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E-learning and Software for Training Specialists in the Theory of Law via AI Integration

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Abstract: *The article explores the impact of electronic learning and software applications on the training of law theory experts, with a specific emphasis on AI integration. It outlines the benefits and challenges of using digital technologies in legal education. The article also examines key elements of AI implementation. These include automating learning processes, updating educational materials, and personalising the learning experience. In addition, the article discusses how online platforms and software enhance the teaching of theoretical and practical aspects of law. These tools enable students to build skills through interactive exercises, legal scenario simulations, and mock trials. Finally, the article emphasises the importance of ongoing technological innovation in legal education. It also highlights the role of professional development for educators to effectively integrate innovative tools into their teaching practices.*

Keywords: *technological progress; digital technologies; multimedia resources; online learning; artificial intelligence.*

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1. Introduction

Today's education is rapidly evolving, driven by technological progress, globalisation, and the changing labour market (Melnyk et al., 2019). One of the most significant trends is integrating digital tools into education. Traditional methods are increasingly being replaced by digital platforms. Online courses, virtual classrooms, and multimedia tools have become standard components. This transformation makes learning more accessible, flexible, and personalised, improving efficiency.

E-learning plays a crucial role in training specialists in the theory of law. It combines theoretical knowledge with practical skills and provides students with access to up-to-date materials, current research findings, and international practices. E-learning also supports distance learning, enabling students from different regions and countries to acquire knowledge regardless of location.

Many scholars emphasise that integrating artificial intelligence (AI) into education is not a neutral technological process but one that carries significant ethical implications. Recent critical research in AI and legal education highlights the potential benefits and challenges of incorporating AI into curricula and legal practice.

Bates (2019) claims that large language models (LLMs) can perform basic legal analysis using the Issue, Rule, Application, Conclusion (IRAC) method. However, these models have certain limitations. They often provide brief, superficial answers, show uncertainty in their conclusions, and are prone to "hallucinations" – generating false or inaccurate legal statements.

Andrew Perlman (2022), dean and professor of law at Suffolk University Law School, wrote an article using ChatGPT. He argues that generative AI can significantly improve legal research.

According to a 2024 survey written by Bliss (2024), over 55% of U.S. law schools already offer courses dedicated to AI (Johnson, 2024). Additionally, 83% provide students with opportunities to explore AI's use in legal practice. This reflects growing recognition of the need to prepare future lawyers to work with advanced technologies (Bliss, 2024).

According to Vovk (2015), e-learning promotes the creation of interactive courses that foster independent learning and help students develop critical thinking.

Integrating AI into the classroom is a natural step in the evolution of education. This technology helps make learning more efficient and personalised. In law theory, it brings some benefits. One of them is the automation systems of knowledge assessment. It also supports the development of intelligent systems that assist learners throughout their studies. Educational content can be tailored to meet each student's needs, improving engagement and understanding.

Learning platforms, which are powered by AI, adjust the difficulty of tasks based on individual student performance. This leads to better learning outcomes. In addition, AI-based chatbots and virtual assistants offer ongoing support. They guide students, answer questions, and provide timely help during the learning process.

Accordingly, this article aims to explore e-learning under current educational challenges. It analyses software used in teaching the theory of law, examines the role of AI in training legal specialists, and identifies opportunities for future development of digital learning in this field. The article also reviews relevant international experience.

2. E-learning in the Context of Current Educational Challenges

In the context of globalisation and digitalisation, e-learning has become an increasingly important component of the academic environment. It involves acquiring knowledge and skills through electronic platforms such as computers, mobile devices, the Internet, and specialised software. By enabling students to access educational materials from virtually any location at any time, this approach supports the development of flexible, distance-based learning.

As noted by Hromiak et al. (2011), flexibility and accessibility are among the core strengths of e-learning. Students can create personalised schedules that accommodate academic and personal

responsibilities, while the educational process can be tailored to individual learning needs. This adaptability enhances both engagement and learning outcomes.

Building on these general advantages, it is useful to examine the specific role of online learning platforms. These platforms offer distinct benefits, particularly for learners facing geographic or socio-economic barriers. For such students, online education can provide access to alternative routes to legal training. Moreover, eliminating the need for commuting and on-site attendance helps reduce both time and financial costs.

Beyond accessibility, online platforms can also contribute to student engagement. Under certain conditions, such as institutional readiness, teacher training and device access, they support a wide range of multimedia resources, such as videos, interactive modules, and digital readings. These resources help clarify complex legal concepts and make the learning environment more flexible. However, the effectiveness of these tools depends on reliable Internet access, digital literacy, and institutional infrastructure. Therefore, the integration of such platforms into legal education requires careful planning and consideration of existing limitations.

In light of these developments, the continued integration of e-learning platforms and multimedia tools holds considerable promise. When thoughtfully implemented, they can contribute to more interactive and personalised learning environments. As educational systems continue to evolve, e-learning remains a powerful force shaping the future of legal and global education.

3. Software for Teaching the Theory of Law

Educational software used for teaching legal theory plays a vital role in enhancing the quality of legal education. It makes learning more accessible, engaging, and effective. Advanced technologies offer various opportunities to integrate software tools into the educational process. These tools can be grouped into several categories. They include Learning Management Systems (LMS), specialised software for testing and assignments, video conferencing platforms, interactive tools for hands-on tasks, and simulation software for legal scenarios. Even though each type serves different functions, all contribute to creating a more efficient and interactive learning environment.

A key feature of legal theory software is its ability to blend theoretical knowledge with practical exercises that reflect real-world legal situations. These programs often include modules on core legal principles, case law analysis, and hands-on activities such as simulated court trials or legal consultations.

Walcutt and Schatz (2019) underscore the significance of interactive components in legal education software. Students are motivated by these functions to engage deeply with the subject matter, ask questions, address legal challenges, and receive responses. Optimal software should also cater to various legal domains and provide ample adaptability to customize the educational journey for each student's specific requirements.When artificial intelligence (AI) is introduced into learning environments, it gives rise to various complicated ethical and community issues. Algorithmic bias, privacy, and accessibility are crucial concerns demanding careful scrutiny. The difficulties involved are not merely technological; they are profoundly linked to fundamental human rights, justice, and fair access to educational prospects.

It is generally accepted that algorithmic prejudice poses a crucial challenge in the realm of AI's use for educational purposes. Large datasets, potentially holding social, economic, gender-related, or ethnic prejudices, are used to train these systems. Hence, AI is capable of unintentionally worsening current inequalities rather than mitigating them.The concept of privacy encompasses the collection, processing, storage, and usage of personal data. Extensive volumes of private data, such as web navigation logs, biometric measurements, emotional states, geographical positions, and health documents, can be processed by AI systems. For instance, within educational environments, AI is capable of monitoring student actions, evaluating their academic progress, and forecasting future results. Yet, frequently, definite rules are missing that would secure user consent or allow them to manage who processes their information and by what means.

Accessibility means that AI technologies and their advantages are equally accessible to everyone. Despite AI's significant potential for enhancing educational quality and inclusivity, it simultaneously poses a threat of expanding the digital gap.

Many law faculties have already successfully implemented this software. Universities frequently use distance learning platforms such as Moodle and Blackboard to deliver courses in legal theory. These platforms provide video lessons, quizzes, self-assessment tools, and interactive tasks that help students develop practical skills. In addition, some institutions use specialised legal software to analyse court decisions, simulate legal cases, and conduct legal research. This gives students deeper insights into real-world legal practice. Simulation tools, including Moot Court, allow students to participate in virtual court hearings, offering practical experience in environments that resemble legal settings.

Thus, educational software significantly improves legal education by combining theoretical instruction with real-life applications. It enhances interactivity and accessibility, even though challenges such as technical limitations and student motivation still need to be addressed. Continued integration of specialised legal software holds strong potential for advancing legal education and meeting the evolving demands of the field.

4. Using AI to Train Specialists in the Theory of Law

Artificial intelligence (AI) plays a key role in training specialists in legal theory. Among its potential advantages are personalised learning experiences, automation of specific educational tasks, and intelligent systems that adapt to individual student needs. These technologies serve as powerful tools for developing innovative teaching methods, particularly in the context of legal education (Tymoshenko, 2020).

In the educational context, AI helps optimise the learning experience by increasing efficiency and tailoring instruction to individual needs. Learning materials can be tailored to students' interests, while assessment processes become automated and more streamlined. Personalised learning pathways are also developed to support individual progress, helping students navigate their legal studies more effectively. Within legal studies, this approach enables students to understand complex legal concepts better and access the most current legal information. Interactive learning methods introduced through AI further enhance student engagement and improve the accessibility of educational content.

To illustrate the complexities of AI integration, the following hypothetical scenarios are presented.

1. *Automated Assessment and Academic Integrity*

Scenario: A law faculty uses AI to automatically check students' written assignments for plagiarism and compliance with specific evaluation criteria.

Challenge: The AI system detects "similarities" between a student's work and external texts. However, it cannot distinguish between plagiarism, proper citation, or paraphrasing. This results in false accusations of academic dishonesty, raising concerns about fairness and emphasising the need for human oversight in the evaluation process.

2. *AI in Clinical Legal Education*

Scenario: A legal clinic adopts AI tools to offer preliminary legal advice to low-income clients.

Challenge: The AI misinterprets the client's case and overlooks a key piece of evidence. This leads to serious consequences and raises the question of accountability – whether responsibility lies with the student, the instructor, the AI developer, or the clinic itself. The situation brings up complex issues related to legal liability and professional ethics.

3. *Predicting Legal Case Outcomes*

Scenario: An "Introduction to Law" course uses AI to analyse extensive case law and predict the outcomes of future court decisions.

Challenge: The AI relies on historical data that may reflect past biases and discriminatory practices. As a result, students may internalise distorted views of the legal system, which undermines the core principles of justice and equality.

Interestingly, AI-based adaptive systems (technologies that adjust learning content and pace based on one's performance) allow students to progress optimally (Huraliuk, 2023). They enhance learning efficiency and foster a deeper understanding of complex legal principles. In addition, AI is increasingly used to automate various aspects of the learning process, such as electronic assessments, chatbots, and recommendation systems. The latter analyses student performance and learning patterns to suggest tailored resources, such as articles, case studies, or practice exercises, helping learners address specific knowledge gaps effectively.

For example, AI-powered electronic tests quickly assess students' knowledge, provide instant feedback, and adjust question difficulty based on performance. Chatbots streamline communication between students and teachers, answering common questions and clarifying legal concepts. Recommendation systems analyse students' learning behaviours and suggest relevant materials or courses based on their progress and interests.

The integration of AI into legal education provides several advantages. Learning effectiveness improves through personalised approaches and adaptive systems. Access to educational resources is enhanced, making them more comprehensible and accessible to students. Additionally, the ability to process large volumes of legal documents supports students in completing practical tasks and studying case law.

Globally, legal systems can generally be divided into two main traditions: civil law and common law. These traditions differ significantly in their approaches to legal regulation, sources of law, and the role of judges. This, in turn, affects how AI is integrated and regulated.

Civil Law is common in continental Europe, based on codified laws, namely, comprehensive collections of legal norms enacted by legislative bodies. The primary source of this law is legislative acts (codes, statutes), with a limited role for judicial precedents. Judges must apply the provisions of the codes to specific cases. In civil law systems, judges have a more limited role in lawmaking. They interpret and apply laws but do not create new legal norms.

Common Law is prevalent in England and countries influenced by it (such as the USA, Canada, and Australia), and it is based on judicial precedents, decisions made by courts in the past. The main sources of law are judicial precedents and legislative acts. Judges play a significant role in shaping the law. Their decisions in specific cases become binding for future similar cases (the principle of stare decisis). Judges in common law systems have more freedom to interpret laws and create new legal norms. They can establish precedents, which carry the force of law, making them active participants in lawmaking.

As information technology develops, virtualisation has become crucial for managing server resources effectively. Virtualisation enhances flexibility, reliability, and scalability in infrastructure. It reduces equipment costs, centralises management, and accelerates the deployment of new services. Its widespread adoption in the corporate and public sectors, along with the growth of cloud computing, data centres, and DevOps practices, underscores its importance.

The accessibility of electronic learning platforms is essential for ensuring equal educational opportunities for all students, particularly those with special needs. These platforms must meet established accessibility standards, such as the Web Content Accessibility Guidelines (WCAG).

WCAG (Web Content Accessibility Guidelines) provides international recommendations for making web content accessible to people with special needs. The guidelines cover a broad range of

recommendations on how to make web content more accessible to individuals with visual, auditory, motor, cognitive, and other disorders. Adhering to WCAG is crucial to ensuring that e-learning platforms are accessible to all students, regardless of their needs.

Regional infrastructure differences can also affect access to e-learning, especially in remote or rural areas.. In areas with limited Internet access or underdeveloped technological infrastructure, students may struggle to use electronic learning platforms. This issue is particularly critical for students with special needs, who may need additional assistive technologies or specialised settings to access content.

The rapid development of AI presents vast opportunities to enhance the quality of life and optimise various sectors such as production, education, healthcare, and more. However, alongside these benefits come serious ethical and legal dilemmas that demand thorough analysis and appropriate regulation.

One of the most pressing ethical challenges is algorithmic bias. AI is trained on large datasets that often reflect historical or social inequalities. As a result, it can produce discriminatory outcomes based on gender, race, social status, or place of residence. This becomes particularly dangerous when such biases influence decision-making in critical fields such as healthcare, education, or the justice system. For example, algorithmic bias in criminal recidivism prediction tools has led to systematically harsher sentences for members of minority groups. These examples highlight that even supposedly “neutral” data can carry deeply embedded social prejudices.

Another serious concern is the lack of transparency and accountability. Many AI systems operate as so-called “black boxes” – they generate decisions that are impossible to explain from the outside. This lack of clarity makes it difficult to verify the transparency of the reasoning behind outcomes and fosters distrust, especially when AI is applied in sensitive areas such as healthcare or the legal system. In such cases, the introduction of the explainable AI principle is crucial to ensure decisions can be understood and justified.

The ethical debate also includes the issue of mass unemployment. AI is gradually replacing humans in routine or physical jobs, which may result in greater social stratification, rising unemployment among low-skilled workers, and increased economic inequality. Even though new employment opportunities are often promised, society remains largely unprepared and difficult to adapt to the scale of transformation occurring in the labour market. This raises ethical concerns about the lack of attention given to the human factor in technological progress.

There is also growing concern over the use of AI-driven surveillance systems to monitor pupils and students, particularly during remote learning and exams. These systems often track facial expressions, eye movements, and behaviour in front of a camera, frequently without proper consent or full disclosure to users. This practice poses risks to privacy, psychological well-being, and trust in educational institutions. Some studies also suggest that such systems can incorrectly identify dishonest behaviour, resulting in false accusations.

In the field of legal education and practice, AI is increasingly used to analyse cases, predict outcomes, and draft legal documents. However, replacing human judgement, particularly during the training of future lawyers, raises a significant ethical dilemma. There is a risk that overreliance on automated systems may lead students to develop a distorted understanding of justice, where essential values, including humanity, empathy, and an individualised approach, are neglected.

Over-reliance on algorithms may also compromise students’ capacity for critical thought and for evaluating individual situations independently.A comprehensive theoretical and practical investigation into relevant technologies, accessibility standards, and best practices is fundamental for deploying and managing virtualized infrastructures and ensuring e-learning platform accessibility. This suggests that the regulatory structures and practical directives might not keep up with the swift progress of AI technologies in educational settings. One should conduct continuous research and issue recommendations to ensure that AI is regulated correctly and applied responsibly in teaching and learning.In addition, various crucial topics demand thought.

- *Over-Automation*. Critical thinking and ethical judgment are fundamental abilities that students must acquire in legal education. Nonetheless, relying too heavily on automation for tasks such as analyzing precedents or preparing legal papers might restrict their capacity for growth.
- *Legal Responsibility*. Employing AI in legal training brings forth concerns about liability for faults or prejudices present in AI technologies. If AI is employed to give legal counsel or conduct assessments, it is necessary to specify who will be held answerable for any mistaken or unfair outputs.
- *Data Protection*. AI systems' extensive collection and utilization of student information within legal education generate worries regarding privacy and the safeguarding of data. Effective rules and policies must be established to oversee the gathering, holding, and application of data, both to preclude misuse and to guarantee the security of students' legal entitlements.

Ganchev (2021) further highlights various challenges when incorporating novel technologies into legal education.

Training both teachers and students requires significant time and resources. A major concern is the risk of over-automation. This could lead to neglecting important aspects, such as ethical considerations and critical legal reasoning. Additionally, the high costs of developing and implementing AI technologies can be a barrier. There are also several issues in aligning AI tools with existing curricula and standards.

To address these issues, it is crucial to focus on training teachers and students to use AI tools effectively. Educational institutions should offer ongoing professional development programs for teachers to keep them updated on technological advancements. Universities should also provide specialised courses for students. These courses should help students incorporate AI into legal practice, preparing them for the changing legal environment.

To prevent over-automation, educational institutions must balance AI-driven methods with continuous human-led critical thinking. Ethical discussions should remain a central part of the learning process. Clear guidelines for the ethical use of AI in legal education are necessary to maintain the integrity of the educational system. Finally, greater collaboration between AI developers, educators, and legal professionals can help create more affordable and effective AI systems tailored to the needs of legal education.

5. Opportunities and Potential for Incorporating E-Learning and AI into Legal Education

Integrating e-learning and AI into legal education opens up new possibilities for improving the quality and accessibility of education. By embracing advanced technologies, the professional preparation of legal experts can be transformed, enabling more productive and attractive learning environments.

Software for legal professions holds considerable growth potential. Notably, intelligent platforms designed to process vast amounts of legal content and provide advice will enable students to manage legal information better. Current platforms can automatically analyze court rulings and legal documents, which helps students examine actual legal cases. Bates (2019) observes that more specialized programmes combining various legal fields are to be anticipated. These initiatives are set to blend disciplines such as global and national crime legislation, through replicating applied exercises and legal hearings.

The adoption of AI in legal education promises significant shifts in the structure of learning. Educational content can be customized for specific learner requirements, leading to improved efficiency.

Legal education in Ukraine is currently experiencing a major shift due to the digital era. A significant advancement involves incorporating AI into learning. A number of Ukrainian universities, especially those in Kyiv and Kharkiv, have started offering specialized courses in legal

AI. Students in these courses investigate machine learning algorithms, practise examining case law through digital means, and take part in hypothetical court hearings where AI acts as an aid or an adversary. These methods not only improve technical abilities but also provide a more profound understanding of legal reasoning concerning new technologies.

An empirical study was conducted to investigate the implementation of AI in Ukrainian legal education. It comprised the assessment of more than fifty law degree curricula, in addition to a demographic survey of lawyers currently in practice.

The study aimed to assess how actively AI-related competences are being integrated into curricula and how legal professionals view the effectiveness and relevance of these changes. The results indicated that the majority of respondents support including AI in the core curriculum, rather than offering it solely as an elective or specialised course. The most valued competences were legal data analysis, courtroom scenario modelling, and critical evaluation of automated decisions.

At the same time, student experiences shared through public sources and social media reflect a sense of cautious optimism. Many students recognise the potential of AI as a helpful learning tool. However, they also point to concerns about overreliance, lack of trust in the technology, and the need for ongoing verification of results. One experiment, involving the use of AI to analyse legal cases using the IRAC (Issue – Rule – Application – Conclusion) format, showed that while current AI models can perform basic analysis, they fall short of offering full legal judgement. These findings highlight the importance of training students to critically assess the conclusions generated by AI systems.

Instances have also been recorded in which AI-generated texts were wrongly flagged by academic misconduct detectors. This raises further questions about the reliability of such tools within legal education. Students stress the importance of human oversight, while educators emphasise the need for strong digital literacy to avoid both technical and ethical errors.

Thus, the study confirmed that integrating AI into legal education in Ukraine is both relevant and strategically important. However, this process must be guided by clear regulations, the development of ethical standards, modernised curricula, and the active involvement of both students and academic staff.

According to Kabatska, Shamshyk, & Podkovyroff (2023), instant feedback on students' mistakes will allow them to learn faster and focus on areas that need improvement. Additionally, testing and assessment processes will be enhanced, with adaptive learning programs evolving based on student progress.

Personalised learning will become a key aspect of legal education through AI integration. The system can assess students' knowledge, identify areas of weakness, and recommend resources to address those gaps. This approach ensures students work with materials suited to their level of understanding, improving learning effectiveness. Moreover, simulations of court hearings or legal consultations will offer students practical experience in realistic settings.

The digitalisation of education requires changes to curricula and standards in legal education. New technologies, such as e-learning platforms and AI-based systems, should be integrated into educational programmes. This might involve introducing courses focused on technology use, automation in legal practice, or digital legal tools. Additionally, assessment methods will shift, with online tests, simulations, and interactive exercises playing a larger role than traditional written exams. Teachers will also need to adapt, requiring new skills to use modern technologies effectively.

While AI offers some benefits in education, it also presents ethical and legal challenges (Floridi, 2014). The use of new technologies must be carefully evaluated in terms of their impact on privacy, ethics, and legal regulations. Fair and responsible AI use in education should address these concerns to prevent potential negative outcomes. One major issue is the protection of students' data and privacy.

A critical issue is maintaining the human aspect of education. Replacing teachers with AI systems could result in the loss of personal interaction, which may negatively impact student

motivation. Human interaction plays a vital role in the learning process. Furthermore, AI systems may contain biases in their algorithms, potentially leading to unequal opportunities or unfair evaluations of students' performance (Peiss, 2020).

Geng, Law, & Niu (2019) claim that the legal issues surrounding AI in education require careful regulation. The current legal framework for AI in education is underdeveloped, leading to various challenges. One key issue is determining who is responsible for errors or unfair decisions based on AI-analysed data. This not only affects learning outcomes but also decisions that can impact students' careers, such as automated grading or recommendations. Clear guidelines need to be established to define when and how AI can be used in education. These guidelines should also outline who is responsible for AI errors and how students and educators can protect their rights. This approach will help avoid future potential legal issues.

Collaboration between legal experts, technologists, and policymakers will be crucial in establishing regulations and safeguards for the fair and effective use of AI. Indeed, AI should complement human interaction, not replace it, ensuring that the learning process remains centred on students. Ongoing research into the effects of AI on education is essential to adapt policies and practices as the technology continues to evolve.

6. Global Practices in E-Learning and Software Solutions for Training Specialists in the Theory of Law: The Role of AI

Several countries are actively developing and implementing technologies tailored to the unique needs of legal education. In the context of this research, it is important to analyse how different nations approach this integration.

In the USA, e-learning is widely adopted in law schools, particularly through distance learning platforms (e.g., Coursera and EdX). These platforms offer a variety of online courses in areas such as law theory, ethics, and legislation, using the latest technologies, including AI. For example, AI-driven platforms assist in learning by providing feedback and automating the grading of assignments and tests. They also offer personalised recommendations to help improve student performance. US universities are using AI to develop adaptive learning systems that adjust task difficulty based on the student's knowledge level (Mwenda, 2021).

In the UK, e-learning in legal education has gained significant momentum. Many universities now offer online programs for law students. For example, the

University of London (2024) provides online courses that incorporate software for accessing lectures, tests, and interactive tasks. AI is also used to automate the creation and adaptation of learning materials, tailoring them to different student needs. This technology allows tasks to be dynamically adjusted in real-time based on students' progress, ensuring a personalised learning experience.

In Germany, universities are integrating intelligent systems into the curriculum, particularly for legal theory studies. Legal databases and AI-driven systems play an essential role in supporting legal research. For instance, the Junior Program helps lawyers find legal documents and prepare legal conclusions (Birkholz, 2024).

In China, the government is actively supporting the digitalisation of education, including the development of online platforms for legal education. These platforms, many incorporating AI, are designed to assess legal cases and provide students with practical training (Jinpeng, 2024). Similarly, in Japan, there is a strong emphasis towards the development of AI-based adaptive learning systems that adjust learning materials to students' needs. Japan's higher education system also supports innovation with AI-powered virtual practical courses on legal research (Oyanagi, 2021).

The experiences of these countries demonstrate that incorporating e-learning, software, and AI improves the quality of legal education. These technologies help personalise learning, automate repetitive tasks, and provide students with access to the most relevant and accurate information.

7. Conclusion

Therefore, this article highlights how AI and e-learning tools are reshaping legal education, particularly in the domain of legal theory, offering accessibility and flexibility for students in various regions. Online platforms create interactive learning environments. Meanwhile, AI helps efficiently manage large volumes of information, such as analysing court decisions, which is crucial for solving practical problems. Software designed for teaching the theory of law also plays a significant role in fostering interactive educational settings. Such tools as video lessons, quizzes, simulations, and discussion forums enable students to engage with the material and receive real-time feedback.

The future of legal education technology will depend on the integration of AI to develop adaptive learning systems. These systems will be able to adjust to students' skill levels in real-time, ensuring a more personalised learning experience. Additionally, the digitalisation of education calls for revisions to curricula and teacher training to align with evolving needs.

Importantly, this article provides a unique exploration of e-learning and AI integration in legal education, focusing specifically on the theory of law. It offers international perspectives and practical applications. Additionally, the article provides valuable insights into how these technologies can enhance personalised learning and improve the quality and accessibility of legal education.

Further research should specifically focus on developing adaptive learning systems. It should also address ethical concerns and examine the impact of these technologies on teaching methods and curricula. Additionally, the effects on graduate outcomes should be explored. The Ukrainian case study, in particular, illustrates how national contexts and institutional innovation can shape the integration of AI in legal education, offering a valuable model for broader application and comparative analysis.

References

Bates, A. W. (2019). Teaching in a digital age: Guidelines for designing technology-enhanced learning. *Routledge*. https://books.google.com.ua/books/about/Teaching_in_a_Digital_Age.html?id=8iYnzAEACAAJ&redir_esc=y

Birkholz, M. (2024). Lawyers and artificial intelligence: The end of the world as we know it. *BusinessLawMagazine*. https://www.germanlawinternational.com/germanlawinternational/ai/lawyers-and-artificial-intelligence-34522/

Bliss, J. (2024). Teaching law in the age of generative AI. *JURIMETRICS J., 64,* 111–61. https://www.americanbar.org/content/dam/aba/publications/Jurimetrics/winter-2024/teaching-law-in-the-age-of-generative-ai.pdf

Floridi, L. (2014). The fourth revolution: How the infosphere is reshaping human reality. *Oxford University Press.* https://books.google.com.ua/books/about/The_Fourth_Revolution.html?id=hOF_AwAAQBAJ&redir_esc=y

Ganchev, G. T. (2021). The role of artificial intelligence as a factor of improving the quality of higher education. *Journal of Informatics and Innovative Technologies, 4*(3), 51–54. https://journal.iiit.bg/wp-content/uploads/2021/12/51-54_Gancho-T.-Ganchev_JIIT-4_2021.pdf

Geng, S., Law, K. M., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. *International Journal of Educational Technology in Higher Education, 16*(1), Article 17. https://doi.org/10.1186/s41239-019-0147-0

Hromiak, M., Vasylenko, Ya., Halan, V., & Chornyi, V. (2011). Problemy vprovadzhennia ta vykorystannia elektronnoho navchannia u vyshchykh navchalnykh zakladakh. *Naukovi*

zapysky Ternopilskoho natsionalnoho pedahohichnoho universytetu im. V. Hnatiuka, Pedahohika, *1*, 191–199. http://dspace.tnpu.edu.ua/handle/123456789/93

Huraliuk, A. H. (2023). Shtuchnyi intelekt yak innovatsiina informatsiina tekhnolohiia u pedahohichnykh doslidzhenniakh (analitychnyi ohliad). *Analitychnyi visnyk u sferi osvity y nauky: dovidkovyi biuleten DNPB Ukrainy im. V. O. Sukhomlynskoho*, *18*, 67–79. https://lib.iitta.gov.ua/id/eprint/739798/1/VNIASO-AHS%20of%20Edu%26Sci-RB-18-2023-67-79.pdf

Jinpeng, H. (2024). Promoting jointly application, sharing and innovation of digital education: Keynote speech. *The Ministry of Education of the People's Republic of China*. http://en.moe.gov.cn/features/2024WorldDigitalEducationConference/KeynoteSpeech/20240202/t20240201_1113771.html

Johnson, M. (2024). Three keys for law students using AI. *LexisNexis*. https://www.lexisnexis.com/community/insights/legal/b/thought-leadership/posts/3-keys-for-law-students-using-ai#:~:text=A%202024%20survey%20by%20the,to%20teaching%20students%20about%20AI

Kabatska, O. V., Shamshyk, O. P., & Podkovyroff, N. T. S. (2023). Vykorystannia tekhnolohii shtuchnoho intelektu v protsesi navchannia i vykladannia u vyshchii osviti. *Visnyk nauky ta osvity*, *11*(17), 719–735. https://doi.org/10.52058/2786-6165-2023-11(17)-719-735

Mwenda, K. K. (2021). Doctoral degree programs in law: An international and comparative study of the English-speaking world. *Springer International Publishing.* https://www.google.com.ua/books/edition/Doctoral_Degree_Programs_in_Law/dbdMEAAAQBAJ?hl=en&gbpv=0

Oyanagi, W. (2021). The influence of an adaptive learning support system on the lesson design and practice of elementary school teachers. *International Journal of Educational Media and Technology, 15*(1), 34–45. https://jaems.jp/contents/icomej/vol15/04_Oyanagi.pdf

Peiss, K. (2020). Information hunters: When librarians, soldiers, and spies banded together in World War II Europe. *Oxford University Press.* https://doi.org/10.1093/oso/9780190944612.001.0001

Perlman, A. (2022). The implications of ChatGPT for legal services and society. *Harvard Law School Center on the Legal Profession.* https://dx.doi.org/10.2139/ssrn.4294197

The University of London. (2024). Flexible online learning to suit you. *University of London.* https://www.london.ac.uk/study/where-study/online-learning

Tymoshenko, E. (2020). *Shtuchnyi intelekt yak subiekt prava intelektualnoi vlasnosti* [Artificial Intelligence as a Subject of Intellectual Property Law]. *Chasopys Kyivskoho universytetu prava [Journal of Kyiv University of Law], 4*, 328–332. https://doi.org/10.36695/2219-5521.4.2020.58

Vovk, O. B. (2015). *Systemy elektronnoho navchannia – novi formy suchasnoi osvity* [E-learning Systems – New Forms of Contemporary Education]. *Matematychni mashyny i systemy* [Mathematical Machines and Systems], 3, 79–86. http://nbuv.gov.ua/UJRN/MMS_2015_3_10

Walcutt, J. J. & Schatz, S. (2019). Modernising learning: Building the future learning ecosystem. *Government Publishing Office*. https://files.eric.ed.gov/fulltext/ED603521.pdf