short-term collaboration is needed, specifically in developing the capabilities of librarians to understand technology (Daryono, 2016). Contemporary librarians can collaborate with relevant IT experts to use programs and applications related to library function management.

Another crucial role for contemporary librarians is developing library services, which implies a progressive emphasis on innovating services. One significant development in library services that exemplifies the activities of contemporary librarians is the provision of digital collections accessible to users. In developing countries, contemporary librarians need to consider the legal aspects outlined in legislation regarding the development of services (Hartono, 2017). According to Misbah (2021), service development in the modern era necessitates libraries to ensure all provided services are accessible and fully used by users. Therefore, service development in the modern era is closely linked to information technology advancement. Previous studies showed the significant influence of the advancement of information technology on library services, including facilitating the work of librarians, updating library facilities, stimulating interest (Himmah & Azisi, 2019), as well as aiding librarians in processing, storing, and disseminating information (Zuhrah, 2011).

The last role of contemporary librarians in this study is to build positive relationships with users. According to Isitiana (2011), one of the efforts to enhance the professionalism of librarians is by fostering good relationships with other individuals. Pradipta & Fatmawati (2012) asserted the need to possess interpersonal skills to achieve effective communication, which nurtures their attitudes as good information providers to users (Daryono, 2017).

Discussion of Other Interesting Finding. Another interesting result is that contemporary librarians are not limited by age but can be characterized by their willingness to make improvements and change their mindset. The prerequisites for contemporary are strong will and determination to fully embrace their role. The presence of librarians aged 45 and above can inspire the young to collectively initiate change and create space for innovation for the progress of libraries. Positive cooperation, communication, and collaboration are expected to build a realization of optimal library performance in the future, specifically in swiftly and accurately delivering information needs.

Limitations. This study focused on the role of contemporary librarians, thereby designating them as library managers. One of the limitations of the study is the lack of examination of contemporary roles of librarians from the users' perspective. It was recognized that considering users' perspectives is crucial to obtaining more objective and accurate results.

Future Study Directions. Based on the aforementioned limitation, future study, specifically with a similar focus, is recommended to conduct field surveys and gather information from the perspective of users.

IV. CONCLUSION

In conclusion, contemporary librarians are individuals who use information and communication technology to enhance library services. Their skill requirement included analyzing and using information, managing time, and using information technology in digital

era. Librarian are also required to collaborate with other staff to achieve organizational goals, understood their role and responsibilities, and information technology, as well as develop services, and build relationships with users. By mastering these aspects, contemporary librarians could continue to carry out their work professionally and would not be underestimated by the community and other professions.

V. REFERENCES

- Aini, R. N. (2014). *Kolaborasi Pustakawan & Mahasiswa: Sebuah Best Practice di Fakultas Biologi*.
- Ali, I. (2018). Transformasi Perpustakaan dari Pusat Informasi ke Pusat Aktivitas (Makerspace). *Jurnal Media Pustakawan*, 25(2). <https://doi.org/https://doi.org/10.37014/medpus.v25i2.270>
- Anwar, R. K., & Rusmana, A. (2017). Komunikasi Digital Berbentuk Media Sosial Dalam Meningkatkan Kompetensi Bagi Kepala, Pustakawan, Dan Tenaga Pengelola Perpustakaan Sekolah / Madrasah Di Desa Kayu Ambon, Kecamatan Lembang Kabupaten Bandung Barat. *Jurnal Aplikasi Iptek Untuk Masyarakat*, 6(4). <https://jurnal.unpad.ac.id/dharmakarya/article/view/14891>
- Ardiansyah, F. (2019). Peran Pustakawan dalam Pengembangan Literasi Informasi di Perpustakaan Universitas Muhammadiyah Makassar. In *Pascasarjana Uin Alauddin Makassar*.
- Daryono. (2016). Pustakawan Masa Depan Dan Pengembangan Teknologi Informasi (Peran, Sikap, Tantangan dan Hambatan dalam Implementasi). *Jurnal Pustaka Ilmiah*, 2(2). <https://doi.org/https://doi.org/10.20961/jpi.v2i2.33658>
- Daryono. (2017). Komunikasi Antar Pribadi: Pustakawan dengan Pemustaka dalam Memberikan Layanan Jasa di Perpustakaan. *Jurnal Kepustakawanan Dan Masyarakat Membaca*, 33(1). <https://core.ac.uk/download/pdf/267825542.pdf>
- Dewi, A. O. P. (2019). Penggunaan Mobile Library untuk Perpustakaan Digital. *Anuva: Jurnal Kajian Budaya, Perpustakaan Dan Informasi*, 3(2). <https://doi.org/10.14710/anuva.3.2.151-155>
- Dewi, A. O. P. (2020). Big Data di Perpustakaan dengan Memanfaatkan Data Mining. *Anuva: Jurnal Kajian Budaya, Perpustakaan Dan Informasi*, 4(2). <https://doi.org/10.14710/anuva.4.2.223-230>
- Farida, U. (2018). Pengelolaanbig Datapada Perpustakaan : Tantangan Bagipustakawan Di Era Perpustakaan Digital. *Journal Net. Library and Information*, 1(1). <http://e-journal.sari-mutiara.ac.id/index.php/jnli/article/view/271/277>
- Fatmawati, E. (2020). Pengenalan Automasi Perpustakaan Terintegrasi Inlislite. *Libraria: Jurnal Ilmu Perpustakaan Dan Informasi*, 9(1). <https://fppti-jateng.or.id/libraria/index.php/lib/article/view/81/58>
- Fitriah, H. (2020). *Peran Perpustakaan Digital Di Era Millinea* [Universitas Islam Negeri Antasari Banjarmasin]. https://idr.uin-antasari.ac.id/15100/?_cf_chl_tk=PrjudK6tDhNbEeAZKSoZZF3vnVuz_etuGedBkVm6vo-1639666795-0-gaNycGzNCL0
- Gani, S. A. (2021). Membangun Interpersonal Skills Pustakawan dalam Layanan Informasi Perpustakaan. *LIBRIA, Vol. 13, No.1, Juni 2021*, 13(1), 17-27. <https://jurnal.ar-raniry.ac.id/index.php/libria/article/view/10600>
- Gunawan, A. (2017). Pemanfaatan Media Sosial Di Perpustakaan. *Jurnal Pari*, 3(1). <https://core.ac.uk/download/pdf/267085284.pdf>

- Hapsari, N. F. A. (2020). Big Data Dan Pemanfaatannya Di Perpustakaan. *JIPER: Jurnal Ilmu Perpustakaan*, 2(1). <https://doi.org/https://doi.org/10.31764/jiper.v2i1.2219>
- Hartono, H. (2017). Strategi Pengembangan Perpustakaan Digital Dalam Membangun Aksesibilitas Informasi: Sebuah Kajian Teoritis pada Perpustakaan Perguruan Tinggi Islam di Indonesia. *Unilib : Jurnal Perpustakaan*, 8(1). <https://doi.org/https://doi.org/10.20885/unilib.vol8.iss1.art7>
- Hermawan. (2016). *Peran Pustakawan Dalam Era Digitalisasi Informasi*. Sebelas Maret University Library. <https://library.uns.ac.id/peran-pustakawan-dalam-era-digitalisasi-informasi/>
- Himmah, T. N., & Azisi, D. S. F. (2019). Pengaruh Perkembangan Teknologi Informasi Terhadap Layanan Perpustakaan Iain Tulungagung. *Bibliotika : Jurnal Kajian Perpustakaan Dan Informasi*, 3(2). <https://doi.org/http://dx.doi.org/10.17977/um008v3i22019p123-130>
- Husna, J. (2019). Peran Pustakawan Sebagai Kreator Konten Digital. *Anuva: Jurnal Kajian Budaya, Perpustakaan, Dan Informasi*, 3(2), 173–184. <https://doi.org/10.14710/anuva.3.2.173-184>
- Intarti, W. S. (2013). Transformasi Pustakawan. *Jurnal Media Pustakawan*, 20(1). <https://ejournal.perpusnas.go.id/mp/article/view/898/876>
- Islamy, M. A. N., & Laksmiwati, I. (2020). Pemanfaatan Media Sosial Sebagai Sarana Promosi Layanan Perpustakaan Institut Seni Indonesia Surakarta. *N-JILS*, 3(1). <https://doi.org/https://doi.org/10.30999/n-jils.v3i1.804>
- Istiana, P. (2011). Meningkatkan Profesionalisme Sebagai Langkah Awal Peningkatan Citra Positif Pustakawan. *Jurnal Media Pustakawan*, 18(2). <https://doi.org/https://doi.org/10.37014/medpus.v18i2.810>
- Istiana, P. (2016). Kolaborasi Perpustakaan & Stakeholder. *JUPI: Jurnal Ilmu Perpustakaan & Informasi*, 1(2). <https://doi.org/http://dx.doi.org/10.30829/jupi.v1i2.560>
- Junaedi, D. (2019). Tantangan Kepustakawanan Di Era Disrupsi. *Junral Media Pustakawan*, 26(3). <https://doi.org/https://doi.org/10.37014/medpus.v26i3.554>
- Kurniasih, N. (2017). Kualifikasi Pustakawan di Era Digital. 439–449. <https://doi.org/10.31227/osf.io/tm7d8>
- Komariah, N., Saepudin, E., & Nurisla miningsih, R. (2021). Kolaborasi Sebagai Upaya Peningkatan Kinerja Perpustakaan di Telkom University Open Library. *Pustakaloka: Jurnal Kajian Informasi Dan Perpustakaan*, 13(2). <https://doi.org/https://doi.org/10.21154/pustakaloka.v13i2.3285>
- Krismayani, I. (2018). Mewujudkan Fungsi Perpustakaan di Daerah. *Anuva: Jurnal Kajian Budaya, Perpustakaan Dan Informasi*, 2(2). <https://doi.org/10.14710/anuva.2.2.233-242>
- Misbah, M. S. (2021). Pemanfaatan layanan perpustakaan di era modern sebagai sumber informasi bagi pemustaka. *AL-KUTTAB: Jurnal Kajian Perpustakaan, Informasi Dan Kearsipan*, 3(2). <https://doi.org/https://doi.org/10.24952/ktb.v3i2.3087>
- Mulyadi, Zulkarnain, I., & Laugu, N. (2019). Adaptasi pustakawan dalam menghadapi kemajuan teknologi. *Berkala Ilmu Perpustakaan Dan Informasi*, 15(2). <https://doi.org/10.22146/bip.39843>
- Mustar, M. (2019). Perpustakaan Dahulu, Kini dan Masa Depan. In Ute, N. W. Utami, & T. Hardiningtyas (Eds.), *Literasi dan Pustakawan Era 4.0* (pp. 372–384). Yuma Pustaka.
- Nashihuddin, W. (2019). *Kolaborasi Penelitian Pustakawan*. <https://www.researchgate.net/profile/Wahid-Nashihuddin->

- [2/publication/339107835_KOLABORASI_PENELITIAN_PUSTAKAWAN/links/5e3de9b6299bf1cdb9171d9b/KOLABORASI-PENELITIAN-PUSTAKAWAN.pdf](https://publication/339107835_KOLABORASI_PENELITIAN_PUSTAKAWAN/links/5e3de9b6299bf1cdb9171d9b/KOLABORASI-PENELITIAN-PUSTAKAWAN.pdf)
- Nugrohadhi, A. (2013). Menakar Peranan Pustakawan dalam Implementasi Teknologi Informasi di Perpustakaan . *Khazanah Al-Hikmah : Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 1(2). <https://journal3.uin-alauddin.ac.id/index.php/khazanah-al-hikmah/article/view/34>
- Nuraini, R. (2022). Optimalisasi Layanan Perpustakaan Fakultas Biologi Universitas Gadjah Mada melalui Kolaborasi Pustakawan dengan Volunteer Perpustakaan . *Jurnal Media Informasi*, 31(1). <https://doi.org/https://doi.org/10.22146/mi.v31i1.4969>
- Nurhayati, A. (2018). Perkembangan Perpustakaan dalam Pemenuhan Kebutuhan Informasi Masyarakat. *UNILIB : Jurnal Perpustakaan*, 9(1). <https://doi.org/https://doi.org/10.20885/unilib.vol9.iss1.art3>
- Paidjo, Y. (2012). Pustakawan: Dulu, Kini Dan Masa Depan. *Media Informasi*, Vol. 21, N(2), 22–30. https://www.researchgate.net/publication/349703308_Perpustakaan_Dahulu_Kini_dan_Masa_Depan
- Prabowo, T. T. (2019). Kolaborasi Pustakawan Antar dan Lintas Profesi: Sebuah Opini . In *Islam dalam Goresan Pena Budaya*. Diva Press. <https://digilib.uin-suka.ac.id/id/eprint/38070/>
- Pradipta, C. V., & Fatmawati, E. (2012). Pengaruh Konsep Diri Dalam Komunikasi Interpersonal Pustakawan Hubungannya Terhadap Kepuasan Pemustaka Di Badan Perpustakaan Dan Kearsipan Daerah Kota Cirebon. *Jurnal Ilmu Perpustakaan*, 1(1). <https://ejournal3.undip.ac.id/index.php/jip/article/view/610/608>
- Rahmadanita, A. (2022). Kompetensi Digital Pustakawan d alam Penyelenggaraan Fungsi Layanan Perpustakaan pada Masa New Normal. *Jurnal Media Informasi*, 31(2). <https://doi.org/https://doi.org/10.22146/mi.v31i2.6290>
- Rodin, R. (2018). Upaya Pustakawan Akademik Menumbuhkan Kreativitas dan Inovasi di Era Digital (Studi di Perpustakaan Perguruan Tinggi Islam di Propinsi Bengkulu) . *LIBRARIA : Jurnal Ilmu Perpustakaan Dan Informasi*, 6(1). <https://fppti-jateng.or.id/libraria/index.php/lib/article/view/8>
- Rodin, R., & Mulliati, M. (2019). Analisis Arah Dan Kebijakan Pengembangan Perpustakaan Iain Curup Menghadapi Era Industri 4.0 . *Jurnal IPI (Ikatan Pustakawan Indonesia)*, 4(2). <https://doi.org/https://doi.org/10.1234/jurnal%20ipi.v4i2.56>
- Saifuddin. (2016). Strategi Pengembangan Perpustakaan Perguruan Tinggi Dalam Memenuhi Kebutuhan Informasi Di Era Digital (Sebuah Pandangan Sosiologis Atas Fenomena Spiritual Seekers Di Dunia Maya). *Libraria*, 4(1). <https://core.ac.uk/download/pdf/297848358.pdf>
- Sanjaya, R. (2018). *Library 4.0 untuk Perpustakaan Masa Depan* . Suara Merdeka. <http://repository.unika.ac.id/16940/>
- Saputra, D. F. (2016). Agregator Sebagai Alat Pengembangan Koleksi Perpustakaan Berbasis Website. *Pustakaloka: Jurnal Kajian Informasi Dan Perpustakaan*, 8(2). <https://jurnal.iainponorogo.ac.id/index.php/pustakaloka/article/view/687/532>
- Suharso, P., & Muntiah, A. (2020). Pemanfaatan Media Sosial Instagram Pada Perpustakaan Perguruan Tinggi. *EduLib*, 10(1). <https://ejournal.upi.edu/index.php/edulib/article/view/20984>
- Sulistiorini. (2016). Eksistensi pustakawan di era digital; pustakawan multi- tasking. *Jurnal Perpustakaan Universitas Airlangga*, 6(1).
- Supriyanto, W. (2015). Pengembangan Sistem Layanan Perpustakaan Digital . *Jurnal Ilmu Perpustakaan Dan Informasi*, 4(1). <https://repository.ugm.ac.id/136541/>

- Ulum, A. (2017). *Membangun Pustakawan Modern*. Azyan Mitra Media.
- Uswatun, A. (2016). Pustakawan Masa Kini. *Jurnal Iqra'*, 10(01), 55–65.
- Yudisman, S. N. (2021). Tren Layanan Perpustakaan Untuk Pemustaka Milenial Siswa Sekolah Menengah Atas (SMA) Negeri 3 Padang. *Libria*, 13(1).
<https://doi.org/http://dx.doi.org/10.22373/10581>
- Zuhrah, F. (2011). Pentingnya Teknologi Informasi Dalam Meningkatkan Pelayanan Di Perpustakaan. *Jurnal Iqra'*, 05(01).
<https://core.ac.uk/download/pdf/53037059.pdf>



