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FROM RESEARCH TO SOLUTION: RATIONALE FOR CREATING AN INNOVATIVE SOFTWARE APPLICATION FOR STUDYING INTERNATIONAL HUMANITARIAN LAW

ABSTRACT: The full-scale armed conflict in Ukraine has created an unprecedented and urgent demand for legal literacy among combatants and the civilian population. Ensuring that cadets, active-duty military personnel, and humanitarian workers are proficient in International Humanitarian Law (IHL) is not merely an academic or ethical requirement but a strategic necessity for the prevention of war crimes and the preservation of human dignity in high-intensity conflict zones. However, traditional pedagogical models – largely reliant on stable infrastructure, classroom environments, and consistent internet access – are frequently rendered ineffective by the logistical realities of active combat and martial law. This article details a collaborative initiative between the Ivan Kozhedub Kharkiv National Air Force University and the Swedish Institute to bridge this educational gap through the development of a specialized mobile application. The primary goal of this research is to establish a technical and pedagogical rationale for an mLearning (mobile learning) platform designed specifically for high-stakes legal training in environments characterized by intermittent connectivity and high cognitive load. The research is guided by the hypothesis that a modular, offline-capable digital solution – integrated with interactive scenarios and gamified progress tracking – will yield significantly higher engagement and knowledge retention rates than existing internet-dependent resources. To test this, the authors employed a multi-stage methodology consisting of a comparative analysis of existing IHL digital tools (such as the ICRC’s IHL app and Geneva Call’s “War Has Rules”), a technical audit of software architecture requirements for offline data persistence using SQLite, and a pedagogical review of “human-focused design” principles. The main findings indicate that while exhaustive legal databases exist, they often lack the interactive “mission-mode” logic required to translate abstract treaty norms into operational decision-making. The proposed application addresses this by utilizing a DASHBOARD system and localized storage, ensuring that the Geneva Conventions and relevant military instructions – such as Ministry of Defense Order No. 164 – remain accessible even in “airplane mode” or regions with compromised telecommunications. In conclusion, the study demonstrates that the transition from standardized web-based content to a tailored, mobile-first solution is essential for modern security sector education. By incorporating gamification elements – such as badges, points, and story-driven challenges – the application transforms passive reading into active problem-solving. This approach not only supports the professional development of military personnel but also serves as a vital digital safeguard for international justice mechanisms during active hostilities.

KEYWORDS: International Humanitarian Law, mLearning, Military Education, Digital Transformation, Gamification, Software Architecture

OD BADAŃ DO ROZWIĄZANIA: UZASADNIENIE STWORZENIA INNOWACYJNEJ APLIKACJI DO NAUKI MIĘDZYNARODOWEGO PRAWA HUMANITARNEGO

ABSTRAKT: Pełnoskalowy konflikt zbrojny w Ukrainie stworzył bezprecedensowe i pilne zapotrzebowanie na wiedzę prawną wśród uczestników działań zbrojnych oraz ludności cywilnej. Zapewnienie, że podchorążowie, żołnierze zawodowi i pracownicy organizacji humanitarnych posiadają odpowiednią znajomość międzynarodowego prawa humanitarnego (MPH), jest nie tylko wymogiem akademickim lub etycznym, lecz także strategiczną koniecznością służącą zapobieganiu zbrodniom wojennym i ochronie godności człowieka w strefach konfliktów o wysokiej intensywności. Tradycyjne modele dydaktyczne, opierające się głównie na stabilnej infrastrukturze, nauczaniu stacjonarnym i stałym dostępie do Internetu, często okazują się nieskuteczne w realiach aktywnych działań bojowych oraz stanu wojennego. W artykule przedstawiono wspólną inicjatywę Narodowego Uniwersytetu Sił Powietrznych im. Iwana Kożeduba w Charkowie oraz Szwedzkiego Instytutu, mającą na celu zniwelowanie tej luki edukacyjnej poprzez opracowanie specjalistycznej aplikacji mobilnej. Głównym celem badań jest przedstawienie technicznych i dydaktycznych podstaw platformy mLearning (mobilnego uczenia się), zaprojektowanej specjalnie do szkolenia z zakresu prawa w środowisku charakteryzującym się niestabilnym dostępem do sieci i wysokim obciążeniem poznawczym. Badania oparto na hipotezie, że modułowe rozwiązanie cyfrowe umożliwiające pracę w trybie offline, zintegrowane z interaktywnymi scenariuszami i elementami grywalizacji monitorującymi postępy, zapewni znacznie wyższy poziom zaangażowania i trwałości przyswajanej wiedzy niż istniejące zasoby wymagające stałego dostępu do Internetu. W celu weryfikacji tej hipotezy autorzy zastosowali wieloetapową metodologię obejmującą analizę porównawczą istniejących narzędzi cyfrowych z zakresu MPH (takich jak aplikacja MKCK oraz „War Has Rules” organizacji Geneva Call), audyt technicznych wymagań architektury oprogramowania dotyczących przechowywania danych offline z wykorzystaniem SQLite oraz analizę dydaktyczną zasad projektowania zorientowanego na użytkownika (human-focused design). Główne wyniki wskazują, że choć istnieją obszerne bazy danych prawa, często brakuje im interaktywnej logiki „trybu misji”, pozwalającej przełożyć abstrakcyjne normy traktatowe na decyzje podejmowane w działaniach operacyjnych. Proponowana aplikacja rozwiązuje ten problem dzięki zastosowaniu systemu DASHBOARD i lokalnego przechowywania danych, zapewniając dostęp do Konwencji Genewskich oraz odpowiednich instrukcji wojskowych, takich jak Rozkaz Ministerstwa Obrony nr 164, nawet w trybie samolotowym lub na obszarach z ograniczoną łącznością telekomunikacyjną. W podsumowaniu wykazano, że przejście od standardowych internetowych materiałów edukacyjnych do dedykowanego rozwiązania mobilnego jest niezbędne dla współczesnego kształcenia w sektorze bezpieczeństwa. Dzięki wykorzystaniu elementów grywalizacji, takich jak odznaki, punkty i zadania oparte na fabule, aplikacja przekształca biernie czytanie w aktywne rozwiązywanie problemów. Podejście to nie tylko wspiera rozwój zawodowy personelu wojskowego, lecz także stanowi istotne cyfrowe zabezpieczenie międzynarodowych mechanizmów wymiaru sprawiedliwości w czasie trwających działań zbrojnych.

SŁOWA KLUCZOWE: międzynarodowe prawo humanitarne, mLearning, edukacja wojskowa, transformacja cyfrowa, grywalizacja, architektura oprogramowania

INTRODUCTION

The ongoing armed conflict in Ukraine has created an urgent need for widespread legal literacy among both military personnel and the civilian population. Traditional classroom-based training faces significant logistical hurdles in a high-stress, restricted environment characterized by compromised infrastructure and shifting front lines. This article details a collaborative project between the Ivan Kozhedub Kharkiv National Air Force University and the Swedish Institute aimed at bridging this gap through mobile learning (mLearning).

The project's relevance rests upon the following key pillars of contemporary communications technologies:

1. Accessibility and dissemination of knowledge: Mobile phones nowadays are common means of communication, even in hard-to-reach or damaged areas. Applications can bring information about IHL to a wide range of people, including military personnel, civilians, volunteers, journalists, etc. The information provided in a mobile application is easily accessible for viewing anytime, anywhere, even in the absence of a stable internet connection.

2. Timeliness and relevance of information: The applications allow for rapid updates on changes in legislation, new precedents, clarifications and recommendations on the application of IHL. In crisis situations, the applications can be used to quickly disseminate important messages about rights and obligations, rules of conduct and available assistance.

3. Adaptability and interactivity: Applications can combine textual information with visual materials (infographics, videos, illustrations), audio support, and interactive tests, which contribute to better assimilation of the material by users who prefer different learning styles.

Some applications can adapt content to the knowledge level and needs of a particular user. Interactive elements can include the ability for users to ask questions and receive answers.

4. Raising awareness and preventing violations: Providing accessible information about IHL can help raise awareness among military and civilian personnel, potentially preventing violations of the laws of war. Informing civilians about their rights and responsibilities in a conflict can help them better protect themselves and their loved ones.

5. Documentation and recording of violations: Some applications may include functionality for documenting and recording alleged violations of IHL (photos, videos, testimonies), which may be important for further investigation and bringing perpetrators to justice (while respecting security and confidentiality requirements).

6. Learning in conditions of limited access: In situations where traditional forms of learning are impossible or dangerous, mobile applications can provide continued IHL training remotely.

In the context of Russia's ongoing armed aggression against Ukraine, mobile applications with IHL are critically important for: informing the Ukrainian military about the rules of war and the treatment of prisoners of war and civilians; increasing the legal awareness of the civilian population regarding their rights and actions in the conflict zone and in the occupied territories; assisting volunteers and humanitarian workers in their activities in accordance with IHL norms; collecting evidence of war crimes and other violations of IHL committed by the Russian occupiers.

Research Problem addressed in the article is how can digital education platforms be adapted to provide high-stakes legal training on International Humanitarian Law (IHL) that remains functional and reliable under the specific technical and psychological constraints of active combat zones?

Hypothesis being put forward and rationalized is the implementation of a specialized mobile application – featuring offline accessibility, modular interactive content, and gamified progress tracking – will significantly increase the accessibility and retention of IHL norms compared to existing standardized online courses that lack context-specific examples and local language support.

ANALYSIS OF EXISTING DIGITAL IHL RESOURCES

Currently, several resources provide IHL education in Ukraine, yet each possesses distinct limitations¹. The “War Has Rules” application by Geneva Call² offers accessibility but is often criticized for oversimplifying complex legal nuances necessary for professional military legal advisers³. Similarly, the Diya.Education series provides high-quality video content but requires a stable internet connection, which is frequently unavailable in martial law conditions⁴. Finally, the ICRC’s IHL application provides an exhaustive database of treaties but serves primarily a specialized legal audience, making the content difficult for non-lawyers to digest without pedagogical mediation⁵. The role of universities in promoting IHL awareness cannot be stressed enough⁶. Besides, applying the IHL to a modern military technologies is has its specifics as well as ethical&legal caveats⁷.

So, the evolution of International Humanitarian Law (IHL) is currently defined by the tension between established kinetic warfare doctrines and the rapid integration of artificial intelligence. Traditional frameworks emphasize that the core of the Law of Armed Conflict rests on the balance between military necessity and humanitarian protection⁸. This balance is codified through rigorous commentaries on treaty and customary law, which provide the procedural “handbook” for maintaining legal standards in the field⁹. However, as the “humanization” of international law increasingly links IHL with individual criminal accountability¹⁰, the emergence of Lethal Autonomous Weapon Systems (LAWS) introduces a critical “accountability gap.” Specifically, the delegation of lethal decision-making to algorithms challenges the ethical boundaries of human dignity and the legal requirement for meaningful human control in modern combat¹¹.

This push for global governance and standardized “action plans” reflects a deeper shift in how technical architectures are designed to serve national interests. However, the transformation currently unfolding – particularly through the proliferation of advanced AI – elevates

¹ Vide: M. Hnatovskyi, et al., *Mizhnarodne humanitarne pravo: posibnyk dlya yurysta [International Humanitarian Law: A Guide for a Lawyer]*, Kyiv-Odessa 2017.

² Geneva Call. “War Has Rules”, <https://www.unian.ua/society/10456749-u-viyni-tezh-ye-pravila-v-ukrajini-zapustili-specialniy-mobilniy-dodatok-pro-pravovi-normi-zbroynih-konfliktiv.html> (13.05.2026).

³ Vide: G. Solis, *The Law of Armed Conflict: International Humanitarian Law in War*, Cambridge 2016; D. Fleck (ed), *The Handbook of International Humanitarian Law*, Oxford 2013; W. Schabas, *Elements of International Humanitarian Law*, Cambridge 2021.

⁴ Natsionalne ahentstvo Ukrainy z pytan derzhavnoi sluzhby [National Agency of Ukraine for Civil Service]. International Humanitarian Law, Diia.Education, <https://osvita.diia.gov.ua/courses/international-humanitarian-law> (13.05.2026).

⁵ International Committee of the Red Cross, IHL, Microsoft Store, <https://apps.microsoft.com/detail/9n8jm13p7v9k?hl=en-us&gl=MN> (13.05.2026).

⁶ International Committee of the Red Cross (ICRC), The ICRC and academia: An untold story about preserving humanity in war through international humanitarian law, International Review of the Red Cross 2026, <https://www.cambridge.org/core/journals/international-review-of-the-red-cross> (14.05.2026).

⁷ V. Horielova, *Ethical boundaries of AI-Driven Autonomous Weapons*, “Ius Modernum” 142(1) 2026, pp. 136-147.

⁸ Vide: G. Solis, *op. cit.*

⁹ Vide: D. Fleck (ed), *The Handbook of International Humanitarian Law*, Oxford 2013.

¹⁰ Vide: W. Schabas, *op. cit.*

¹¹ V. Horielova, *op. cit.*, pp. 136-147.

the problem of human interaction with knowledge bases to the forefront of the security debate¹². As these systems increasingly mediate access to information, the challenge lies in ensuring that the human operator remains a critical arbiter of the data within these knowledge bases, rather than a passive recipient of algorithmic output. In the advent of AI driven applications, the authors view this work even more relevant.

The military environment the IHL application is focused at imposes not just technical constraints onto the cadets, as well as active military personnel. Moreover, in contemporary technologically advanced society the term techno stress becomes a real factor that coupled with war realities of Ukraine creates constraints of psychological nature. These constraints need to be addressed too by the designers of the application¹³. The authors of the IHL application aimed at creating a general framework that would become a source of pedagogical resilience¹⁴.

The latter is necessary because within the high-pressure environment of contemporary military service, the integration of IHL standards must account for more than just functional literacy. It must address the physiological burden of technostress, which is significantly amplified by the current realities of the conflict in Ukraine¹⁵. By incorporating structured self-reflection as a core feature, the designers of the application aim to provide cadets and active military personnel with a mechanism to convert these psychological constraints into actionable coping insights¹⁶. This approach transforms the application from a mere data repository into a framework for pedagogical resilience, where self-awareness becomes the primary catalyst for expanding the personal potential and legal competence of the soldier¹⁷.

Let's briefly consider the available learning tools:

1. Mobile application "War has rules" from Geneva Call: available for free in Ukrainian and Russian; designed for combatants, civilians living in conflict zones, and anyone interested in the rules of war; it contains the main principles, standards, and norms of IHL in a structured and non-traumatic form; it attempts to extract IHL principles from legal texts and teach how to apply them in practice; it is particularly effective for spreading knowledge about IHL in hard-to-reach areas. Disadvantages: it targeted a broad audience, including combatants; it may lead to oversimplification of complex legal aspects of IHL, which will be insufficient for a deep understanding of the law by lawyers, human rights defenders, or civil servants; it does not always fully take into account the specifics of the armed conflict in Ukraine and the Ukrainian

¹² D. de Borba Santos Júnior, R.A.Brinkhues, *America's AI action plan and global governance: convergences, divergences, and theoretical implications*, SciELO Preprints 2026.

¹³ S.L. Falon, S. Hoare, M. Kangas, M.F. Crane, *The coping insights evident through self-reflection on stressful military training events: Qualitative evidence from self-reflection journals*, "Stress and Health" 38(5), 2022, pp. 902–918; Z. Wang, L. Zhang, X. Wang, L. Liu, C. Lv, *Navigating Technostress in primary schools: a study on teacher experiences, school support, and health*, "Frontiers in Psychology", 14, 2023 <https://doi.org/10.3389/fpsyg.2023.1267767>.

¹⁴ Mushtina, G. Y., & Shapolova, V. V. (2025). The role of self-awareness and reflection in the formation of personal potential. *Academician I. A. Ziaziun Scientific School*.

¹⁵ Z. Wang, L. Zhang, X. Wang, L. Liu, C. Lv, *op. cit.*

¹⁶ S.L. Falon, S. Hoare, M. Kangas, M.F. Crane, *op. cit.*, pp. 902–918.

¹⁷ *Vide*: G.Y. Mushtina, V.V. Shapolova, *The role of self-awareness and reflection in the formation of personal potential*, Academician I. A. Ziaziun Scientific School 2025.

legislation. The application is quite informative given a small number of interactive elements for active learning and testing of knowledge. Depending on the device and version of the operating system, some technical problems or limitations in functionality may arise.

2. Educational series “International Humanitarian Law” on the Diya platform¹⁸. It was developed by the National Agency of Ukraine for Civil Service (NACS) in conjunction with the Ministry of Digital Transformation of Ukraine with the support of UNDP in Ukraine and funded by the Government of Denmark. It is available in Ukrainian language; it examines the obligations of states during armed conflicts, the rules of war, human rights during martial law; it covers the concept of IHL, its principles, sources and scope, as well as the classification of armed conflicts; it is intended for active citizens, lawyers, civil servants and officials. Disadvantages: although the format of the movie series is convenient for perception, it does not provide an in-depth study. The Diya.Education platform offers video lectures and tests, which lack opportunities for discussions, for solving practical tasks and they lack the feedback from teachers. Access to the platform requires a stable internet connection, which can be a problem in conditions of martial law, especially in certain regions.

3. Mobile application “IHL – International Humanitarian Law” from the International Committee of the Red Cross (ICRC n.d.): the interface is available in many languages, including Russian; it provides offline access to over 80 IHL treaties and documents, including the Geneva Conventions and Additional Protocols, the ICRC commentaries thereto, and customary IHL norms; it has the search, save, and share functions; it is intended for professionals working in the field of IHL, but it may also be useful to a wider audience. Disadvantages: the application is designed primarily for lawyers and humanitarian workers, so it may be less comprehensible to the general public. The main content is made of texts of international treaties themselves, which are difficult for non-lawyers to understand. The ICRC commentaries are useful, but also require a certain level of legal training. Although Russian language is available, for many Ukrainians this may be unacceptable or less convenient. The user is required to actively search for content in other available languages (if any). The application is universal and does not contain special materials or cases that relate to the armed conflict in Ukraine.

While some of these applications have a Russian-language interface or contain Russian-language materials, it is important to pay attention to Ukrainian-language content where available, especially in the context of Ukraine, and to use resources developed by or with the participation of Ukrainian organizations, as they better take into account the context and the user needs, as well as cases that appear during wartime¹⁹.

While platforms like *Diia.Education* provide essential baseline knowledge, most currently available online courses offer standardized content that fails to account for the individual

¹⁸ Natsionalne ahentstvo Ukrainy z pytan derzhavnoi sluzhby [National Agency of Ukraine for Civil Service], International Humanitarian Law, Diia.Education, <https://osvita.diia.gov.ua/courses/international-humanitarian-law>, (14.05.2026).

¹⁹ Ministry of Defense of Ukraine, *Order No. 164 “On approval of the Instruction on the procedure for implementing the norms of international humanitarian law in the Armed Forces of Ukraine”* March 23, 2017, <https://zakon.rada.gov.ua/laws/show/z0704-17> (13.05.2026).

needs or specialized training levels of their users. This lack of personalization is particularly problematic because, at the end of the day, IHL must be reconciled with specific national legislation and domestic judicial practice²⁰.

Unlike live communication with a teacher, it is more difficult to obtain clarification regarding the more sophisticated aspects of IHL. Moreover, information in apps and online courses needs to be updated to take into account new precedents and current changes in international law and the experience of war²¹. By utilizing the comprehensive frameworks established by leading national scholars, such as the systematic guidance on implementing international norms within the Ukrainian legal system, the proposed application ensures that legal theory remains grounded in the practicalities of domestic law²². Also dependence on a stable internet connection and compatibility with different devices puts some limitations on their accessibility.

Furthermore, the application must prepare users for the complexities of modern conflict where the theater of operations extends into the digital realm. The interpretation of what constitutes a "cyber attack" and the protection of civilian data are becoming central to military legal training²³. Consequently, the framework of the IHL application serves not only as an educational tool but as a guide for navigating the legal ambiguities inherent in cyberspace.

The pedagogical design of the application is grounded in the universal standards of Customary International Humanitarian Law²⁴, ensuring that users are trained on rules that remain binding across all theaters of war. However, the framework recognizes that applying these traditional rules – specifically the Principle of Distinction – is significantly complicated by the "interconnected" nature of modern cyberspace²⁵. By addressing the contemporary legal appraisals of civilian protection in digital domains²⁶, the application provides personnel with the analytical tools necessary to navigate the blurred lines of the modern digital battlefield.

Considering all the above, the authors came up with the following concept of the applications for learning the IHL:

1. To overcome content simplification and its context deficiency: we need content that is adapted to different levels of training. We plan to add specific examples, cases, and court decisions related to the war in Ukraine and how IHL was applied in this context. We presume collaboration with Ukrainian international lawyers, human rights defenders, and

²⁰ Vide: M. Hnatovskyi, et al., *op. cit.*

²¹ S. Garkusha-Bozhko, *International Humanitarian Law in Cyberspace*, "Digital Law Journal", 2(1), 2021, pp. 64-82.

²² Vide: M. Hnatovskyi, et al., *op. cit.*

²³ S. Garkusha-Bozhko, *op. cit.*, pp. 64-82.

²⁴ Vide: J-M. Henckaerts, L. Doswald-Beck, *Customary International Humanitarian Law. Volume I: Rules*, Cambridge: Cambridge University Press 2006.

²⁵ R. Geiß, H. Lahmann, *Cyber Warfare: Applying the principle of distinction in an interconnected space*, "Israel Law Review" 45(3), 2012, pp. 381-399..

²⁶ A.N. Igakuboon, *An Appraisal of The Legal Framework for The Protection of Civilians in Cyber-Warfare*, "International Journal of Research and Scientific Innovation" 9(7), 2022, pp. 14-26.

educators to develop and review content, including comparative analysis of IHL norms in context of Ukrainian legislation²⁷.

2. To increase interactivity: we plan to introduce interactive elements and case analysis; to create platforms for discussing complex IHL issues between users and experts; to provide the opportunity for users to ask questions and receive clarifications from experts; to use gamification.
3. To ensure the relevance of information: regular content updates will be required. The date of the last update is to be indicated. Experts are to be involved for reviews.
4. To improve accessibility: multilingualism, adaptation for different devices, offline access are to be ensured that would take into account the needs of people with disabilities.
5. To increase trust and credibility: cooperation with reputable organizations will be required; the information shall be included about the content developers and experts who reviewed it. Clear indication of sources of information and references shall be provided to relevant international treaties and documents.

The implementation of these measures requires cooperation between technology developers, lawyers, educators, human rights defenders, and government agencies²⁸.

To ensure the application remains relevant amidst the shifting realities of the conflict in Ukraine²⁹, the platform utilizes a diverse range of evidence, including real-time situational data³⁰. The technical realization of this system is built upon the principles of Clean Architecture³¹ and Domain-Driven Design³², which ensure that the complex legal “domain” of IHL is accurately reflected in the software’s structure. By following the rigorous quality-attribute frameworks established in current software practice³³, the application achieves the necessary balance between robust security and pedagogical accessibility.

The decision to deploy the IHL framework as a mobile application is supported by two decades of research indicating that m-learning has evolved from a supplementary tool into a cornerstone of student-centered higher education³⁴. Empirical evidence suggests that this methodology significantly enhances student motivation and provides the flexibility required to navigate complex subject matter outside of traditional classroom constraints³⁵. For military personnel

²⁷ E. Orzhynska, et al., *International Humanitarian Law and the Waging of War in Ukraine: Integrative Review*, “Future Economics & Law” 4, 2024, pp. 259-276; K. Kousha, M. Thelwall, *News stories as evidence for research?*, “Journal of the Association for Information Science and Technology” 68(8), 2017, pp. 2017-2028.

²⁸ Vide: L. Bass, P. Clements, R. Kazman, *Software Architecture in Practice*. 3rd ed. Kyiv; R. Martin, *Clean Architecture: The Art of Software Development*, Kyiv 2020.; H. Cervantes, R. Kazman, *Designing Software Architectures: A Practical Approach*, Boston: 2016; E. Evans, *Domain-Driven Design: Tackling Complexity in the Heart of Software*, Boston: 2003.

²⁹ E. Orzhynska, *op. cit.*, pp. 259-276.

³⁰ K. Kousha, M. Thelwall, *op. cit.*, pp. 2017-2028.

³¹ Vide: R. Martin, *op. cit.*

³² Vide: E. Evans, *op. cit.*

³³ Vide: L. Bass, P. Clements, R. Kazman, *op. cit.*; P. Cervantes, R. Kazman, *op. cit.*

³⁴ J.A. Krokchina, et al., *An examination of mobile learning adoption in higher education: Research trends in twenty years*, “Contemporary Educational Technology,” 16(ep542), 2024.

³⁵ O. Romero Ramos, et al., *The impact of the M-learning methodology on university students*, “Journal of Technology and Science Education,” 12(1), 2022, p. 121.

operating in dynamic and high-stress environments, this mobile delivery is not merely a convenience, but a strategic necessity for ensuring continuous access to legal education.

THE GENERAL CONCEPT OF THE PROPOSED APPLICATION

The proposed application aims to create an interactive platform specifically for cadets, active-duty personnel, and humanitarian workers. The core logic involves a DASHBOARD that tracks personalized user progress and a series of “Educational Modules” covering the history of the Geneva Conventions, protection of civilians, and regulations for the treatment of prisoners of war.

Project objectives: To develop a mobile application that will provide an interactive platform for studying International Humanitarian Law – the set of rules governing the conduct of war and the protection of victims of conflicts. The application’s goal is to increase the level of awareness and understanding of IHL norms among all interested parties. In the long term, it is expected that improved awareness of the “rules of war” will contribute to more humane conduct of hostilities and to a reduced quantities of humane conduct violations, to reduced level of suffering and to lower numbers of victims of armed conflicts³⁶.

Target audience: The main users will be students of military universities studying IHL or ethics of war. At the same time, the application will also be useful for teachers of these disciplines (as a tool to support the teaching process), for officers and soldier, who strive to strengthen their awareness of IHL, as well as for civilian professionals – lawyers, humanitarian workers, journalists, who cover the topic of armed conflicts, etc. It is important to mention that similar educational initiatives are already successfully reaching a wide audience: for example, the mobile application “War Has Rules” is aimed at both ordinary soldiers and their commanders, as well as at civilians who want to understand the rules of warfare. Our application will also have a wide reach, providing useful content for different user roles – from beginners to experts³⁷.

Material submission format: The application will offer a modern mLearning format (mobile learning), the format that allows for learning using a smartphone or tablet, which is convenient to employ any time and at any place³⁸. The material will be presented interactively: short text sections, multimedia elements (images, audio, video), examples of real situations and cases, interactive scenarios with solution options, as well as built-in surveys and test tasks for self-testing. This approach will provide personalized learning, when the necessary resources are available “at your fingertips” at the right time³⁹. Application will complement rather than replace traditional teaching methods – it can be used as an aid in lectures, for independent preparation, refreshing of material or remote teaching.

³⁶ A special mobile application about legal issues has been launched in Ukraine norms of armed conflicts, Geneva Call. Op. cit-tezh-ye-pravila-v-ukrajini-zapustili-specialniy-mobilniy-dodatok-pro-pravovi-normi-zbroynih-konfliktiv.html (13.05.2026).

³⁷ Geneva Call, *op. cit.*

³⁸ ADL Initiative, Mobile Learning Overview, Advanced Distributed Learning (ADL) Initiative, <https://www.adlnet.gov/projects/mobile-learning-overview> (13.05.2026).

³⁹ *Ibidem.*

The application will consist of several main modules (sections), each of which corresponds to certain aspect of teaching or interaction with the user. Below, a detailed description of each module and examples of its functionality is provided.

DASHBOARD is the home panel that user sees as the first screen after login. It will provide an overview of everything that is happening in the application and indicate personalized user progress. The key elements of the DASHBOARD are as follows:

Learning progress: current achievements by user. For example, percentage of completed learning modules, number of points earned or badges unlocked (more details in the gamification section), current level or status (if a level system is used). This will motivate the user to continue learning by clearly showing the volume of material that he/she has already mastered.

Calendar and schedule: integrated calendar, where important dates and events will be marked out. For cadets it can be deadlines for tests or submissions of their assignments, scheduled webinars or offline seminars on IHP, dates of exams or training meetings. Teachers can add events to the group calendar (for example, the date of a test) through the backend system. The calendar will allow users to plan their studies and not miss important activities.

Updates and notifications: a section for the latest news and updates related to the app and the IHP topic. This includes announcements of new content (e.g. a new learning module or podcast has been added), updates from teachers (comment to forum, new task), message about achievement (obtained certificate or badge), and also important news in the field of international humanitarian law (for example, the release of a new version of the law or a significant event recommended for review). The application will support push notifications: user will receive reminders about planned events or new available lessons even outside of the app.

Fast access to modules: DASHBOARD will contain navigational elements or shortcuts to the main sections of the application (learning modules, tests, library, etc.), perhaps in the form of menu or icons. So right from the main screen the user will be able to go to the desired section.

DASHBOARD interface will be intuitive: short text blocks, progress bars, calendars marks and intuitive icons. Thanks to this, even new user would immediately see his "study picture" and would easily navigate where to go next.

Educational modules – are the core the app that contain educational material related to International Humanitarian Law. The course consists of thematic modules (lessons/chapters) structured according to the logic of the curriculum. Each module covers a specific topic or set of related topics of IHL. Examples of modules:

- “Introduction to IHL and history of Geneva conventions”;
- “The main principles of IHL: humanity, proportionality, military necessity”;
- “Protection of civilian population and objects”;
- “Regulations related to handling the prisoners of war”;
- “Limitation on weapons and on methods of waging wars”;
- “International crimes and responsibility for violation of IHL” etc.

Within each module, the material is presented in a convenient interactive format. Text explanation alternate with multimedia inserts: infographics, photos, short video clips (for example, expert comments or historical chronicles), audio recordings (possibly podcast inserts). Interactive elements are used to improve on student engagement:

Scenarios and cases. The user is offered a real or made-up-game situation involving an armed conflict followed by a question of how to correctly apply the IHL norms. For example, the scenario: “A hostile unit set up a camp inside school. Can the school be fired upon?” or “Can a soldier fake surrender to deceive the enemy?” The user must choose one of the options. After choosing, a feedback is provided: correct answer with explanation of norms of IHL along with consequences. The real-life situations faced by soldiers (such as combat tactics, protecting children and civilians, using weapons, or providing aid to the wounded) will allow the student to put their knowledge into practical use.

Mini-quizzes. The blocks of theory or case studies are followed by a short quiz (multiple choice or true/false questions, etc.) to test comprehension of what has just been read. The results of such mini-quizzes won’t always affect the final test results, but they help the users to strengthen their memory and receive immediate feedback.

Examples of documents. Excerpts from original sources can be integrated into the lesson text: articles of the Geneva Conventions, protocols, national laws or ICRC commentaries. For example, after describing the rules on the protection of medical institutions the quote from Articles 18 of the First Geneva convention is provided. This will teach students how to work with sources of law.

Additional materials. A list of recommended sources is provided at the end of the module for deeper study on topics: links to sections containing the Libraries of resources (see below), articles, videos or podcasts on the topic of the module. This allows those who are interested to expand their knowledge to go beyond the boundaries of basic thing.

Users can progress through the learning modules sequentially (from basic to advanced topics) or, if necessary, selectively access individual topics. For structured learning, a recommended order can be set (e.g. before going to the section about military crimes, one first needs to be familiarized with basic definitions). Current progress is stored, so user can at any moment carry on from the very point he/she stopped.

It is worth noting that teachers and administrators will have the opportunity to add own content to educational modules. Through special web panel or through integration with LMS, the teacher will be able to create new module or edit existing one, to add author's cases, lecture materials, or test questions. This makes the platform flexible and suitable for use in various educational institutions with the capability of adapting to every particular program.

Testing and Certification Module is responsible for assessing user’s progress and it is used to confirm successful passage of the course. It contains tools for taking final tests, reviewing results, and obtaining certificates. The main components of this module are:

Midterm tests: after completing each learning module or thematic section, the user is asked to take a short test (e.g. 5-10 questions). These tests allow to refresh memorized material

step by step. Results of intermediate tests can be taken into account at later stages or they can simply serve as a self-check.

Final exam: after completing all the basic training modules there is final test/exam that covers issues from entire course. Format is a quiz having, say, 50 questions of various type (multiple choice, matching, and scenario questions). The course is considered as passed, the user needs to earn certain minimum score (for example, 80% of correct answers). Multiple attempts of passing the exam are possible: if user not didn't score high enough, he/she may try again after additional refreshment on the material.

Certificate of the course completion: Successful completion of final test is rewarded with an electronic certificate. The certificate is generated in the application and contains user name, name of course, completion date and signature/stamp of the instructor institution. This certificate is proof of mastery of the material and may be taken into account during assessment of personnel fitness to certain jobs.

Error analysis and retraining: After passing the test, the system will provide the user with detailed feedback. The feedback will indicate which questions were answered incorrectly, with links provided on relevant training modules for revision. Thus, certification also becomes a learning element. The user learns what exactly needs to be reviewed before moving on.

The teachers will be provided with an administrative interface, where they'll be able to view the test results of students (if students joined group), see performance statistics, etc. This will allow teachers to use the application as part of the official educational process and simplify the performance assessment with regard to a large number of cadets.

Resource library is the reference section of the application, which contains a large amount of material related to international humanitarian rights for in-depth study as well as reference materials. In fact, this is an electronic library that is available "in your pocket". Its contents may include:

Regulatory acts and agreements: full texts of the Geneva Conventions and their Additional Protocols, the Hague Conventions, other IHL treaties that Ukraine has ratified, as well as important international treaties (e.g. the Convention on prohibition of anti-personnel mines, Roman statute of International criminal court etc).

Comments, guides and manuals: clarifications to IHL norms, official comments of ICRC, educational manuals, key principles for leadership.

Scientific and analytical articles: selected articles, reviews or theses of researchers on modern calls on IHL, new precedents, examples of international war crimes investigations, materials from the UN and international tribunals.

National materials: laws of Ukraine, that relate to armed conflicts (e.g., the Law on the Protection of the Rights of Prisoners of War), guidance for the Armed Forces (e.g., guidelines on the conduct of hostilities from a legal perspective), as well as current orders or instructions that can be made public to cadets.

Functions of the library: Firstly, it is a convenient search system with filters. User will be able to search through the content using key words (for example, "combatant", "proportionality",

or “children”) and receive a list of documents and materials where these were mentioned. Filters are provided by document type (convention, article, court decision, etc.) and by topic. Secondly, there is the ability to save selected materials to “Favorites” for quick access. Thirdly, there is offline access to the library: The users can download selected documents to their devices to read them later even without an internet connection. This is especially important for military personnel who may be in the field or in areas with poor mobile coverage but still they will have the possibility of “having the Geneva conventions handy” even while being offline.

Multilingualism resources: Because of international nature of the audience, library will support multiple languages. In particular, IHL documents are often available in English, French, Russian and other languages. It is desirable to have at least a bilingual base – the original text (English or French) and a translation into Ukrainian (or into the language of interface).

Forum and discussion. Forum is the module that provides communication and collective instruction of users. This is an interactive platform for discussing issues, for exchanging experience and for clarifying complicated topics. Main features of the forum are:

Topic Discussions: these are forum sections that can be organized by topic or by course. For example, the sections can be titled as “General IHL Questions”, “Questions by Modules”, “Legal Cases”, “Podcast Discussions”, etc. Users may create new topics or respond to existing ones. Other students or teachers can provide answers or they can refer to sources from the library.

Moderation and the role of teachers: To ensure the correctness of the information, the forum presumes a moderator. Lecturers and invited IHL experts can moderate discussion, correct inaccurate assertion, and supervise the discussion. This ensures that the forum serves a truly educational purpose and it does not contain misleading information. In addition, official representatives (teachers) can post explanations of assignments on the forum and answer typical questions from student groups.

Q&A format and tags: For ease of knowledge search, the forum can support a question-and-answer format, where the best answer is marked (similar to StackExchange) – this will help user to quickly find solutions to common problems. The tag system will allow user to mark out particular topics (for example, #GenevaConventions, #learningcase) so that others can find them easily.

Notifications: if someone answers the user’s question or mentions him/her in a comment, the user will receive a notification (both in-app and the push one). This encourages user to come back and continue the discussion.

Rules of Conduct: Since legal topics and discussions can be tense, it is important to set up basic forum rules and a moderation system (remove insults or off-topic posts, issue warning to users). Ultimately, the forum should become a safe space for educational debate and exchange of ideas.

The forum module will help form a community around the application. Students from different academies or countries will be able to communicate, share national experience of implementing the IHL, discuss news (for example, salient cases involving military crimes). This broadens the horizons of learning beyond simply “reading the material,” adding an element of social learning to it.

Podcasts and video. The “Podcasts and Videos” module provides access to audiovisual content related to international humanitarian law. Diversity format content garners the interest of users and helps learning to those who better perceive information aurally or visually.

The application will have the section housing the public releases on IHL. These could include: the interviews with experts (representatives of ICRC, teachers, military lawyers) on current issues of humanitarian law; examples from practice of law: stories about specific cases of IHL application in conflicts, legal analysis of incidents; overview of news and events; periodic podcasts, which inform about new international treaties, decisions of international courts, initiatives, etc.; educational audio lectures: a series of podcasts that consistently explain the topics of the course (supplementary material to textual modules, or audio files, which users can listen to on the go).

Podcasts can be listened to in streaming mode or downloaded for offline listening. A convenient audio player within the application will have basic functions (speed adjustment, rewind, work in the background, so the user can listen to it with the screen off or while doing other things).

Video: The video section provides educational and informative video materials. Possible content types:

Lecture videos. Recordings of lectures on IHL or specially prepared video lessons. For example, a 10-minute video where the lecturer explains the principles of distinguishing civilians from combatants, with illustrations.

Documentary stories. Historical information about the emergence of IHL, a chronicle of the development of the Geneva Conventions, stories about the work of the Red Cross on the battlefield.

Animations and infographics. Short animated videos that explain legal rules in a visual form.

Webinars and Q&A. Recordings of live Q&A sessions with experts or seminars held online for students.

The video player in the application will support subtitles (in the case of multilingual content – Ukrainian subtitles for English videos, and vice versa), quality switching (so that the user could choose lower quality given slower internet connection), and the full screen viewing.

Structure and updates: Podcasts and videos can be organized into playlists or thematic selections. New releases will be added regularly (perhaps once a week or a month), and users will see notifications of new content in the DASHBOARD. This will keep the audience engaged, even after completion of the main course, thus providing for continuity of learning via multimedia.

INTERACTIVE PEDAGOGY AND GAMIFICATION

To enhance engagement, the system incorporates gamification elements such as score points for module completion and a “mission mode” that presents interactive scenarios (Gamified e- learning: Enhancing online learning experience)⁴⁰. For instance, a user might encounter

⁴⁰ SoSafe, Gamification in E-learning: Enhancing the Online Learning Experience, SoSafe Blog, May 22, 2025, <https://sosafe-awareness.com/blog/gamification-in-e-learning> (13.05.2026).

a scenario regarding the use of a school for military purposes and must choose the correct legal application of the principles of military necessity and proportionality.

Gamification elements in the application are as follows:

Points and rating. For the completion of every activity, the user will be rewarded with score points. For example, lesson passed – +10 points, successfully passed test – +20, helping another person out on the forum (if the answer is marked as helpful) – +5, logging in to the application daily comes with a bonus of +1, etc. Accumulated score points are displayed in the user's profile. Later on based on the score points, a rating can be formed, which can be local (among classmates) and global (among all the registered users). The competition for a place at the top adds up some excitement.

Game scenarios/missions. In addition to standard lessons, user can chose a separate “mission” mode. It is a set of interactive scenarios (similar to the already mentioned cases) united by a plot.

Tables of leaders and competitions. Within application there could be small competitions or challenges held periodically.

TECHNICAL IMPLEMENTATION AND OFFLINE FUNCTIONALITY

A critical technical requirement is the offline access module. Given the target audience's deployment in areas with intermittent connectivity, the application utilizes local data storage (SQLite) to cache text, images, and test questions. This ensures that “having the Geneva Conventions handy” is a reality even without a network signal.

The offline access module ensures that application functions in the absence of an Internet connection or with unstable communication. For the target audience (military, students on departures, zones with bad coverage) this is extremely relevant. The implementation of offline functionality includes the following aspects:

Caching the educational content: When downloading or updating a course, all learning modules (text, images, low-quality videos, test questions) can be stored locally on the device. Thus, after a single download user will be able to pass lessons without connection to networks. If necessary, he/she can make a selective download (for example, the “Download the entire course” button or individual modules).

Offline library: As mentioned, the user has the option to save documents from the library to the device. It is important to organize this so that the amount of data would be acceptable.

Offline tests: Midterm tests can be taken offline, their results being stored locally and being synchronized with the server when a connection becomes available. For the final exam, it may be worth requiring an online connection (to prevent cheating and ensure the question database is up-to-date), but this is debatable. Once all answers are saved, then when connected they are sent to the server for validation and issuance of a certificate.

Progress synchronization: It is very critical to make a reliable synchronization mechanism. When a user is offline, all his/hers progress (modules read, results of quizzes, received

badges) is stored locally temporarily. As soon as the device have access to the Internet, the application sends data to the server, updating the central database. Synchronization may be automatically or manually initiated (“Synchronize” button).

Offline functionality limitations: Of course, some things won't work in full capacity without a network. In particular, these would include the forum (you can't read new messages or write), podcasts/videos (if not pre-loaded), and updates. So, the offline mode will be focused on educational content and reference information that can be preloaded. The interface will clearly notify the user that they are offline (e.g., by graying out or by an “Offline” icon in the corner) and indicate which functions are currently unavailable.

Data optimization: We assume that not all users will want or be able to download gigabytes of information. So, it is important to optimize the size of content: compress images, offer the choice on quality of video for loading. It is also possible to give the user a choice, which modules or categories of resources he/she wants to have available while offline.

UX/UI solutions. Key design principles: The application design is focused on simplicity, clarity, and a military grade efficiency. The interface will be intuitive even for those who did not have much experience with educational programs. Standard mobile UX patterns are used so that users do not waste time learning navigation. For example, the bottom panel navigation (tab bar) for fast access to main sections (DASHBOARD, Modules, Tests, Forum, Profile), familiar icons (book for library, chat for forum, medal for achievements). Simplicity and minimalism: the screen should not be overloaded with text or elements; each page is focuses on its task (reading the lesson, passing the test, watching the video etc). We will adhere to principles of Human Interface by Apple and Material Guidelines Design by Google to make the app look and behave as expected for iOS and Android users.

Visual style: The subject matter is serious, so the style is restrained and professional. It is possible to use a color scheme associated with the humanitarian sphere and the military education: combination of blue or green shades (that are associated with reliability and calmness) with accents of red (the color of the Red Cross, symbolizing the humanitarian aspect) to highlight important details. The iconography is concise, without unnecessary decorative elements. The fonts are clear, sans serif (for example, Roboto, Open Sans or systemic San Francisco/ Segoe UI), sufficient size for reading on smartphone screen.

Adaptability under different devices: Although it is mobile application, it needs to take into account different screens sizes – from small phones to tablets. Interface will be adaptive: on a tablet, for example, you can display the list of modules and the content of the selected module side by side (split-screen), while on a phone these two parts are separate screens. Also, the application can potentially work on the desktop (via Android emulation or PWA), so everything is designed taking into account different DPIs and screen orientations.

Usability and accessibility: It is important to take care of accessibility: support of screen reader for the blind (all text has appropriate captions, buttons have labels), color contrast scheme for people with visual impairments, ability to scale up the font. Interactive elements (buttons,

links) will be large enough to be clicked, yet with indentations in order to avoid wrong clicks, which is especially important for military personnel who can use the app in the field or on the go.

Dark/light theme support: Many users prefer a dark interface theme, especially while working at night or on premises with ambient lighting to prevent a strain on the eyes. Application will have two main design modes – light (white background, dark text) and dark (dark background, light text). The user will be able to switch the theme manually in the settings or enable automatic change according to the device settings. The dark theme is also appropriate for military conditions at night so that the screen does not unmask the user and does not strain the eyes. All colors and design elements will be selected taking into account the correct display in both themes (for example, icons with transparency, no white background in images, etc.).

UX flows are responsible for a well thought through smooth journey of the user (user flow). For example, after registration a new user is offered a little onboarding (screen tips to show around), then the user is invited to begin with the first module. After completing the lesson, the button “Take the test” appears. After the test, the result appears along with the button to “Continue to the next lesson”. Thus, the user always understands what to do next, and he does not “get lost” in the application. In case of an error (for example, no Internet), the messages appear with an explanation and, if possible, a hint what to do.

Interface localization: Since the application can be used outside Ukraine, we will provide the ability to switch the interface language. Basically, these are Ukrainian and English. All text lines of the interface will be stored as resources for the simpler translation. Design of screen will take into account possible expansion of text when upon translation (e.g., English phrases are shorter than Ukrainian, and vice versa in some cases).

Consistency: All modules of the application will have the same navigation and design style. If the user has learned to use one section, the others will be similar. For example, the structure of headlines, arrangement of “Back” buttons, the styles of cards in lists are all the same throughout the app. This reduces cognitive load: a person is engaged in learning rather than handling the app.

In general, UX/UI solutions are aimed at ensuring that even complex content (legal norms, documents) is presented in the most friendly and understandable way. The interface “guides” the user through material, encourages interact (through gamification and notification) and does not create barriers to content comprehension.

Technical Specifications. Platforms supported are iOS/Android): The application will be available on two main platforms: mobile platforms – Android and iOS – with optimization under relevant versions of operating systems. We will also ensure compatibility with the widest possible range of devices: Android (version, for example, not lower than 8.0, which would include the majority of phones, including budget ones, which are often found in the hands of the military), iOS (version no lower than 14, to include even slightly outdated iPhones). Distribution will take place through official stores - Google Play and Apple App Store – for easy downloads and updates. Considering sensitive topics, perhaps, a separate verification for App

Store would be required (with regard to Apple's conflict content policy), but legal educational content is not restricted.

Productivity and offline capabilities: The application is designed so that the main functionality (reading, passing tests) works smoothly even on mid-range performance devices and with slow internet. Local data storage mechanisms (SQLite or built-in storage) for offline mode will be implemented. Also a gradual content download is presumed: a great volume of data (video, audio, many pages of text) will not be downloaded all at once during installation, but it will be downloaded as needed or at the user's request (if he manually selected "download all").

Multilingualism: As it was already mentioned, the application will be multilingual. Technically this means that the interface is implemented at least in two languages (Ukrainian and English at startup). The standard approach will be used: texts are exported to translation files, automatic language selection is based on the system language or on the manual change.

The content (learning modules, test questions, library) also has language versions. It looks like that content will be primarily created in Ukrainian, and then it will be translated. It is necessary to provide the "language" field in the data structure of each lesson or document, and to organize the display according to the user's choice. If certain material is not available in the interface language, user can receive the offer to view it in original language (for example, some IHL documents can only be in English).

The documents themselves in the library will be uploaded in multiple language versions (where possible). For example, Geneva conventions will have Ukrainian translation, and English original. The user will be able to switch the language of the document or view parallel text.

Integration with LMS: Since the application is focused on the educational sphere, it is important to provide integration with existing learning management systems (Learning Management Systems), which can be used by military higher education institutions. It will provide for the official implementation of the app into educational programs.

Security data: The app will process personal data of users (name, possible email, training results), so it is necessary to ensure their protection. All connections to the server are encrypted (HTTPS for API). Passwords are stored in the database in hashed form (for example, bcrypt). If authentication is implemented through social networks or other services, only reliable protocols are used.

It is possible to implement the two-factor authentication for teachers and administration (for example, confirmation via email or additional code). We will also pay attention to the security of content and tests: so that the answers to exam questions are not stored as plain text on the device, or can be easily retrieved. When the application works offline, some of the test questions can dynamically be loaded while briefly connected to prevent the exam from being completed without the internet (as a security guarantee). The app development environment will include regular security checks.

Performance and optimization: In addition to offline mode, it is important to optimize online data exchange. We will use techniques such as lazy loading (content is being loaded only when it's needed on the screen), query caching (the results, e.g., library search results, may be stored for some

time), data compression at the server level (to reduce traffic). Such measures will ensure fast application response even at relatively low network speeds, which is critical for field conditions.

Content versions and updates: If over time some laws or materials change (which is likely, because the law is evolving), the system should support the content updates. That is, the server can send course updates, which the application will download and replace/add new modules. This will happen either in the background (when connected) or at the user's command "Check for course updates". All updates have to have back compatibility, which means to avoid situations where the user that didn't update his app would find out that nothing works.

CONCLUSION

In the context of full-scale war, operational access to legal information is not merely an academic exercise but a strategic necessity for personal security and the prevention of war crimes. The transition from standardized online content to a tailored, mobile-first solution allows for a wider reach in real-time, even in occupied territories or combat zones. By combining instructional safe behavior with rigorous legal training, this innovative product serves as a vital tool for supporting international justice mechanisms and protecting human dignity under the most demanding conditions.

The development of a mobile application that combines the functions of legal awareness, instructions on safe behavior, capability to record violations and communicate them to the human rights watch is a strategically important step in increasing the level of legal awareness and protection of the civilian population and the military.

The digital format provides a unique opportunity to reach the largest number of people in real time, including users in combat zones, occupied territories, or in evacuation. The application will serve not only as a tool for accessing knowledge, but also as a mean of enhancing personal security, of preventing war crimes, and of supporting international justice mechanisms.

Therefore, the introduction of such an innovative product is not only technologically feasible, but also is justified and practically necessary from humanitarian standpoint given modern conditions of protecting human rights and dignity.

The text can be divided into parts, extracted by not numbered sub-heads (chapters). It can contain introduction and conclusions.

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