Chapter 8 / Capítulo 8

Superintelligence Series
ISSN 3046-4463
Volume 2 – Thinking in Machine Code: Dialogues between technology, knowledge, and culture
ISBN of the complete work: 978-9915-9851-0-7
ISBN of this volume: 978-9915-9851-2-1
DOI of the chapter: https://doi.org/10.62486/978-9915-9851-0-7_202522

©2025 The authors. This is an open access article distributed under the terms of the Creative Commons Attribution (CC BY) 4.0 License.

ORIGINAL

Artificial intelligence and legal education: from the traditional classroom to the smart classroom

Inteligencia artificial y formación jurídica: del aula tradicional al aula inteligente

Pedro Luis Bracho-Fuenmayor[1]

[1]Universidad Tecnológica Metropolitana. Santiago, Chile.

ABSTRACT

Law, as an area of knowledge traditionally associated with formalism, conceptual rigidity, and resistance to change, has historically been reluctant to incorporate technological innovations into its methods of analysis, interpretation, and application. However, the rapid development of artificial intelligence (AI) and its growing impact on all spheres of human activity has begun to strain this resistance, demanding urgent adaptation on the part of regulatory systems and, especially, institutions that train legal professionals. The field of education, and in particular the teaching of law, now faces the challenge of abandoning exclusively traditional approaches in order to incorporate new methodologies focused on technology and innovation. This paper proposes a critical reflection on the need to integrate AI-based tools into the law teaching-learning process in order to prepare future lawyers for a professional environment increasingly permeated by emerging technologies. In this regard, the training opportunities offered by these tools are highlighted, but important ethical, pedagogical, and institutional challenges that must be considered to ensure responsible implementation are also identified. It emphasizes the need to incorporate these technologies while taking into account the fundamental role that human beings must play, the importance of academic integrity, equity in access, and the need to develop critical-reflective digital skills in both teachers and students. Likewise, it advocates for a training approach that is not only instrumental but also critical, ethical, and reflective, ensuring that artificial intelligence is at the service of justice and responsible professional development.

Keywords: Artificial Intelligence; Virtual Reality; Teaching Methodology; Law; Innovation; Ethics; Integrity.

RESUMEN

El Derecho, como área del conocimiento, tradicionalmente asociada con el formalismo, la rigidez conceptual y la resistencia al cambio, ha sido históricamente reticente a incorporar innovaciones tecnológicas en sus métodos de análisis, interpretación y aplicación. Sin embargo, el vertiginoso desarrollo de la inteligencia artificial (IA) y su creciente impacto en todas las esferas del quehacer humano ha comenzado a tensionar esta resistencia, exigiendo una adaptación urgente por parte de los sistemas normativos y, especialmente, de las instituciones formadoras de profesionales del Derecho. El ámbito educativo, y en particular la enseñanza del Derecho enfrenta hoy, el desafío de abandonar enfoques exclusivamente tradicionales para incorporar nuevas metodologías centradas en la tecnología y la innovación. Este trabajo propone una reflexión crítica sobre la necesidad de integrar herramientas basadas en inteligencia artificial

en el proceso de enseñanza-aprendizaje del Derecho, con el fin de preparar a los futuros abogados para un entorno profesional cada vez más permeado por tecnologías emergentes. Al respecto, se destacan las oportunidades formativas que ofrecen estas herramientas, pero también se identifican importantes desafíos éticos, pedagógicos e institucionales que deben ser considerados para garantizar una implementación responsable. Se enfatiza, en la necesidad de incorporar estas tecnologías teniendo en consideración, el rol fundamental que debe desempeñar el ser humano, la importancia de la integridad académica, la equidad en el acceso, y la necesidad de desarrollar competencias digitales crítico-reflexivas tanto en docentes como en estudiantes. Asimismo, se aboga por un enfoque formativo que no solo sea instrumental, sino también crítico, ético y reflexivo, garantizando que la inteligencia artificial esté al servicio de la justicia y del desarrollo profesional responsable.

Palabras clave: Inteligencia Artificial; Realidad Virtual; Metodología de Enseñanza; Derecho; Innovación; Ética; Integridad.

INTRODUCTION

Law is dynamic because it constantly evolves as societies face new challenges that require solutions from a legal perspective, aimed at ensuring peaceful coexistence. In this context, recent phenomena such as the expansion of the internet, the global development of telecommunications, the rise of social networks, and the massive processing of personal data have put pressure on the traditional frameworks of the legal system. These transformations, many of which were unforeseen in the original configuration of regulatory systems, have required complex responses from different national contexts, accompanied by significant international cooperation efforts aimed at adapting regulations to a profoundly changing reality.

However, artificial intelligence surpasses human intelligence in terms of impact and complexity. Therefore, since the launch of *ChatGPT* by *OpenAI* in November 2022, the availability and free access to tools of this kind have become widespread globally. Their ability to generate content from various sources of knowledge has opened up uncharted territory in many fields, including, of course, legal education. However, this scenario has given rise to several relevant issues, including conflicts related to intellectual property, concerns about the potential compromise of fundamental rights that could result from the indiscriminate use of these technologies, ethical dilemmas associated with their implementation in certain areas, and risks to the academic integrity of both teachers and students.

In this largely unexplored territory, it is worth noting that the law is beginning to make tentative and predominantly reactive discoveries, highlighting that it has already given rise to various regulations in different legal systems and jurisdictions. Among the most relevant efforts are the recommendations issued by UNESCO, the Beijing Agreement on Artificial Intelligence, which led to the document Planning Education in the Age of Artificial Intelligence: Steering the Progress,[(1)] and, more recently, the regulation approved by the European Parliament to regulate the use of AI.[(2)] However, this paper proposes taking two steps back to examine a dimension prior to the regulatory level: the training of those who will practice law in the future and their relationship with these tools, both throughout their educational careers and in their subsequent professional performance.

It is no secret that the teaching of law remains markedly traditional in many faculties worldwide. To a large extent, legal sciences are characterized by their conservative nature and a structural resistance to adopting drastic changes in their methods or content. Substantive innovations within the field are also uncommon. For this reason, the classic image of the lawyer as a professional dedicated to the study of law persists in the collective imagination. However,

law transcends this reductionist view, as jurists are fundamentally concerned with human relations and how they should be regulated to ensure harmonious social coexistence.

Artificial intelligence has been met with suspicion in large sectors of the academic world, where it has even been labeled a "plague" due to its misuse by students and the threat it poses to academic integrity.[3] From a legal perspective, this mistrust is accentuated by both the obvious technical distance that exists regarding the functioning of these technologies and the possibility that their application may generate disruptions or anomalies in legal systems, particularly in contexts not foreseen by favorable legislation.

Part of this reluctance is related to the lack of explainability in the data analysis and generation processes executed on these platforms. In fact, the algorithmic models that underpin the functioning of artificial intelligence are often considered "black boxes". Barredo et al.[4], as it is not possible to know the information that is being processed. However, there is no clear and verifiable understanding of the procedure by which the response is generated. This situation is analogous to what happens daily with search engines such as Google or virtual assistants like Siri, where a result is obtained without knowing the technical details of the process that gave rise to it.[5]

The perception of the university community worldwide regarding the use of *ChatGPT* is relevant in the current context. According to a study conducted in higher education institutions in Australia, New Zealand, the United States, and the United Kingdom, the main concerns related to the use of artificial intelligence tools focus on three aspects: academic integrity, opportunities to foster educational innovation, and the potential of these technologies to promote the participation of students from socioeconomically disadvantaged backgrounds.[6]

In this scenario of digital transformation, the incorporation of concepts, resources, and constant interaction with AI tools in the training process of future lawyers cannot be understood as a simple added value or an accessory component. On the contrary, it is an essential skill that must be integrated across the legal training curriculum, considering the highly technological professional environment that these graduates will face.

Artificial intelligence literacy, along with the ability to engage critically and ethically with these technologies, is a key skill for competent and contextualized professional practice. In this vein, Susskind[7] argues that the lawyers of the future will have to become "hybrid" professionals, that is, capable of combining their legal knowledge with technological and innovation skills to perform effectively in increasingly automated legal systems.

This situation has a historical precedent in the early 21st century, when judicial processes began to be digitized. As a result, the use of electronic media in administrative and judicial proceedings expanded. At that time, legal professionals who did not become familiar with these technological transformations during their academic training experienced serious disadvantages compared to those who did.

This functional gap, far from being minimized or, at best, closed, could be accentuated by the massive incorporation of artificial intelligence in the legal field, unless training institutions take a leading role in updating and renewing their pedagogical strategies. In this regard, García-Peñalvo[8] emphasizes that the actual contribution of these technologies to educational processes is not limited to their technical use, but instead to their ability to enhance higher cognitive skills, such as critical thinking, source evaluation, and the formulation of appropriate questions.

A fundamental step in this process will be to overcome initial mistrust and actively explore this new technological territory, incorporating AI-based tools as an integral part of professional training from the earliest stages of learning law. This approach will familiarize students with complex digital environments and contribute to the formation of a more innovative academic culture. However, for this transformation to occur effectively, a clear institutional commitment from universities is required. Even more challenging, according to Bracho Fuenmayor,[9] is generating commitment among academic bodies to update their pedagogical and technological

skills, which leads to the cultural change required for legal education to be adapted to the current times.

The role of the academic body, as a training agent, is crucial in ensuring a practical and relevant educational process that aligns with contemporary challenges. For this reason, tools based on artificial intelligence must first be understood and adopted by teachers. Only then will it be possible to consciously and strategically integrate them into teaching methodologies that enable the learning outcomes defined in the study programs to be achieved. This incorporation must be based on the skills stated in the curricula, which require not only technical updating but also pedagogical reflection on the meaning, limits, and potential of these technologies in the classroom where legal sciences are taught.

Furthermore, it is essential to rethink traditional methods of teaching law and incorporate approaches that promote critical and reflective thinking, contextualize knowledge, and facilitate meaningful assessment. In addition, the model of knowledge dialogue proposed by Bracho-Fuenmayor[10] represents a disruptive tool for renewing teaching practice, as it promotes a horizontal relationship between students, teachers, and legal knowledge, facilitating a more comprehensive and situated understanding of law. Its implementation, mediated by technologies such as artificial intelligence, can contribute to a profound transformation of pedagogical practices in law schools.

At a later stage, it is essential to recognize the profound transformation and even crisis currently being experienced by the legal profession, particularly in relation to specific functions that AI is progressively assuming. Routine, mechanical, or repetitive activities, as well as those involving massive data analysis or standardized problem-solving, are automated.

As a result, tasks that were historically the exclusive responsibility of lawyers, such as drafting simple documents, basic case law research, or classifying legal information, are beginning to be handled by automated systems. It is noteworthy that this functional substitution not only redefines the professional profile of lawyers but also raises ethical and strategic questions about the future of legal practice in an environment increasingly dominated by intelligent technologies.

The technological transformation process described *above* is not a recent development; for several decades, the possibility of incorporating artificial intelligence systems into various areas of legal practice, including the judicial function, has been recognized. Susskind[11] was one of the first to anticipate the application of expert systems to judicial decision-making, which early on revealed a trend toward automating specific tasks. However, with the emergence of tools such as *ChatGPT* and other generative artificial intelligence (GAI) platforms, the pace of change has accelerated exponentially, creating an unprecedented scenario in terms of both the speed of implementation and the scope of impact.

Faced with this new landscape, it is imperative to adjust legal training processes urgently. It is not enough for future lawyers to be aware of these changes: they must become active, critical, and strategic users of these technologies, capable of integrating them ethically and efficiently into their professional practice. Assuming this new role involves reflecting on and rethinking both curriculum content and teaching methodologies to prepare students to function competently in a legal environment that is increasingly mediated by technology. Only with this preparation will they be able to successfully and assertively face the challenges posed by the legal profession in the 21st century.

DEVELOPMENT

From The Traditional Classroom To The Smart Classroom: AI-Based Teaching Assistants And New Skills In Legal Education

One of the most innovative proposals in the field of legal education is the incorporation of AI-based teaching assistants. This initiative aims to transform traditional methodologies by utilizing

emerging technologies that complement academic work. In particular, the personification of these assistants through the use of humanoid avatars has been proposed. Programmed with specific pedagogical criteria, these avatars can assume certain functions in the teaching-learning process in legal settings. This type of innovation represents a significant advance in strengthening teaching, generating consistency in the training process, as addressed *above*, in which artificial intelligence is projected not only as a support tool but also as an active agent in the construction of new educational experiences.

As a complement to teaching, this AI-powered avatar will be able to assume various roles within the training process, contributing to the improvement of educational quality and providing students with an alternative perspective on the content. Its implementation is not intended to replace teachers, but rather to expand pedagogical possibilities through interaction with a virtual assistant that operates based on a rigorously selected set of legal sources.

In effect, the academic responsible for each subject will determine the fundamental materials, such as required reading, study guides, notes, presentations, and other complementary resources, which will form the knowledge base from which the AI tool will generate its responses. In this way, the aim is to ensure that the content delivered is consistent with the course objectives and meets pre-established academic criteria.

In this context, the integration of AI-based teaching assistants will contribute to the generation of various products that support the educational process. These include questions for assessments, summaries of the most relevant content from a book, a book chapter, and/or a scientific article, glossaries of key legal terms, and question-and-answer forms, among other resources. These tools will not only strengthen learning from a substantive and conceptual perspective but also promote the progressive and critical incorporation of technological tools into the academic environment. Thus, their use will contribute to the development of digital and ethical skills in students, encouraging reflective interaction with these emerging technologies.

The possibility of establishing real-time interaction between students and a humanoid avatar, emulating the traditional teacher-student dynamic in a structured way, stands out as one of the most significant advances in the teaching of legal sciences. This form of interaction opens up new methodological opportunities. However, the behavior of the virtual assistant must be carefully parameterized, with a rigorous review of the knowledge bases that feed its operation, to avoid misinformation and hallucinations.

Under the aforementioned conditions, it is feasible for such an avatar to take on specific functions in the educational process, such as conducting reinforcement sessions or addressing basic content through direct dialogue with students. This modality constitutes valuable complementary support, especially in environments where personalized accompaniment is limited by factors such as time or teacher availability.

Notwithstanding the above, it is essential to recognize that these artificial intelligence tools should be understood solely as complements to the work of teachers and can in no case replace direct interaction between students and faculty. Their incorporation challenges traditional teaching models, making it necessary to rethink the methodologies used in light of this new scenario, exposing them to questioning by traditional law schools. However, the goal is to develop innovative pedagogical approaches that maximize benefits while minimizing the risks associated with their use,[1] thus promoting a virtuous circle in the relationship between the university community and AI.

The proposal for real-time interaction with AI-based assistants poses two main challenges. The first is the need for academics to acquire in-depth knowledge about these tools and their pedagogical potential. This requires adequate training that not only dispels myths and mistrust surrounding AI, but also develops specific skills for its correct implementation in the teaching-learning process. These training sessions must go beyond simple technical induction, focusing on the development of skills that foster innovation in curriculum planning.[12]

Only with solid knowledge on the part of the academic body will it be possible to adequately parameterize the behavior of the avatar linked to artificial intelligence. This training process requires a rigorous selection of sources of information from which the results will be generated, in order to avoid the use of unverified content that could mislead students or generate false information. In this scenario, both the role of the teacher and that of the student are transformed: while the former must develop skills related to programming, curating, and supervising the system, the latter must acquire skills related to formulating precise questions and critically evaluating the answers obtained.

A critical aspect in the programming and training of AI tools is the potential for reproducing biases. In the case of models like *ChatGPT*, information processing does not consider ethical criteria to distinguish between right and wrong or between true and false. Its operation is based on the massive collection of data available on the internet, which can lead to responses built on biased or unverified information. For this reason, if the sources have not been rigorously selected, the original biases will likely be perpetuated. Consequently, a critical analysis of the results generated by these tools becomes essential.[13]

In support of this argument, transparency becomes essential for building trust in the use of artificial intelligence tools in educational settings, making it necessary to ensure the availability of complete information about the content generation process: the sources used, the configuration parameters, the context applied, and all the elements that determine the behavior of the system. This enables us to comprehend how the tool functions and assess the quality and relevance of its responses.[14]

The second major challenge corresponds to a new skill that students must develop: the ability to formulate practical questions, or *prompts*. In these digital environments, the successful use of AI-based tools and the quality of the responses generated depend primarily on the precise formulation of questions. To obtain relevant results, it is essential to include contextual elements such as the purpose of the query, the target audience, and the role to be assumed by the content generator, among other factors that strengthen the process. According to Lopezosa et al.[15], different types of *prompts* can be distinguished: a) reactive; b) structural; c) role-based; d) audience-specific; and e) goal-oriented.

Prompts can be structured in various ways, including as a single broad message that integrates all the information relevant to generating the response, known as *a megaprompt*. Another alternative is to divide the query into a sequence of specific instructions that address different steps or stages of the process, known as a cascade of *prompts*. Regardless of the approach used, lawyers of the future will need to incorporate this skill, since without proper formulation, even with the willingness to use these technological tools, the results obtained will be limited and of little use for professional practice.

A relevant complementary aspect is the ability of students to distinguish, within the vast universe of data and sources that feed AI-based tools, which information is accurate and which is not. In this sense, the question posed in the context of the Turing test gains strength: can machines think? As in this experiment, students must develop critical skills that enable them to evaluate the reliability of answers provided by these platforms and distinguish between reliable and misleading content.

Thus, the memorization of rules—a skill traditionally associated with the practice of law—is giving way to an increasingly relevant competency, namely the ability to verify the accuracy of information presented as valid. This aspect is essential, especially in the use of AI tools based on natural language generation, where there is a high risk of assuming as rational responses that, although they appear coherent, may be illusory.

As Bender et al.[16] warn, these platforms do not understand the content they generate, so the reader ultimately provides the meaning. It is therefore essential that future lawyers develop critical discrimination skills in relation to this type of result. Indeed, understanding

that the generation of responses through artificial intelligence is a process of systematization based on probabilities, and not conscious reasoning similar to that developed by humans, is a key element in promoting the responsible use of these tools, both in academic training and in *subsequent* professional practice.

Along the same lines, UNESCO has drawn up a series of preliminary recommendations for the implementation of *ChatGPT* and artificial intelligence in higher education, with regard to their use.[13] These guidelines are based on a key question: Is the accuracy of the result decisive? If the answer is yes, its use is recommended. If the answer is no, a second question arises: Does the user have sufficient experience to verify the accuracy of the result? If the answer is also no, using the tool is not advisable. If, on the other hand, the answer is yes, a final question arises: are they willing to take responsibility for any inaccuracies that may arise? Only if this answer is also positive is the use of *ChatGPT* considered appropriate, always with the commitment to verify the accuracy and common sense of the content generated.

The incorporation of artificial intelligence tools into educational processes requires us to critically rethink and reflect not only on teaching methodologies but also on learning assessment mechanisms. In this new context, traditional summative assessment tools, which focus exclusively on measuring final results, prove insufficient for fostering key competencies such as critical analysis, complex questioning, and source evaluation —essential for the effective use of AI. Therefore, it is necessary to move toward authentic and integrative assessments that consider the ethical and thoughtful use of these tools.

In line with this idea, García-Peñalvo[8] argues that artificial intelligence tools can make significant contributions to teaching and learning processes if they are incorporated to develop skills such as comparing sources, critically interpreting information, or the ability to ask relevant questions. However, he also warns that their use must be regulated appropriately, especially when the aim is to strengthen specific competencies, as is the case in other areas of knowledge where the use of specific instruments is limited in order to promote the development of fundamental cognitive skills. Therefore, integrating AI into educational assessment implies accepting its presence and designing strategies to ensure meaningful learning.

Ultimately, critical thinking assumes central importance as an essential skill in this new educational landscape, characterized by the integration of artificial intelligence-based tools. This ability, which involves discerning between truthful and misleading information, as well as verifying the reliability of sources, is indispensable for the responsible and thoughtful use of these technologies. Although this is not a new skill, noting that it has always been present in rigorous training processes, its relevance and urgency are amplified by the widespread access to automated content generation systems, often used without adequate preparation.

Based on the above, and following Martínez-Pinto et al.[17], critical thinking can no longer be understood as an optional cross-cutting skill, but rather as a structural axis of complexity in contemporary legal education, capable of safeguarding academic and professional integrity in the face of the ethical, axiological, ontological, epistemological, and social challenges posed by the use of artificial intelligence in education and in the practice of law.

New frontiers in professional legal education: immersive simulation and the metaverse

An innovative alternative for enriching the teaching and learning process in law through emerging technologies is the use of simulated environments in immersive virtual spaces, particularly through the Metaverse. This tool should not be viewed as a simple extension of the traditional virtual classroom, limited to the transmission of content or asynchronous interaction, but rather as a platform designed to recreate realistic scenarios that foster transformative pedagogical experiences. Its purpose is to foster the creation of training spaces in which students actively participate, interact with complex visual and auditory elements, and engage in dynamics typical of professional practice in the legal field. This immersion strengthens

theoretical understanding and enhances the development of practical skills essential for acting in real legal contexts.[12]

Specifically, it aims to recreate judicial spaces through realistic replicas, where experiences similar to those that occur in spaces such as courtrooms or superior courts can be simulated, with the firm purpose of developing simulated litigation and practices that faithfully reproduce the quasi-real conditions of professional law practice. This type of experience promotes the understanding and retention of procedural aspects that, in many cases, are not expressly regulated but are part of the customary practices of each court. Thus, students who access these immersive environments gain a significant pedagogical advantage over those who have been trained exclusively from a theoretical perspective, without direct experience of judicial dynamics.

In addition, immersive environments enable the simulation of litigation between students located in different geographical areas, thereby increasing the realism of the experience by incorporating real adversaries with an equivalent level of training. This dynamic not only enriches interaction but also promotes collaboration between different law schools, creating a space for inter-institutional academic exchange. Students are exposed to diverse teaching methodologies and heterogeneous legal approaches, which promote the development of intercultural skills, critical thinking, and adaptability.

Consequently, these practical experiences strengthen technical knowledge of law and broaden contextual understanding of its application in different regulatory and cultural frameworks, contributing to a more comprehensive and versatile professional education that is aligned with the demands of legal practice in a globalized and digitally connected environment.

The integration of legal simulations in immersive environments not only enhances the development of practical skills but also helps reduce anxiety levels and strengthen students' confidence during training. By participating in experiences that realistically replicate judicial scenarios, future legal professionals prepare themselves both cognitively and emotionally to face complex situations in the professional practice of law.

This practical approach enables progressive familiarization with the fundamental dynamics of the judicial system, thereby reducing the potential impact on their professional performance. Recent research has demonstrated that well-designed virtual simulations foster active learning, enhance self-confidence and self-efficacy, and significantly reduce stress in evaluative contexts or highly demanding professional situations.[18]

Immersive environments also offer relevant opportunities in terms of pedagogical inclusion, as they enable the isolation of external stimuli and provide a safe space for students who have difficulties interacting directly with their peers or academics. Mediation through these digital interfaces represents an innovative tool for educational support and for the implementation of more contextualized and adaptive assessment instruments. Through the scenarios provided by the metaverse, it is possible to observe and assess competencies in situations that closely resemble professional reality, thereby integrating more comprehensive criteria for measuring the teaching and learning process.

Although these activities promote learning through error, it is necessary to avoid a permissive view associated with the perception that, because these are "non-real" environments, the consequences of performance are irrelevant. The possibility of repeating indefinitely can weaken prior preparation, detracting from the value of rigorous rehearsal and strategic learning planning. Therefore, simulations must be designed with pedagogical criteria that involve training consequences comparable to professional practice, thus maintaining student commitment and responsibility in each instance. This approach fosters a reflective, rigorous, and ethical attitude in legal training, allowing the virtual experience to be not only a space for practice but also an effective tool for consolidating professional skills.

In conclusion, incorporating the metaverse into legal education enables the creation of

highly realistic, multisensory, and action-centered learning environments that foster active student participation and the development of cross-cutting skills essential for professional practice in the legal field. By combining practical elements with critical-reflective thinking and meaningful assessment, these virtual experiences strengthen skills such as decision-making, legal argumentation, and conflict resolution in simulated but realistic contexts. Additionally, they promote more ethical, inclusive, and contextually relevant training, in line with the demands of the contemporary legal environment. Thus, the metaverse not only expands the available pedagogical resources but, according to Cándano et al.[19], redefines the way learning is constructed in the legal sciences.

Ethics, integrity, and responsibility in the educational use of artificial intelligence

Many of the concerns regarding the use of artificial intelligence in higher education are linked to the ethical challenges posed by its implementation. UNESCO (2021) emphasizes in its recommendations on ethics in artificial intelligence that ethical considerations must be addressed throughout the entire life cycle of these technologies, from their design and development through financing, data storage and use, to their deactivation or disposal. This comprehensive approach necessitates a profound reflection on institutional and professional responsibility at every stage of the process, ensuring that the integration of these tools into educational environments is carried out with full respect for human rights, equity, and the fundamental values that should guide all pedagogical practices.

Each stage of the development and implementation of AI-based tools involves specific ethical considerations that must be carefully addressed to prevent misuse. In the design phase, *for example,* one of the main risks is the reproduction of biases present in the data used to train the algorithms. If rigorous control and review mechanisms are not adopted, these biases, according to Bracho-Fuenmayor et al.[21], can be perpetuated and even amplified, negatively affecting equity and justice in the contexts where they are applied. According to Bracho Fuenmayor[22], this ethical challenge requires informed and critical decision-making by development teams, as well as active supervision by educational institutions that integrate these technologies into their teaching-learning processes.

The aforementioned need for active supervision also requires strengthening professional ethics in the university context, understood as a cross-cutting pedagogical practice that guides educational processes from a humanistic perspective. As Bracho-Fuenmayor[23] points out, ethics in higher education must be assumed as a normative principle and as an institutional responsibility linked to well-designed public policies, ongoing teacher training, and a commitment to an educational culture centered on dignity and the comprehensive development of the human being.

Another critical aspect in the ethical debate on the use of AI in higher education is the digital divide that may arise around access to and use of these technologies, with the economic component having a substantial impact, mainly when platforms operate under subscription or payment models that exclude sectors with lower purchasing power. It can also manifest itself as a cognitive or educational barrier, linked to a lack of skills to use these tools properly, which is related to digital literacy. This inequality of access not only limits opportunities but also deepens pre-existing structural disparities. In this sense, we agree with Barredo et al.[4] that it is necessary to seriously address phenomena such as the lack of explainability of AI systems or the opaque functioning of so-called “algorithmic black boxes.”

The processing of personal data is a fundamental issue in the discussion on the ethical use of artificial intelligence. Given that much of the functionality of these tools relies on massive data processing, it is common for sensitive personal information to be incorporated into these systems. Therefore, ensuring adequate storage, together with effective mechanisms for protection and responsible use, becomes imperative.

For its part, the violation of the aforementioned principles can jeopardize fundamental rights, such as privacy, informational self-determination, or identity protection. Consequently, one of the most significant ethical challenges facing AI developers and user institutions is to implement protocols that robustly protect the rights of data subjects throughout the entire lifecycle of these technologies.

In this regard, there have already been cases in which AI, such as *deepfakes*, has been used to generate pornographic content without the consent of the individuals involved, disproportionately affecting women. In many cases, their faces are taken from images available online and digitally manipulated to integrate them into fake intimate material.

According to Hidalgo[24], approximately 96 % of this type of content victimizes women, which has led to this practice being considered a new expression of gender-based violence. This phenomenon poses serious ethical and legal challenges, which are reflected in the development and regulation of emerging technologies, requiring a decisive response from regulatory and educational frameworks to prevent its abusive use and protect fundamental rights.

In the field of education, most ethical concerns focus on academic integrity. The use of artificial intelligence has raised concerns about plagiarism and the potential for obtaining results without the corresponding intellectual effort, thereby undermining the foundations of the educational process. In response, various higher education institutions have chosen to restrict or even prohibit the use of these tools. However, considering the rapid pace at which AI is being integrated into multiple spheres of everyday life, it is becoming increasingly complex to exclude it from the educational sphere. Therefore, rather than shying away from its presence, the challenge lies in its critical and responsible incorporation, in a way that enhances learning without jeopardizing the ethical principles that govern professional training.

Therefore, incorporating artificial intelligence tools into legal education, from an ethical and critical-reflective perspective, is a necessary step that aligns with the professional environment future lawyers will face. This integration cannot be isolated or improvised: it requires the modernization of educational environments, the continuous training of teachers, the revision of assessment tools, and, in particular, constant attention to preserving the validity of the ethical principles that should guide the use of these technologies. The coordinated adoption of these actions enhances the quality of the educational process. It can become a hallmark of those higher education institutions that choose to lead the pedagogical transformation in the digital age.

UNESCO[20] proposes a series of fundamental values that should guide the responsible use of artificial intelligence. According to Del Solar-Duarte et al.[25], these include: a) respect, protection, and promotion of human rights, fundamental freedoms, and human dignity; b) environmental and ecosystem prosperity; c) guarantee of diversity and inclusion; and d) promotion of peaceful, just, and interconnected societies. In addition, it establishes ten guiding principles that should guide the entire life cycle of AI systems: 1) proportionality and harmlessness; 2) safety and security; 3) fairness and non-discrimination; 4) sustainability; 5) right to privacy and protection of personal data; 6) transparency and explainability; 7) human oversight and decision-making; 8) awareness and education; 9) responsibility and accountability; and 10) adaptive governance and multi-stakeholder collaboration. These values and principles constitute an essential ethical framework for implementing education.[26]

In short, the use of artificial intelligence in the specific field of education must be incorporated with an ethical approach that guarantees its responsible application. This integration must be carried out with absolute respect for the values and principles that guide its development and use, especially in educational contexts. In this sense, it is of paramount importance to conceive of AI as a tool created to serve human beings, aimed at enhancing their capabilities and not replacing them. This view is shared by UNESCO[1], which emphasizes the importance of applying these technologies from a humanistic perspective, ensuring that human dignity, equity, and the

integral development of individuals are always at the center of any technological innovation process.

CONCLUSIONS

Artificial intelligence-based platforms and tools have become an inescapable reality that has profoundly transformed the way we interact with technology and its influence on multiple dimensions of human activity. Education is no stranger to this transformation; on the contrary, the emergence of AI has generated profound questioning of traditional teaching methods, the skills stated in curricula, expected learning outcomes, and the instruments used to assess them. In this scenario, a structural rethinking of professional training is required, especially in the legal field, aimed at adapting teaching to the demands of the new technological ecosystem. This adaptation not only involves the incorporation of digital tools but also the training of professionals capable of facing the challenges of an increasingly automated and globalized environment with judgment, ethics, and efficiency.

In the field of law, artificial intelligence-based tools represent a strategic opportunity to strengthen teaching and optimize student learning. Their integration should not be conceived as a replacement for the teacher's role, but rather as a complement that, when used with a defined pedagogical purpose, will enrich the educational experience.

The incorporation of virtual assistants or digital teachers enables the diversification of teaching strategies, personalization of content, and the assumption of new pedagogical roles focused on autonomous learning. When their application is framed within a methodologically sound and ethically grounded plan, a virtuous circle is generated between traditional teaching and technological innovation, fostering a more dynamic and reflective legal education that aligns with the contemporary demands of professional practice.

Similarly, the development of virtual environments using technologies such as the metaverse opens up a horizon of active and immersive learning, in which students can interact in scenarios that replicate real professional spaces, such as courtrooms or tribunals. These simulations encourage the practical appropriation of legal knowledge and strengthen essential skills such as argumentation, emotional control, conflict management, and decision-making under pressure.

Furthermore, these types of environments are inclusive pedagogical tools, capable of offering opportunities for participation and evaluation to students who face difficulties with direct interaction. Thus, the metaverse not only expands teaching methods but also contributes to democratizing access to legal training, promoting a more equitable and diverse education that is tailored to the diverse realities of the student body.

Consequently, the early integration of artificial intelligence-based tools into the training of lawyers is crucial for developing complementary skills that enhance their ethical, critical, and practical professional performance. However, this process requires a firm commitment from higher education institutions, accompanied by a proactive and formative attitude from the academic body.

The incorporation of innovative methodologies based on AI must be carried out in a manner that continuously reflects on their ethical, social, and legal implications, ensuring a responsible and transparent implementation, with respect for the fundamental values that underpin the practice of law as a guiding principle. Only in this way will it be possible to train professionals capable of critically coexisting with artificial intelligence and using it in the service of justice, equity, and the common good.

Ultimately, any development associated with artificial intelligence must prioritize human beings at its center, both in purpose and design. Its ultimate goal must be to enhance human capabilities, improve quality of life, and promote collective well-being. Technology that disregards an ethical, humanistic perspective and respect for dignity runs the risk of distorting its meaning and rendering it less valuable. Therefore, all AI implementations must be guided by

the principles of equity, transparency, explainability, verifiability, and protection of fundamental rights. Only under these conditions can its evolution be guaranteed to remain aligned with the essential values of a democratic, just, and people-centered society as the axis of progress and social justice.

BIBLIOGRAPHICAL REFERENCES

1. Unesco. Consenso de Beijing: Conferencia Internacional sobre la Inteligencia y la Educación. Planificación de la educación en la era de la inteligencia artificial: Dirigir los avances. UNESCO; 2019.

2. Parlamento Europeo. Aprueba texto mediante el cual se establecen normas armonizadas en materia de inteligencia artificial. 2024. https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138-FNL-COR01_ES.pdf

3. Weissman J. ChatGPT is a plague upon education. Inside Higher Ed. 2023. https://www.insidehighered.com/views/2023/02/09/chatgpt-plague-upon-education-opinion

4. Barredo A, Díaz-Rodríguez N, Del Ser J, Bennetot A, Tabik S, Barbado A, García S, Gil-Lopez S, Molina D, Benjamins R, Chatila R, Herrera F. Explainable Artificial Intelligence (XAI): Concepts, taxonomies, opportunities and challenges toward responsible AI. Inf Fusion. 2020;58:82–115. https://doi.org/10.1016/j.inffus.2019.12.012

5. Giró-Gracia X, Sancho-Gil JM. La inteligencia artificial en la educación: Big data, cajas negras y solucionismo tecnológico. Rev Latinoam Tecnol Educ. 2022;21(1):129–145. https://doi.org/10.17398/1695-288X.21.1.129

6. Sullivan M, Kelly A, McLaughlan P. ChatGPT in higher education: Considerations for academic integrity and student learning. J Appl Learn Teach. 2023;6(1). https://doi.org/10.37074/jalt.2023.6.1.17

7. Susskind R. Tomorrow's lawyers: An introduction to your future. 2nd ed. Oxford University Press; 2019.

8. García-Peñalvo FJ. La percepción de la inteligencia artificial en contextos educativos tras el lanzamiento. Educ Knowl Soc. 2023;24:e31279. https://doi.org/10.14201/eks.31279

9. Bracho Fuenmayor PL. Gerencia y educación superior desde la perspectiva de la neurociencia. Interacción Perspect. 2022;12(2):100-121. https://zenodo.org/records/7114562

10. Bracho-Fuenmayor PL. Diálogo de saberes como método disruptivo en enseñanza-aprendizaje y evaluación del derecho a través de la investigación. Rev Pedagogía Univ Didáctica Derecho. 2025;12(1):141–160. https://doi.org/10.5354/0719-5885.2025.75475

11. Susskind R. Expert systems in law: A jurisprudential approach to artificial intelligence and legal reasoning. Mod Law Rev. 1986;49(2):168–194. https://doi.org/10.1111/j.1468-2230.1986.tb01683.x

12. Ruiz G. Educación en transformación: Metaverso, inteligencia artificial y el futuro de la academia. Atena. 2024. https://doi.org/10.22533/at.ed.891242503

13. Sabzalieva E, Valenzuela A. ChatGPT e inteligencia artificial en la educación superior: Guía de inicio rápido. Instituto Internacional de la UNESCO para la Educación en América Latina y el Caribe; 2023. https://unesdoc.unesco.org/ark:/48223/pf0000385146_spa

14. Universidad Nacional Autónoma de México. Recomendaciones para el uso de inteligencia artificial generativa en la docencia. UNAM; 2023.

15. Lopezosa C, Codina L. Inteligencia artificial y métodos cualitativos de investigación: ChatGPT para revisiones de la literatura y análisis de entrevistas semiestructuradas. Taller Jornada: IA para principiantes, Barcelona. 2023. http://eprints.rclis.org/44296/1/IA-ACADEMICO-CHATGPT%20ATLAS-SCOPING-2023_vf-2.pdf

16. Bender EM, Gebru T, McMillan-Major A, Shmitchell S. On the dangers of stochastic parrots: Can language models be too big? Proc 2021 ACM Conf Fairness Account Transp. 2021:610–623. https://doi.org/10.1145/3442188.3445922

17. Martínez-Pinto P, Bracho-Fuenmayor P, Pulido-Iparraguirre C, Guillén de Romero J. Actuar con integridad académica: las prácticas deshonestas, crisis valórica en educación universitaria. Rev Boletín Redipe. 2024;13(3):113-136. https://doi.org/10.36260/rbr.v13i3.2094

18. Makransky G, Mayer RE. Benefits of taking a virtual field trip in immersive virtual reality: Evidence for the immersion principle in multimedia learning. Educ Psychol Rev. 2022;34:1771–1798. https://doi.org/10.1007/s10648-022-09675-4

19. Cándano M, Del Solar-Duarte N, Remeseiro R, Bracho-Fuenmayor P, Baeza C, Guzmán M. Aprendizaje basado en el uso de herramientas de IA: experiencia de Realidad Aumentada en la asignatura de "Nociones de Economía" con estudiantes de Derecho de la Universidad Tecnológica Metropolitana del Estado de Chile. Rev Educ Derecho. 2024;2 Extraordinario:331-353. https://doi.org/10.1344/REYD2024.2-Extraordinario.49196

20. Unesco. Recomendación sobre la ética de la inteligencia artificial. UNESCO; 2021.

21. Bracho-Fuenmayor PL, Arcia-Hernández P, Pérez-Vargas RM, Espíritu-Martínez AP, Abad-Paguay AV, Cahuana-Tapia RD, et al. Algorithmic Regulation, Justice, and Labor Competitiveness: The Impact of the Artificial Intelligence Regulation in Latin America. J Posthumanism. 2025;5(7):1594–1608. https://doi.org/10.63332/joph.v5i7.2947

22. Bracho Fuenmayor PL. Docencia e investigación, binomio de acción en el escenario universitario. Espac Abierto. 2023;32(1):97-117. https://doi.org/10.5281/zenodo.7776008

23. Bracho-Fuenmayor PL. Ética y moral en la Educación Superior. Una revisión bibliométrica. Rev Cienc Soc. 2024;30(3):553–568. https://doi.org/10.31876/rcs.v30i3.42695

24. Hidalgo N. Deepfakes: Violencia basada en género en la era de la inteligencia artificial. Banco Interamericano de Desarrollo. 2023. https://blogs.iadb.org/igualdad/es/deepfakes-violencia-basada-en-genero-inteligencia-artificial/

25. Del Solar-Duarte N, Bracho-Fuenmayor P. Utilización de herramientas de inteligencia artificial en la enseñanza del Derecho: propuestas y reflexiones. En: Torres Manrique, Jorge, director. La transformación de la inteligencia artificial. 1st ed. JM BOSH Editor; 2024.

26. Saygin AP, Cicekli I, Akman V. Turing test: 50 years later. Minds Mach. 2000;10(4):463–518. https://doi.org/10.1023/A:1011288000451

FUNDING

None.

CONFLICT OF INTEREST

None.

AUTHOR CONTRIBUTION

Conceptualization: Pedro Luis Bracho-Fuenmayor.
Data curation: Pedro Luis Bracho-Fuenmayor.
Formal analysis: Pedro Luis Bracho-Fuenmayor.
Writing – original draft: Pedro Luis Bracho-Fuenmayor.
Writing – revision and editing: Pedro Luis Bracho-Fuenmayor.