Секція А1 Освітні науки	
УДК 377.1:004.8]:34-057.85	
Дата першого надходження статті до видання	2026-05-02
Дата прийняття статті до друку після рецензування	2026-05-28
Дата публікації/оприлюднення	2026-05-30

PECULIARITIES OF DIGITAL COMPETENCE FORMATION IN FUTURE PROFESSIONAL JUNIOR BACHELORS OF LAW

Hanna Shayner
Candidate of Pedagogical Sciences, Associate Professor,
Associate Professor of the Department of Foreign Languages for Engineering,
Lviv Polytechnic National University, Lviv, Ukraine
e-mail: hanna.i.shayner@lpnu.ua
https://orcid.org/0000-0002-0086-5579

Abstract. The rapid digital transformation of the modern labour market and the modernization of legal institutions put forward qualitatively new requirements for the training of higher and professional pre-higher education students. The article comprehensively explores the issue of digital competence formation in future professional junior bachelors of law during their vocational training in a college environment. The relevance of the study is driven by the need to bridge the gap between traditional educational approaches and the actual demands of employers in the legal sphere who require specialists highly adaptive to e-governance tools, electronic justice, and digital workflow. The study aims to provide a scientific-theoretical substantiation and practical verification of the pedagogical model and levels of digital competence formation in future lawyers. Based on the empirical data analysis, the specific levels of students' digital competence formation (low, medium, high) were defined. It was established that 85% of respondents demonstrate a high self-assessment of basic digital skills in everyday life (the external component). However, a deficit of knowledge regarding the use of highly specialized professional software (the internal component) was detected. Differentiated pedagogical recommendations to intensify the learning process for each group were proposed. The efficiency of implementing cloud services, distance interaction platforms (Zoom, Teams, Moodle), and graphic info-coding technologies (QR codes) into the educational process to boost students' mobility and automate knowledge control was fully proved. During the discussion, the specifics of integrating information technologies into the content of legal disciplines were detailed using the "Information Law" course as an example. The concepts of "digital competence" and "digital literacy" were correlated. Special emphasis was placed on analyzing the dual structure of competence (external and internal components). Potential vectors of applying QR technologies in the future activity of lawyers (archiving notarial files, contract verification, financial transactions) were substantiated. Legal risks of education digitalization, such as protecting the teacher's copyright content and ensuring the security of students' personal data in cloud storage, were singled out. It is proved that the successful formation of digital competence in future junior bachelors of law requires a systemic shift from paper-oriented methods to the pervasive integration of ICT at all training stages. The designed integrated model and the proposed recommendations prove effective in ensuring the readiness of college graduates for the demands of the information society. Perspectives for further research are associated with developing new methodological approaches under the continuous evolution of digital tools and cybersecurity challenges.

Keywords: digital competence, professional junior bachelor, Law specialty, college, institution of professional pre-higher education, information law, QR codes, digital transformation of education.

e-ISSN: 2786-586X

ОСОБЛИВОСТІ ФОРМУВАННЯ ЦИФРОВИХ КОМПЕТЕНТНОСТЕЙ У МАЙБУТНІХ ФАХОВИХ МОЛОДШИХ БАКАЛАВРІВ ПРАВА

Шайнер Ганна Ігорівна
кандидат педагогічних наук, доцент,
доцент кафедри іноземних мов технічного спрямування,
Національний університет «Львівська політехніка», Львів, Україна
e-mail: hanna.i.shayner@lpnu.ua
https://orcid.org/0000-0002-0086-5579

Анотація. Стрімка цифрова трансформація сучасного ринку праці та модернізація інститутів правової системи висувають якісно нові вимоги до підготовки здобувачів вищої та фахової передвищої освіти. У статті комплексно досліджено проблему формування цифрових компетентностей у майбутніх фахових молодших бакалаврів права у процесі їхньої професійної підготовки в умовах коледжу. Актуальність дослідження зумовлена необхідністю подолання розриву між традиційними підходами до навчання та реальними запитами роботодавців правової сфери, які потребують фахівців із високим рівнем адаптивності до інструментів електронного урядування, судочинства та цифрового документообігу. Метою статті є науково-теоретичне обґрунтування та практична перевірка педагогічної моделі та рівнів сформованості цифрової компетентності майбутніх юристів. На основі аналізу отриманих емпіричних даних визначено рівні сформованості цифрової компетентності студентів (низький, середній, високий). Встановлено, що 85% респондентів демонструють високу самооцінку базових цифрових навичок у повсякденному житті (зовнішня складова). Проте виявлено дефіцит знань у використанні вузькоспеціалізованого професійного софту (внутрішня складова). Запропоновано диференційовані педагогічні рекомендації для інтенсифікації навчання кожної групи. Доведено ефективність впровадження у навчальний процес хмарних сервісів, платформ дистанційної взаємодії (Zoom, Teams, Moodle) та технологій графічного кодування інформації (QR-коди) для підвищення мобільності студентів та автоматизації контролю знань. У процесі обговорення деталізовано специфіку інтеграції інформаційних технологій у зміст юридичних дисциплін на прикладі курсу «Інформаційне право». Зіставлено поняття «цифрова компетентність» та «цифрова грамотність». Особливу увагу приділено аналізу дуальної структури компетентності (зовнішньої та внутрішньої складових). Обґрунтовано потенційні вектори застосування QR-технологій у майбутній діяльності юристів (архівування нотаріальних справ, верифікація договорів, фінансові операції). Виокремлено правові ризики цифровізації освіти, такі як захист авторського контенту викладача та безпека персональних даних студентів у хмарних сховищах. Доведено, що успішне формування цифрової компетентності майбутніх молодших бакалаврів права потребує системного переходу від паперово-орієнтованих методик до наскрізного впровадження ІКТ на всіх етапах навчання. Розроблена інтегрована модель та запропоновані рекомендації доводять свою ефективність у забезпеченні готовності випускників коледжів до вимог інформаційного суспільства. Перспективи подальших розвідок пов’язані з розробкою нових методичних підходів в умовах постійної еволюції цифрових інструментів та кібербезпекових викликів.

Ключові слова: цифрова компетентність, фаховий молодший бакалавр, спеціальність Право, коледж, заклад фахової передвищої освіти, інформаційне право, QR-коди, цифрова трансформація освіти.

e-ISSN: 2786-586X

Introduction

Problem relevance. The rapid changes and transformations currently taking place in the labour market significantly raise the requirements for future specialists. It is indisputable that highly qualified personnel, adapted to the changes of the information age and possessing well-developed digital competence, are in particular demand in the labour market. This poses a new challenge for the educational sphere, and for vocational education institutions in particular, to organize the training of future specialists in a fundamentally new way. The digital transformation of education introduces significant changes into the national education system. These changes lead to a growing demand for future legal professionals who possess the skills and competences to use digital devices, information and communication technologies, and system networks to access and effectively use digital information. Therefore, the main task of a higher education institution is not only the theoretical training of future specialists but also equipping them with competences in the practical use of digital technologies. Digital competences are a set of knowledge, abilities, and skills a person needs to use digital technologies effectively, including searching for, processing, and evaluating information, as well as the ability to achieve personal goals through the use of digital tools and information and communication technologies [1], [2], [3], [4], [5].

Analysis of recent research and publications. The problem of forming an individual's digital competence has a solid theoretical foundation, namely the basic approaches to interpreting digital literacy were laid down in the works of P. Gilster [1] and A. Martin [15], while the conceptual foundations of an open digital educational environment were developed in the studies of V. Yu. Bykov [2]. At the European level, the structure and descriptors of citizens' digital competence have been standardized within the DIGCOMP and DigComp 2.0 frameworks [13], [14] and the Digital Education Action Plan 2021–2027 [16]. The essence of the concepts of "digital culture", "digital literacy", and "digital competence" as modern educational phenomena has been researched in the works of L. Havrilova and Ya. Topolnyk [7], O. Spirin and O. Ovcharuk [11], and V. V. Oliynyk [5]. The peculiarities of developing the digital competence of future specialists in the course of vocational training were studied by A. Klieba [8], A. Kovalchuk [9], M. Pryhodii [10], and M. Shvardak and V. Ivanova [12], including distance learning conditions; the didactic potential of QR technologies in the educational process of higher school was substantiated by K. Niedialkova [4]. At the same time, the issue of digital competence formation specifically in future lawyers has been covered only fragmentarily, as some of its aspects have been considered in the context of forming the information culture of legal professionals [6] and the use of Internet resources and neural networks for educational purposes [3]. Thus, despite the considerable body of research, the problem of forming digital competences in future professional junior bachelors of law in the college environment remains insufficiently studied, which determined the choice of the topic of this article.

Identification of the unresolved part of the problem. Despite the significant number of studies devoted to the digitalization of education, researchers have paid little attention to the specifics of digital competence formation in students of professional pre-higher education majoring in specialty 081 "Law", whose training is characterized by a shortened period of study and practice-oriented curriculum content. The correlation between the external (everyday) and internal (professional) components of future lawyers' digital competence remains understudied, as do the mechanisms of using students' spontaneously acquired digital skills to intensify the educational process in colleges. The pedagogical conditions for integrating cloud services, conferencing platforms, and QR technologies into the teaching of legal disciplines, taking into account the legal risks of digitalization, also require substantiation.

The aim of the article. The aim of the study is to understand the problem of forming the digital competences of future junior bachelors of law from a scientific-theoretical point of view. The following tasks were addressed: a theoretical analysis of the concept of "digital competence" taking into account various theoretical approaches in pedagogy and psychology;

e-ISSN: 2786-586X

substantiation of the structural aspects of the digital competence of junior bachelors of law; and practical verification of the level of digital competence of junior bachelors of law on the basis of methodological approaches.

Scientific novelty. The scientific novelty of the study lies in distinguishing the external and internal components of the digital competence of future professional junior bachelors of law, in designing an integrated model of an academic discipline with digital technologies embedded in its normative-target, content, procedural, and control-evaluation components; and in the empirical identification of the levels of digital competence of students majoring in 081 "Law" in the college environment.

Practical significance. The practical significance of the study is that the designed integrated model of an academic discipline and the differentiated recommendations for students with low, medium, and high levels of digital competence can be used by teachers of institutions of professional pre-higher education in training future junior bachelors of law, in particular in teaching the "Information Law" course. The proposed directions for applying cloud services, conferencing platforms (Zoom, Teams, Moodle), and QR technologies make it possible to intensify students' classroom and independent work, automate knowledge control, and increase the readiness of college graduates for digitalized legal practice.

The digital competence of junior bachelors of law is considered as a set of knowledge, abilities, and skills necessary for the effective use of digital technologies in the educational process. The concept of "digital competence" was first considered in 1997 by the American writer and journalist Paul Gilster in his book Digital Literacy. He defined digital competence as the ability to understand and use information obtained by means of computers in various formats and from multiple sources [1]. "Digital competence" is the ability of a subject of the digital educational environment to successfully solve various professional tasks related to the use of digital services and information and communication technologies. The issue of forming the digital competences of junior bachelors of law has also been reflected in the research of Ukrainian scholars. In particular, the necessity of forming the digital competences of junior bachelors of law has been identified [6], and the pedagogical conditions for forming digital competences in the context of the transformation of education have been considered [7]. It is also necessary to note a related and important concept called "digital literacy" (digital fluency) as a set of knowledge and skills necessary for the safe and effective use of digital technologies and Internet resources. Digital literacy is based on digital competences:

- the ability to solve various tasks in the field of ICT use;
- the creation and use of digital content by means of digital technologies;
- searching for and exchanging information, answering questions, interacting with other people;
- computer programming [8], [16], [17].

When studying the issue of the digital competence of junior bachelors of law, it is essential to substantiate its structural aspects. To address this problem, three directions of digital competence development were examined:

– "Improving the use of digital technologies in learning and teaching" - this direction reflects the need for the constant updating of a lawyer's digital skills and the ability to respond directly and promptly to changes in the digital legal environment. For example, this concerns updating the content of familiar programs and digital resources, as well as quickly mastering their new components and effectively integrating them into professional processes.
– "Developing the skills necessary for digital competence" - within this direction, a lawyer must master the process of selecting the digital technologies and tools they plan to use in their work. An important aspect of this process is understanding how effectively the selected tool will perform educational tasks, as well as its safety for the student and its compliance with the age-related and individual characteristics of learners.

e-ISSN: 2786-586X

– "Analysis and forecasting in the legal sphere based on databases" - this direction includes the ability to analyze the academic achievements of junior bachelors of law, track the dynamics of students' educational outcomes, and carry out monitoring activities using digital tools. This direction helps teachers learn to work with results, to analyze and interpret them and, based on the data obtained, make decisions on adjusting educational trajectories and provide recommendations to parents and students.

Methodology

Research methods. Particular attention is paid in scholarly research to the concept of a lawyer's digital competence. When determining the place of digital competence of a bachelor or master of law within the educational standard, researchers specify professional competences with regard to the information skills and abilities required of a graduate. Scholars emphasize the use of information retrieval technologies and multimedia technologies in presenting educational material and the search for professionally oriented information; they single out the peculiarities of the formation of the modern digital environment and propose directions for expanding the professional competences of the future lawyer in the field of digitalization through the use of educational technologies [9], [11], [15]. Many scholars point to the value of information in the legal profession and to its timely retrieval and up-to-date analysis [10], [12], [13], [14]. A systematic analysis of current research indicates the need for new approaches to forming the digital competence of the future lawyer and for determining the influence of the external digital environment on the development of such skills and abilities. Therefore, the methodological basis of the study is formed by the systemic, competence-based, and environmental approaches. To accomplish the set tasks, a set of methods was applied: theoretical analysis of philosophical, psychological-pedagogical, and legal scientific literature; modeling (to design an integrated four-component model of a discipline comprising the normative-target, content, procedural, and control-evaluation components); and empirical methods, including pedagogical observation, surveys, and targeted questionnaires administered to first- and second-year students majoring in 081 "Law" to identify the levels of their digital literacy.

Data sources. The empirical basis of the study comprised the results of a questionnaire survey of first- and second-year students majoring in 081 "Law" at an institution of professional pre-higher education. Additional sources included scientific publications by Ukrainian and foreign authors, the European digital competence frameworks (DIGCOMP, DigComp 2.0), and regulatory documents in the field of education digitalization [13], [14], [16].

Limitations of the study. The study is limited by its sample of first- and second-year students majoring in 081 "Law" at a single institution of professional pre-higher education, and the data obtained are based on respondents' self-assessment, which may somewhat overstate their actual level of proficiency in digital technologies. Furthermore, given the continuous evolution of digital tools, some of the practical recommendations will require periodic updating.

Results

The survey results show that the digital competence of junior bachelors of law is formed at different levels. These indicators make it possible to identify the groups that need additional education and support for the development of digital competence. It is recommended to organize special training sessions and courses aimed at improving digital skills for low-level students. It is vital to provide medium-level students with additional resources and support for the further development of their skills. High-level students should be offered complex tasks and projects focused on the practical use of digital technologies, which will allow them to refine their skills. Such measures for developing digital competence make the educational process more effective and increase the capacity of junior bachelors of law for individual learning.

e-ISSN: 2786-586X

Digital technologies are known to surround a person in all spheres of life. Students, regardless of their specialization, absorb and master the latest technologies offered by the surrounding world even before entering an educational institution. The rapid growth of technological progress has an enormous impact on the formation of new digital skills and human needs. This external factor can be used in the professional training of future lawyers. Upon entering an educational institution, young people already have positive and possibly negative experience of the impact of information and communication technologies on their own lives and the lives of those close to them. Young people obtain information, services, and even experience in ways different from those of their predecessors. Watching YouTube videos replaces gaining one's own experience; it teaches, advises, warns, and shapes a person's skills and knowledge. A student entering an institution already has knowledge, experience, and an understanding of what else they would like to learn in the field of Internet technologies, informatization, digitalization, and communication. The teacher's task is to build on this foundation digital competences that clearly correspond to the state's policy objectives in the field of digitalization, the state educational standard, and employers' demands.

Two components of the digital competence of law students can be distinguished: external and internal, which are formed, respectively, under the influence of external and internal factors of the surrounding digital environment. The internal component of digital competence can be defined as a set of abilities and skills formed in class within the relevant disciplines, for example, the courses "Legal Informatics", "Information Technologies in Legal Practice", "Information and Communication Technologies in Judicial Activity", etc. The external component of competence is a set of digital abilities and skills acquired by the student outside the classroom, independently, in daily interaction with the modern digital world. The structure of the internal component of digital competence primarily includes the ability to work with specific software such as programs, services, and web resources containing legal information. Such software resources include legal search systems, databases, official websites of state bodies, public services portals, expert systems in forensics, etc.

Another skill is the use of popular universal systems and browsers for searching for and processing legal or other information, in this case, students learn to compose search queries competently and to make use of the relevance of search results. Various word processors are used to draw up legal documents, so students gain additional knowledge of working with document templates. If data analysis is required in legal practice, students expand their digital competence with knowledge of statistical programs and skills in visualizing the results of analysis using, for example, MS Excel packages. In addition, there is highly specialized software, such as various forensic systems, which are available in demo versions for study in educational institutions. Thus, depending on their orientation and specialization, students develop digital competences containing the skills and abilities they need.

The external component of digital competence is formed independently of the educational process and of the level of digitalization of the educational environment of the institution of professional pre-higher education. The modern student easily communicates in messengers and social networks, uploads information to and retrieves it from cloud storage, and uses QR codes. No additional classroom effort is needed to form these skills; they are inherent in almost all young people. This knowledge and these skills can be used to intensify the educational process and improve the quality of learning. The external factors influencing the digital transformation of the future lawyer's personality include:

- social networks and messengers as a means of communication that replaces and supplants all others;
- the digitalization of document workflow;
- electronic identification of a person (digital signature, digital bio-identification - digital fingerprint, digitization/imprint of the voice or retina);
- the digital circulation of funds;

e-ISSN: 2786-586X

- the rapid circulation of information on a global scale informational confrontation and cooperation of global ergasystems;
- the introduction of new services that change traditional processes (lending, registration, medical consulting, etc. without the participation of one of the parties replacement with a bot or voice assistant; inheritance, purchase and sale, etc.);
- learning and acquiring knowledge without attending an educational institution.

This is not an exhaustive list, but it covers the experience most important for the future student that affects their digital skills and knowledge. Students' habituation to technologies, and their digitalized mindset in general, can and should be used in the following directions. For example, the use of cloud storage makes it possible not only to place educational and methodological materials there but also to organize two-way communication. The teacher places a list of assignments in the cloud storage, and students send their reports on the completed assignments there. With the help of cloud services, which are free and do not require installation on a computer, it is possible to organize both individual and group projects. The teacher assigns separate roles and functions to each project participant: information search, analysis of the data obtained, visualization of results, and report preparation. Each participant works with a separate cloud software service, and data exchange between project participants is carried out through the cloud storage.

In the educational process, the skills students acquired under distance learning conditions can be applied quite extensively, for example, interaction on conferencing platforms (Microsoft Teams, Zoom, Google Meet, etc.). In full-time study, such skills are useful for organizing consultations, conferences, and round tables. It is worth emphasizing that such skills make it possible to ensure the mobility of the learning process. E-mail is a fairly simple means of interaction between participants in the educational process. Modern realities have introduced QR (Quick Response) codes into everyday life. There are many freely distributed applications that enable to generate various textual and numerical information in the QR code format. Such codes can be used in organizing the educational process, for example, by replacing paper class attendance registers. Thus, the components of external digital competence, without additional time spent on their formation, can be used for organizing both classroom and independent work, for individual and group forms of classes, and for organizing interaction between participants in the educational process.

Although the digitalization of education is an official policy priority, many institutions still adopt digital tools slowly and continue to rely on paper-based materials, registers, and reports. In order to determine the readiness of law students to make maximum use of their existing digital competences, a sociological study (survey) was conducted among students of different years of study.

In particular, first- and second-year students were offered a questionnaire, the first block of which revealed the students' level of digital literacy. The respondents' self-assessment was examined: 85% of students rated their command of digital technologies as confident (command of cloud technologies, conferencing platforms, browsers, and e-mail was considered). Only 15% indicated a satisfactory command of the listed technologies. The majority of respondents (80%) noted that at least once a month they install new software on their computer or mobile phone. The vast majority indicated active participation in social networks (uploading photos, using most social network service functions, searching for information online). Half (50%) of the students indicated a preference for plastic cards when paying for purchases, while the others use their phone as a payment instrument; 74% demonstrated a predominant use of online stores compared with traditional ones. For 97% of respondents, identification by means of digital technologies (fingerprint or facial recognition) causes no rejection.

Thus, the first block of questions allowed us to characterize students future lawyers as active and advanced users of publicly available digital technologies, showed the absence of any

e-ISSN: 2786-586X

explicit rejection of digital forms of life, and revealed signs of the digital transformation of the future lawyer.

The second block of questions determined the degree of students' comfort when working with electronic educational materials. The majority (87%) of students emphasized that the use of presentations and videos allows for a deeper understanding of the material. Many respondents indicated that the available educational materials in electronic form are perceived comfortably and do not require paper copies; 40% of respondents noted that they keep most of their notes in electronic form; 89% reflected that full digitalization at the institution of professional pre-higher education would be acceptable to them: the content of educational materials, individual assignments, the class schedule, and remote interaction with the teacher (consultations, forums, discussions). However, 85% of students noted that full-time study is more comfortable and makes it easier to perceive and assimilate educational material.

Based on the survey, it can be concluded that law students are ready to make maximum use of all their externally acquired digital competences in their studies. Given the limited number of teaching hours, the teacher can concentrate only on highly specialized software and services, making full use of the digital skills and abilities listed above. However, the external influence of digital technologies on personality transformation in the educational process conceals a number of problems: psychological, moral, and legal. Let us pay particular attention to the last group. First of all, this is the legal aspect of the use of personal data and copyrighted information. All information stored in the cloud constitutes the teacher's copyrighted material and may be extracted by third parties. The use of various conferencing platforms carries the threat of unauthorized access to a conference and of audio or video recording of a conference without the participants' knowledge. The use of QR codes carries the threat of their forgery or of data extraction from them.

In modern realities, particular attention is paid to QR codes. A QR code is a graphic image carrying transformed information presented in binary code. As early as 2002, the first mobile phones equipped with a QR code reading function appeared. The code contains digital and symbolic information. It is similar to a barcode but has significant advantages. A QR code can encrypt much more data, unlike a barcode, which encodes only one line of text. Since a QR code has a larger capacity, it makes it possible to include in the encrypted sequence a set of characters that will serve to protect the code. Moreover, the data sequence encrypted into graphic form may first be encoded using an external encryption algorithm. A QR code is more compact than a barcode. No special devices are needed to identify and read it; a standard smartphone is sufficient. All these advantages allow QR codes to be used widely both in everyday activities and in legal practice. Possible directions for using QR codes in legal practice include:

- storing client information (personal data, date of application, subject of application, etc.);
- transmitting payment information;
- verifying accounts in databases;
- storing information about contracts (brief information and a link to an electronic copy of the contract);
- archiving data, for example, for searching for closed notarial cases.

QR codes can also be widely applied in training future lawyers:

- assigning individual tasks (task number, deadlines, links to educational and methodological materials);
- additional information on a study topic;
- searching for the necessary books in the library;
- instructions for using specialized software;

e-ISSN: 2786-586X

- providing additional information on individual legal instruments (for example, for each law, the corresponding QR code will store examples of its application);
- recording student attendance (scanning the personal codes of those present).

The ease of generating these codes with freely distributed software and the ease of reading them with mobile devices make it possible to use QR codes everywhere.

When speaking of the comprehensive digitalization of education, what is primarily meant is the formation of the teacher's digital competence and the application of information and communication technologies at all stages of the educational process. The digitalization of all components of the educational process imposes its own specific features on the development of new training courses and the modernization of existing ones. An integrated model of an academic discipline has been designed, in which digital technologies are embedded at every stage:

- The normative-target component of any discipline defines the goals and objectives of the training course and is based on regulatory documents and standards. This component of the model is supported by IT technologies that ensure electronic document workflow. The program of the discipline, educational standards, and curricula are stored in the institution's documentation database and are updated with the required periodicity.
- The content component of the model primarily includes the content of the discipline educational and methodological materials. Various search engines, specialized web resources, electronic libraries, and consulting information systems are used for their selection. The selected educational material must be presented in a form convenient for the student. This involves the development of presentations, graphic and video files, and the storage of methodological materials not only in paper but also in electronic form. Word processors and spreadsheets, as well as various special programs, help the teacher develop sets of multilevel tasks. Online educational programs and libraries of educational videos deserve special mention, as they can be used by teachers to obtain the most up-to-date information on the development of technologies and communications.
- The procedural component is responsible for the interaction between the teacher and the student. At this stage, all of the student's external digital competences should be used, namely: command of e-mail, the ability to upload files to and download them from cloud storage, the use of freely distributed cloud services for preparing reports on completed assignments, skills in working on conferencing platforms (Zoom, Teams), and the ability to interact with distance learning environments (Moodle). The listed components of competence are useful both in the regular educational process and in the remote format: a large part of learning is allocated to independent work, in which case additional remote contact with the teacher is necessary.
- The control-evaluation component of the discipline allows the use of all kinds of means for automating knowledge control: ready-made computer testing systems, test generators enabling teachers to develop their own questionnaires, cloud testing services, etc. The analysis of the results of interim and final testing can also be automated from the use of simple spreadsheets that store performance records in electronic form to statistical packages for processing learning outcomes that perform a comprehensive analysis of learning quality, visualization of results, and forecasting of further learning. For more intelligent knowledge assessment, chatbot technologies can be applied, which will make it possible to organize a qualitatively different level of knowledge testing.

Discussion

The proposed model of digital competence formation can be illustrated by the example of the "Information Law" discipline, which is highly important both for society as a whole and for junior bachelors of law in particular, since it is this discipline that becomes part of virtually

e-ISSN: 2786-586X

every legal and non-legal process in the life of society. The information rights of citizens and the means of their protection and exercise in the information society act as a guarantor of security and stability in the digital information world.

The normative-target component of the "Information Law" discipline is determined by the State Educational Standard of Higher Education (bachelor's level) in the field of "Law". The standard defines the general professional competences a graduate must possess. The content component includes all educational and methodological materials on the "Information Law" discipline from the electronic library system, legal search systems, and the official websites of law enforcement and judicial bodies. On Internet resources, the student can find the current versions of legal acts, doctrines, strategies, state educational standards, and state target programs that shape and change the legal information space. The content components must also include a broad conceptual apparatus of information, communication, and computer technologies. Thus, it is very important to give junior bachelors of law an understanding of the process of information transfer and processing. The student should master as many office programs as possible, including domestic application software packages.

The procedural component includes the platform on which the educational institution operates, the institution's official website, and a portal for interaction between students and teachers. Through a personal account, each student can access educational materials, submit tests and term papers for review, track their academic performance, and build their rating.

The control-evaluation component of the "Information Law" discipline should include tests and practical tasks; at the same time, it is very important to consider information-law situations that cannot be resolved without an understanding of the technology of the processes of transferring, accumulating, destroying, providing, and copying information.

The current level of development of digital technologies, their availability and readiness for use among students junior bachelors of law, together with the state's demand for the digitalization of legal education and the improvement of its quality, assists to speak of the introduction of digital technologies at all stages of the formation of a legal specialist and of the inevitability of the deep integration of IT technologies with legal practice and science in the digital world of the information society.

Conclusions

Thus, it can be concluded that the development of technologies and communications in the modern world should lead to the transformation of approaches to forming competences in future legal professionals and to the inclusion of a new type of competences, namely digital ones, in the list of requirements for the learning outcomes of programs of institutions of professional pre-higher education. A new group or category of digital competences should emerge that will reveal more broadly and deeply the requirements for legal professionals in the information society.

The problem of forming the digital competences of future junior bachelors of law under the digital transformation of education was addressed from a scientific-theoretical standpoint. In accordance with the aim of the article, the following tasks were accomplished: taking into account various theoretical approaches in pedagogy and psychology, a theoretical analysis of the concept of "digital competence" was carried out; the structural aspects of the digital competence of junior bachelors of law were substantiated; and the level of digital competence of junior bachelors of law was verified from a practical point of view on the basis of methodological approaches. Thus, in accordance with the first task, in our study we defined the digital competence of junior bachelors of law as a set of abilities and knowledge necessary for the effective use of digital technologies in the educational process. The second task in studying the issue of the digital competence of junior bachelors of law was to substantiate its structural aspects; to accomplish this task, the existing scientific literature was examined. In addition, the third task was to determine the level of digital competence among junior bachelors of law by

e-ISSN: 2786-586X

means of a questionnaire survey. Recommendations were provided for developing the digital competences of junior bachelors of law at the low, medium, and high levels. Summing up, it can be said that our study has fully achieved its goals and objectives. Under the digital transformation of the legal sphere, the formation of the digital competences of junior bachelors of law plays an important role in increasing the effectiveness of the education system. However, this area still requires in-depth research, since with the development of digital technologies, the professional training of junior bachelors of law and the structure of their digital competences are constantly changing. Therefore, further research should focus on providing new methodological approaches and innovative solutions to this problem.

Список використаних джерел

1. Гілстер П. Цифрова грамотність. Київ: Академія, 1997. 242 с.
2. Биков В. Ю. Моделі організаційних систем відкритої освіти. Київ: Атіка, 2009. 684 с.
3. Шайнер Г. І., Барабаш О. В., Бияк Н. Я. Навчальні цілі та освітні можливості використання мережі Інтернет та нейромереж. Суспільство та національні інтереси. 2026. № 1(21). С. 500–510. DOI: https://doi.org/10.52058/3041-1572-2026-1(21)-500-510
4. Niedialkova K. QR technology - coding and its implementation in the educational process of higher school. Journal of Information Technologies in Education (ITE). 2020. № 44. P. 53–64. DOI: https://doi.org/10.14308/ite000726
5. Олійник В. В. Цифрова компетентність як чинник професійного зростання. Вища освіта України. 2022. № 2. С. 15–22.
6. Марченко О. Цифрова компетентність у системі формування інформаційної культури майбутніх юристів. Наукові інновації та передові технології. 2026. № 4(56). С. 1494–1506. DOI: https://doi.org/10.52058/2786-5274-2026-4(56)-1494-1506
7. Гаврілова Л., Топольник Я. Цифрова культура, цифрова грамотність, цифрова компетентність як сучасні освітні феномени. Інформаційні технології і засоби навчання. 2017. Том 61, № 5. С. 1–14. DOI: https://doi.org/10.33407/itlt.v61i5.1744
8. Клєба А. Цифрова компетентність майбутніх учителів інформатики як складова їх професійної компетентності. Науковий часопис НПУ імені М. П. Драгоманова. Серія 5 «Педагогічні науки: реалії та перспективи». 2019. Вип. 72, том 1. С. 223–226. DOI: https://doi.org/10.31392/NPU-nc.series5.2020.72-1.49
9. Ковальчук А. Розвиток цифрової компетентності майбутніх педагогів професійного навчання в умовах цифровізації. Молодь і ринок. 2023. № 11–12 (219–220). С. 148–153.
10. Пригодій М. Методичні засади застосування цифрових технологій у підготовці майбутніх кваліфікованих робітників. Вісник Національної академії педагогічних наук України. 2024. Том 6, № 1. С. 1–13. DOI:https://doi.org/10.37472/v.naes.2024.6104
11. Спірін О., Овчарук О. Цифрова компетентність. Енциклопедія освіти / Нац. акад. пед. наук України. 2-ге вид., допов. та перероб. Київ : Юрінком Інтер, 2021. С. 1095–1096.
12. Швардак М., Іванова В. Формування цифрової компетентності майбутніх фахівців в умовах дистанційного навчання. Перспективи та інновації науки. 2025. № 7(53). С. 1053–1063. DOI: https://doi.org/10.52058/2786-4952-2025-7(53)-1053-1063
13. Ferrari A. DIGCOMP: A framework for developing and understanding digital competence in Europe. Luxembourg: Publications Office of the European Union, 2013. 48 p. DOI: https://doi.org/10.2788/62993

e-ISSN: 2786-586X

14. Vuorikari R., Punie Y., Gomez S. C., Van Den Brande G. DigComp 2.0: The Digital Competence Framework for Citizens. Seville: Joint Research Centre, 2016. 44 p. DOI: https://doi.org/10.2791/11517
15. Martin A. Digital literacy and the "digital society". Digital Literacies: Concepts, Policies and Practices. 2008. Vol. 30. P. 151–176.
16. European Commission. Digital Education Action Plan (2021–2027). Brussels: EC, 2020. 28 p.
17. Siemens G. Connectivism: A learning theory for the digital age. International Journal of Instructional Technology and Distance Learning. 2005. Vol. 2(1). P. 3–10.

References

1. Gilster, P. (1997). *Digital literacy*. Akademiia.
2. Bykov, V. Yu. (2009). *Models of organizational systems of open education*. Atika.
3. Shayner, H. I., Barabash, O. V., & Byiak, N. Ya. (2026). Navchalni tsili ta osvitni mozhlyvosti vykorystannia merezhi Internet ta neiromerezh [Educational goals and educational opportunities of using the Internet and neural networks]. *Suspilstvo ta natsionalni interesy*, (1(21)), 500–510. https://doi.org/10.52058/3041-1572-2026-1(21)-500-510
4. Niedialkova, K. (2020). QR technology – coding and its implementation in the educational process of higher school. *Journal of Information Technologies in Education (ITE)*, (44), 53–64. https://doi.org/10.14308/ite000726
5. Oliynyk, V. V. (2022). Digital competence as a factor of professional growth. *Higher Education of Ukraine*, (2), 15–22.
6. Marchenko, O. (2026). Tsyfrova kompetentnist u systemi formuvannia informatsiinoi kultury maibutnikh yurystiv [Digital competence in the system of forming the information culture of future lawyers]. *Naukovi innovatsii ta peredovi tekhnolohii*, *4*(56), 1494–1506. https://doi.org/10.52058/2786-5274-2026-4(56)-1494-1506
7. Havrilova, L., & Topolnyk, Ya. (2017). Tsyfrova kultura, tsyfrova hramotnist, tsyfrova kompetentnist yak suchasni osvitni fenomeny [Digital culture, digital literacy, digital competence as modern educational phenomena]. *Informatsiini tekhnolohii i zasoby navchannia*, *61*(5), 1–14. https://doi.org/10.33407/itlt.v61i5.1744
8. Klieba, A. (2019). Tsyfrova kompetentnist maibutnikh uchyteliv informatyky yak skladova yikh profesiinoi kompetentnosti [Digital competence of future computer science teachers as a component of their professional competence]. *Naukovyi chasopys NPU imeni M. P. Drahomanova. Seriia 5. Pedahohichni nauky: realii ta perspektyvy*, *72*(1), 223–226. https://doi.org/10.31392/NPU-nc.series5.2020.72-1.49
9. Kovalchuk, A. (2023). Rozvytok tsyfrovoi kompetentnosti maibutnikh pedahohiv profesiinoho navchannia v umovakh tsyfrovizatsii [Development of digital competence of future vocational education teachers in the conditions of digitalization]. *Molod i rynok*, (11–12(219–220)), 148–153.
10. Pryhodii, M. (2024). Metodychni zasady zastosuvannia tsyfrovykh tekhnolohii u pidhotovtsi maibutnikh kvalifikovanykh robitnykiv [Methodological principles of digital technologies application in the training of future skilled workers]. *Visnyk Natsionalnoi akademii pedahohichnykh nauk Ukrainy*, *6*(1), 1–13. https://doi.org/10.37472/v.naes.2024.6104
11. Spirin, O., & Ovcharuk, O. (2021). Tsyfrova kompetentnist [Digital competence]. In *Entsyklopediia osvity* (2nd ed., pp. 1095–1096). Yurinkom Inter.
12. Shvardak, M., & Ivanova, V. (2025). Formuvannia tsyfrovoi kompetentnosti maibutnikh fakhivtsiv v umovakh dystantsiinoho navchannia [Forming the digital competence of

e-ISSN: 2786-586X

future specialists in the conditions of distance learning]. *Perspektyvy ta innovatsii nauky*, *7*(53), 1053–1063. https://doi.org/10.52058/2786-4952-2025-7(53)-1053-1063
13. Ferrari, A. (2013). *DIGCOMP: A framework for developing and understanding digital competence in Europe*. Publications Office of the European Union. https://doi.org/10.2788/62993
14. Vuorikari, R., Punie, Y., Gomez, S. C., & Van Den Brande, G. (2016). *DigComp 2.0: The Digital Competence Framework for Citizens*. Joint Research Centre. https://doi.org/10.2791/11517
15. Martin, A. (2008). Digital literacy and the "digital society". *Digital Literacies: Concepts, Policies and Practices*, *30*, 151–176.
16. *European Commission. (2020). Digital Education Action Plan (2021–2027).*
17. Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, *2*(1), 3–10.

e-ISSN: 2786-586X