

Digitalized Libraries in The Age of Digitalization and The Expectations of Academicians From The Library: The Case of Necmettin Erbakan University

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Article Info	ABSTRACT
Received: 21.04.2026 Accepted: 23.05.2026 Published: 30.06.2026	Rapid developments in information and communication technologies have significantly transformed information access processes and the ways in which institutions provide services. Libraries, as one of the institutions affected by this transformation, are evolving from a traditional service approach toward a new service model supported by digital technologies, accessible, and user-oriented. Particularly, the widespread use of internet technologies, Web 2.0 applications, and digital resources has changed users' information-seeking behaviors and reshaped their expectations from libraries. The aim of this study is to examine the digital transformation process in libraries and to reveal academics' awareness and expectations regarding digitalized library services. Within this framework, the information-seeking behaviors, information access preferences, and evaluations of digital library services of academics working at Necmettin Erbakan University were investigated. A qualitative research method was adopted, and semi-structured interviews were used as the data collection technique. The data obtained from interviews conducted with 19 academics working in different academic units were analyzed through content analysis and coded using the MAXQDA 18 software. The findings of the study indicate that academic staff predominantly prefer internet-based resources for accessing information. Participants identified the main advantages of digitalized libraries as rapid and easy access to information, remote access opportunities, time and cost savings, and the preservation of resources. However, information reliability, information overload, resource diversity, and the improvement of user awareness regarding digital services were identified as areas requiring further development. Overall, the study concludes that digital transformation contributes positively to library services; however, these services should be continuously improved in line with changing user needs. The study provides evaluations regarding the development of innovative and sustainable service models that consider user expectations in the digital transformation process of libraries.

Dijitalleşme Çağında Dijitalleşen Kütüphaneler ve Akademisyenlerin Kütüphaneden Beklentileri: Necmettin Erbakan Üniversitesi Örneği

Makale Bilgisi	ÖZET
Geliş Tarihi: 21.04.2026 Kabul Tarihi: 23.05.2026 Yayın Tarihi: 30.06.2026	Bilgi ve iletişim teknolojilerinde meydana gelen hızlı gelişmeler, bilgiye erişim süreçlerini ve kurumların hizmet sunma biçimlerini önemli ölçüde değiştirmiştir. Bu değişimden etkilenen kurumlardan biri olan kütüphaneler, geleneksel hizmet anlayışından dijital teknolojilerle desteklenen, erişilebilir ve kullanıcı odaklı yeni bir hizmet modeline doğru dönüşmektedir. Özellikle internet teknolojileri, Web 2.0 uygulamaları ve dijital kaynakların yaygınlaşması, kullanıcıların bilgiye erişim davranışlarını değiştirmiş ve kütüphanelerden beklentilerin yeniden şekillenmesine neden olmuştur. Bu araştırmanın amacı, kütüphanelerde yaşanan dijital dönüşüm sürecini incelemek, akademisyenlerin dijitalleşen kütüphane hizmetlerine yönelik farkındalıklarını ve beklentilerini ortaya koymaktır. Bu kapsamda Necmettin Erbakan Üniversitesinde görev yapan akademisyenlerin bilgi arama davranışları, bilgiye erişim tercihleri ve dijital kütüphane hizmetlerine ilişkin değerlendirmeleri ele alınmıştır. Araştırmada nitel araştırma yöntemi benimsenmiş ve veri toplama aracı olarak yarı yapılandırılmış görüşme tekniği kullanılmıştır. Farklı akademik birimlerde görev yapan 19 akademisyen ile gerçekleştirilen görüşmelerden elde edilen veriler içerik analizi yöntemiyle değerlendirilmiş ve MAXQDA 18 programı aracılığıyla analiz edilmiştir. Araştırma bulguları, akademik personelin bilgiye erişimde ağırlıklı olarak internet tabanlı kaynakları tercih ettiğini göstermektedir. Katılımcılar dijitalleşen kütüphanelerin en önemli avantajlarını bilgiye hızlı ve kolay erişim, uzaktan erişim olanakları, zaman ve maliyet tasarrufu ile kaynakların korunabilirliği olarak değerlendirmiştir. Bununla birlikte bilgi güvenilirliği, bilgi kirliliği, kaynak çeşitliliği ve dijital hizmetlere yönelik kullanıcı bilgilendirmelerinin geliştirilmesi gereken alanlar olduğu belirlenmiştir. Genel olarak dijital dönüşümün kütüphane hizmetlerine olumlu katkılar sağladığı, ancak değişen kullanıcı ihtiyaçlarına uygun olarak hizmetlerin sürekli geliştirilmesi gerektiği sonucuna ulaşılmıştır. Çalışma, dijitalleşme sürecinde kütüphanelerin kullanıcı beklentilerini dikkate alan, yenilikçi ve sürdürülebilir hizmet modelleri geliştirmesine yönelik değerlendirmeler sunmaktadır.

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INTRODUCTION

The world in the 21st century is defined as the digital information age, in which possessing information is considered one of the most essential requirements of the era. Advances in information and communication technologies have further increased the value of information. The decreasing cost of storing large volumes of data in digital environments, the secure storage of information in cloud systems, the improvement of computer processing speed, the increase in user-friendly software that enables easy access to information, and the rapid generation and transmission of data have made it possible to produce new knowledge through the integration and analysis of large datasets.

Digitalization is one of the most significant phenomena of our century. It affects life in every aspect and has become an undeniable reality. The widespread and affordable access to computers and the internet, along with their global diffusion, are among the most important developments that have given rise to the digital age (Parlak, 2017: 1242–1243).

In *The Third Wave*, Toffler (1980) states that information is the fundamental source of power in the information society. As a result, the need for information has increased, and information has become one of the most influential factors shaping social development. Information is constantly evolving, and with the advancement of information and communication technologies, access to information has become easier and boundaries have disappeared. New information spreads rapidly. In other words, knowledge is no longer merely a cognitive process (Capurro & Hjørland, 2003), but is continuously disseminated through online networks. Certain limitations experienced by individuals are eliminated in network societies. The size and depth of networks are among the key factors determining the position of societies in this new order (Bozkurt et al., 2021: 37–38).

With the development of the internet, digitization and digitalization processes have accelerated, and digital transformation has become an important agenda item in many countries (Yankın, 2018: 15). As a result of technological developments, libraries have also begun to digitalize. The internet has become an indispensable tool for accessing all types of information, and the ability to access information without time and space limitations has become increasingly important for researchers. At this point, digital libraries have emerged (Karataş Ateş, 2015: 561).

The ability of users to access needed information at any time has become highly attractive, and time- and location-independent access has become both convenient and efficient (Bayter, 2018). As a result of developments in information technologies, information resources have also been digitized. Through digitization, printed materials such as books, journals, and similar resources in libraries are converted into electronic formats and made available to users (Karagözoğlu Aslıyürek, 2016: 88).

Libraries now aim to utilize Web 2.0 technologies and reorganize their services in accordance with changing user expectations, while adapting to technological innovations. Libraries can transform technological developments into opportunities for their own benefit. All Web 2.0 technologies can be integrated into library services. Tools already used by users—such as blogs, wikis, RSS feeds, videos, podcasts, and Twitter—should also be integrated into library services, and libraries should effectively benefit from these technological opportunities (Işık, 2010: 101).

Accessing and using information no longer requires physical possession of it. Kohl (2006) states that although university libraries still exist as physical buildings, the notion of locating the library is becoming increasingly difficult, and libraries should not be identified merely with buildings. Instead, content and services have become more important, and network-based access has redefined library content beyond physical spaces. Libraries are increasingly becoming virtual pathways. According to statistics from 123 major university libraries affiliated with the Association of Research Libraries, circulation decreased by 16%, while in-library material use decreased by 49% (Tonta, 2006:2).

Digital libraries reduce the need for physical storage of information, minimize material deterioration, allow simultaneous access to the same material by multiple users, and enable access from any location outside the library. However, digital libraries also involve costs such as digitization expenses, metadata creation, search and retrieval system development, and preservation challenges. In addition, concerns regarding the quality of some electronic resources have been raised (Oppenheim & Smithson, 1999: 97).

While services are increasingly personalized and user-friendly interfaces are developed, users often express concerns regarding the sharing of personal data with third parties. Therefore, strict privacy measures should be implemented and clearly communicated to users (Uçan, 2010: 25).

In Turkey, although the number of library users and the in-library use of materials have been decreasing, this does not necessarily indicate a decline in the use of library resources. Instead, users increasingly access libraries through virtual environments. They primarily use electronic books and journal articles. Users and researchers can access all library services via computers or smartphones from home, workplaces, or other locations without physically visiting the library. For this reason, the number of remote-access databases, electronic journals, and e-books in libraries has increased significantly.

Users who can renew borrowed books via mobile phones or access databases remotely experience immediate satisfaction. The ability to access all library services remotely increases the perceived value of libraries among users. Users can access library resources at any time of the day. Additionally, multiple researchers can download and read the same article simultaneously. Virtual library tours also allow users to obtain information about services and materials remotely.

Libraries and information centers, which are the institutions most affected by information needs and technological advancements, have begun to experience a strong need for change and renewal in order to keep up with technological developments. Institutions must be aware that failure to adapt to innovation may lead to their disappearance. Therefore, libraries must strive to adapt their services according to changing user behaviors. Libraries should also aim to attract users who are highly dependent on technology and whose learning and perception styles differ from previous generations.

In universities, in order to provide more effective and efficient information services to academic staff, their characteristics and expectations must be identified. This study evaluates the impact of digital transformation in libraries and developments in information technologies on libraries. It also examines the information-seeking behaviors of academic staff and their expectations from libraries. In the empirical part of the study, a qualitative analysis was conducted. Data were collected through semi-structured interviews with academic staff working in different disciplines at Necmettin Erbakan University. MAXQDA software was used for data analysis. Based on the findings, the study aims to provide results that will help libraries offer services that better meet academic staff expectations. This study is expected to provide useful insights for those interested in understanding the transformation of libraries.

The Digitalization Age and Digitalized Libraries

The concept of digitalization refers to the conversion of resources or data into digital formats using electronic devices and their transfer into digital environments. In society, digitalization is often perceived as the ability to access more information quickly and easily through advanced technologies in electronic systems (Yücel & Adiloğlu, 2019: 52).

Digitization is the technical process of encoding information into a digital format, making digital content programmable, traceable, and transferable (Knudsen, 2020: 2).

The concept of Society 5.0 has introduced the idea of utilizing technology for the benefit of

society in the context of digital transformation. Rather than defining digital society as a society emerging as a result of digitalization, it is more appropriate to define it as a society existing within a digitalized world (Bozkurt et al., 2021: 39).

In the digital age, what is more important than the production of information itself is the technologies used to produce, use, and transmit it. In a digital society, the widespread use of network-based systems has created an “e-life” environment. Developments in communication technologies have transformed the concepts of time and space. Individuals are now able to carry out their tasks anytime and anywhere in a fast and efficient manner. Information professionals are also required to adapt to the digital age. They are expected to ensure easy access to increasing amounts of information, respond to changes in the most effective way, and maintain a high level of competence (Yurdadoğ, 2008: 21–26).

Digital transformation encompasses a broader meaning than digitization. It does not merely refer to a limited number of technologies. Technologies such as Web 2.0, mobile systems, cloud computing, digital media, big data, artificial intelligence, and 3D printing play a significant role in the emergence of a new era. Through digital technologies, analog records are first converted into a format that can be processed digitally, and then processes are transferred into digital environments. Institutional assets and stakeholder relationships are redefined within this digital context. Digital transformation is defined as a holistic transformation of organizations in terms of workforce, business processes, and technology, aimed at improving service efficiency and effectiveness as well as increasing user satisfaction, resulting from advancements in information and communication technologies and changing societal needs (Yankın, 2018: 15).

Libraries have also begun to digitalize as a result of technological developments. The decreasing frequency of library visits has made digitalization an important factor in increasing library usage. For users, accessing information without time and location constraints has become increasingly important. Digital libraries respond to these demands. With the digitalization of libraries, information can be accessed instantly and comprehensively. This process improves service quality for users and contributes to the development of new research activities (Bayter, 2018: 66–67).

In the literature, the concept of digital libraries was first introduced by Vannevar Bush in his work “As We May Think,” published in *The Atlantic Monthly* in 1945. The expansion of the internet also facilitated the emergence of digital libraries. One of the earliest major projects in this field is the National Digital Library Program (NDLP) of the Library of Congress, launched in 2000. This project aimed to provide online access to digital resources held by partner institutions and is considered one of the first web-based digital library services accessible to a large number of users. The Digital Libraries Initiative (1994–1998) is also among the important developments in this field. According to the Council on Library and Information Resources, a digital library is a library that has a digitally accessible collection and can be accessed from anywhere (McGinty, 1997).

Digital libraries do not have a physical location and are accessed through a single online access point. In addition to their own collections, they also provide access to remote resources. Digital libraries are created, organized, and maintained by users. Their functional capacity is designed to support the information needs and usage practices of user communities (Bawden et al., 2005:86-87).

With the digital revolution, electronic resources have transformed the traditional perception of libraries as building-based institutions, and user expectations have changed accordingly. Online resources are increasingly used, while the number of physical library visits is declining. Today, users are able to manage most of their tasks via smartphones and are often reluctant to make additional effort to access library services. As a result of the fast-paced nature of the digital age, individuals tend to become quickly disengaged from tasks and their attention spans are significantly reduced. Therefore,

libraries are required to adopt a user-centered approach in service design. Traditional service models should be reconsidered, as rigid approaches tend to alienate users and researchers (Karagözoğlu Ashiyürek et al., 2017: 32-34).

Previous Studies on the Subject

Yalçın (2014) conducted a study aiming to determine the expectations of the network generation and to reveal the profile of this cohort. The study collected data from participants aged 18–35. The findings indicated that participants primarily used the internet for searching information and accessing social networks. In the present study, however, academic staff reported that they mostly use the internet for academic purposes. In the same study, all age groups (66.7%–75.4%) identified books as the most reliable source of information.

In the study conducted by Dalkıran (2018) at Hacettepe University, the information-seeking behaviors of network generation students were examined. A high proportion of participants stated that if internet access were restricted, access to information would also be restricted, with a rate of 66.6%, highlighting the importance of the internet in accessing information. Additionally, 42% of participants believed that they could not access information without the internet. Similarly, in the present study, academic staff reported that they primarily prefer the internet for accessing information. In Dalkıran's study, 80% of participants stated that it is easy to find information on the internet, demonstrating the importance of perceived ease of use. In the study conducted with academics, participants also emphasized that the internet provides fast access, direct information retrieval, and accurate results. In the network generation study, 66.2% of participants considered printed sources and library use more costly compared to internet-based sources. Likewise, academic staff frequently stated that printed resources and library use are costly. In the same study, 86.1% of participants expressed a desire to access information anytime and from anywhere. Similarly, academic staff also have expectations of remote access and ease of access, and they consider that digitalization meets these expectations. The perception of the internet within the network generation showed that fast and easy access to information was the most prominent feature. Similarly, in the present study, the most important expectation of academics from libraries is ease of access, which explains their overall support for digitalization.

In the study conducted by Bayter (2018), participants were asked whether they believed that technology is beneficial for libraries, and 75% responded positively. Similarly, in the present study, participants also expressed predominantly positive views regarding the benefits of digitalized libraries. In both studies, participants acknowledged that technology can be beneficial for libraries. In Bayter's study, library users at Ankara Yıldırım Beyazıt University reported that they primarily prefer the internet for accessing information. Similarly, academic staff at Necmettin Erbakan University also prefer the internet as their primary source of information access.

In the study conducted by Süzer (2020) at Karabük University, 52.6% of participants stated that they generally prefer printed sources. However, academic staff indicated a greater preference for electronic resources. Similarly, academic staff from different units at Necmettin Erbakan University also prefer internet-based resources rather than printed materials.

In a study conducted by Kavak (2018), the aim was to determine the adequacy of electronic services provided by libraries. 67.4% of participants agreed with the statement: "I think libraries should make greater efforts in providing and making electronic resources available." The findings indicated that while most participants were aware of electronic resource services, they generally considered them insufficient. In contrast, in the present study, the majority of academic staff stated that the electronic resources of Necmettin Erbakan University Library are adequate.

Research Purpose, Problem, Questions, and Hypotheses

The main purpose of this study is to examine the digital transformation process occurring in libraries, to determine the awareness levels of academic staff at Necmettin Erbakan University regarding the changes and transformations taking place in this process, to identify their expectations from library services, and to evaluate the characteristics of this user group. Based on the findings obtained from the study, it is aimed to reach conclusions that will contribute to the development of library services in line with the changing needs and expectations of academics. This study provides significant insights into understanding the transformation in libraries and the changes in user expectations.

The study is important in terms of revealing the awareness levels of academics regarding changing library services and whether this awareness creates any deficiencies in information access processes. The findings are expected to provide useful data for librarians, library administrators, and future researchers working on this topic. In addition, it is anticipated that the study will contribute to the evaluation of how academics can use library services more effectively and accurately.

Research Problem: What are the expectations of academics working at Necmettin Erbakan University from library services in the process of digital change and transformation?

Sub-questions

1. How do developments in information technologies affect the information-seeking behaviors of academics?
2. Are academics aware of the digital change and transformation processes taking place in libraries?
3. Are the digital transformation applications and digital services provided by Necmettin Erbakan University Library used effectively by academics?
4. What is the level of satisfaction of academics with existing library services?
5. What are the expectations of academics regarding library services?

METHOD

The subject of this research is digitalized libraries in the age of digitalization and the expectations of academic staff working at Necmettin Erbakan University regarding library services.

In the study, data were collected from academic staff working in different academic units of Necmettin Erbakan University through semi-structured interviews. An interview schedule was prepared in advance with participants, and interviews were conducted face-to-face. Detailed notes were taken during each interview, and all interviews were recorded. The interviews lasted approximately 15–30 minutes.

The interview method is a data collection technique that allows participants to directly express their knowledge, feelings, and opinions regarding the research topic. The main purpose of this method is to access participants' inner perspectives and viewpoints. Through interviews, it is possible to obtain information that cannot be directly observed, such as individuals' life experiences, thoughts, attitudes, intentions, interpretations, cognitive perceptions, and reactions (Baltacı, 2019).

In semi-structured interview technique, the aim is to obtain similar types of data from participants related to the research topic. For this purpose, an interview form containing questions and thematic headings is prepared in advance by the researcher. This form provides a broad framework covering the intended topics. While the interviewer follows the questions in the form, additional probing questions may be asked to obtain more detailed information when necessary. This method has the characteristics

of a flexible conversational process, and the order of questions may vary depending on the flow of the interview (Doğanay et al., 2012: 145).

Research Questions Used in the Study

Demographic Questions

1. What is your academic title?
2. For what purposes do you use the internet?
3. Which source do you primarily prefer for accessing information? Why? (e.g., internet)
4. What do you know about remote access to the library?
5. Have you used e-library services before?
6. How did you learn about e-library services?
7. How often do you use Necmettin Erbakan University Library online?

Interview Questions

A. Digitalized Libraries

1. How do you evaluate the digitalization of libraries in the context of changing library services with the widespread use of the internet, technological tools, and social networks?

B. User Expectations

2. What are your most important expectations from a library? To what extent does Necmettin Erbakan University Library meet these expectations?

Limitations of the Study

This study was conducted within certain limitations. First, the study is limited to Necmettin Erbakan University, which is a significant constraint. In addition, the sample consists solely of academic staff, which constitutes another limitation. Furthermore, time and cost constraints also limited the scope of the study.

Reliability Analysis

A reliability test was conducted in the study. One of the commonly used methods in qualitative research is the reliability approach developed by Krippendorff. This approach consists of three stages: stability, reproducibility, and accuracy (Krippendorff, 2004, p. 211).

Within this scope, the coding process carried out using the MAXQDA software was repeated after a certain period, and similar results were obtained. This indicates that the stability stage of the study was achieved. Subsequently, coding was independently performed by two different experts, and the inter-coder agreement rate was determined to be 80%. This result demonstrates that the reproducibility level was ensured.

In the accuracy stage, research findings are expected to be comparable with previous studies. However, Krippendorff notes that this stage is not mandatory for every study. Since qualitative research results vary depending on participant perspectives, this stage could not be fully achieved. Nevertheless, the achievement of stability and reproducibility stages is considered sufficient for ensuring the reliability of the study.

Population and Sample / Study Group

The population of the study consists of academic staff working in different academic units of Necmettin Erbakan University. Within the scope of the study, face-to-face interviews were conducted with 19 academics who agreed to participate in the research. During the interview process, it was observed that participants' responses started to become similar and that meaningful differences in newly obtained data decreased. Therefore, the 19 participants reached within this framework were considered sufficient to represent the sample.

A simple random sampling method was preferred in the study. This method is a type of sampling in which all units within the population have an equal chance of being selected for inclusion in the sample. For this method to be applied, the population should have a homogeneous structure. During the implementation process, a sampling frame covering all units in the population is first created. Then, the researcher randomly selects the required number of units to be included in the sample. This method is particularly functional in situations where the population is concentrated within a specific geographical area and an appropriate sampling frame is available (Baltacı, 2018:240).

Data Collection

In this study, the interview technique, which is one of the qualitative research methods, was used as the data collection method. Berg and Lune (2019) classify interview methods into three main groups: standardized, semi-standardized, and non-standardized interviews. Within the scope of this research, interview questions available in the literature and related to the research topic were utilized. In addition, during the interview process, additional questions were asked when necessary in order to ensure that participants better understood the questions and to obtain more detailed data. Therefore, the semi-structured (semi-formal) interview technique was preferred in the study.

Data Analysis

In this research, content analysis was used for data analysis. Drisko and Maschi (2017) define content analysis as "a family of research techniques aiming to make systematic, reliable, valid, and reproducible inferences from texts and other forms of communication." The obtained data were first classified according to the purpose of the research, then coded using the MAXQDA 18 software, and the analysis process was carried out systematically. Content analysis is a method based on categorizing individuals' written and verbal expressions under certain categories and revealing their frequency of occurrence (Hepkul, 2002: 2). In this respect, it enables data to become more organized and interpretable. The main purpose of the content analysis approach is to identify general trends related to the research topic and to produce findings that can guide future studies (Ültay et al., 2021: 190).

FINDINGS

The findings obtained within the scope of the research were evaluated based on participants' demographic characteristics, internet usage habits, information access preferences, remote access experiences, and opinions regarding digitalized libraries. The analyses demonstrate that academic staff extensively use digital information resources and particularly prefer the internet for academic purposes. A large proportion of participants stated that they prefer the internet because it provides fast and direct access to information. In addition, the internet is also used for various purposes such as social media use, communication, following current events, and daily activities.

A total of 19 academic staff members participated in the study. When participants' academic titles were examined, the highest participation rates belonged to Assistant Professors (36.85%) and Research Assistants (26.31%). Regarding age distribution, 52.63% of participants were between the ages of 25–

40, while 47.37% were between 41–65 years old. In terms of gender distribution, 73.69% of participants were male.

Participants stated that they use the internet mostly for academic purposes. In addition, they reported using the internet for social media, communication, following current events, searching daily information, watching films and videos, leisure activities, shopping, and banking transactions. This finding is similar to the results of Yalçın's (2014) study examining the internet usage habits of the network generation. That study also found that participants mostly used the internet for information searching and accessing social networks.

When the findings regarding information access preferences are examined, it is observed that the majority of participants primarily prefer the Internet. The reasons for preferring the Internet include providing rapid and direct access to information, obtaining accurate results in a short time, and offering a practical way to reach only the required information. In addition, the portability of digital resources has been evaluated as an important advantage. On the other hand, participants who primarily prefer printed sources for accessing information stated that they consider these sources more reliable and that there is information pollution in online environments.

When the participants' level of knowledge regarding the remote access services of the library is evaluated, it is understood that a significant proportion of them are aware that remote access is provided through the VETİS system used by the library; however, they do not have detailed knowledge about the system. In addition, there are participants who stated that they preferred the previously used VPN connection, could not use the remote access system, or did not need this service. This situation indicates that the current remote access system is not sufficiently recognized by users and that some users continue to use previous access methods. Furthermore, the number of users experiencing a lack of knowledge about remote access and unable to use the system effectively appears to be considerable.

When the priority between ease of access to information and reliability of information is evaluated, participants emphasized that reaching accurate and reliable information sources is more important than easy access. Although rapid access to information was acknowledged as important, it was stated that reliable and qualified sources should be prioritized, especially in academic research. Some participants also stated that reaching authentic and reliable information should require a certain level of effort and that publicly available information that can be accessed easily should be approached with caution.

The study also evaluated the positive and negative aspects of digitalized libraries. The findings demonstrate that positive opinions regarding digitalization outweigh negative evaluations. Participants identified the most important advantages of digitalization as ease of access, remote access opportunities, facilitation of work processes and contribution to staff development, reduction of access costs, preservation of resources, and increased speed of information sharing. On the other hand, access problems, weakening of the emotional connection established with printed resources, staff-related problems, preservation of digital resources, deficiencies in resource integration, and information pollution were evaluated as the main disadvantages of digitalization.

When the positive and negative aspects of digitalized libraries are examined together, ease of access emerges as the most emphasized factor. While a significant proportion of participants stated that accessing the library has become easier, some participants reported experiencing various problems regarding access. This indicates that the system has not been fully established and that there are still some deficiencies in users' access to the resources they need.

When user expectations are evaluated, the majority of participants stated that the library generally meets their expectations. Opinions regarding the fulfillment of expectations mainly focus on ease of

access, remote access opportunities, reduction of workload and staff development, resource diversity, user information, and user training. However, participants who considered that expectations were not fully met emphasized issues such as access problems, insufficient resource diversity, deficiencies in resource integration, inadequate staff, limited social spaces, and insufficient user training.

In terms of meeting and failing to meet user expectations, ease of access remains the most prominent factor. This finding reveals that the primary expectation of users from digital libraries is rapid and easy access to information. In addition, it is understood that remote access services largely meet user expectations. Regarding resource diversity, the fact that positive and negative opinions are close to each other indicates the need to improve existing collections and integrate new information resources into the system.

The code relationship analysis revealed that the relationship between digitalized libraries and user expectations is largely positive. The positive aspects of digitalization were strongly associated with user expectations, particularly in terms of ease of access, remote access, improvement of work processes, increased speed of information sharing, and cost advantages. However, access problems, staff inadequacies, and limited remote access issues were among the main factors associated with the negative aspects of digitalization.

When the situations in which the library fails to meet user expectations are examined, ease of access and resource diversity emerge as the most significant problem areas. In addition, various problems are observed regarding staff inadequacy, lack of user training, resource integration, and communication with the library. Conversely, when expectations are met, factors such as ease of access, remote access, reduced workload, resource diversity, user training, communication with the library, and resource integration come to the forefront.

Overall, it was concluded that the contributions of digitalization to libraries are greater than its negative effects. Ease of access stands out as the most important advantage of digitalization, while users' primary expectation is determined to be rapid and easy access to information. However, it is considered that access problems have not been completely eliminated, resource diversity should be increased, and the development of information and training activities would be beneficial in order to enable users to benefit from digital services more effectively.

In this study, the characteristics of digitalized libraries and their positive and negative aspects were examined in detail. In addition, users' expectations from libraries and the extent to which these expectations are met by libraries were evaluated. Within this context, among the codes and sub-codes created in the analysis, several themes emerged as prominent due to their positive or negative roles in meeting user expectations. In this framework, participant opinions were included; however, since the responses were highly comprehensive, selected quotations representing the research findings were presented instead of including all statements. The findings obtained are presented under the following headings:

Ease of Access

A large proportion of participants stated that they expect rapid and easy access to information. While ease of access was emphasized as one of the most important advantages of digitalized libraries, many participants stated that this expectation was largely met by the library.

"I think digital resources and digitalization provide a great advantage. I believe libraries make a significant contribution in this regard because we can access resources, information, and documents from the other side of the world."

However, some participants stated that the library was not fully sufficient in terms of ease of

access. In particular, they emphasized the need to increase the number of up-to-date resources and include more foreign-language resources.

“I cannot say that Necmettin Erbakan University Library fully meets expectations in this area. I think newer books could be added in terms of being up-to-date. Increasing the availability of foreign resources would also contribute to our field.”

Remote Access

Participants stated that remote access opportunities are an important expectation and that digital libraries largely meet this need. Most participants indicated that they were satisfied with the library’s remote access services.

“I can access the databases and electronic resources I need 24/7. There is no problem with access.”

“Being able to access information easily whenever and wherever we need is very important for us. We cannot always be at our workplace. Being able to access resources externally whenever we want is very useful for us.”

In the study conducted by Dalkıran (2018), the majority of participants (86.1%) agreed with the statement “I want to access information whenever I need it and from wherever I am.” This demonstrates that both the network generation and academic staff from different age groups attach importance to remote access.

Access Cost

Participants frequently stated that the use of printed resources and physical libraries is more challenging compared to Internet-based resources in terms of time, effort, and cost.

“A printed book needs to be purchased, so it has a cost. In terms of effort, you also need to go to the library. Accessing information from where we sit is easier both financially and in terms of effort.”

“Using printed resources and libraries is more costly. In the past, it was difficult in terms of photocopy costs, transportation expenses, and time. Now, we can access resources digitally with a single click.”

Workload and Staff Development

Participants stated that digitalization would reduce the workload of library staff and would also require staff members to improve themselves professionally.

“Digitalization reduces the workload of library staff and enables more efficient use of existing personnel. Users can access resources themselves, while staff can focus more on organizational tasks.”

Preservation

Participants stated that digitalization contributes to the preservation of resources and enables them to be used for a longer period.

“Digitalization provides opportunities for reproducing and preserving resources. In this way, deterioration of physical materials is prevented.”

Prevention of Resource Wear and Tear

Participants stated that digitalization provides an important advantage, especially in terms of preserving rare and old resources.

“...the deterioration of resources is a serious issue. Transferring these resources into digital

environments and preserving them is an important advantage, especially for historians.”

Copyright Issues

While the reproducibility of digital resources was considered a positive feature, some participants expressed concerns regarding copyright issues.

“However, I am not sure about the regulations regarding copyright, such as whether resources can be reproduced as much as desired.”

Resource Diversity

Participants stated that resource diversity is an important expectation and indicated that the university library is generally sufficient in this regard, although some deficiencies remain.

“My most important expectation from a library is that it has a broad knowledge base. Necmettin Erbakan University Library has many databases.”

“I cannot find many of the books I am looking for, so it does not fully meet my expectations.”

Informing Users

Participants evaluated the library’s announcements regarding new subscriptions and services as a positive practice.

“I find it positive that the library has been informing students about the agreements and announcements it has made in recent years.”

Emotional Attachment to Printed Resources

Some participants stated that although they support digital resources, they still feel an emotional attachment to printed materials.

“I prefer reading books; reading the physical book itself feels more meaningful than reading in a digital environment.”

Speed of Information Sharing

Participants emphasized that access to information and the speed of information sharing are higher in digital libraries.

“Information sharing is much faster in digital libraries, and information can reach more people simultaneously.”

Resource Integration

Participants evaluated cooperation and resource sharing between universities positively.

“We were able to access resources that were not available in our own library through other universities.”

User Training

It was stated that user training provided in electronic environments is beneficial and that participation is generally positive.

“I think electronic user training programs are very useful.”

Communication with the Library

Participants stated that they can easily communicate with library staff and are satisfied with this situation.

“I can communicate without going to the library, and they are very helpful.”

Information Pollution

Participants stated that presenting information from different sources together is beneficial but also brings the risk of information pollution.

“Access to information has become easier, but unreliable information has also increased significantly.”

Socialization

Some participants stated that digitalization reduces the social function of libraries.

“Traditional libraries were also places for social interaction, but digitalization has weakened this aspect.”

This finding is also supported by previous studies (Kavak, 2018).

Convenience and Superficiality

Some participants stated that digitalization may encourage a more superficial approach by making the research process easier for individuals.

“I think individuals should not rely on ready-made information but should conduct research through their own effort...”

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

With the rapid advancement of technological developments, libraries have entered into a significant transformation process and have gradually evolved into increasingly digitalized structures. During this process, libraries have started to place greater emphasis on digital services in order to adapt to technological developments and avoid falling behind. The provision of faster, easier, and user-friendly access to information; the widespread use of the internet and computers; the increase in the amount of information produced in digital environments; the expansion of resource diversity; and users' expectations of accessing information regardless of time and place have led to significant changes in user profiles. This situation has continuously increased expectations from libraries and made it necessary to redesign library services with a user-centered approach.

This study aimed to reveal the expectations of academic staff from libraries and to provide evaluations regarding the development of library services based on the findings obtained. In addition, by determining the current profile of academics, the study aimed to contribute to the planning of services that are compatible with their needs and expectations. The results obtained are limited to the opinions of the participants involved in the research and do not aim to provide generalizations.

This study, conducted among academic staff working at Necmettin Erbakan University, demonstrates that digital transformation is generally perceived positively in terms of libraries and is supported by users. Among the primary expectations of participants, ease of access and remote access opportunities stand out. It was stated that digitalization largely meets these expectations. In addition, reducing the workload of the library, increasing staff efficiency, and improving resource diversity were among the areas positively evaluated by participants. Overall, it was concluded that the Necmettin

Erbakan University Library meets a significant portion of user expectations.

In the study conducted by Bayter (2018), a large proportion of participants stated that technology provides benefits to libraries. Similarly, in the present study, it was observed that the positive aspects of digitalized libraries were emphasized more strongly by participants. This finding is consistent with previous studies in the literature and demonstrates that technology is an important factor in improving library services.

Based on the research findings and the literature, the following recommendations have been developed:

- According to academic staff, digitalization positively affects the work processes of library personnel. However, it is important for staff to adapt to digital developments, continuously improve themselves, and effectively use technological applications. Although some participants suggested that the number of staff may decrease, overall satisfaction with communication with library personnel was found to be high. Therefore, improving the digital skills of library staff is necessary.
- In terms of resource diversity, electronic resources were considered strong; however, printed resources were found insufficient in some cases. It is important to continue collection development activities in line with user demands.
- Although electronic user training programs were considered beneficial, participants stated that more comprehensive and practical training sessions should be provided. It was emphasized that training programs should be planned according to the characteristics and needs of the target audience.
- Although user notifications were generally evaluated positively, some participants stated that the frequency of notifications should be balanced. Excessive communication may reduce user interest. Therefore, a balanced information strategy can be developed through different communication channels.
- Libraries should closely follow technological developments and integrate these technologies into their service processes. When managed effectively, digital transformation can be considered an important opportunity for improving library services.
- Library personnel should become more competent in the field of information and communication technologies. In-service training programs and information literacy activities can support this process.
- Regular user awareness activities regarding remote access services are important. When new systems and applications are introduced, users should be informed promptly.
- It is recommended that surveys measuring user satisfaction should be conducted periodically and that services should be improved according to the results obtained.
- A continuous and effective communication mechanism should be established between libraries and users. Interaction with users should be strengthened through tools such as e-mail, social media, mobile applications, and blogs.
- Libraries should continuously improve their technological infrastructure in order to effectively manage the increasing amount of information in digital environments and provide fast and accurate services.

This research was conducted specifically within the context of Necmettin Erbakan University. The method, analysis, and findings used in the study may be adapted to different universities and institutions. Furthermore, the study is limited to academic staff. Future research may examine similar issues with different user groups and investigate the effects of digitalization on library personnel

separately. In addition, the subject may be addressed more comprehensively by using quantitative or mixed-method research approaches instead of solely qualitative methods.

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Author Contributions

Dilek Yıldırım and Ebru Ertürk made primary contributions to the planning of the research, while Mehmet Akif Çini provided support. In the writing process of the article, Dilek Yıldırım made the primary contributions, while Ebru Ertürk and Mehmet Akif Çini provided support. Dilek Yıldırım contributed to data collection, while Mehmet Akif Çini and Dilek Yıldırım made primary contributions to the statistical analysis, with support from Ebru Ertürk.

Ethics Committee Approval and Permissions

Ethical approval was obtained from the Presidency of the Scientific Research Ethics Committee in Social and Human Sciences at Necmettin Erbakan University, with the ethics committee decision dated 10.09.2021 and numbered 2021/461.

Conflict of Interest

The authors declare that there is no conflict of interest.

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EXTENDED ABSTRACT

Introduction: Rapid developments in information and communication technologies have significantly transformed social structures and institutional service delivery models. One of the most affected institutions in this transformation process is libraries. In the digital age, users increasingly expect uninterrupted, fast, and location-independent access to information resources. With the emergence of Web 2.0 technologies, user behaviors and expectations from libraries have evolved, leading traditional library services to shift toward more digital, accessible, and user-centered structures. In this context, libraries have begun to adopt digital transformation strategies to manage increasing information volume and improve service quality. This study focuses on the impact of digital transformation on library services and examines the expectations and information-seeking behaviors of academicians at Necmettin Erbakan University.

Method: This research employs a qualitative research design. Data were collected through semi-structured interviews conducted face-to-face with 19 academicians working in different academic units of Necmettin Erbakan University. Participants were selected through a simple random sampling approach. Interviews lasted approximately 15–30 minutes and were recorded with participant consent. The collected data were analyzed using content analysis, and coding was performed using MAXQDA 18 software. Reliability was ensured through repeated coding and inter-coder agreement, which reached 80%. The analysis aimed to identify recurring themes related to digital library usage, access behaviors, and user expectations.

Findings: The findings indicate that academicians predominantly use the internet for academic purposes and prefer it as their primary source of information access. Digital libraries are generally perceived positively, particularly due to ease of access and remote accessibility. Participants emphasized that the ability to access resources anytime and anywhere is one of the most important advantages of digital library systems. However, some challenges were also identified. A portion of participants reported limited knowledge or difficulties in effectively using remote access systems. While digital libraries are generally seen as beneficial, issues such as system usability, resource integration, and awareness remain areas requiring improvement. Additionally, although most participants expressed satisfaction with library services, expectations related to resource diversity and up-to-date content were highlighted as areas needing enhancement.

Discussion: The results demonstrate that digital transformation has significantly improved library service accessibility and user satisfaction. Consistent with the literature, academicians prioritize speed, convenience, and remote access when evaluating library services. However, the study also reveals that digital transformation does not automatically eliminate structural or user-related challenges. Issues such as insufficient user training, limited awareness of digital tools, and concerns regarding information overload still persist. These findings suggest that digital libraries must evolve beyond infrastructure development and focus more on user competence and service integration.

Conclusion: Digital transformation has reshaped library services by increasing accessibility, efficiency, and user-centered service delivery. Academicians at Necmettin Erbakan University generally view digital libraries positively and actively utilize internet-based resources for academic purposes. Nevertheless, certain limitations, particularly in user training and system awareness, indicate that further improvements are necessary to fully optimize digital library services.

Recommendations: Based on the findings, several recommendations are proposed. First, libraries should strengthen user training programs to improve awareness and effective use of digital and remote access systems. Second, improvements in interface design and system integration could enhance usability and reduce access difficulties. Third, expanding and regularly updating digital collections would help meet users' expectations regarding resource diversity and currency. Finally, continuous feedback mechanisms should be established to ensure that library services evolve in line with academic user needs and technological advancements.