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Digital culture in scientific libraries

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ABSTRACT

The article reveals the main areas of higher education institutions scientific libraries' work in the field of forming the youth digital culture and ensuring the basic principles of digital citizenship. The relevance and novelty of the research lies in clarifying the need for constant improvement of digital culture in its relationship with digital citizenship in the modern educational space with the involvement of the scientific libraries' experience. The research methodology is based on a combination of comparative analysis, systematic, heuristic and logical methods of scientific research. The essential features of information culture, digital culture and the culture of knowledge management in the modern educational space are analyzed, in particular, the dynamics of knowledge management in higher educational institutions stimulate students to exchange experience and knowledge not only within the boundaries of one educational institution, but also in the network educational space in general. Digital technologies provide effective communication in the network public space and create prerequisites for successful professional and personal self-realization of a person. It is noted that the formation of digital culture is based on the development of digital competences, as a dynamic combination of knowledge, abilities, skills, ways of thinking, views, other personal qualities in the field of information, communication and digital technologies for communication, personal development, learning, work, participation in social life. The main features of digital citizenship are defined as the awareness of universal cultural and social issues related to technologies, the formed practice of legal and ethical behavior; safe, legal and responsible use of information and technologies; demonstration of a positive attitude towards the use of technology, that support collaboration, learning and productivity; a sense of responsibility for one's lifelong learning; commitment to intellectual honesty; respect for different cultures and societies in the virtual environment and the preservation of personal information. The Conclusions emphasize the worldview component of digital culture, which contributes to a change in thinking style based on new digital competencies. In the conditions of globalization challenges of modern times, the formation of digital culture of youth contributes to ensuring information security not only of an individual, but also of society as a whole.

KEYWORDS

digital culture, information culture, digital citizenship, digital competences, digital security, digital education, digital rights

Introduction

Globalizing transformations of the modern digital age pose new worldview challenges to the higher education system caused by the active development of information technologies. After all, those societies in which the information culture corresponds to the level of information technologies' development become information leaders and dictate world rules; however, those societies whose citizens do not understand the dangers of the newest informational challenges are gradually absorbed by the informational dominants. The entry of humanity into the era of global digitalization determines a new type of modern society's culture – digital culture, which requires the modernization of the education system in the direction of readiness for the effective use of technological innovations and the formation of relevant knowledge and digital competences among young people. Digitization radically changes the nature and specificity of the modern educational environment, and digital culture determines the formation of a new

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system of values that determine social orientations in the modern information age. Awareness of the need for continuous improvement of digital culture in its relationship with digital citizenship in the modern educational space with the involvement of the scientific libraries' experience determines the relevance of the study.

The purpose of the work is to clarify the role of higher education institutions' scientific libraries in the formation of digital culture. The purpose involves the following tasks: defining the essence of digital culture; determining the role of higher education institutions' scientific libraries in the formation of digital citizenship; clarification of the relationship between digital culture and digital citizenship as the main factors of the society's humanitarian security in the digital age.

Method and Procedure

The problem of digital culture study is at the intersection of socio-philosophical with information and communication systems of scientific knowledge, which led to the involvement of an interdisciplinary approach to its consideration. The systemic approach emphasizes the need to form a comprehensive system of digital culture in educational institutions with the active involvement of the universities and scientific libraries' potential. The basis of the work is the use of the following general scientific research methods: the heuristic method was applied in the process of searching for the source and theoretical base of the study; logical method - when building the research structure; comparative analysis – to identify essential features of various scientific approaches to the analysis of the digital culture's problem; analysis and synthesis – in the process of presenting the main content of the work; generalization – when writing the conclusions of the work.

Results and Discussion

In the organizational system of a modern university, information culture can be defined as the level of possession, development and acquisition of new information competences, which are necessary for intellectual professional self-improvement. The cultural space of a modern university is formed on the basis of information culture and culture of knowledge management, which is the basis of organizational results and allows organizations to realize the value of human capital. At the cognitive level, the culture of knowledge management involves the mobilization of intellectual potential and a change in thinking style, creative activity; at the management level – it is involvement of analytics and innovative leadership; at the technological level – it involves the active use of the latest information technologies (*Lomachynska, Lomachinsky, 2022*). The influence of digital technologies on culture is manifested in the digitization of traditional culture and the spread of the digital society's values, the ideology of digital transformation, based on efficiency, functionality, mobility. Accordingly, information culture appears as a logical relationship between media and digital culture, which ensures the formation of relevant information, media and digital competences.

In general, the concept of "digital culture", like the concept of "information culture", in a broad sense is connected with the characteristics of the modern society's state – "informational" and "digital", emphasizes cultural dynamics and the recognition that digital technologies have become organic part of the modern person's life. The influence of digital technologies on culture is manifested in the digitization of traditional culture and the spread, along with the classic values, of the digital society's values, the ideology of digital transformation, the construction of "industry 4.0", the intelligent interaction of people and things, rationality, functionality, efficiency, mobility.

The formation of the society's digital culture in general and of an individual in particular is impossible without awareness of the strategy for the digital competences development in the global and Ukrainian context. In the recommendations of the European Parliament, digital competence is defined as the confident, critical and responsible use of digital technologies for learning, work and participation in the society and interaction with it. Western researchers define digital competence on the basis of international documents as encompassing information literacy, digital content creation, communication and collaboration, media literacy, (along with programming), security (including digital well-being and cyber security-related competencies), intellectual property issues, problem solving and critical thinking (*Vuorikari et al. 2016*).

In Ukrainian legislation, digital competence is "a dynamic combination of knowledge, abilities, skills, ways of thinking, views, other personal qualities in the field of information, communication and digital technologies, which determines a person's ability to successfully socialize, perform professional and/or further educational activities with using such technologies"[1].

The criteria for the practical implementation of digital competences were proposed by the Ministry of Digital Transformation of Ukraine. Based on the adapted European reference-conceptual model of digital competences for citizens, the Digital Competence Framework for citizens of Ukraine is proposed. In this document, digital competence is defined in a broader context – as "an integral characteristic of an individual that dynamically combines knowledge, abilities, skills and attitudes regarding the use of digital technologies for communication, personal development, learning, work, participation in public life in accordance with the sphere of competences (safely, creatively, critically)"[2].

The modern university is that very online environment, there are three groups of subjects: students, teachers and librarians, and the perspective of digital education for these groups of information services users is different. Students are perceived as direct users of information, teachers as trainers in the field of information competences, and librarians are responsible for adaptation and implementation of digital standards. In particular, G. Fugazza and G. Saldanha believe that university libraries can use electronic document management systems, corporate networks and Internet services, corporate mail, etc. to create a knowledge management system. In this context, it is worth emphasizing the close relationship between information ethics and privacy, in particular, regarding the efficacy of guaranteeing the protection of the Internet users' privacy,

[1] ro skhvalennya Kontseptsiyi rozvytku tsyfrovykh kompetentnostey ta zatverdzhennya planu zakhodiv z yiyi realizatsiyi: *Rozporyadzhennya Kabinetu ministriv Ukrayiny vid 3 bereznya 2021 r. № 167*. Retrieved from https://zakon.rada.gov.ua/laws/show/167-2021-p#Text

[2] Opys ramky tsyfrovoyi kompetentnosti dlya hromadyan Ukrayiny 2021. Retrieved from https://thedigital.gov.ua/storage/uploads/files/news_post/2021/3/mintsifra-oprilyudnyue-ramku-tsifrovoi-kompetentnosti-dlya-gromadyan/OR%20TSK.pdf

actualizing the problem of preserving the principles of freedom and autonomy in the Internet environment (*Fugazza, Saldanha, 2017*).

In the conditions of the modern digital age challenges, universities become smart organizations (environments), where structures are formed by creating meta-information, organizing data, their flow and use. M. Deja, D. Rak, B. Bell emphasize the importance of information and digital literacy as the results of librarians' educational activities, which has gained importance in the course of digital transformation. In academic circles, there are two levels of this process – administrative and practical. To benefit from digital transformation, universities as organizations need to be “equipped” with relevant information and digital competences, which are particularly useful in the context of augmented reality, artificial intelligence, robotics, digitization and the Internet (*Deja, Rak, Bell, 2021*).

With the rapid development of technology, technological language has become very important for the use of multi-dimensional digital tools, web search, advanced research methods and data collection. In the practice of teaching digital literacy, students face four fundamental challenges, such as language barriers, poor navigation skills, and motivation. Accordingly, digital literacy increases people's awareness of digital tools and media to create and manage new knowledge. Digital literacy encourages, equips and enables people to participate more actively in all areas of the new public, socio-political life (*Rafi, Ahmad, 2019*). At the same time, digital technologies without proper digital competences threaten with the manifestations of cybercrime, fake news and fraud, and on a global scale, – they can form the prerequisites for digital anarchy, which will become a real challenge for the existence of states and nations.

The formation of digital competences in scientific libraries operating in higher education institutions has its own specifics. This is explained by the fact that a modern higher educational institution as an organizational structure is determined by the specifics of the processes of coordination, integration and concentration of human efforts, creativity, initiative, professionalism; the dynamics of communicative connections, which determine the unity of the team; the specificity of social and psychological conditions based on the degree of compatibility of team members); the specificity of information and business exchange and the adequacy in perception of the organization and its plans by all participants of the organizational environment. In addition, the dynamics of knowledge management in higher education institutions stimulate students to exchange experience and knowledge not only within the boundaries of one educational institution, but also in the network educational space in general.

One of the important factors in the formation of an efficient knowledge management system in the university environment is the digitization of knowledge resources, and the possibility of digital rethinking of knowledge management is largely determined by a clear organizational strategy aimed at innovations. Measures to increase the level of students' digital culture mobilize analytical approaches in evaluating information, contribute to improving the quality of work with information resources and network systems, develop the ability to generate knowledge and its practical use in future professional experience (*Lomachinska, Lomachynskyi, 2021*). What is unique about digital transformation is that risk becomes a cultural norm, therefore, the main challenge of digitalization is not technology, but the human factor – the lack of relevant knowledge and best practices and resistance to change.

In the Ukrainian legislation on education, there is no concept of "digital competence", however, there is a concept of "information and communication competence", which is used in a similar sense as "confident, critical and responsible use of digital technologies for personal development and communication, as well as the ability to safely apply information and communication tools in the educational process, adhering to the principles of academic integrity"[3] , accordingly, the formation of skills in the efficient use of digital technologies is one of the basic principles of the modern education system. The Ministry of Education of Ukraine has issued a number of normative documents aimed at the development of e-learning, increasing the level of digital competences of participants in the educational process, in particular, the Regulation on the National Educational Electronic Platform[4], the Regulation on the Electronic Textbook[5], and the Regulation on Electronic Educational Resources[6].

The cultural space of the digital age forms a new type of citizenship – digital, which implies an active social position in the network environment, therefore one of the fields of cooperation of scientific libraries with the academic community is the education of student youth as responsible digital citizens. Although the phenomenon of digital citizenship is a fairly new concept, it is very important in our globalized virtual world, as it encompasses not only the competent use of technology, but also the responsible and ethical use of the Internet.

Digital citizenship involves awareness of the digital world and its components, efficient and appropriate practices of using various mechanisms of the digital world, and ethical rules that make a person's technological behavior socially acceptable when interacting with others. A digital citizen should have the following characteristics: an understanding of human, cultural and social issues related to technology, an established practice of legal and ethical behavior; safe, legal and responsible use of information and technologies; demonstration of a positive attitude towards the use of technologies that support cooperation, learning and performance; a sense of responsibility for one's lifelong learning; commitment to intellectual honesty; respect for different cultures and societies in the virtual environment; and preservation of personal information. A digital citizen is aware of the consequences of using public spaces with others in an online community with opportunities for freedom of expression, information sharing and access, including the security of personal sensitive information, etc. In addition, active digital citizens do not use the online space to harass or harm any individual or society.

[3] Pro osvitu: *Zakon Ukrayiny*. Retrieved from https://zakon.rada.gov.ua/laws/show/2145-19#Text

[4] Pro zatverdzhennya Polozhennya pro Natsional'nu osvitnyu elektronnu platformu.*Nakaz MON №523 vid 22 travnya 2018 roku.* Retrieved from URL:https://zakon.rada.gov.ua/laws/-show/z0702-18#Text

[5] Pro zatverdzhennya Polozhennya pro elektronnyy pidruchnyk Nakaz MON №440 vid 2 travnya 2018 roku. Retrieved from https://zakon.rada.gov.ua/laws/show/z0621-18#Text

[6] Pro zatverdzhennya Polozhennya pro elektronni osvitni resursy. *Nakaz ministerstva osvity i nauky, molodi i sportu Ukrayiny vid 01.10.2012 r*. Retrieved from https://zakon.rada.gov.ua/-laws/show/z1695-12#Text

To understand digital citizenship and the challenges associated with the use of technology, the global scientific community has identified nine elements of digital citizenship that help outline how citizens work with each other in a global digital society: digital access, digital commerce, digital communication, digital etiquette, digital laws, digital rights and responsibilities, digital health, digital safety, digital literacy. The specified elements are closely interconnected, and together they form the space of digital culture.

In connection with the active development of technologies, digital literacy is gaining special relevance, which in the most general sense can be defined as the ability of people to properly and efficiently use technologies, interpret and understand digital content, evaluate its authenticity, use digital tools and means for identification, accessing, managing, integrating, evaluating, analyzing and synthesizing digital resources, creating new knowledge, creating media and communicating with others in the context of specific life situations to enable constructive social actions. Digital literacy skills enable the implementation of a knowledge management culture, as they serve as reliable tools to facilitate access to the information offered by libraries. Therefore, with the help of libraries, higher education institutions should equip students with digital literacy skills to produce skilled people who are lifelong seekers of knowledge for personal and professional growth, because the ability of students to efficiently use digital information resources is a key issue, as it can help them improve the quality of training and further professional self-realization.

UNESCO (*2018*) proposed the following definition of digital literacy: the ability to identify, access, manage, integrate, communicate, evaluate and create information safely and appropriately using digital technologies and networked devices to participate in economic and social life. Digital literacy includes competencies that are variously called computer literacy, ICT literacy, information literacy, data literacy, and media literacy. Digital literacy for an individual will thus vary depending on his/her particular life situation and it will also be a continuous process throughout life, evolving as the life situation evolves. A lack of digital literacy skills will lead to a digital divide, that is, a gap in access or use of digital resources between people, demographic groups or countries. However, in the XXI st century, the global digital divide is not related to Internet access, but to users' competencies with digital devices (*Odede; Glenrose, 2019*).

M. Saputra and I. Siddiq define digital literacy as a set of knowledge and abilities that people possess to understand, evaluate and use information obtained by setting ethical priorities for communication and interaction in everyday life. Digital literacy is the most important aspect of understanding technology so that citizens could use it properly. Digital literacy is a life skill that citizens must possess so that order in their lives could lead to critical and creative thinking and perspectives that influence safe social and cultural life (*Saputra; Siddiq, 2020*).

It is worth noting that since the digital space and its tools are constantly changing and becoming more and more complex, the concept of "digital literacy" is becoming more complicated, expanding its content to the level of semiotic activity mediated by electronic media, without delineating more specific skills and practices. Accordingly, in the face of the challenges of digitization, leading scientific libraries provide constant training of their users in the efficient use of library information sources. For this reason, university library staff are responsible for educating their users. However, in research libraries where digital technologies are widely used, users who do not have the necessary digital literacy skills will not get the maximum possible benefit from these libraries. Students with low levels of digital literacy hesitate to use library services integrated into digital practice. Therefore, research libraries must provide progressive learning at all levels in the context of access to academic information, taking into account the skills and differences in digital literacy of their users. M. Rafi, Z. JianMing, K. Ahmad note that in addition to technological and digital skills, academic institutions need to increase students' information competence through the combination of visual learning and information technology, which will help students improve their analytical and organizational skills in order to process information efficiently, understand complex concepts and make decisions quickly (*Rafi, JianMing; Ahmad, 2019*).

In addition to a working knowledge of computer software and hardware, students will benefit from understanding a wide range of applications (e.g. text processing, presentations, web resources). Digital literacy involves the ability to perform successful digital activities embedded in work, study, leisure and other aspects of daily life. The world has become more connected than ever as a result of the exponential growth of technology, and as a result, technology users have had to learn to become “digital citizens” (*Odede; Glenrose, 2019*).

In the conditions of strengthening international cooperation of higher educational institutions, scientific libraries play a key role in the application of the philosophy of openness – open knowledge, open education, open science – permits researching educational materials, results of scientific research, making scientific data available to all categories of interested members of society – for both professionals and amateurs. S. Nazarovets and Ye. Kulyk emphasize that scientific research is increasingly based on large data sets and digital artifacts. The growth of the volume of electronic information in the world has led to the emergence of such a socio-technical phenomenon as "big data" (Big Data) - large volumes of various data that require advanced methods and technologies for their collection, storage, distribution, management and analysis (*Nazarovets; Kulyk. 2017: 8*). The ability to deliver digital content through mobile devices such as cell phones and tablets provides convenience and immediacy to the communication process for faculty and students, and in this process librarians must voluntarily take on the task of digital media stewardship. University libraries should provide progressive learning appropriate at all levels in the context of access to academic information, taking into account the digital literacy skills and differences of their users. Therefore, scholars emphasize the need for continuous improvement of digital literacy skills for librarians to perform this task (Zan; Çolakır; Altay; Taşkın). Librarians have become important actors in the context of the information competences introduction. They were needed mainly to support students and staff in dealing with barriers in access to digital resources and services.

Digital citizenship defines a "digital citizen" as a person who knows how to properly use technology and digital devices that have entered our lives with them, shows respect for ethical rules and individual rights on a digital platform, and knows how to use these devices safely with a sense of responsibility. Therefore, understanding of a modern person’s digital culture largely depends on his level of knowledge about digital rights and responsibilities, as

those advantages which are provided to all users of technology, and behavioral expectations related to the freedoms that everyone enjoys in the digital world. L. Pangrazio and J. Sefton-Green define digital rights as the legal rights that allow individuals to access, use, create and publish digital content with devices such as computers and mobile phones, as well as in virtual spaces and communities. Currently, digital rights are not a set of rights in themselves, but are linked to other human rights, including freedom of thoughts expression and the right to privacy in online and digital environments. An important ontological dimension of digital rights is that a "sovereign entity" is the subject of rights claims. In practice, human rights can be seen as protection against “standard threats” – such as oppression, deprivation and violence – that threaten human interests (*Pangrazio; Sefton-Green, 2021*).

In addition to knowledge and digital skills, the future digital citizen needs to understand the importance of using the online space as a public space with freedom of speech, where everyone can express their opinion, share information and spread news. He noted that the online space is still a shared space where everyone can share. Therefore, guidelines or digital social norms are needed to help regulate the use of such online spaces without compromising privacy and creating insecurity for users. S. Mangkhang and N. Kaewpanya define a digital citizen as one who is aware of the thoughtful use of public spaces with others in an online community with the possibility of freedom in expressing thoughts, information exchange and access, including security of personal confidential information, etc. Accordingly, the figure of a digital citizen is formed on the basis of a combination of three main elements – digital knowledge as the ability to efficiently choose technologies and present information with sound judgment and up-to-date information; digital skills as the ability to apply information technologies and communications, knowledge management, transfer and distribution of digital information; digital etiquette as a conscious use of information and communication technologies taking into account information security and data privacy (*Mangkhang; Kaewpanya, 2021*). Accordingly, Online space should be perceived as a public space shared with other people in society with restrictions on use and taking into account the interests of all its participants.

Modern students belong to the digital generation, a distinctive feature of which is the active use of social networks both for information search and for self-presentation and self-realization, therefore university libraries are institutions that are expected to play an active role in the development of students' skills in using social networks. Social networking sites are seen as modern interactive communication channels through which users connect with each other, share ideas, knowledge, messages and experiences. This type of communication provides opportunities for greater customization and personalization for students' individual interests and needs, which can potentially increase their engagement in academic learning, as well as creating opportunities for active participation in social processes.

Taking into account the actions that take place in the digital environment, citizens should be aware of their responsibility not only to the society in which they live, but also to the whole world. U. Akcil and M. Bastas emphasize that people can continue their lives safely in the age of digital technologies thanks to digital citizenship behavior. Digital Citizenship and its approach generally provides advice to students, faculty and industry in the context of students' technology needs, especially regarding the conscious and correct use of online technologies and other digital platforms. The behavior of digital citizenship positively influenced the attitude towards e-learning (*Akcil; Bastas, 2021*), in the direction of its active expansion.

Despite the commonality of individual components in the content of the concepts "digital culture" and "digital citizenship", it is worth pointing out the specifics of each of them. In particular, digital culture emphasizes the specific skills and abilities of an individual that allow him to function effectively in a networked environment; and digital citizenship determines the possibilities of applying existing digital competences to realize one's own active social position in the digital world. In particular, J. Fernández-Prados, A. Lozano-Díaz and A. Ainz-Galende note that the main manifestations of the digital citizenship implementation are "critical awareness" as an understanding of the prospects for the development of the surrounding reality and its critical evaluation and "digital activism", which includes political activity and a pronounced social position in the digital space (*Fernández-Prados; Lozano-Díaz; Ainz-Galende, 2021*).

Digital culture also contributes to the formation of a person's digital identity. Digital identity refers to how one perceives oneself and how others perceive one's online activities. According to the 2016 ISTE standards, students are expected to understand the permanence of their digital actions and manage their digital identity and reputation accordingly. As digital identity involves building beliefs and self-identification for healthy use of digital tools, digital education should provide opportunities for youth to develop their digital identity (*Martin, Gezer, Wang, 2019*).

In the conditions of active library funds’ digitization, it is worth emphasizing the advantages of using electronic books by students, which affects the improvement of educational achievements. In particular, Maharani Pratiwi Maksum and Najmudin, Bambang Sunarko note that the educational achievements of young people begin with direct (concrete) experience, in this case, reading e-books independently with the help of information technologies. Thus, digital literacy with a clear source base can qualitatively increase the assimilation level of students' educational achievements, in particular, when searching for information (*Maharani Pratiwi Maksum; Najmudin; Bambang Sunarko, 2023*).

In the international scientific discourse, the academic library is understood as a dynamic environment that seeks to meet the needs of users in learning, research and teaching, so it is worth focusing on whether the libraries of higher education institutions take appropriate measures to prevent possible and potential threats of cybercrimes against the environment objects of intellectual property that are in their possession. A.Khan, M.Ibrahim, and A. Hussain emphasize that social media remains the best way for library professionals to develop an understanding of data and information security (*Khan, Ibrahim, Hussain, 2021*). Many issues and concerns have been raised around the world, including online security (identity theft, fraud, hacking and phishing), misuse of information (plagiarism and illegal access to protected content) and health risks (Internet addiction and cyberbullying). Therefore, the relationship between digital culture and digital citizenship provides the possibility of safe and efficient functioning of the digital space of the state and its citizens.

Conclusion

In the most general sense, digital culture can be understood as a system of human behavior rules that he follows when using information and communication technologies. The study of digital culture is not only an analysis of technological phenomena, the emergence of which is determined by the latest information technologies – Internet communications, virtual games, computer graphics, etc.; this is a study of the subject field of culture transformation, which is caused by the spread of digital technologies, a change in the style of thinking based on new digital competencies. In the conditions of globalization challenges of modern times, the formation of digital culture of youth contributes to ensuring information security not only of an individual, but also of society as a whole.

The concept of digital citizenship is closely related to educational systems, as it helps educators understand what students need to know in order to use modern technologies safely and responsibly. In the educational space, digital citizenship forms the foundations, principles and strategies of teaching and learning, which establish the rules of digital security (self-defense) and the fight against cybercrime, as well as promoting the concepts of intellectual property and their observance, the integrity and foundations of scientific documentation, research ethics.

The concept of digital citizenship emphasizes the formation of moral values and the balance between individual behavior in the network environment and responsibility for one's actions, as well as the promotion and development of critical thinking skills to help students be careful and avoid wrong actions or misleading ideas in the digital environment.

The successful development of scientific libraries depends on their ability to quickly respond to the challenges of the digital age. Today's youth are representatives of the digital generation, formed in the conditions of active development of network technologies, for whom lifelong learning becomes a defining necessity, which leads to the constant improvement of measures to increase the level of their digital culture.

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Цифрова культура у наукових бібліотеках

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В статті розкрито основні напрями роботи наукових бібліотек закладів вищої освіти у напрямі формування цифрової культури молоді та забезпечення основних принципів цифрового громадянства. Актуальність та новизна дослідження полягає у з'ясуванні необхідності постійного вдосконалення цифрової культури у її взаємозв'язку з цифровим громадянством в сучасному освітньому просторі із залученням досвіду наукових бібліотек. Методологія дослідження заснована на поєднанні компаративного аналізу, системного, евристичного та логічного методів наукового дослідження. Проаналізовано сутнісні особливості інформаційної культури, цифрової культури та культури управління знаннями в сучасному освітньому просторі, зокрема, динаміка управління знаннями у вищих навчальних закладах стимулює студентів обмінюватися досвідом та знаннями в не лише в межах однієї освітньої установи, але й в мережному освітньому просторі загалом. Цифрові технології забезпечують ефективну комунікацію в мережному суспільному просторі та створюють передумови для успішної професійної та особистісної самореалізації людини. Зазначено, що формування цифрової культури базується на розвитку цифрових компетентностей, як динамічної комбінації знань, умінь, навичок, способів мислення, поглядів, інших особистих якостей у сфері інформаційно-комунікаційних та цифрових технологій задля для спілкування, власного розвитку, навчання, роботи, участі у суспільному житті. Визначено основні риси цифрового громадянства як усвідомлення загальнолюдських культурних і соціальних питань, пов'язаних з технологіями, сформовану практику правової та етичної поведінки; безпечного, законного та відповідального використання інформації та технологій; демонстрацію позитивного ставлення до використання технологій, які підтримують співпрацю, навчання та продуктивність; почуття відповідальності за своє навчання впродовж життя; відданість інтелектуальній чесності; повага до різних культур і суспільств у віртуальному середовищі та збереження особистої інформації. Підкреслюється світоглядна складова цифрової культури, що сприяє зміні стилю мислення на основі нових цифрових компетентностей. В умовах глобалізаційних викликів сучасності формування цифрової культури молоді сприяє забезпеченню інформаційної безпеки не лише окремої особистості, але й суспільства загалом.

Ключові слова: цифрова культура, інформаційна культура, цифрове громадянство, цифрові компетентності, цифрова безпека, цифрова освіта, цифрові права

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