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Challenges and opportunities of legal education in the 21st century: the impact of artificial intelligence

Abstract

The 21st century presents unprecedented challenges and opportunities for legal education, driven by the rapid integration of artificial intelligence (AI) into legal practice. This paper explores the transformative impact of AI on traditional legal education, emphasizing the need for curricular reform to equip future lawyers with interdisciplinary knowledge and technological proficiency. It highlights how AI tools enhance legal research, streamline workflows, and redefine legal services, while also addressing ethical considerations such as bias, privacy, and accessibility. The study advocates for an innovative, student-centered approach to legal education, incorporating experiential learning and AI-based methodologies to prepare students for an evolving legal landscape. The findings underscore the critical role of educators in fostering adaptability, critical thinking, and ethical awareness, ensuring that legal professionals remain relevant in a technology-driven world.

Keywords: *Legal Education, Artificial Intelligence, Curricular Reform, Legal Technology, Interdisciplinary Learning.*

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Introduction

Legal education has been the backbone of the rule of law for centuries. In the 21st century, two key changes in the practice of law, and thus in the requirements for legal education, are the use of artificial intelligence in the delivery of legal services and a growing recognition of the need for greater interdisciplinarity across various subject areas that intersect with the law. Over time, the traditional manner of teaching in law schools has consistently been critiqued. Students generally find that the way law is traditionally taught in law school and subsequently tested in the final examination is neither easily nor effectively transferred into the practical domain of the future workplace. The key requirement from the student is the soft skills rather than just the hard knowledge, and this prospect is far less prevalent in the traditional learning methodologies.

Artificial Intelligence (hereinafter: AI) is now influencing the delivery of legal services. Litigation jobs are on a decline while legal tech and legal project management jobs are on the rise. Law schools and legal education need to adapt to these changes with urgent curricular reforms that incorporate legal technology, innovation, and interdisciplinary subjects in their curricula if they want to be as significant in the next decade as they have been in the last one. With the accelerating pace of AI in the legal field, legal education must understand the AI tools being deployed to automate legal tasks so that we can ask pertinent questions about how this tool is constructed, the values it contains, and to whom it is accountable. Conceptualizing the new curriculum, legal academic institutions may have to consider putting in classes on a range of AI tools from machine learning and natural language processing to the new frontiers such as vision processing to sign language interpretation, thereby covering the new horizon in AI development.

Overview of Legal Education in the 21st Century

Legal education has evolved rapidly in the twenty-first century. The influence of technology and big data in the field of law has increased significantly, making legal services more creative, efficient, and economical. Consequently, legal professionals are expected to adapt to the latest technology and advances. Furthermore, the transformation in the international transportation network has enabled the dissemination of information and services among inhabitants across the globe. This has drastically changed the field of law, previously confined to national and regional frameworks, with regard to content and operational aspects. As a result, the emergence of global cultural diversity has

had an impact on the development and revival of legal educational procedures and policies. As the world has pursued the path of legal cooperation, the global community has stressed greater internationalization of legal education, while also promoting administrative and legal support.

The advent of *online* learning platforms has transformed the paradigm of curriculum planning, teaching, and learning. Furthermore, a nationwide trend towards global initiatives has created a need for advanced educational diversity. Nowadays, academia refers to a student-centered educational approach and different teaching tools such as clinical education, cooperative games, legal writing, research and publication, policy dialogues, and coalition functions, all of which are novel, creative, and interdisciplinary. Modern legal scholars also collaborate with interested members of society, weaving many threads to advance the cause of social justice. All of these shifts indicate that traditional scholars are evolving to create a community ready to confront the legal challenges of the modern era. Legal education is expected to be multi-faceted, adaptive, transformative, inclusive, and applied, in addition to being multidimensional, practical, and project-based.

Historical Evolution of Legal Education

One of the most remarkable trends in legal education in the 21st century is the depth and intensity of changes that involve not only curriculum reform but also the methods and ways that are used to teach and train students to become lawyers. These developments are all the more remarkable when one considers the historical and socioreligious roots of the early English universities. The next section discusses the historic evolution of legal education, from the English Inns of Court to the modern law school of the present.

Twentieth-century law schools in Western Europe, and most notably in the United States, where one finds the most dynamic and open societies, became institutions belonging to a tier of higher or professional education, created to serve and train a nascent middle class. The standard American law school, in contrast to the English model in existence at the time and place of its creation, included substantive material in its curriculum intended to be learned in order to perfect a student's understanding and skills as an occupational lawyer. The idea that a lawyer needed to practice certain skills, acquired and honed over the years of academic study, was in the air and beginning to demand attention. The quest was supported by a set of preexisting skills that incoming law students brought with them by virtue of a modernized primary education. A primer defined a law student's skills in Latin usage, elementary mathematics, and some exposure to fine penmanship. Clerks, the keepers of the records in

King's courts who became lawyer-like through long continued practice, had no such classical training or education and knew how to read but not to write.

Traditionally, legal education was primarily offered through the medium of law schools, which served as the cornerstone of a lawyer's formal training. The conventional models in legal education may be understood through a detailed analysis of the diverse methods of teaching, comprehensive assessment strategies, and the rich content that legal institutions have primarily emphasized over the years (Choi *et al.* 2022). In essence, the salient features of the traditional model of legal education were focused on the rigorous teaching of abstract theories of law, thorough reading and analysis of decided cases, thoughtful judicial pronouncements, and detailed examination of statutes. Students were expected to absorb knowledge through established methods like the „Socratic" method and the „case law" method of teaching, which required active participation and critical thinking (Capers 2021). Furthermore, these methods, along with the specific subjects taught in law schools, greatly stressed the acquisition of knowledge about 'what the law is' by means of mere recital and the act of reproducing theoretical propositions of law in examinations. This educational structure aimed to provide a foundation, but often limited students to a narrow understanding of legal principles without sufficient emphasis on their practical applications in real-world scenarios (Bygstad *et al.* 2022).

To put the point differently, vast inroads made in the fields of science, technology, interdisciplinary influence, and changes in the patterns of law and legal practice raise important questions as to whether the instructional and assessment methods used by conventional legal institutions would have much role to play in the development of legal knowledge and capacities of legal professionals. It is pertinent to note that legal institutions have had little or no emphasis on integrating the increasingly important aspect of technology in the instruction of law. More worryingly, these institutions have had hardly any thrust on legal research. In fine, the teaching and the method of assessment of legal institutions with the traditional models of legal education have a significant number of drawbacks (Timotheou *et al.* 2023).

Challenges in Legal Education

There are several challenges facing legal education in the 21st century. Foremost among these is the need to reflect the integration of artificial intelligence in all aspects of legal practice, from e-discovery to predictive analytics to risk management. Despite this, law schools have been slow to integrate technology and hands-on training into their programs. As a result,

law graduates think narrowly, learning just enough about technology to pass a course, before they place their brains in a blind trust and proceed to learn only about law for the rest of their professional lives. Thus, they reject available opportunities to predict what tools are coming down the line that will (or might) benefit them in practice, how these systems will interact, and how lawyers might make use of students to help build them. In short, curricula remain bound by what has been the norm in the past, without adequately being geared towards training students for the legal profession in the future. Similarly, law schools require millions of dollars in legal education in return for a credential showing knowledge of the law, but not a great deal of help knowing what to do with it. There are challenges facing the sector, which undercut the quality of candidates applying for legal study in the first place. In attempting to understand the increased demand for legal programs experienced by elite U.S. law schools, it was shown that applicants to top U.S. law schools exhibited a low understanding of the complexity of legal practice and the professional challenges lawyers face. This lack of understanding of what practicing law means is a significant external challenge undermining the reform of legal education.

Many law schools are behind when it comes to incorporating modern technology into pedagogical models (especially in the Western Balkans region). In the field of legal education and legal practice, there is an increased demand for a stronger emphasis on technology, tools, and resources. Traditional pedagogies often fail to provide students the opportunity to learn the skills necessary to navigate the digital landscape of the modern workplace (Li 2024). Traditional methods of student assessment, including rigorous and often unmanageable reading and study schedules, may not adequately teach either technological skills or the softer skills that are essential. This growing lack of crucial technological learning experiences potentially puts law school graduates at a disadvantage when looking to enter the workforce (Smith 2023).

As further evidence of their lack of innovation in the field of legal education, many legal educators and institutions remain disconnected from already existing technology-based resources that could significantly improve student performance, none of which require technological expertise to implement. In short, legal education is approximating the 21st century with single-digit technology (Ignjatović 2024). Legal educators hold the key to overcoming some of the obstacles posed by legal education's traditional grip on the pedagogy of legal education. Consequently, widespread faculty discomfort with the use of technology likely mediates law schools' lack of

meaningful integration of available digital educational tools and modern tech pedagogies into the classroom. A study of law faculty revealed that a significant percentage of law faculties are uncomfortable with, or unaccepting of, the use of educational technology at their institutions. Universities do have the resources to invest in technology and spend significant amounts of money every year on tech resources, but without faculty buy-in, new tech initiatives pale in comparison to the potential when integrating classroom instruction with new digital technology. While a technological university can provide additional resources to faculty, using large tech firms as collaborators and consultants can provide many benefits, including access to new product prototypes (Thanaraj & Gledhill 2023).

The Rise of Artificial Intelligence in Legal Education

Artificial intelligence refers to systems, tools, or technologies with the ability to perform tasks that require human intelligence. Artificial intelligence can be designed to learn from experience, find patterns in data, and make predictions from data. Artificial intelligence in legal education might be used in multiple contexts. For example, one might use artificial intelligence to present the law as part of teaching law students or paralegals. Networks summarize a person's legal rights when provided with the relevant information or draft appeal documents for individuals denied disability benefits (Yang, 2022). Beyond education, artificial intelligence may also have implications for legal research and scholarship. Researchers predict that AI will help streamline the research process and improve retrieval of legal documents, possibly freeing up time for the practice of law (Soori *et al.* 2023)

Arguably, artificial intelligence will play a large role in the practice of law in the coming years. Automation technology may someday replace routine tasks performed by attorneys. Furthermore, some industries have implemented artificial intelligence technology to enhance efficiency. A flagship tool predicts the outcome of court cases, settlement averages, and how long it takes the judge to make a decision based on what and where the claim is filed. A system provides attorneys with access to time-saving legal research. As artificial intelligence continues to impact the day-to-day practice of law in different contexts, the question becomes: How does one educate the next generation of lawyers about these tools and/or systems? If faculty experts cannot find or afford the technology to teach students, how do we adapt? Ethically, is it prudent or responsible to train students in how to use technology they will not be able to afford or use later?

Mechanical handling of all routine tasks inherent in the practice of law

is a long-cherished dream for many. At different points in time, various technological tools have been claimed to possess the seemingly irreproducible skills of the lawyer – the ability to think through and solve complex problems for clients (Sales 2021). Of all these technological tools, artificial intelligence is the most seductive. This is because there is no other system that appears to be as flexible and powerful as the human mind (Biresaw 2021). In the context of legal education, however, our understanding and relationships with AI are critically determinative of our future.

The full scope of AI involves the mechanical reproduction of a range of different activities. Just because AI is so broad, it is seen in different forms. Most commentary and presentations discuss different variants of AI technology rather than AI itself. Classically, AI involves many areas of research and related technologies including machine learning, semi-supervised learning, natural language processing, object recognition, symbolic reasoning, embeddings, expert systems, Bayesian networks, multicriteria decision analysis, multidisciplinary research, and new technologies. Some know only a slice of AI rather than all of it. Whatever AI technology is being discussed, however, the fact remains that it has significant potential to start up the practice or research of law. In general, AI is offered as a research machine that learns through a process of interacting with the world. This is done by running experiments, observing data from input, testing a hypothesis, and drawing inferences based on the results. AI has been developed to automate tasks, and once described, may be used in practice to revolutionize interactions with clients or administrative tasks, the management of cases, drafting documents, observation and analysis, research, and providing other input functions. Already, AI and other forms of automation are developing as tools or systems that relate to structured data. Other tools can interpret and understand the law, some of which can generate specific legal documents and respond to legal queries in action (Greenstein 2022). The foundational AI goal to imitate a professional's judgment and intuition is currently beyond its reach. In the meantime, understanding AI is important for studying AI law. It is also important for law students so they are prepared to use AI when they begin practice. Despite the potential uses of AI in law, there also exist several roadblocks in implementing these tools and techniques in a legal environment. The practicalities brought forth include expense, adaptation period, and competition, which may also restrict full implementation and contribute to the limited use of AI as well (Dwivedi *et al.* 2021).

Applications of Artificial Intelligence in Legal Education

Artificial intelligence in legal education and the study of law can also offer numerous intriguing and workable practical applications. For example, consider AI's contributions to workflows in the legal academy and the practice of law. AI tools are currently operationalizing natural language processing and machine learning to search the law and automatically identify the most relevant cases and articles salient to any given text. In practice, AI may also be contributing to the solutions of tomorrow in much the same way already. The arguments for allowing law students to use AI show that AI has the ability to provide specialized, personalized search results and to engage numerous relevant debates at once. What is revealed, taken together, is an image of the law school student who plumbs the depths of a new personalized learning experience that AI has rendered for them. In our case, this experience involves a series of mechanical devices and intelligent software agents chosen and often developed as research tools, collaboration tools, communication tools, and multi-sensory engagement tools that allow us to hear, see, read (and be read) about the law.

Let us consider another one of the many potential applications: AI mechanisms and automated processes may be employed to bring efficiencies in external interactions such as in disclosure processes. For example, currently, regulatory agencies in many countries count on young students in some law schools to act as a labor force who discover how complex forms become. AI can be developed and trained to figure out the nomenclature, the standardization, and the outcomes of searching through and compiling all results of interest. Not only does one obtain ever-increasing accuracy, AI does in minutes what it takes hours or sometimes even days or weeks to get through. Formulating as dialogical searches can support, when properly designed, more contextual self-acquisition on the part of legal education students. For example, a „chatbot" may assign certain information flows from the person to a specific topic or problem to better condition the types of dialectical searches and potential answers.

Few legal professionals conduct legal research in a brick-and-mortar law library (unfortunately), as the law-finding process increasingly occurs in *online* legal research platforms. As a sign of that evolution, more than half of the entries in this subsection introduced empirical studies examining legal research practices and/or the algorithms used to conduct legal research. AI is increasingly important in this domain of legal education. AI-based legal research platforms can guide legal professionals to find relevant information

more quickly and provide easily accessible insights and analysis across large volumes of heterogeneous legal and business data (Campbell 2020). AI tools enable practitioners to analyze this data in ways that seem inconceivable by hand, calling their attention to connections and themes that might not be immediately evident. As is a common thread throughout this chapter, pieces in the legal research domain highlighted the value of AI as a way to more efficiently find, organize, and signal access to legal information sources. AI tools powered by advanced analytics may provide a valuable addition to lawyers' methodological toolbox by performing quantitative empirical research and extracting background details and patterns from large volumes of data. In addition, predictive analytics can estimate the likelihood of particular legal outcomes before a court based on the historical decisions of related disputes. This technology has advanced significantly in recent years, using several machine learning models to predict quantitative and qualitative case outcomes across jurisdictions and legal domains. This tool – useful for transactional attorneys and litigators alike – might help lawyers anticipate likely arguments and triage cases against the predicted likelihood of success. This might enhance the decision-making process at various levels and the production of higher-quality legal arguments and stave off low-probability culpability or defeat to some extent in less important disputes (Perlman 2023).

Though AI can significantly enhance the legal research process by streamlining workflows and uncovering insights more quickly than traditional methods, these powerful tools must be used ethically to ensure they provide accurate and actionable insights that can truly assist legal professionals. Empirical studies have indicated that judges (and juries) often express skepticism toward probabilistic evidence, particularly if they feel that the predictive models have been influenced by parties who have a vested interest in the outcome. Ultimately, the presence of legal constraints and regulations may hinder or even prevent the full adoption of these AI predictions in various litigation scenarios (Patel *et al.* 2024). In light of this, future research should concentrate on leveraging AI insights in a manner that is thoughtfully partnered with the legal practitioner's expertise and domain knowledge within both courtroom settings and transactional environments. Key educational objectives should center around effectively training law students not only on how to utilize these newer legal research tools but also on understanding why they have become so important in contemporary legal practice. More broadly speaking, preparing young lawyers to be proficient in legally relevant data science, predictive analytics, and visualization skills can better equip them to represent clients more effectively and advocate in an evolving marketplace,

as well as adapt to changes within legal systems more generally. As the legal landscape continues to evolve, fostering these competencies will be crucial for the next generation of legal professionals (Ejjami 2024).

(Potential) Benefits of Artificial Intelligence in Legal Education

In recent years, law schools and universities around the world have been incorporating artificial intelligence into their pedagogy (to a certain extent). The move to AI is seen as having several benefits. First, AI can facilitate legal research both for students and for legal educators. In an academic environment, AI can help students sift through vast amounts of datasets and literature to produce custom papers, journal entries, and briefing notes. It can speed up administrative tasks, carrying out mundane tasks such as data entry and case scoping with greater ease and efficiency. AI technologies can assist in filtering case lists and would be in a position to deduce with much greater accuracy than presently whether a given case is overtaken or on point in a particular legal field. AI can produce customized learning trajectories for students, based upon their prior studies and interests. The response also noted that advances in AI could make it possible to bypass the issue of interpreting substantial codes with a more universal language, based on self-learning. Although AI is immune to the subjectivity and human error associated with a judgment call, ethicists will no doubt be concerned about the limited educational grounding of AI to date, and the difficulties of human intervention to deal with situations of concern. Nonetheless, collaboration and cooperation between legal academics and the AI industry may enable a level of accepted reliability to be attached to textual domain advice that is created by law students using AI support, which goes beyond the level of support offered in other contexts.

Further, AI can be used to help students work in solidarity on a collaborative research project. Students in AI can combine their expertise so that rapid results are obtained. The cost for comprehensive interdisciplinary, community-based, or global reach can be significantly reduced by AI support. Economies of transacting can be obtained through the status of AI-supported research, and donated information may become a commodity with an AI-rich output (Philip *et al.* 2022). Furthermore, AI can be of great help to students in terms of administrative language and application questions. Students may become more confident in their written doctrinal materials when supported by legal research they undertake with the help of AI. Fundamentally, the refractory and elitist nature of some postgraduate study could be diluted since anyone

with access to AI could address problems worthy of advanced research. AI-provided solutions to the complex issues of the day do not involve a narrowing of the academic process. An individual can undertake work that is of a worthy level of contribution to personal pride, discipline development, society, and the law (Reyes *et al.* 2021).

Also, efficiency and accuracy are the dual advantages of artificial intelligence in legal education. AI could streamline legal research through natural language processing that helps in reading, summarizing, and reasoning over a textual corpus. It could also streamline legal analysis through predictive coding or case outcome prediction. These AI technologies can improve the speed and efficiency with which legal research and analysis are undertaken. Law students and practitioners could reduce the amount of monotonous and time-consuming activities that do not require human judgment or creativity. Large amounts of data can be more quickly and efficiently processed by AI systems that replicate human intelligence or cognitive functions.

The implementation of these systems into the legal education sector could reduce the amount of time that students and practitioners spend reviewing and analyzing legal documents and improve productivity in this sector. The production of legal documents using legal AI can assist in reducing the risk of errors. Whether AI can completely replace human decision-making, it can be said that the process of automating parts of a lawyer's role and a student's training using AI has begun (Javaid 2024). AI's capacity to undertake legal research and decision-making can improve the quality of legal education outcomes; a well-trained AI system would have the ability to analyze a greater number of cases in determining legal doctrine for future legal decision-making. AI's contribution to the streamlining of legal texts could also improve the accessibility of law for practitioners. Law firms and legal academic institutions are increasingly including AI tools in their day-to-day activities. AI can enable significant efficiencies in finding quick answers to complex legal issues. For practicing lawyers and judges, quick and accurate answers are critical, but both are also crucial in the education of future lawyers. This section demonstrates how AI's capacity for efficiency and accuracy is a fundamental component of contemporary legal education (Spring *et al.* 2022).

Ethical and Privacy Concerns in the Use of Artificial Intelligence

In addition to the practical ethics and legal issues raised here, there are also serious ethical and privacy concerns in the use of artificial intelligence

in legal education and legal practice. There is the potential for different types of risk associated with using big data in legal education, including, among others, the standards for gathering data. Gathering data en masse may raise concerns over information privacy, anonymity and de-identification, informed consent for data use, and data ownership, not dissimilar from those raised in discussions of the kinds of data that artificial intelligence learns from (Huang 2023). Implementing decisions can also be controversial when they are based on predictions created by data that may be imperfect or incomplete, as though seeking to predict issues of lawyering based on the existing population of legal knowledge is a form of inductive legal reasoning. This could include concerns around the intellectual autonomy of decision-making processes, to the problem of the introduction of error and the phenomenon of automation bias, whereby users place too much faith in the intelligence of their tools (Akgun & Greenhow 2022)

There is the potential to create feedback loops when producing technology adapted to or used by the masses. Such tools are often adapted to suit and therefore maintain a status quo because they are developed with large datasets that, to date, are overwhelmingly derived from majority groups. Inaccuracy can be controversial in this context, as a rising number of courts are turning to such tools in their decision making. The lack of cross-sectional representation can perpetuate societal discrimination. It also threatens the fairness of legal outcomes that many believe can, to date, only be determined with a human feel. Transparency and accountability are reported as important instruments in managing such risks in legal education. Legal educators who use technological tools are responsible for ensuring that their students do not experience unfavorable treatment as a consequence of such tools. Moreover, gathering information and data on law students or future lawyers poses specific issues, not least in relation to the security of sensitive and proprietary information. We will also have to ensure that while we may utilize predictive analytics to determine if and how future cohorts of law students will perform, such measures do not take the place of informed judgment by educators and instead should be used in addition to and not as a substitute for existing admissions processes. Reliance on a purely algorithmic solution may be missing the point of a legal education, which has a strong subjective component (Oladoyinbo *et al.* 2024)

Educators need to remain mindful of potential conflicts of interest inherent in partnering with profit-driven technology companies. Furthermore, artificial intelligence can only replicate what lawyers do when provided with existing legal knowledge; AI tools require training data derived from human choices.

This prompts concerns around the impact on teaching and scholarship and the drive towards evidence-based lawyering, pointing towards the difficulty in having LawTech products in legal education that are not inherently ideological. There may also be backlash from those in legal education who believe that there is a distinct value-added part to legal education best delivered by humans, not robots. There may be significant professional responsibility and workforce implications (Waisberg & Hudek 2021). As LawTech companies bring the benefits of their products to light, they may contribute to the creation of a legal skills gap narrative which, accompanied by the limitations on legal immigration and the pressures of mass globalization, creates a panic for buying such products within higher education. Such policies may also serve to exclude less advantaged individuals from accessing not only the legal profession but higher education (De Oliveira Fornasier 2021).

In the context of an increase in machine learning tools that process data to learn and predict, a separate inquiry relates to potential issues with respect to data security and privacy. The most effective systems contain models that are built based on a variety of data inputs, and figuring out what data inputs, weights, or processing procedures have been used for a particular model can provide insight into what situations or fact patterns the model has been trained on and where the model outputs are most likely to be effective or ineffective. Data security is by no means the main barrier to the widespread adoption of AI, but it is an issue that is beginning to receive increased attention, especially when in a legal environment, sensitive and private legal information is being collected and processed.

Technology developers need to be vigilant about data security and privacy. If client confidences are hacked because the data security of lawyers remains so weak, it is hard to see that development engendering gain in public confidence (Brobst 2024). Without privacy, there is a legitimate fear that the integrity and value of confidential legal counsel may become negatively impacted. Since lawyers, law firms, and law schools are ill-equipped to provide good data security but are flush with valuable data, there is now a full compliance, risk mitigation, and responsibility issue to be addressed. As a result, and similar to the environment around consumer data, the data should be handled and stored to the more stringent obligations of those proposed in privacy regulations (Jefferson 2021).

In 2019, a few plaintiff law firms regularly launched class-action lawsuits against companies that experienced breaches, and these lawsuits alleged that there was liability based on the failure to safeguard personal information. Defendants named in those lawsuits included companies like Facebook,

Google, and allegedly Equifax. In the law school realm, the high-profile data scandal at the center of the rankings incident involved an entire email of information connected to the release of deans' surveys, and there are undoubtedly students who could have claimed negligence on the part of San Diego Law for not properly securing their confidential information. In response to these challenges, the general public has been skeptical about AI and machine learning tools in particular, due in large part to concerns about data privacy. The law pertaining to the collection, privacy, and security of data, coupled with education about those principles, may serve as an ethically sound governance mechanism that holds benefits for the profession using such tools and the public who may or may not be affected by them (Liehner *et al.* 2023). The data risk and compliance movement suggests that the responsible thing to do is to put strategies in place right away to prevent the above concerns from being realized, which necessarily would include protecting the privacy of law school stakeholders as we enter these tumultuous years of exploration. Data we have, for example, of the potential bad behavior exhibited by law students gaming student surveys and rankings is important, but that at least some information is more securely handled is indispensable. In short, the recommendations cascade from the conclusion: AI will change legal education, including the privacy landscape of legal education; privacy is important and to be protected, even in an environment of accreditation change; we ought to protect privacy; and taking proactive steps to protect information is more desirable than being forced to take reactive steps because now becomes mandated by discussions around systemic risk rather than personal protection (Većkalov *et al.* 2023; Mlodzinski *et al.* 2023).

Preparing Students for the AI-Driven Legal Landscape

Legal educators need to ensure that law students are prepared for the integration of AI throughout the legal landscape. Students should be familiar with and prepared to use the AI tools that will increasingly amplify their own work and critical legal skills. Educating future practitioners requires the design of a new law school curriculum that not only fosters familiarity and competency in using specific AI tools and technologies but also establishes an understanding of the ethical implications and broader societal and professional roles for such technologies. While work is being done to create tools and methods for improving existing legal education in AI, legal education should be looking toward designing experiential opportunities for law students in areas that are heavily influenced by AI. Internships in-house at technology companies, at government agencies, and at legal service providers, all places

where new methods for legal practice are being built, would provide law students with foundational understanding, connection to experts, and skills needed for a practice that includes a deep understanding of the capabilities and operations of AI in law.

The long-term integration of AI tools in legal practice depends as much on the curriculum of legal educators as it does on technology makers and legal employers. Thus, integrating AI tools and techniques into specialized and foundational curriculum for future practitioners must be grounded in a deep understanding of current law and legal practices. Such legal education, with tools relevant for the legal landscape of today, will best prepare students for the changing landscape of tomorrow. It will also equip our law students with the fundamental skills of adaptability needed to keep pace with the rapidly changing nature of the legal field. Legal educators will now also need to adjust their current curriculum, particularly in practical skills and niche courses focusing on areas of law like health, patent, mergers and acquisitions, and the environment, to find an opportunity to integrate the study of AI and the respective laws together.

A critical aspect of successfully integrating AI tools into legal education is curriculum development. Law professors are already using a variety of strategies to include AI content in their courses. Several are quietly infusing AI content into a variety of law school courses to help students become less alienated by technology. This is practical, as modern legal careers are embedded in technologies. An objective of the curriculum development approach is to teach future lawyers about AI tools so that they can set parameters, process outputs, and better appreciate the limitations of relying on machine output solely. The approach explicitly wants students to understand AI's components and process outputs, not necessarily become programmers themselves. A few exercises also suggest that writing machine learning programming components or creating data sets might serve some students well. In sum, our approach is informed by a practitioner-oriented strategy. The more insights or data points students can gather, educators believe students will have a more enriching learning experience. Further, if educators adopt a template for their favorite AI topic, it will be easy to make course materials. A challenge educators face, however, is that new and more comprehensive software or resources may be outdated and may not exist or fail to cover the topic of interest. Building curricula remains in tension with course design, meaning updating law school curricula for such tools becomes time-consuming and challenging. Admittedly, it will take educators some time to adjust to these changes, but curriculum development should parallel technology and software developers' collaborations with law

schools. A wider net should be cast in terms of seeking feedback not only from both education stakeholders but also the legal community.

Professional Development for Legal Educators

It is thus important for legal educators to engage in regular training and exposure to professional development programs that would allow them to be informed and updated with the developments in and choices among AI tools. Such professional development training will also need to adopt a pedagogical approach that provides experiences and simulations allowing educators to learn how to experiment with these AI tools ethically and learn from the scrimmage between the legal process and legal education. The key contribution of the professional development programs is the emphasis on training that replicates the legal educators' actual work situation and is likely to have a significant impact on their use of AI in their work and teaching. To improve education quality, rather than „preach" to the converted, it is necessary for the training and professional development of legal educators to bring law and technology experts, legal practitioners, and law teachers together in close consultations and co-design. In this way, it seeks to prepare law teachers to implement learning and teaching activities, including crafting instructional materials and using hands-on methodology, that effectively and efficiently address the integration of an AI legal tool in a real-world situation and instill in their students a sense of the legal profession's duty to do so ethically and with integrity. Therefore, experiential learning through practical applications of technological tools in legal professional settings is critical for the success of medical law curricula (Ajevski *et al.* 2023). It is important to understand that AI and technology are interdisciplinary, data-driven fields; we must integrate these subjects with other technologies to make it fruitful. Thus, keeping in mind the significance of artificial intelligence in today's dynamic environment, it is important to train law and technology professionals properly. Using AI in law schools is significant, showing importance through its practical relevance via mock drills and discussions, thereby stimulating critical thinking and the inculturation of ethical aspects. The limited technological understanding of today's law professionals is an obstructive challenge. Therefore, law schools must be proactive in making their law professionals AI and technology experts in the future so that they can bridge the gap existing today (Oltz 2022).

Legal educators should have a working knowledge of AI technologies and tools and be able to articulate the implications of AI for lawyers and for society. Educators should also experience hands-on training of major AI technologies so that they can begin to imagine their use and potential in the

classroom. There are a number of AI applications that could be covered in such an orientation. Because AI continues to develop, it is also important to provide ongoing workshops that showcase new legal AI technologies to legal educators. Beginning in 2023, there are plans to include quarterly tech update clinics to introduce law school faculty and staff, in a hands-on manner, to new and emerging tech resources in the practice of law (Ng *et al.* 2023). Educators can reach out to the experts and law schools and law organizations that are performing these studies to ask for their materials. If none are available, they should ask for a demo. Knowledge sharing among legal educators is beneficial to us all. Furthermore, establishing best practices for these courses will lay the groundwork for the future of cutting-edge legal education. It is unclear if and to what extent practitioners are training law students on AI, in part because there is no agreed-upon body of legal knowledge and legal skill that can classify the technical knowledge that law students ought to learn. The main barrier to adoption within law firms remains the high cost and risk of failure of AI. While training on how to develop and use AI is important and essential to developing a relevant curriculum, it is also a significant drain on the limited resources of time, money, and manpower for any law school to undertake. For law schools more than 20 years old or anyone with a conservative outlook, the idea of law and technology centers and law schools as corporate legal departments running parallel courses on AI, an AI-fueled law firm, or an AI-fueled corporate legal department must seem irrational and implausible. However, all of these things are happening today, and the pace of adoption is increasing every day. The depth of training is important in addressing the many concerns raised about the quality of legal education. And while lawyers may not need to develop AI talent, the way that legal courses are designed should matter. Teaching every lawyer how to research and write briefs will not produce brilliant appellate attorneys. No law firm wants every lawyer to be able to do all things at all times, as long as it can get a group of lawyers with diverse qualifications to collaborate to solve a legal problem (Ronquillo *et al.* 2021; Elbanna & Armstrong 2024).

Future Trends and Directions in AI and Legal Education

At the present rate of change, it is impossible to predict the future trends in AI development in detail. However, it is already clear that some things related to AI are likely to remain the same: AI is likely to become more powerful, more widespread, and used by many people for many different purposes (Campbell 2020). Despite these inevitable changes, it is imperative that those responsible for legal education, not just at law schools, but in the broader

community, continue to explore their own values, the nature of law, and the way in which technology may be used to cultivate both. Many aspects of the delivery of legal services, and hence the content of a legal education, are likely to remain the same in the 21st century as in the latter part of the 20th century. Legal experts are also clear on some of the potential impacts of AI that are likely to occur in the near future and which will have implications for law schools (Choi *et al.* 2022).

Instead of trying to predict exactly what will happen with AI, we propose to emphasize potential new skills and knowledge that law graduates at some point in the future will need to develop in order to be successful in their careers. Some potential trends are already visible in some law schools where they are moving away from the Bachelor of Laws of the last century towards an Bachelor of Laws that enables one to move in various directions and take on professional roles within and outside law (e.g., jobs for lawyers in advertising, forensics, human resource management, sports, sports law practice, sports dispute resolution, journalism, homeland security, business, environmental science, politics, finance, and education). Only time will tell whether these changes will be sustained, but the world is not likely to stand still. Ethical considerations, of course, will continue to be important. Therefore, the AI and ethics symposium proposed at the conclusion of our discussion will be of critical relevance as this paradigm shift continues to unfold. We contend that an ongoing dialogue among interested parties from the legal education community, as well as other communities concerned with and affected by these shifts, is of paramount importance. Overall, we are optimistic that AI will be an adjunct, rather than an adversary, to education in this next century. The creativity and initiative thus far regarding the use of new technologies suggest that we are on the cusp of a new frontier of possibilities in legal education. The initial discussions of AI are sowing the seeds of practical innovations. Embracing the „new“ face of AI may cultivate an approach to the law that is transformative – not restrictive or cajoled by the constraints of change.

The development of some artificial intelligence technologies and resources for later stages is still speculative but based on more advanced possibilities within a decade. We project a range of one to ten years. If these AI tools mature, what could be their overall impact on legal education in general? At the highest level of abstraction, they would provide new alternatives and ways of thinking about how to teach law and legal systems. They would assume change in the practice of law. They also assume evolution in what the public expects for methods of delivering justice and legal services. Given these transpositions, educators should also reexamine curriculum and pedagogy,

and at the least know that more novel models of change exist (Janeček *et al.* 2021). Practically, advanced AI systems could assist legal educators in adding flexibility to the education system for law students by recataloging individual law courses as part of modular education or by acting as assistive devices to a variety of services such as writing, arguing, and counseling with simulated clients. They could help legal educators in augmenting continuous professional development and might assist in diversifying the choices for legal education. Advanced AI could also promote student international exchanges and collaborations. Our three AI development and resource horizon stages point towards the potential for changing legal education. Will assisted intelligence help democratize the legal academy and make practical legal skill enhancement equally available to any law student capable of paid or merit-based entry? For societal challenges, will assisted intelligence help democratize access to A2J through the diversified choices of vocational resources and icons in outputs and services? If so, how could law and legal education contribute to an informed public dialogue about these new directions? Our research suggests that these questions should be placed high on the list of priority examinations for legal education institutions. Finally, will a critically robotic reflexive period at the beginning of development help society integrate advanced and assisted AI, the kind of blurring that has been described as consequentialism, between assisted and autonomous intelligent systems in law and beyond? These are important questions for national and international dialogue in pedagogy and policy as AI continues to develop into the ivory tower, service, and public marketplace (Oltz 2022; Abulibdeh *et al.* 2024; Miao *et al.* 2021).

Conclusion

In conclusion, in the 21st century, the world faces a complete transformation in various fields due to the integration of emerging technologies, in particular, artificial intelligence. While some issues are still being discussed, the inevitability of this transformation is beyond debate, including the necessity of transforming legal education. The use of AI in the legal domain provides various advantages, such as improving the efficiency of legal services, automating routine tasks, promoting accuracy and precision of outcomes, and transforming industries. In addition to changing the nature of job descriptions, AI will also change the perception of justice to be based on predictability and repeatability.

Despite the potential benefits, integrating AI into legal practice poses challenges and ethical considerations, including minimizing bias, ensuring safety, and protecting the privacy of individuals. Legal education should be

modified to accommodate such changes, and this development underscores the need for ongoing professional development for legal educators in both practical skills and the curriculum. A novel outlook on the legal curriculum, accompanied by innovation in both the content and the methods of teaching, requires open discussions among various stakeholders, including regulators, legal educators, AI experts, industry, and students. Overall, the necessary changes in legal practice that originated from the widespread adoption of AI should also be integrated into legal education. The overall goal is to increase flexibility, innovation, ethical values, and plurality, an ambition that has become increasingly difficult to ignore.

Legal education and the roles of legal educators should integrate lifelong learning and educational products that allow regular adaptation to different working environments and trends within legal and advisory services. The soft skills of the curriculum are a necessity for ensuring the future preparation of law students for both legal practice and other roles that may or may not exist in the future. The competitiveness of the workforce is established by indicators such as creativity, skills, trial and error experience, and the ability to innovate and compete in a globalized labor market.

The overarching concern of our paper revolves around the increasing incorporation of artificial intelligence within legal processes and contexts and the concomitant implications for the specific domain of legal education. While AI has the potential to enhance legal efficiency and accuracy, it also poses significant challenges for legal educators. As such, our essay outlines several issues and concerns that must be addressed to ensure judicious application and teaching of AI in law, as well as the potential opportunities for legal educators. We argue that the changing role of lawyers and the attendant knowledge, skills, and competencies required necessitate a complete re-evaluation and reorientation of how future legal professionals are trained and educated. This argument is underpinned by an analysis of the impact of AI on traditional concepts of legal reasoning.

Firstly, we highlight the challenges inherent to AI, including concerns about obsolescence, the impact of technological determinism, and a vacuum of ethical guidelines. We then outline the opportunities AI presents, including the potential for quality education, law reform, and specialized legal advice, as well as an opportunity for interdisciplinary learning via the synergies AI offers in the development of law, policy, philosophy, and technology. A commitment to technological curricula and integrated holistic education will be a requisite for equipping and preparing law students for the increasingly AI-enabled and AI-implicated legal world in which they will practice. Further, as AI adoption

grows among members of the legal profession, we suggest the opportunity exists for those who understand the potential limitations of the technology to develop strategies that embrace, but also indicate scenarios in which it should be supplemented or otherwise interpreted. Finally, we observe that AI enhances the efficiency and cost-effectiveness of legal processes, increasing access to justice and giving lawyers more time for advisory work.

References

Abulibdeh, A., Zaidan, E. & Abulibdeh, R. (2024) Navigating the confluence of artificial intelligence and education for sustainable development in the era of industry 4.0: Challenges, opportunities, and ethical dimension, *Journal of Cleaner Production*, 437.

Ajevski, M., Barker, K., Gilbert, A., Hardie, L., & Ryan, F. (2023) ChatGPT and the Future of Legal Education and Practice, *The Law Teacher*, 57(3): 352-364.

Akgun, S. & Greenhow, C. (2022) Artificial intelligence in education: Addressing ethical challenges in K-12 settings, *AI and Ethics*, 2: 431-440.

Biresaw, S. M. (2021) The Impacts of Artificial Intelligence on Research in the Legal Profession (December 15, 2023). Upcoming in *International Journal of Law and Society*, Available at SSRN: https://ssrn.com/abstract=4727017, (17.01.2025).

Brobst, J. A. (2024) The Lawyer's Duty to Understand the Disparate Impact of Technology in the Legal Profession, *University of St. Thomas Law Journal*, 20(1): 150-189.

Bygstad, B., Øvrelid, E., Ludvigsen, S, & Dæhlen, M. (2022) From Dual Digitalization to Digital Learning Space: Exploring the Digital Transformation of Higher Education. Computers & Education. *Computers & Education*, 182. Avaliable at: https://www.sciencedirect.com/science/article/pii/S0360131522000343?via%3Dihub (17.01.2025).

Campbell, R. W. (2020) Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning, *Colorado Technology Law Journal*, 18(2): 323-350.

Capers, B. (2021) The Law School as a White Space. *Minnesota Law Review*, 106: 7-57.

Choi, J. H., Hickman, K. E., Monahan, A. B. & Schwarcz, D. (2022) ChatGPT Goes to Law School. *Journal of Legal Education*, 71(3): 387-400.

De Oliveira Fornasier, M. (2021) Legal Education in the 21st Century and the Artificial Intelligence, *Revista Opinião Jurídica / Journal Juridical Opinion*, 19(31): 1-32.

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., Medaglia, R., Le Meunier-FitzHugh, K., Caroline Le Meunier-FitzHugh, L., Misra, S., Mogaji, E., Sharma, S. J., Singh, J. B., Raghavan, V., Raman, R., Rana, N. P., Samothrakis, S., Spencer, J., Tamilmani, K., Tubadji, A., Walton, P. & Williams, M. D. (2021) Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy, *International Journal of Information Management*, 57, 101994.

Ejjami, R. (2024) AI-Driven Justice: Evaluating the Impact of Artificial Intelligence on Legal Systems, *International Journal for Multidisciplinary Research*, 6(3): 1-29.

Elbanna, S. & Armstrong, L. (2024) Exploring the integration of ChatGPT in education: adapting for the future, *Management & Sustainability: An Arab Review*, 3(1): 16-29.

Greenstein, S. (2022). Preserving the rule of law in the era of artificial intelligence (AI). *Artificial Intelligence and the Law*, 30: 291-323.

Huang, L. (2023) Ethics of Artificial Intelligence in Education: Student Privacy and Data Protection, *Science Insights Education Frontiers*, 16(2): 2577-2587.

Ignjatović, G. (2024) Digital Learning in Legal Education: Educational Policies, Practices, and Potentials of Pedagogy-Driven Digital Integration. FACTA UNIVERSITATIS – *Law and Politics*, 22(1): 25-46.

Janeček, V., Williams, R. & Keep, E. (2021) Education for the provision of technologically enhanced legal services, *Computer Law & Security Review*, 40.

Javaid, H. A. (2024) The Future of Financial Services: Integrating AI for Smarter, More Efficient Operations, *MZ Journal of Artificial Intelligence*, 1(2).

Jefferson, R. K. (2021) Lawyer Ethics for Innovation, N*otre Dame Journal of Law, Ethics & Public Policy*, 35(1): 1-38.

Li, M. (2024) Adapting Legal Education for the Changing Landscape of Regional Emerging Economies: A Dynamic Framework for Law

Majors. *Journal of the Knowledge Economy*, 15: 10227–10256.
Liehner, G. L., Biermann, H., Hick, A., Brauner, P. & Ziefle, M. (2023) Perceptions, Attitudes and Trust Towards Artificial Intelligence-An Assessment of the Public Opinion. In: Tareq Ahram, Jay Kalra and Waldemar Karwowski (eds) *Artificial Intelligence and Social Computing*. AHFE (2023) International Conference. AHFE Open Access, Vol. 72. AHFE International, USA.
Miao, F., Holmes, W., Huang, R. & Zhang, H. (2021) *AI and education: A guidance for policymakers*. UNESCO.
Mlodzinski, E., Wardi, G., Viglione, C., Nemati, S., Crotty Alexander, L. & Malhotra, A. (2023) Assessing Barriers to Implementation of Machine Learning and Artificial Intelligence–Based Tools in Critical Care: Web-Based Survey Study, *JMIR Perioperative Medicine*, 6, e41056.
Ng, D. T. K., Leung, J. K. L., Su, J., Ng, R. C. W. & Chu, S. K. W. (2023) Teachers' AI digital Competencies and Twenty-First Century Skills in the Post-Pandemic World, *Educational Technology Research and Development*, 71(1): 137-161.
Oladoyinbo, T. O., Olabanji, S. O., Olaniyi, O. O., Adebiyi, O. O., Okunleye, O. J. & Ismaila Alao, A. (2024) Exploring the Challenges of Artificial Intelligence in Data Integrity and its Influence on Social Dynamics, *Asian Journal of Advanced Research and Reports*, 18(2): 1-23.
Oltz, T. P. (2022) Educating Robot-Proof Attorneys, *North Dakota Law Review*, 97(2): 185-215.
Patel, K., Beeram, D., Ramamurthy, P., Garg, P. & Kumar, S. (2024) Ai-Enhanced Design: Revolutionizing Methodologies and Workflows, *International Journal of Artificial Intelligence Research and Development (IJAIRD)*, 2(1): 135-157.
Perlman, A. (2023). The implications of ChatGPT for Legal Services and Society, *Michigan Technology Law Review*, 30: 1-24.
Philip, T. M., Pham, J. H., Scott, M., & Cortez, A. (2022) Intentionally Addressing Nested Systems of Power in Schooling through Teacher Solidarity Co-Design. *Cognition and Instruction*, 4(1): 55-76.
Reyes, G., Aronson, B., Batchelor, K. E., Ross, G.,& Radina, R. (2021) Working in Solidarity: An Intersectional Self-Study Methodology as a Means to Inform Social Justice Teacher Education, *Action in Teacher Education*, 43(3): 353-369.
Ronquillo, C. E., Peltonen, L. M., Pruinelli, L., Chu, C. H., Bakken, S., Beduschi, A., Cato, K., Hardiker, N., Junger, A., Michalowski, M.,

Nyrup, R., Rahimi, S., Reed D. N., Salakoski T., Salanterä S., Walton, N., Weber, P. & Topaz, M. (2021) Artificial intelligence in nursing: Priorities and opportunities from an international invitational think-tank of the Nursing and Artificial Intelligence Leadership Collaborative, Journal of Advanced Nursing, 77(9): 3707-3717.

Sales, P. (2021) Algorithms, Artificial Intelligence, and the Law. *Judicature*, 105(1): 23-35.

Smith, S. R. (2023) The Fourth Industrial Revolution and Legal Education. *Georgia State University Law Review*, 39(2): 337-399.

Soori, M., Arezoo, B. & Dastres, R. (2023) Artificial Intelligence, Machine Learning and Deep Learning in Advanced Robotics, A Review. *Cognitive Robotics*, 3: 54-70.

Spring, M., Faulconbridge, J., & Sarwar, A. (2022) How information technology automates and augments processes: Insights from Artificial-Intelligence-based systems in professional service operations, *Journal of Operations Management*, 68(6-7): 592-618.

Thanaraj, A. & Gledhill, K. (2023) *Teaching Legal Education in the Digital Age Pedagogical Practices to Digitally Empower Law Graduates*. New York: Routledge.

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., Martínez Monés, A. & Ioannou, A. (2023) Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and Information Technologies*, 28(6): 6695-6726.

Većkalov, B., van Stekelenburg, A., van Harreveld, F., & Rutjens, B. T. (2023) Who is Skeptical About Scientific Innovation? Examining Worldview Predictors of Artificial Intelligence, Nanotechnology, and Human Gene Editing Attitude, *Science Communication*, 45(3): 337-366.

Waisberg, N. & Hudek, A. (2021) *AI for Lawyers: How Artificial Intelligence is Adding Value, Amplifying Expertise, and Transforming Careers*. Hoboken: John Wiley & Sons.

Yang, W. (2022) Artificial Intelligence Education for Young Children: Why, What, and How in Curriculum Design and Implementation. *Computers and Education: Artificial Intelligence*, 3. Avaliable at: https://www.sciencedirect.com/journal/computers-and-education-open (16.01.2025).

Sažetak

21. stoljeće predstavlja izazove bez presedana i prilike za pravno obrazovanje, potaknuto brzom integracijom umjetne inteligencije (AI) u pravnu praksu. Ovaj rad istražuje transformativni učinak umjetne inteligencije na tradicionalno pravno obrazovanje, naglašavajući potrebu za reformom kurikuluma kako bi se budući pravnici opremili interdisciplinarnim znanjem i tehnološkom vještinom. Ističe kako alati umjetne inteligencije poboljšavaju pravna istraživanja, pojednostavljuju tijekove rada i redefiniraju pravne usluge, dok se također bave etičkim pitanjima kao što su pristranost, privatnost i pristupačnost. Studija zagovara inovativan pristup pravnom obrazovanju usmjeren na studente, koji uključuje iskustveno učenje i metodologije temeljene na umjetnoj inteligenciji kako bi se studenti pripremili za pravni krajolik koji se razvija. Nalazi naglašavaju ključnu ulogu edukatora u poticanju prilagodljivosti, kritičkog razmišljanja i etičke svijesti, osiguravajući da pravni stručnjaci ostanu relevantni u svijetu koji pokreće tehnologija.

Ključne riječi: *pravno obrazovanje, umjetna inteligencija, kurikularna reforma, pravna tehnologija, interdisciplinarno učenje.*