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THE EDUCATIONAL SYSTEM IN UKRAINE DURING THE ARMED CONFLICT

ABSTRACT: This article examines the intersection of pedagogical methodology and digital resilience during martial law, focusing on e-learning platforms and simulation-based training for disseminating International Humanitarian Law (IHL). The study aims to evaluate an electronic training course designed to foster human rights awareness and digital-information competencies among military personnel, volunteers, and students under active conflict conditions. Methodologically, the research employs a qualitative, interdisciplinary approach that integrates legal-normative analysis with pedagogical modeling within a systemic-functional framework. It features a comparative analysis of learning management systems (LMS) and field-tested protocols. The study is predicated on three core hypotheses: first, that information accessibility directly correlates with civic resilience; second, that human rights education serves as a vital non-kinetic security tool; and third, that pedagogical design must use micro-learning modules to adapt to high-stress environments and manage cognitive load. The main conclusions indicate that digital accessibility is the primary determinant of educational efficacy in high-risk zones. To preserve human dignity and national stability, educational systems must shift from traditional models to decentralized, digital-first architectures that prioritize technical scalability and contextual adaptability.

KEYWORDS: human rights, martial law, tools for organizing training, “online” communication, training process, teaching methods, digital application

SYSTEM EDUKACJI W UKRAINIE PODCZAS KONFLIKTU ZBROJNEGO

ABSTRAKT: Niniejszy artykuł analizuje powiązania między metodologią pedagogiczną a odpornością cyfrową w okresie stanu wojennego, koncentrując się na platformach e-learningowych i szkoleniach opartych na symulacjach, służących upowszechnianiu międzynarodowego prawa humanitarnego (MPH). Celem badania jest ocena elektronicznego kursu szkoleniowego, mającego na celu podnoszenie świadomości praw człowieka i kompetencji w zakresie informacji cyfrowych wśród personelu wojskowego,

wolontariuszy i studentów w warunkach aktywnego konfliktu. Autorzy badania wykorzystują jakościowe, interdyscyplinarne podejście, które integruje analizę prawno-normatywną z modelowaniem pedagogicznym w ramach systemowo-funkcjonalnych. Zawierają one analizę porównawczą systemów zarządzania nauczaniem (LMS) i protokołów przetestowanych w praktyce. Badanie opiera się na trzech głównych hipotezach: po pierwsze, dostępność informacji bezpośrednio koreluje z odpornością obywatelską; po drugie, edukacja w zakresie praw człowieka stanowi istotne, niekinetyczne narzędzie bezpieczeństwa; po trzecie, projekt pedagogiczny musi wykorzystywać moduły mikroedukacji, aby dostosować się do środowisk wysokiego stresu i radzić sobie z obciążeniem poznawczym. Główne wnioski wskazują, że dostępność cyfrowa jest głównym czynnikiem determinującym skuteczność edukacji w strefach wysokiego ryzyka. Aby zachować godność człowieka i stabilność narodową, systemy edukacyjne muszą odejść od tradycyjnych modeli na rzecz zdecentralizowanych, cyfrowych architektur, które stawiają na skalowalność techniczną i możliwość dostosowania do kontekstu.

SŁOWA KLUCZOWE: prawa człowieka, stan wojenny, narzędzia organizacji kształcenia, komunikacja online, proces kształcenia, metody nauczania, aplikacja cyfrowa

INTRODUCTION

METHODOLOGICAL FRAMEWORK

The study employs a qualitative, interdisciplinary approach, integrating legal-normative analysis with pedagogical modeling. The research is grounded in the “Security-through-Education” paradigm, utilizing a comparative analysis of existing e-learning solutions and field-tested training protocols. This allows an objective assessment of how digital tools can bridge the gap between theoretical legal knowledge and the practical application of human rights protections in high-threat environments.

From the perspective of security sciences, human rights education is not merely a legal requirement, but a fundamental element of cognitive security and societal resilience. Strengthening the legal literacy of both military and civilian populations acts as a strategic deterrent against disinformation and psychological operations, thereby enhancing the overall security architecture of the state during periods of armed conflict.

THE EDUCATIONAL IMPERATIVE UNDER MARTIAL LAW

The escalation of military aggression against Ukraine necessitated a fundamental reconfiguration of the national pedagogical infrastructure. Beyond logistical disruptions, martial law introduced a critical vulnerability: the potential erosion of legal literacy regarding human rights. In this high-threat environment, higher education institutions have transitioned into functional components of the national security apparatus.

The presence of martial law in Ukraine requires that higher education institutions are to search for new forms of training and communication channels. Educational institutions were forced to quickly stop traditional forms of training and look for alternatives that would allow the education to be resumed in safe conditions. Additional security concerns for the educational institutions functioning require appropriate solutions regarding communication between teachers and students. A significant number of educational institutions, starting from February 22,

2022, when the Russian Federation launched an open military attack on Ukraine, have been forced to move education activity to the online mode in most regions of the country. In such conditions, the issues of choosing effective forms and tools for building “online” communication between teachers, students and cadets of military colleges become particularly relevant.

The shift to remote instruction represents a pivot toward digital resilience. The selection of communication protocols is a strategic decision that must balance data security with the rapid dissemination of life-saving legal knowledge.

Martial law has been introduced in Ukraine since February 24, 2022 in connection with the large-scale invasion of the Russian Federation. Ensuring the legal awareness of all categories of citizens of Ukraine is an important task for authorities, educational institutions, public and volunteer organizations. To organize training on human rights issues during war, it is necessary to choose appropriate organizational forms and tools.

In the paradigm of Security Sciences, an informed populace acts as a safeguard against the destabilizing effects of war crimes and disinformation. Consequently, the selection of digital tools is scrutinized through the lens of human security, ensuring that legal awareness remains a priority for both civilian and military cohorts.

The choice of tools for organizing the educational process must comply with the regulatory and legislative acts of Ukraine, which ensure both legal and physical protection of teachers, pupils, cadets and students.

The research is predicated on the following analytical assumptions:

- Functional Resilience: Information accessibility is a direct correlate of civic resilience; therefore, training must remain "infrastructure-independent;"
- Systemic-Functional Security: Human rights education is viewed as a non-kinetic security tool that enhances the state’s legal standing and social stability;
- Cognitive Adaptability: Pedagogical design must account for high-stress environments through micro-learning modules to manage the cognitive load of participants under duress.

DIGITAL INFRASTRUCTURE AND FUNCTIONAL ANALYSIS

The task of building a system for professional training in conditions that endanger life and health has triggered significant research interest among domestic and foreign scientists. Among them, we would like to mention the studies of V. Voloshyn¹, I. Bloshchynskyi,

¹ V.D. Voloshyn, *Experience in the use of innovations in the higher military education system of Ukraine*. “Science and Technology Today”, 2022, 10(10), pp. 185–195.

O. Gevko², V. Kovalchuk, I. Vorotnikova³, Ya. Maryanko, M. Ogrenich⁴, N. Sokulska, R. Kovalchuk, V. Kmin⁵, P. Aguilar, G. Retamal⁶, M. Richmond⁷, N. Arnhold, J. Bekker, N. Kersh, E. Mcleish, and D. Phillips⁸.

The Ukrainian educational landscape has undergone a forced evolution, shifting from traditional pedagogical models to a security-centric instructional paradigm. Ukrainian specialists have systematically categorized this experience into three critical developmental phases:

- The Hybrid Phase (2014–2022): Initial adaptation to regional aggression, establishing the first protocols for educational continuity under threat;
- The Pandemic Pivot (2020–2022): The introduction of COVID-19 quarantine measures served as a “stress test” for digital infrastructure, normalizing Learning Management Systems (LMS) nationwide;
- The Martial Law Regime (2022–Present): The current phase, defined by large-scale kinetic threats, where digital tools have transitioned from “alternatives” to the primary infrastructure for protecting the right to education and personal safety.

The latest security restrictions imposed on the educational process for Ukrainian institutions remain in effect at present time.

Forms of human rights education during martial law times may differ in various territories of Ukraine depending on their security situation. Martial law is a special legal regime introduced in the event of armed aggression or a threat of attack on the territory of a state. The conditions of martial law provide for significant restrictions on certain rights and freedoms of citizens, but the state is obliged to ensure their maximum possible protection and compliance with international obligations.

NORMATIVE INSTRUMENTS OF INTERNATIONAL HUMANITARIAN LAW

Human rights are a set of basic, inalienable and generally accepted norms that recognize the dignity of every person and ensure their right to freedom, security, equality and justice. Basic legislative acts that ensure people's rights at the international and European levels, include

² I.H. Bloshchynskyi, et al., *Distance training in war conditions: challenges and opportunities for the higher education system*, *Collection of Scientific Papers of the National Academy of the State Border Guard Service of Ukraine*, “Series: Pedagogical Sciences”, 2023, 34(3), pp. 57-72.

³ V.I. Kovalchuk, I.P. Vorotnykova, “Models for using elements of distance learning at school. *Information Technologies and Learning Tools*”, 2017, 60(4), pp. 58-76.

⁴ Y.H. Mar'ianko, M.A. Ohrenich, *Features of distance education in war conditions*, “Scientific Proceedings”, 2022, 208, pp. 171–176.

⁵ N.B., Sokulska, R.A. Kovalchuk, V.F. Kmin, *Analysis of the results of introducing elements of remote training for military specialists*, “Scientific Proceedings”, 2021, 198, pp. 156–159..

⁶ P. Aguilar, G. Retamal, *Rapid educational response in difficult emergencies: Discussion document*. International Institute for Educational Planning, UNESCO, 1998, <https://unesdoc.unesco.org/ark:/48223/pf0000115530> (27.04.2026).

⁷ P. Aguilar, M. Richmond, *Rapid Educational Response in the Ruanda Crisis*, In *Education as a Humanitarian Response* (ed. by G. Retamal and R. Aedo-Richmond), Cassell, London, Geneva 1998.

⁸ N. Arnhold, J. Bekker, N. Kersh, E. McLeish, D. Phillips, *Education for Reconstruction: The Restoration of Educational Capacity after National Catastrophe*, Wallingford 1998.

the following: Universal Declaration of Human Rights, adopted in 1948; International Covenant on Civil and Political Rights, 1966; European Convention on Human Rights, 1950.

One of the other laws that define the rights and obligations of all categories of citizens of Ukraine is the Law of Ukraine “On Citizenship of Ukraine”, which defines what it means, legally speaking, to be the citizen of Ukraine. It states the grounds and procedure for the citizenship acquisition and termination, etc.⁹.

Another Law of Ukraine “On Ensuring the Rights and Freedoms of Internally Displaced Persons” establishes guarantees for the observance of rights, freedoms and legitimate interests of internally displaced persons¹⁰.

It should be noted that ensuring the legal regulation of the education process in a manner that would be adjusted to the existing security conditions, that would comply with the democratic principles of society development, and that would transform the legal regulation framework is an urgent task for the leading administrative bodies of Ukraine.

Currently, there is a significant number of organizational measures of the European Union aimed at ensuring human rights, including in Ukraine during the war. One of these measures includes constant monitoring by the Council of Europe and by UN of current situation with human rights in Ukraine under martial law. The results of this monitoring are periodically published with regard to various survey groups.

The UN Human Rights Monitoring Mission in Ukraine was deployed in March 2014 at the invitation of the Government of Ukraine in light of the rapid deterioration of the human rights situation in Crimea and other regions of Ukraine. The mission implements the mandate of the Office of the UN High Commissioner for Human Rights to protect and promote human rights for all citizens¹¹.

Since the beginning of the armed attack of the Russian Federation on Ukraine on February 24, 2022, the “UN Monitoring Mission” has focused its monitoring work on the impact the international armed conflict had on human rights.

The reports and conclusions of the monitoring mission are an important source of information relied on by governments, organizations, the public, and the media. They are also used in the litigation of cases and rulings by regional and international courts.

The monitoring reports contain information on the facts of violations of the rights of both civilians and prisoners of war. The reports identify the total volume and scale of torture and ill-treatment suffered by prisoners of war since the full-scale invasion of Ukraine by Russian armed forces.

Focusing on the educational process, we need to bear in mind that all activities of educational institutions must comply with the regulatory and legal framework in force in the country.

⁹ Law of Ukraine, *On Citizenship of Ukraine*. No. 2235-III, 2001, <https://zakon.rada.gov.ua/laws/show/2235-14#Text> (23.03.2025).

¹⁰ Law of Ukraine, *On Ensuring Rights and Freedoms of Citizens and the Legal Regime on the Temporarily Occupied Territory of Ukraine*. No. 1207-VII, 2014, <https://zakon.rada.gov.ua/laws/show/1207-18#Text> (27.04.2026).

¹¹ United Nations, *UN Human Rights Monitoring Mission in Ukraine: Our Work*, 2025, <https://ukraine.ohchr.org/uk/aboutus/ourwork> (27.04.2026).

One of the determining factors that shape the conditions for the educational activities of educational institutions is the ongoing process of European integration of Ukraine, which is enshrined in the Constitution. The European integration orientation puts additional obligations for the compliance of education activities with the legal acts of the European Union.

The educational process in Ukraine is regulated by a number of legislative acts that determine its goals, principles, structure, forms, participants, as well as the rights and obligations of education subjects. The legislative field is the basis for the functioning of the entire education system – from preschool to higher education and postgraduate studies. Legal support is an important condition for the effective functioning of entire education system. It is also a guarantee that the rights of all participants in the educational process - pupils, students, teachers, educational institutions and the state – will be protected. Given modern challenges, legislation is constantly being improved in Ukraine in order to bring it in line with European standards, with the needs of the labor market, and with the dynamics of digitalization.

The Constitution of Ukraine is the fundamental law of the state, which enshrines the right of every citizen to education. According to Article 53¹²: “Everyone has the right to education. Complete general high school education in Ukraine is mandatory. Ukraine as a State ensures the availability (free of charge) of preschool, complete general secondary, vocational (vocational and technical), higher education in state and municipal educational institutions”. This norm is of critical importance for the formation of the state's educational policy.

The Law of Ukraine “On Education”, adopted in 2017, is the basis for the entire national educational sphere. It defines the principles of state policy in the field of education, general principles of educational activity, the education system, and the rights and obligations of participants of the country's educational process.

The Law of Ukraine “On Education” is currently the leading regulatory legal act that establishes the legal principles for the functioning of the education system. The main aspects of education in Ukraine include: principles of the educational process (accessibility, equality, inclusion, academic integrity, autonomy of educational institutions); rights and obligations of participants in the educational process¹³.

The Law “On Education” has formed a legal basis for other norms and principles that function under the Law of Ukraine “On Higher Education”¹⁴ in higher education institutions. The key provisions of the Law “On Education” are: introduction of a competency-based approach; the autonomy of educational institutions; ensuring academic integrity; introduction of new mechanisms for assessing the quality of education.

It should be noted that within the framework of the European integration process the Law “On Education” establishes the concept of National Qualifications Framework, which defines

¹² Constitution of Ukraine, Article 53: *The Right to Education*, 1996, <https://constitution.in.ua/articles/53/> (27.04.2026).

¹³ Law of Ukraine, *On Education*, No. 2145-VIII, 2017, <https://zakon.rada.gov.ua/laws/show/2145-19#Text> (27.04.2026).

¹⁴ Law of Ukraine, *On Higher Education*, No. 1556-VII, 2014, <https://zakon.rada.gov.ua/laws/show/1556-18#Text> (27.04.2026).

the qualifications of education workers and provides for integration of Ukrainian education system into European space.

The National Qualifications Framework¹⁵ is based on European and national standards and principles of ensuring the quality of education, it takes into account the labor market requirements for the competencies of employees. It was introduced to harmonize the norms of legislation in the fields of education as well as social and labor relations, and to promote national and international recognition of qualifications obtained in Ukraine. Certain provisions of the Law on Education are aimed at harmonization with the Bologna Process that ensures the quality of education.

The Law of Ukraine “On Higher Education” defines the main legal, organizational, and financial principles of the higher education system functioning. The defining elements of the Law of Ukraine “On Higher Education” are: autonomy of universities; academic mobility of students and teachers; system of degree education (bachelor, master, doctor of philosophy); external independent assessment (EIA) as an admission tool.

Despite the fact that significant work is being done in Ukraine to harmonize national and European legislation in the field of higher education, the European Union does not possess direct competence in the field of organizing the educational process. In the EU member states: in accordance with the principle of subsidiarity, education remains exclusively the prerogative of national governments. At the same time, through numerous treaties, directives, regulations, and recommendations, the EU is responsible for common standards of quality, mobility, and recognition of qualifications¹⁶.

According to the Law of Ukraine “On Complete General Secondary Education”¹⁷, the learning process must be ensured by a safe educational environment and by state standards of complete general secondary education.

In addition to the main laws that regulate educational activities, there are numerous by-laws and specialized normative acts: The Law of Ukraine “On Preschool Education”¹⁸; The Law of Ukraine “On Professional Pre-Higher Education”¹⁹; The Law of Ukraine “On Scientific and Scientific-Technical Activities”; Resolutions of the Cabinet of Ministers of Ukraine on organization of the academic year, accreditation, certification of institutions; as well as Orders

¹⁵ Cabinet of Ministers of Ukraine, *Resolution on the Approval of the National Qualifications Framework*. No. 1341, 2011, <https://zakon.rada.gov.ua/laws/show/1341-2011-%D0%BF#Text> (27.04.2026).

¹⁶ European Union, *Charter of Fundamental Rights of the European Union*, Article 14: *Right to Education*, 2012, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT> (27.04.2026); European Parliament and Council, *Regulation (EU) 2021/817 establishing Erasmus+: the Union Programme for education, training, youth and sport*, 2021, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R0817> (27.04.2026). European Parliament and Council. (2005). *Directive 2005/36/EC on the recognition of professional qualifications*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32005L0036> (27.04.2026).

¹⁷ Law of Ukraine, *On Complete General Secondary Education*. No. 463-IX, 2020, <https://zakon.rada.gov.ua/laws/show/463-20#Text> (27.04.2026).

¹⁸ Law of Ukraine, *On Preschool Education*, No. 2628-III, 2021, <https://zakon.rada.gov.ua/laws/show/3788-20#Text> (27.04.2026).

¹⁹ Law of Ukraine, *On Professional Pre-Higher Education*, No. 2745-VIII., 2019, <https://zakon.rada.gov.ua/laws/show/2745-19#Text> (27.04.2026).

of the Ministry of Education and Science of Ukraine that regulate standard curricula, teaching methods, and assessment forms.

According to the Law on Complete General Secondary Education²⁰ a safe educational environment is a set of conditions in an educational institution that make it impossible to cause physical, property and/or moral harm to participants in the educational process, in particular due to non-compliance with the requirements of sanitary, fire and/or construction norms and rules, legislation on cybersecurity, and personal data protection.

State standards for complete general secondary education according to the Law are documents that determine the total amount of educational workload for applicants for primary, basic secondary, specialized secondary education, requirements for their competencies and mandatory learning outcomes grouped by relevant educational branches.

It should be noted that among the norms that regulate the rights of citizens in accordance with the legislative acts of Ukraine listed in the laws on Education there are conditions for a safe educational environment, compliance with sanitary, fire and/or construction norms, cybersecurity and protection of personal data.

SYSTEMS OF PROFESSIONAL TRAINING IN HIGH-RISK ENVIRONMENTS

Due to circumstances outlined above, the conditions, in which educational processes have been taking place in Ukraine since February 2022 can be attributed to force majeure. Under this force majeure, the administration of most educational institutions cannot guarantee participants in the educational process an absolutely safe educational environment while studying in classrooms and auditoriums on the territory of Ukraine.

Shelling of civilian infrastructure, including educational institutions, still continues. A martial law regime has been in effect throughout the territory of Ukraine, which has its own peculiarities.

The legal regime of martial law ensures defense, civil protection, public safety and order, protection of critical infrastructure, protection of the rights, freedoms and legitimate interests of citizens. The current effect of the martial law in Ukraine imposes significant restrictions on the rights and freedoms of citizens. At the same time, the state is obliged to ensure the protection of the most important constitutional rights even in a state of emergency.

Under martial law in Ukraine, the education sector, like all other sectors of public life, is facing serious challenges. Educational process was faced with the need for immediate adaptation to new conditions: forced evacuation, destruction of educational institutions, psychological stress among participants in the educational process, and the need for distance education.

In these extraordinary circumstances, an important role in maintaining the functioning of the education system belongs to the Ministry of Education and Science of Ukraine. The Ministry of Education and Science has acted as a Security Coordinator, facilitating a “Safe

²⁰ Law of Ukraine, *On Complete General Secondary Education*. No. 463-IX, 2020, <https://zakon.rada.gov.ua/laws/show/463-20#Text> (27.04.2026).

Educational Environment” (per Article 53 of the Constitution). Platforms like the “All-Ukrainian School Online” ensure informational sovereignty and mitigate the psychological trauma associated with mass displacement.

ANALYTICAL COMPARISON OF LEARNING MANAGEMENT SYSTEMS (LMS)

With the beginning of military operations, the Ministry of Education and Science of Ukraine focused its activities on creating conditions that should:

- ensure the continuity of the educational process;
- mitigate the negative consequences for the educational process caused by the movement of pupils, students and teachers;
- ensure the possibility of organizing distance and blended learning in conditions of hostilities;
- provide financial and material support for educational institutions;
- organize psychological support for participants in the educational process.

One of the key decisions of the Ministry of Education and Science of Ukraine was the introduction and improvement of distance learning. To accomplish this task, the following actions were taken:

- a single platform “All-Ukrainian School Online” was created, which became the main resource for students and teachers;
- methodological recommendations for organizing distance learning in an emergency situation were provided;
- development of teachers’ digital skills was supported through a series of webinars and online courses;
- procedures for switching between educational institutions for students who have changed their place of residence were simplified;
- blended learning models were developed for institutions located in relatively safe regions²¹.

The organizational form of education in the form of an online platform – “All-Ukrainian School Online” was created and implemented to ensure equal access to high-quality school education. The online learning platform “All-Ukrainian School Online” was launched for distance and blended learning of school students in the context of the spread of COVID-19 in December 2020.

The Ukrainian Institute for Development of Education has made significant efforts to ensure that all content posted on the platform is of high quality, meets state educational standards, and, of course, is interesting for students. This was made possible by the involvement of a large team of specialists who carried out an examination of materials at all stages of the implementation of the All-Ukrainian Online School project.

²¹ Ministry of Education and Science of Ukraine, *Recommendations on the organization of the educational process in preschool education institutions for the 2024/2025 academic year*, 2024, <https://mon.gov.ua/news/mon-opryliudnylo-rekomendatsii-shchodo-orhanizatsii-osvitnoho-protsesu-v-zakladakh-doshkilnoi-osvity-na-20242025-navchalnyi-rik> (27.04.2026).

The main challenges for organizing education in wartime conditions were the following:

- physical danger to students and teachers;
- destruction of infrastructure;
- mass displacement of participants in the educational process;
- lack of stable access to the Internet;
- psychological trauma and stress;
- lack of funding.

Despite this, the Ministry of Education and Science, under the leadership of the Government of Ukraine, in cooperation with local authorities, international partners, and volunteer organizations, has launched a large-scale reform of the organization of the educational process in wartime conditions.

Already in March 2022, most educational institutions resumed their activities in the online format. The technical selection of a particular LMS depended on a particular aspect of Administrative Resilience required by institution. Services such as Google Classroom, Zoom, Microsoft Teams have become the main learning aids. Methodological recommendations for online education have been developed, electronic diaries and testing platforms have been introduced. In relatively safe regions of Ukraine, blended learning methods have begun to operate – a combination of online lessons with classes in bomb shelters or adapted premises. In some schools, shelters with appropriate conditions for conducting lessons have been equipped, which made it possible to return children to live communication while maintaining their safety.

The modern evolution of "digital" technologies has changed traditional approaches to educational communication, creating new opportunities for learning and collaboration.

The accelerated development of the latest digital technologies and the digitalization of modern society contributes to the introduction of new information and communication technologies and defines new "positive" opportunities for the distant learning process.

The constant updating of software products and means of communication used in educational process determines the need for updates as well as the need for developing the friendly educational environment in educational institutions. Educational community requires new means, criteria and principles of learning in the information age. So, the training of educators needs to be kept on the par with the very rapidly growing capabilities of modern domestic digital environment²².

Modern digital means of communication are constantly evolving, they are not only improving in quality, but they also change educational content. The content of education now must meet the following requirements:

- modern market conditions as represented by existing educational institutions must be accounted for;

²²O. Palamarchuk, Problems of organization of distance and mixed education at universities of Ukraine, "Pedagogical Sciences: Theory, History, Innovative Technologies", 2020, 9 (103), pp. 237-248.

- normative requirements of the State Educational Standard for Students must be upheld;
- requirements of the “Regulations on the Peculiarities of Organization of the Educational Process in Higher Military Educational Institutions of the Ministry of Defense of Ukraine, and in Military Educational Units of Higher Education Institutions” must be upheld;
- modern learning technologies must be adequate to the form of training;
- basic minimum level of skills must be ensured, which must be guaranteed by effective distance learning using appropriate set of knowledge and skills,
- norms for protecting information circulating in the process of distance learning must be upheld, which requires appropriate organizational and technical means for handling confidential information,
- the possibilities of mobile learning must be provided, which allows a student or cadet to supplement or adjust his educational program,
- the possibility of setting the priorities in the pedagogical approach must be ensured while designing the tools for online learning;
- maximum individualization must be retained in communication between student and the teacher with the possibility of checking and controlling the learning process;
- universalization of the educational process with the possibility for students to acquire the latest knowledge and most relevant skills.

One of the important aspects of the educational process is the possibility of social adaptation of students in conditions of limited communication. The possibilities of social adaptation of the military in the post-war period, their rapid and harmonious return to peaceful social life, is currently becoming an urgent problem. This process requires not only the construction of appropriate communicative ties, but also appropriate specialists who will ensure adaptation to the social and economic sphere. As long as educational process is concerned, the post-war period will be complicated by a number of challenges, which will include, in particular, the post-traumatic stress disorders, the integration into the civilian environment, and the search for new life guidelines. Successful social adaptation of former military personnel will be of critical importance not only for their personal well-being, but also for the stability of entire society and national security of Ukraine.

Education experts (Palamarchuk, O. and others²³) determine that digitalization covers all areas of life, including the educational process. The transition from traditional classroom forms of learning to blended and fully distance models is possible thanks to the use of various digital tools.

Let's analyze the main categories and modern examples of digital education tools, their functionality, advantages, and disadvantages. Conducting such an analysis provides greater awareness of the opportunities for integrating new technologies into the learning process. To

²³ National Academy of Educational Sciences of Ukraine, *Digitalization of education: pedagogical priorities*, 2024, https://naps.gov.ua/ua/press/about_us/2545/ (27.04.2026).

choose the appropriate educational process tools for employing in the existing conditions educational institutions find themselves in, depending on the security situation, becomes an urgent task.

In order to expand the possibilities of organizing distance learning in Ukraine, let's analyze other existing digital tools²⁴. The most common ones include Learning Management Systems, platforms for video conferencing and synchronous learning, tools for creating and distributing content, automated assessment systems, platforms for collaborative learning, and mobile applications for learning.

In order to popularize digitalization tools that can provide distance education, let's consider the following systems in more detail:

1. Learning Management Systems are designed for administering courses, organizing access to materials, monitoring student performance, and facilitating communication between teachers and students.
2. Platforms for video conferencing and synchronous learning provide for online lectures, webinars, and seminars in real time.
3. Tools for creating and distributing content provide services for developing interactive presentations, video lessons, and podcasts.
4. Automated assessment systems allow for tests, surveys, and task verification with the ability to automatically assign scores.
5. Platforms for social learning facilitate group work: collaborative editing of documents, projects, and discussions.
6. Mobile learning applications provide access to educational content from anywhere in the world via smartphones and tablets.

It should be noted that LMS have excellent characteristics, such as the number of access points, the range of options, and there are both free and paid versions. Among them: Moodle, Canvas, Google Classroom.

Moodle is an open-source platform that allows you to create courses, conduct assessments, and organize forums and chats. It facilitates maximum data sovereignty via localized server hosting, which is critical for military applications. Other advantages of the Moodle distance learning system include the following: it's free and flexible in configuration; it supports multilingual environments and includes large community of developers and users²⁵.

Canvas is a commercial LMS management system, known for its convenient intuitive interface and a wide range of integration tools (Zoom, Google Drive, and Microsoft Teams). The main advantages of the Canvas platform include the following features: powerful

²⁴ Kyiv Medical College, *Digital education tools*, 2021, <https://kmrf.kiev.ua/wp-content/uploads/2021/11/db47b5bd-4ae0-45bf-8806-cbb95fdd05b7.pdf> (27.04.2026).

²⁵ M. Dougiamas, P.C. Taylor, *Moodle: Using learning communities to create an open source course management system*, World Conference on Educational Multimedia, Hypermedia and Telecommunications. Chesapeake, VA: AACE, 2003, pp. 171-178; European Commission, *European Education Area explained*, 2024, <https://education.ec.europa.eu/about-eea/the-eea-explained> (27.04.2026).

performance analytics, support for mobile applications, adaptive design for different devices²⁶. It provides advanced performance analytics as a proxy for social well-being monitoring.

Google Classroom is also a free product of the Google Internet service for organizing the educational process, closely integrated with GSuite for Education. It optimizes availability through cloud-native synchronization, essential for intermittent connectivity in combat zones. The advantages of Google Classroom are affordability, ease of use, automatic saving of documents in the cloud, built-in commenting and grading tools²⁷.

Platforms for video conferencing and synchronous learning Zoom, Microsoft Teams, Big Blue Button have become widespread in the organization of distance education²⁸.

Zoom is a software application that has gained a lot of popularity. Zoom features include: high quality video and audio, the ability to “breakout rooms”, and the ability to record sessions.

The Zoom application is used for business communications, online meetings, and is widely used in education to conduct: lectures, seminars, and group consultations.

Microsoft Teams is an application for exchanging messages between users. Teams features include integration with Office 365, the ability to work collectively on digital documents in real time, chat, and channels sorted by topic. In most cases, the Teams application is used for administrative meetings, joint projects, and is also used for group learning²⁹.

Among the features of Big Blue Button that are different from other applications is the presence of open-source functions. An open-source solution designed specifically for education; support for an interactive whiteboard, surveys, and raising hands. It is used in the education process to conduct lectures, workshops, and interactive seminars³⁰.

SYNCHRONOUS COMMUNICATION AND ASSESSMENT FRAMEWORKS

The interactive tools (H5P, Adobe Captivate) can be employed. The gamified systems (Kahoot!, Quizlet) can also transform passive legal theory into actionable competencies. These tools are vital for maintaining student engagement and psychological fortification.

H5P is a plugin that integrates with LMS (Moodle, Drupal, and Word Press); it allows user to create interactive videos, presentations, cards and conduct other activities. Its advantages are: ease of use, a wide range of content types, open source³¹.

The Articulate 360 application is a commercial set of tools for e-learning development; consists of Storyline, Rise, and Studio.

²⁶ Instructure Inc, *Canvas LMS Features*, 2024, <https://www.instructure.com/canvas> (27.04.2026).

²⁷ Google for Education, *Google Classroom Overview*. 2024, <https://support.google.com/edu/classroom/answer/6020279> (27.04.2026).

²⁸ Microsoft, *Microsoft Teams for Education*, 2024, <https://www.microsoft.com/education/products/teams> (27.04.2026).

²⁹ *Ibidem*.

³⁰ BigBlueButton Inc., *BigBlueButton: Open source web conferencing system*, 2024, <https://bigbluebutton.org/> (27.04.2026).

³¹ H5P, *H5P – Create and share rich HTML5 content*, 2024, <https://h5p.org/> (27.04.2026).

The advantages of Articulate 360 are a significant number of options for creating designs. The features relevant in the field of education are the availability of templates for quick course creation and multilingual support³².

Adobe Captivate screen recording program allows user to create simulations, virtual reality content, and adaptive courses. The main advantages of Adobe Captivate are support for various output formats, integration with other Adobe products and the ability to include 360° media³³.

A very important part of the education system organization is the assessment system. Currently, there are digital platforms that allow for remote automatic assessment, including: Kahoot, Quizlet, Socrative. The “Kahoot!” system allows user to remotely test students’ knowledge. The platform is built in a game format; participants answer questions in real time via mobile devices. The advantages of “Kahoot!” are a wide range of student involvement, instant feedback, and the presence of a competitive element of interest³⁴.

The Quizlet service is functionally used to create flashcards and tests; it supports various learning modes (flashcards, test, matching, and games). The advantages of Quizlet are adaptive repetition, a mobile application, and a common base of options for users³⁵.

The Socrative application is used as a tool for online surveys, tests, and quick knowledge checks; it provides reports on the results.

The advantages of Socrative are ease of setup, analytics of results, and the ability to conduct exit exams³⁶.

There are a number of platforms for collaborative learning that include Padlet, Miro, and Google Docs³⁷.

In the educational process, Padlet is used as an online whiteboard for sharing text, images, files, and links. It supports the structures consisting of columns and tables. The advantages of Padlet include a visually appealing interface, flexible access rights settings, and integration with LMS.

The Miro application serves as a tool for collaborative brainstorming, formalization of processes, which supports a large number of templates.

The advantages of the Miro application are real-time collaboration, commenting capabilities, voice and video insertions, and an infinite canvas³⁸.

The Google Docs, Sheets, and Slides applications serve as a tool for collaborative editing of texts, tables, and presentations with version history and comments.

³² Articulate Global, Inc., *Articulate 360 Product Features*, 2024, <https://articulate.com/360> (27.04.2026).

³³ Adobe Inc., *Adobe Captivate Features*, 2024, <https://www.adobe.com/products/captivate/features.html> (27.04.2026).

³⁴ Kahoot! ASA, *Kahoot! Educational Games Platform*, 2024, <https://kahoot.com/> (27.04.2026).

³⁵ Quizlet Inc, *Quizlet Study Tools*, 2024, <https://quizlet.com/> (27.04.2026).

³⁶ Socrative Inc, *Socrative Features*, 2024, <https://socrative.com/> (27.04.2026).

³⁷ Padlet Inc, *Padlet: Collaborative Bulletin Board*, 2024, <https://padlet.com/> (27.04.2026); Miro, *Miro Collaboration Platform*, 2024, <https://miro.com/> (27.04.2026); Classcraft Studios Inc, *Classcraft: Game-based Learning Platform*, 2024, <https://www.classcraft.com/> (27.04.2026).

Duolingo, *Duolingo for Schools*, 2024, <https://schools.duolingo.com/> (27.04.2026).

³⁸ Coursera Inc, *Coursera Mobile App*, 2024, <https://www.coursera.org/> (27.04.2026).

The advantages of the latter include instant synchronization, offline mode, and integration with other Google services³⁹.

As an alternative to distance education using computers, there are digital applications using smartphones, the so-called mobile learning (m-learning). The most common applications for mobile learning are Coursera, “edX” and Khan Academy⁴⁰.

The educational platform Khan Academy is free, widespread in Asia, Latin America and Africa, provides access to education in mathematics, science, programming. The “edX” platform is an American commercial online education platform. The Coursera and edX online applications allow students to take courses, watch videos and take tests from smartphones. The advantages of “edX” include wide selection of courses, certification, and security.

To maintain the “human” element of security, synchronous tools like Zoom, Microsoft Teams, and Big Blue Button are utilized for real-time pedagogical intervention.

To facilitate the Cognitive Load Management, tools such as H5P and Adobe Captivate are used to create interactive, adaptive content that accounts for the reduced attention spans typical of high-stress environments.

To achieve Gamified Verification, the tools such as Kahoot! and Quizlet are employed. They shift the assessment paradigm from high-stakes testing to low-stress engagement, fostering “competency-based” learning that is actionable in crisis scenarios.

SECURITY SCIENCE CONSIDERATIONS

THE “DIGITAL DIVIDE” AS A SYSTEMIC VULNERABILITY

The use of the above digitalization tools has some common limitations and opportunities. The limitations would be as follows: the digital divide, qualification opportunities, ensuring data security and confidentiality of information, additional physical and psychological loads on users.

The “digital divide” is an emerging term meaning that not all students have equal access to devices and fast Internet. Preparing teachers to use applications requires additional training for the effective use of digital technologies. Security threats – the risk of personal data leakage is increasing, there is a need to ensure compliance with global and local norms. Long-term workload in front of a screen can negatively affect health.

The “digital divide” is treated as a security gap. Unequal access to information creates “silos” that are susceptible to adversarial psychological operations. Bridging this gap is essential for the integrity of the national information space.

³⁹ edX Inc., *edX Mobile Learning*, 2024, <https://www.edx.org/> (27.04.2026).

⁴⁰ Khan Academy, *Khan Academy Mobile App*, 2024. <https://www.khanacademy.org/> (27.04.2026).

DATA SOVEREIGNTY AND CYBERSECURITY

On the other hand, the opportunities would include the rapid development of digital technologies and the rise of “artificial intelligence”. Further development of “artificial intelligence” opens up new opportunities for organizing educational process (edX, Khan Academy).

Modern digital technologies and the digitalization tools of education built on them provide a wide range of opportunities for improving the quality of the educational process, increasing student motivation and optimizing the work of teachers. At the same time, the integration of these tools requires solving technical, organizational and psychological problems. In the future, the development of artificial intelligence, digital technologies and educational data analytics will contribute to the creation of even more personalized and effective educational environments.

The transition to digital learning also increases the attack surface for cyber-adversaries. Protecting the metadata and personal information of participants is a matter of National Security, requiring strict adherence to cybersecurity protocols.

SOCIAL ADAPTATION AND NATIONAL STABILITY

The choice of tools that would be most suitable given particular educational conditions involves considerations that can be divided into the following basic categories:

- how the interface corresponds to the tasks of education;
- how financially accessible the tool is;
- how functional the application is;
- what is the number of users that can have shared access;
- how secure the digital application is.

The final objective of human rights training is the social fortification of the populace. By addressing post-traumatic stress and facilitating the reintegration of military personnel into civilian life, education acts as a mechanism for long-term national stability.

SUMMARY AND STRATEGIC CONCLUSIONS

The analysis demonstrates that the effective organization of human rights training during martial law requires a shift from traditional classroom models to decentralized, digital-first architectures. The integration of IHL modules into mobile-learning platforms – as exemplified by the partnership with the Swedish Institute – proves that accessibility is the primary determinant of educational efficacy in restricted environments.

Strategic conclusions suggest that future training initiatives must prioritize “technical scalability” and “contextual adaptability”, ensuring that legal content remains relevant to the evolving nature of digital warfare. Ultimately, the synthesis of security sciences and digital pedagogy creates a robust framework for preserving human dignity. The institutionalization of these tools is recommended as a mandatory component of both military preparation and civil

defense protocols, ensuring that the protection of fundamental rights remains a functional reality rather than a theoretical aspiration.

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