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THE POTENTIAL OF DIGITAL TECHNOLOGIES IN PROFESSIONAL TRAINING FOR JURISTS

Rapid advances in artificial intelligence are reshaping professional legal practice and, consequently, the competencies expected of law graduates. This article examines the potential of digital technologies – with particular emphasis on large language models (LLMs) and AI-powered Legal Tech tools – for modernizing professional training for jurists. Through a comparative analysis of Ukrainian and international scholarly literature and regulatory frameworks, the study maps key transformation trends, identifies convergences and distinctions between research traditions, and constructs a structured typology of digital technology applications across seven core components of legal professional formation. The findings confirm strong convergence on AI's centrality and document Ukraine's growing engagement – at practitioner, academic, and institutional levels – with digital transformation in legal education. A forward-looking, hybrid curriculum model is proposed, combining a mandatory foundational digital literacy module with flexible, market-responsive interdisciplinary specializations.

Keywords: *digital technologies, artificial intelligence, legal education, professional training for jurists, ChatGPT, Legal Tech, digital competencies.*

Problem Statement. Artificial intelligence is restructuring the legal labor market at an accelerating pace. Large language models (LLMs) now perform tasks once reserved for junior lawyers – document analysis, contract review, case-outcome prediction, and legislative synthesis [1; 2; 10; 11] – generating a structural gap between the competencies produced by traditional legal curricula and those demanded by technologically transformed workplaces.

For Ukraine, this development carries strategic significance. Alignment with EU legal and digital governance frameworks – including the EU AI Act and the Council of Europe Framework Convention on Artificial Intelligence [6] – requires lawyers capable of navigating, drafting, and enforcing complex technology-related regulation. Ukraine's AI Concept [4] establishes AI development as a national priority, and the legal profession has been among the first sectors to respond: law firms, bar associations, and individual practitioners are actively integrating AI tools into daily practice. Academic scholarship is expanding in parallel, with

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researchers at leading Ukrainian universities developing competency frameworks, institutional policies, and pedagogical models for AI-assisted legal training [8; 9; 11].

Internationally, the pace of institutional change is likewise rapid. The ABA's 2024 survey found that over half of US law schools already offer AI-related courses [2], while the UK's Solicitors Regulation Authority has approved the first AI-native law firm. These developments confirm that the integration of digital technologies into legal education is not a prospective option but a present institutional imperative.

Against this backdrop, the academic task is to move beyond general observations toward evidence-based, institutionally actionable models for curriculum transformation. This article addresses that task by comparing Ukrainian and international research traditions and by constructing a structured typology of digital technology potential across the full architecture of jurist professional training.

Analysis of Recent Research and Publications. Ajevski et al. (2023) provided the field's most-cited empirical benchmark. Testing ChatGPT (GPT-3.5 and GPT-4) against the UK Solicitors Qualifying Examination (SQE1), they found that GPT-4 scored 78 % – placing it in the top quintile of human candidates [1]. Parallel results from the US Multistate Bar Exam established that LLM capabilities in applied legal knowledge already exceed many entry-level practitioner thresholds, with direct implications for assessment design and curriculum content [2].

The broad landscape of AI's impact on legal research and professional practice was comprehensively surveyed by Biresaw (2023) [2], whose qualitative analysis of primary and secondary sources catalogued five principal categories of legal AI – text analytics, question-and-answer advisory systems, outcome-prediction platforms, contract review instruments, and e-discovery Technology-Assisted Review. The author demonstrated that AI reduced legal research time by over 30% and increased retrieval accuracy by 43 %, while identifying accountability, bias, and data-security risks that legal education had to address.

From the perspectives of technology integration in Ukrainian legal higher education, Zaiarnyi and Illarionova (2025) developed ChatGPT-specific pedagogical criteria and instructional guidelines for practical legal training, mapped AI applications to Ukraine's national higher education standards for Law at both bachelor and master levels, analyzed copyright implications under Law No. 2811-IX (2022), and proposed institutional AI use policy templates. Their eight general rules governing AI in legal seminars – including mandatory verification of AI-generated output and prohibition of AI in summative assessment – constituted a directly applicable pedagogical framework [11].

Complementing this, Shamov (2025) conducted a comparative institutional analysis of legal education reform in the USA, Europe, and Ukraine, identifying a market-oriented American model (led by Stanford, Georgetown, Suffolk) and a regulation-oriented European model (shaped by the EU AI Act and Council of Europe instruments) [8]. The study documented Ukraine's growing practitioner-driven engagement and proposed a two-level hybrid model – a mandatory foundational Digital Legal Literacy module combined with flexible interdisciplinary certificate programs – as the appropriate strategic direction.

A bibliometric perspective on the relationship between AI and legal education was provided by Diep and Thanh (2024), who identified five dominant clusters in the AI-and-legal-education literature: technical AI literacy; legal knowledge bases for machine learning; AI in practical tasks; error detection in legal documents; and law-firm management optimization. This taxonomy [5] provided a stable organizing framework for curriculum design.

Ethical dimensions of AI in academic research and publication activity were examined by Pinchuk and Malytska (2024), whose work, while not limited to law, is directly applicable to legal education contexts. Their recommendations – mandatory AI-assistance disclosure, updated publication requirements, supplementary reviewer training – align with the EU AI Act's classification of educational AI applications as high-risk and are equally applicable to the legal education context.

At the level of institutional policy, Spivakovsky et al. (2023) provided a differentiated institutional AI policy template specifying obligations for students, faculty, and administrators. This model is directly transferable to Ukrainian law faculties seeking to formalize AI governance in line with OECD AI Principles [6].

Notwithstanding this growing body of work, three gaps remain. First, no existing study provides a comprehensive typology of digital technology potential mapped across the full architecture of professional legal formation – from doctrinal instruction through research skills, multilingual training, ethics, and legal project management. Second, systematic comparison between Ukrainian and international research traditions is underdeveloped, limiting cross-contextual knowledge transfer. Third, the specific alignment of digital technology applications to the competency outcomes mandated by Ukraine's national higher education standards for specialty Law has not been formally elaborated. This article addresses all three gaps.

Research Purpose. This study pursues two objectives: 1) systematic comparative analysis of Ukrainian and international research on digital technology integration in legal education; and 2) construction of a structured typology of digital technology potential across the components of jurist professional training, aligned to Ukraine's national competency standards.

Research Methods. Employed methods: a) the comparative legal method to contrast models of AI integration in legal education across Ukraine, the USA, the UK, and EU member states; b) systematic document analysis of primary regulatory sources; c) typological analysis to construct the seven-component framework; and d) synthesis to integrate findings into reform recommendations.

Limitations. The typology in Table 2 has not been empirically validated through experimental research; future work should test its applicability in Ukrainian institutional contexts. The comparative dimension is constrained by the relative scarcity of Ukrainian studies employing experimental methodologies – a gap the article notes but does not resolve.

Results. Table 1 compares Ukrainian and international research across seven analytical dimensions.

Table 1 – Comparison of Ukrainian and Foreign Research on Digital Transformation in Professional Legal Training

Criterion	Ukrainian Research	Foreign Research	Convergence / Note
Research focus	AI (ChatGPT) integration in practical legal training; competency mapping to national standards	LLM impact on legal assessment, professional examinations, and employer readiness	Shared AI-centrality; Ukraine adds EU-compliance dimension
Primary tools examined	ChatGPT; national legal databases (rada.gov.ua, Liga-Zakon)	GPT-3.5/4, Harvey, ROSS, LexisNexis, Westlaw, Casetext, e-discovery platforms	Ukraine emphasizes open-access tools; foreign studies cover commercial Legal Tech ecosystems
Regulatory framework	AI Concept of Ukraine; HE standards for specialty Law; Law No. 2811-IX on Copyright; EU AI Act applicability	EU AI Act; Council of Europe Framework Convention on AI; ABA guidelines; SRA regulations; UK CDPA	Both engage EU AI Act; Ukraine proactively incorporates it into national legal-education discourse
Transformation trends identified	1) AI literacy; 2) Legal knowledge bases for ML; 3) AI in practical tasks; 4) Error detection in legal documents; 5) Law-firm management optimization	1) Automation of legal research; 2) Predictive analytics; 3) Contract review; 4) E-discovery; 5) Emerging roles: Legal Tech engineer, Knowledge analyst	Five-cluster convergence; foreign research more advanced on predictive analytics
Copyright & academic integrity	*Sui generis* protection for AI-generated objects under Law No. 2811-IX; institutional marking policies recommended	UK CDPA s.9(3); OpenAI Terms; Turnitin false-positive rates; TDM exception (EU DSM Directive, Art. 4)	Both acknowledge legal ambiguity; Ukraine's legislative framework provides an early normative resolution
Methodology	Normative-doctrinal analysis; competency mapping; comparative legal method; ChatGPT prompting experiments	Professional-exam testing (SQE1, US Bar); bibliometric analysis; document analysis; qualitative expert review	Complementary approaches; empirical methods increasingly adopted in Ukrainian scholarship
Key findings on integration	Active practitioner-driven adoption of AI tools; growing academic and institutional engagement; national competency standards increasingly aligned with digital professional demands	More than 50% of US law schools offer AI courses (ABA, 2024); AI-native law firms approved; rapid market-driven curriculum reform in Anglo-American systems	Shared trajectory; both traditions move toward systematic AI integration, driven by market and regulatory forces

Source: compiled by the author based on ABA report (2024); Ajevski et al. (2023); Biresaw (2021); Shamov (2025); Zaiarnyi & Illarionova (2025).

Table 1 reveals strong convergence on AI's central role and on the need for competency-based curriculum reform. Ukrainian scholarship is distinguished by its explicit alignment with national regulatory frameworks and EU AI Act obligations – an advantage in contexts where legal educators must simultaneously satisfy domestic accreditation standards and prepare graduates for European professional practice.

Ukraine's research tradition has moved rapidly from general theoretical discussion toward applied pedagogical proposals. Ukrainian legal scholars [7; 8; 9; 11] are developing institutionally grounded, operationally specific tools – model instructions, competency mappings, policy templates – that complement, rather than simply replicate, the empirical contributions dominant in Anglo-American literature. The complementarity of these traditions is itself a research opportunity: Ukrainian normative frameworks and competency standards provide a structured platform on which empirical validation studies can be designed and conducted.

On the methodological dimension, the adoption of empirical approaches – including the practitioner surveys conducted by the ABA's Task Force [2] and the professional-exam testing reported by Ajevski et al. [1] – represents a productive direction for future Ukrainian research. The two traditions are increasingly convergent in their conclusions; empirical methods would strengthen the evidentiary base for Ukrainian curriculum reform advocacy.

Professional training for jurists is a multi-dimensional system, encompassing theoretical legal knowledge, practical skills, research competencies, multilingual and cross-border capabilities, ethical formation, and increasingly, innovation and project management capacities. Table 2 maps specific digital technologies to each, specifying applications and target competencies.

Table 2 – Potential of Digital Technologies across Components of Professional Training for Jurists

Training Component	Digital Technologies / Tools	Applications	Competencies Developed
Theoretical (doctrinal) instruction	LLMs (ChatGPT, GPT-4); AI-enhanced databases (LexisNexis, Westlaw, Liga-Zakon)	Synthesis of doctrinal sources; generation of case hypotheticals; cross-jurisdictional legislative comparison	Analytical thinking; substantive legal knowledge; comparative awareness
Practical skills (seminars / clinics)	ChatGPT with task-specific instructions; e-discovery platforms; contract review AI (LawGeex, Kira Systems)	AI-assisted drafting of legal acts and contracts; error detection in AI-generated documents; client consultation simulation	Document drafting; critical AI evaluation; professional judgment; client communication
Legal research	ROSS Intelligence; Casetext; Fastcase; rada.gov.ua; LPD; HUDOC	Precedent retrieval; citation network analysis; case-outcome prediction (up to 70% accuracy for ECHR decisions)	Research methodology; source evaluation; evidence-based argumentation

Training Component	Digital Technologies / Tools	Applications	Competencies Developed
Assessment and self-testing	Generative AI for test-item generation; AI-assisted feedback tools; AI-detection with human oversight	Scenario-based task generation aligned to competency standards; knowledge-gap identification; formative feedback on draft submissions	Self-regulation; reflective practice; academic integrity
Multilingual and cross-border training	AI translators (DeepL Legal); multilingual LLMs; EUR-Lex; HUDOC	Analysis of ECHR rulings and EU treaties; EU–Ukraine legislative alignment exercises; international legal brief preparation	Multilingual legal literacy; international law competence; EU integration skills
Ethics, professional responsibility, and AI governance	Case-simulation platforms; EU AI Act compliance toolkits; institutional AI policy templates	Analysis of high-risk AI scenarios under EU AI Act; institutional AI policy drafting; algorithmic-bias debates in adjudication	AI ethics; professional responsibility; risk assessment; regulatory drafting
Legal project management and innovation	Legal project management platforms; data analytics dashboards; Legal Tech tools	Complex case strategy modelling; legal service business planning; regulatory trend forecasting via AI analytics	Strategic thinking; business competencies; innovation leadership; interdisciplinary collaboration

Source: compiled by the author based on ABA report (2024); Ajevski et al. (2023); Biresaw (2021); Diep & Thanh (2024); Spivakovsky et al. (2023); Zaiarnyi & Illarionova (2025).

Table 2 proposes a forward-looking, hybrid curriculum model combining a mandatory foundational digital literacy module with flexible, market-responsive interdisciplinary specializations reveals several structural insights. First, digital technologies are not uniformly applicable across all training components: their potential varies in nature (from augmentation to partial automation), in pedagogical function (from knowledge delivery to competency assessment), and in the sophistication of AI literacy they presuppose. A student in the first year of a law program requires foundational AI literacy; a master's student specializing in civil law or other field requires advanced, context-specific AI competencies.

Three findings from Table 2 warrant emphasis. First, the most immediate and broadly applicable potential resides in practical skills training and legal research – precisely the components where AI tools have demonstrated the greatest efficiency gains in practice and where employer expectations are rising fastest. The model exercises [11] – including ChatGPT-assisted ECHR case retrieval, contract verification tasks, and client consultation simulations – provide directly applicable templates for Ukrainian legal educators.

Second, the component of ethics, professional responsibility, and AI governance requires dedicated curriculum space that current programs typically do not provide. The EU AI Act's classification of AI deployment in educational assessment as high-risk places on legal educators an obligation to equip students not merely to use AI responsibly, but to advise clients and institutions on AI governance – a sophisticated competency that presupposes systematic legal-ethical training.

Third, the multilingual and cross-border component is particularly strategic for Ukraine. AI-powered translation tools and multilingual legal databases substantially lower the access barrier to EU and international legal materials, enabling law faculties – including those with limited licensed-database budgets – to incorporate comparative, ECHR, and EU law dimensions into practical training on a large scale.

Three governance conditions are necessary for the potential identified in Table 2 to be realized in practice, namely: institutional AI use policies, faculty development, and curriculum standards and digital infrastructure. EU AI Act assigns responsibility for high-risk AI applications to deploying institutions. Law faculties must formally adopt AI policies specifying: permissible AI models and conditions of use; student disclosure obligations; intellectual property rights in AI-assisted work; cybersecurity requirements; and equitable access provisions [9; 11]. Ukraine's Law No. 2811-IX (2022) already provides a legislative foundation through its *sui generis* protection framework for AI-generated objects. Effective pedagogical deployment of digital technologies requires faculty competent in AI-appropriate task design, evaluation of AI-assisted student work, and recognition of algorithmic limitations – including hallucination and bias [5; 11]. Structured faculty development programs, coordinated at sectoral level, are essential. Updating Ukraine's higher education standards for specialty Law to incorporate explicit digital and AI competency requirements would institutionalize reform across all accredited law programs.

Conclusions. This article has compared Ukrainian and international research on digital technology integration in legal education and proposed a structured typology of AI and Legal Tech potential across seven components of jurist professional training.

Digital transformation of legal education is irreversible and accelerating. Ukrainian and international research converge on AI's centrality and on the competency-based reform imperative. Ukraine's scholarly community is generating institutionally grounded, operationally specific contributions – competency frameworks, instructional guidelines, policy templates– that reflect growing academic and practitioner engagement with digital transformation in legal education.

The seven-component typology in Table 2 provides a structured, standards-aligned instrument for curriculum redesign, mapping specific tools and applications to each professional training dimension. Practical skills training, legal research, and AI governance emerge as priority areas for immediate curricular action.

Realizing the identified potential requires three enabling conditions: formal institutional AI use policies; systematic faculty development; and updated accreditation standards incorporating digital competency requirements.

Further research should empirically validate the proposed typology through educator and employer surveys; develop assessment rubrics for each training component; conduct longitudinal analysis of AI integration's impact on graduate competency outcomes; and pilot the national AI-assisted legal training platform model at selected Ukrainian law faculties.

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О. В. Хмизова. ПОТЕНЦІАЛ ЦИФРОВИХ ТЕХНОЛОГІЙ У ПРОФЕСІЙНІЙ ПІДГОТОВЦІ ПРАВНИКІВ

Стрімкий прогрес у галузі штучного інтелекту (ШІ) докорінно змінює професійну юридичну практику і, як наслідок, перелік компетенцій, необхідних випускникам юридичних факультетів. У статті досліджується потенціал цифрових технологій – з акцентом на великих мовних моделях (LLM) та інструментах Legal Tech на базі ШІ – для модернізації професійної підготовки правників. На основі порівняльного аналізу української та зарубіжної наукової літератури й нормативно-правової бази в дослідженні визначено ключові тенденції трансформації, виявлено спільні риси та відмінності між дослідницькими традиціями, а також розроблено структуровану типологію застосування цифрових технологій у межах семи основних компонентів формування професійної особистості юриста. Результати підтверджують одностайність дослідників щодо провідної ролі ШІ та фіксують зростання залученості України – на практичному, академічному та інституційному рівнях – до процесів цифрової трансформації юридичної освіти. Запропоновано перспективну гібридну модель навчальної програми, що поєднує обов'язковий базовий модуль із цифрової грамотності та гнучкі міждисциплінарні спеціалізації, орієнтовані на запити ринку.

Ключові слова: *цифрові технології, штучний інтелект, правнича освіта, професійна підготовка правників, ChatGPT, Legal Tech, цифрові компетенції.*

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