Journal of Indonesian Legal Studies Vol. 10 Issue 1 (2025) 555-588 DOI: https://doi.org/10.15294/jils.v10i1.19338

Online since: October 2, 2025



ChatGPT and Legal Education in Indonesia: Examining Readiness and Implications

Haekal Al Asyari ^{a,c}⊠[®], Hanif Abdul Halim ^b®, Rachelle Amadea Roselynn Nikita Tan ^c®

^a Marton Géza Doctoral School of Legal Studies,
Faculty of Law, University of Debrecen, Hungary
^b Law and Technology in Europe, Utrecht University, the Netherlands
^c Faculty of Law, Universitas Gadjah Mada, Yogyakarta, Indonesia

☑ Corresponding email: haekal.al.asyari@ugm.ac.id

Abstract

ChatGPT has demonstrated significant development and found practical applications in legal education. Due to its usability, accessibility, and rapid development, ChatGPT is expected to enhance students' and lecturers' experience, improve legal research, personalize learning, and offer real-time feedback and support to students. Some countries have even imposed restrictions on the use of ChatGPT. In Indonesia, ChatGPT has gained significant traction, making it crucial to examine its implications for legal education. This empirical study found that despite optimistic projections in scholarly literature, Indonesian law schools remain skeptical about ChatGPT's role in legal studies and teaching. In terms of readiness, while ChatGPT is actively used in legal research, case and law analysis, legal writing, and examinations, its integration into legal education lacks institutional policies,

curriculum adjustments, and sufficient digital literacy programs. While lecturers have experimented with AI more frequently, students are its primary users. The implications of ChatGPT's use include concerns over plagiarism, academic integrity, and its potential to hinder critical thinking, alongside its limitations in handling complex legal reasoning. However, ChatGPT has already reshaped legal education, influencing students' approaches to legal research, writing, and assessments, as well as lecturers' methods of preparing teaching materials and evaluations. These findings highlight the need for law schools to establish AI governance frameworks, modify assessment methods, and enhance digital literacy to ensure ChatGPT's responsible and effective integration into legal education.

KEYWORDS ChatGPT, Legal Education, Artificial Intelligence

Introduction

I. Generative AI: A New Era in Legal Education & Practice

While Artificial Intelligence (AI) has yet to surpass human decision-makers, there is a forthcoming expectation that AI-powered tools will be capable of predicting case outcomes, facilitating arbitration proceedings, and providing legal services to clients. AI has evolved from its initial capability of playing chess to encompass language processing and information retrieval, exemplified by IBM's Watson, as well as the emergence of personalized chatbots like Siri, Google Assistant, and Alexa.¹ The utilization of AI in specific business domains, such as finance, healthcare, and legal services, has already witnessed extensive adoption, particularly through the use of Q&A chatbots.² In the legal industry, document analysis is assisted by AI in modelling how solicitors think to draw out key findings. "Lexi" was developed to deliver legal documents with a

Bart Custers and Eduard Fosch-Villaronga, "Artificial Intelligence and the Legal Profession," 2022, https://www.academia.edu/36920594/Artificial_Intelligence_and_the_Legal_Profession.

² Custers and Fosch-Villaronga.

³ A privacy bot developed by an Australian Company 'LawPath'.

conversational instant-messaging interface.⁴ IBM's Watsons' "ROSS" provides support to legal advisors with answers to research questions by reviewing relevant law in its systems, as well as gathering evidence and drawing inferences that are evidence-based.⁵ AI also can make clinical negligence analysis and case outcome predictions.⁶ Clearly, AIs have disrupted the legal sector.

As an instrumental prerequisite for legal practitioners, legal education has undergone some significant artificial developments.7 AI is playing an increasingly important role in improving teaching and learning experience for law students and lecturers.8 AI-powered tools and platforms are being used to enhance legal research, personalize learning, and provide real-time feedback and support to students. For example, intelligent tutoring systems (ITS) use machine learning algorithms to analyze student performance data and provide personalized feedback and guidance tailored to each student's needs. Plagiarism checkers, chatbots, and virtual simulations are other examples of AI-powered tools being used in legal education.9

ChatGPT is a part of technological advancements that caught the eyes of the legal sector with its usability, accessibility, and rapid development in its capabilities to aid students, teachers, researchers, and practitioners worldwide. As a language model of artificial intelligence (AI), ChatGPT differs from the general understanding of AI, particularly in terms of its focus and capabilities. While an AI language model is specifically designed to produce text that resembles human conversation,10 AI, in general, encompasses the development

Custers and Fosch-Villaronga, "Artificial Intelligence and the Legal Profession."

Judith Bennett et al., "Current State of Automated Legal Advice Tools," 2018, https://networkedsociety.unimelb.edu.au/research/projects/2016/future-ofwork/regulating-automated-legal-services.

Bennett et al.

Specifically in public legal education, Cambridge and Lawbot worked together in developing a system that helps people to understand legally complex problems associated with major criminal offences in English and Welsh Law, and to decide which available action to pursue with a qualified solicitor.

Daniel Goldsworthy, "The Future of Legal Education in the 21st Century," Adelaide Law Review 41, (2020): 243-65, no. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3007972.

Andrew M. Perlman, "The Implications of ChatGPT for Legal Services and Society," SSRN Electronic Journal, December 5, 2022, https://doi.org/10.2139/SSRN.4294197.

¹⁰ Yogesh K. Dwivedi et al., "Opinion Paper: 'So What If ChatGPT Wrote It?' Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy," International Journal of Information Management 2023): 102642, 71 (August 1, https://doi.org/10.1016/J.IJINFOMGT.2023.102642.

of computer systems capable of tasks typically requiring human intelligence, including learning, problem-solving, decision-making, and language processing.¹¹ Within the scope of use in the legal industry, AI is heavily used for its ability to replicate human cognitive functions. Such functions take forms of machine learning where algorithms detect patterns in data and apply them to perform certain legal tasks. Clearly, the legal sector has progressively utilized AI systems, including ChatGPT for various purposes such as legal research, contract analysis, and document review.¹²

Studies have portrayed the use of ChatGPT to assist students and teachers in legal research, document generation, general legal information, and legal analysis.¹³ This fact brings numerous related questions and challenges to how ChatGPT should and should not be used in law schools. There are also opportunities and benefits that could be taken by law schools from ChatGPT, such as in student assessment, curriculum establishment, and creation of student learning systems. However, these expectations are not absolute since ChatGPT falls short in contextualizing complex legal issues in the practice of studies and examination.¹⁴

Indonesia is one of the five countries with the highest percentage of ChatGPT users. ¹⁵ From some of these search-profiling that Google Trends have provided, it could be concluded that the inquiries regarding the use of ChatGPT vary and that the range of possibilities on how it is used is unimaginable. The sudden prevalence of ChatGPT in Indonesia is not old news. This means that it is worth understanding its appeal and difference from a typical AI model utilized in a variety of research tools.

II. Understanding How ChatGPT Works

ChatGPT is an advanced language model that uses natural language processing to predict the next word in a sentence. This predictive capability is

Mohammed Ziyad, "Artificial Intelligence Definition, Ethics and Standards" (The British University of Egypt, 2018), https://www.researchgate.net/publication/332548325_Artificial_Intelligence_Definition_Ethics_and_Standards.

¹² Custers and Fosch-Villaronga, "Artificial Intelligence and the Legal Profession."

¹³ Perlman, "The Implications of ChatGPT for Legal Services and Society."

Chung Kwan Lo, "What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature," *Education Sciences* 13, no. 4 (April 1, 2023): 410, https://doi.org/10.3390/EDUCSCI13040410/S1.

Robert and Cai, "ChatGPT Statistics and User Numbers 2024 - OpenAI Chatbot," May 2024, https://www.tooltester.com/en/blog/chatgpt-statistics/.

based on vast amounts of text data, allowing it to provide responses that align with the context of a conversation or specific text formats, such as reviews, blogs, or scripts¹⁶.

GPT-3 was trained on 175 billion parameters and utilized 570GB of data, marked a significant advancement in AI language models. GPT-4, released in March 2023, improved significantly over its predecessor by being multimodal, capable of processing both text and image inputs (though image input functionality is currently limited to specific users). While OpenAI has not disclosed the exact number of parameters, GPT-4 is designed to deliver more nuanced responses, enhanced reasoning, and better performance in complex tasks. In a casual conversation, the distinction between GPT-3 and GPT-4 can be subtle. The difference comes out when the complexity of the task reaches a sufficient threshold—GPT-4 is more reliable, creative, and able to handle much more nuanced instructions than its predecessor.¹⁷ The model's strength lies in its ability to predict language patterns, but its main limitation is that it doesn't "know" when it is wrong. It doesn't check for factual accuracy or recognize errors, as its responses are generated based on statistical probabilities rather than verified knowledge. This makes ChatGPT prone to inaccuracies, biases, and even hallucinations, where it might fabricate sources or data. However, its conversational nature allows users to refine and correct its answers, improving its output over time.

The model's quality can also improve with more precise phrasing of instructions and follow-up questions, which help refine its responses. ChatGPT is a popular and accessible tool, initially free with GPT-3, and has expanded with a paid version (ChatGPT Plus), offering access to GPT-4 and early features. Microsoft has heavily invested in the technology, integrating it into tools like Bing and Microsoft 365, enhancing its capabilities with real-time web data. Other tech giants, like Google, are developing similar AI platforms such as Bard, leading to more widespread use of conversational AI in everyday tasks. As LLM technology evolves, its impact on modern life is growing, promising even more sophisticated and helpful tools in the future.¹⁸

¹⁶ Sean Semmler and Zeeve Rose, "Artificial Intelligence: Application Today and Implications Tomorrow," *Duke Law & Technology Review* 16, no. 1 (December 5, 2017), https://scholarship.law.duke.edu/dltr/vol16/iss1/3.

¹⁷ GPT-4 OpenAI, "GPT-4 | OpenAI," accessed January 27, 2025, https://openai.com/index/gpt-4-research/.

¹⁸ Marjan Ajevski et al., "ChatGPT and the Future of Legal Education and Practice," *Law Teacher* 57, no. 3 (March 22, 2023): 352–64, https://doi.org/10.1080/03069400.2023.2207426.

Theoretical Framework

I. ChatGPT and Education

Generative AI (GenAI) such as ChatGPT is transforming the legal field by enhancing efficiency, automating tasks, and reshaping legal education. GenAI, which includes technologies such as Natural Language Processing (NLP), Generative Adversarial Networks (GANs), and Variational Autoencoders (VAEs), uses complex algorithms to analyze patterns in data and generate novel outputs. Specifically in the context of Outcome-Based Education (OBE), AI functions as an enabler in aligning with core learning outcomes, attitude, knowledge, general skills, and specific skills. For example, attitude outcomes can be cultivated by encouraging students to engage with AI tools for ethical legal practice, while knowledge outcomes are advanced by providing students with immediate access to vast legal data bases and case law summaries.¹⁹

Hence, integrating AI into educational systems offers a promising solution for enhancing student performance and addressing individual learning needs, especially as traditional education models struggle to keep up with evolving demands. AI and Outcome-Based Education (OBE) complement each other effectively in tackling persistent challenges in conventional education. AI enables real-time analysis of student progress, offering educators immediate insights into strengths and areas for improvement. Automated grading systems streamline the evaluation process, allowing teachers to concentrate on delivering personalized support and targeted interventions. Additionally, AI tools offer customized content, promote deeper understanding, and cater to various learning styles, ensuring a more student-focused approach.²⁰

While in the legal profession, NLP models like GPT-4 are particularly useful for drafting legal documents, summarizing case law, and formulating legal arguments. AI is also automating routine tasks, such as contract review, legal research, and compliance checks, allowing legal professionals to focus on more strategic activities.²¹

¹⁹ K Bala Sathya and G Ganesh Narayanan, "New Paradigm of Outcome-Based Education – A Higher Education Boon," *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 5 (April 11, 2021): 495–97, https://turcomat.org/index.php/turkbilmat/article/view/1041.

²⁰ Sita Rani, Gurpeet Kaur, and Soumi Dutta, "Educational AI Tools: A New Revolution in Outcome-Based Education," in *Explainable AI for Education: Recent Trends and Challenges*, 2024, 43–60, https://doi.org/10.1007/978-3-031-72410-7_3.

Aswathy Prakash G and Vishnu Nair, "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges," *SSRN Electronic Journal*, November 27, 2024, https://doi.org/10.2139/SSRN.5037609.

The legal industry is already integrating AI in practice. In jurisdictions such as Colombia and India, courts are experimenting with AI tools to assist in drafting judicial opinions and supporting legal tasks.²² For example, India's Supreme Court uses AI-powered assistants for translation and transcription, and there are discussions about using predictive analytics to forecast case outcomes. These developments highlight AI's growing role in improving judicial efficiency and accessibility.²³ As AI adoption increases, there is a rising demand for future legal professionals to develop AI literacy to navigate this evolving landscape effectively.

As the name illustrates, ChatGPT could self-improve. It could provide improved responses based on the output and updates with new data to enable future responses to be more accurate. It also has the advantage of providing personalized and real-time responses.24 ChatGPT could remember and incorporate previous responses and generate responses using different tones and structures depending on the user's preferences.²⁵ With regard to the latter, ChatGPT is able to understand complex queries and provide prompt real-time answers of less than 2 minutes to give 300- up to 500-word text outputs.²⁶ With its transformer architecture,²⁷ ChatGPT could generate a massive number of plausible responses.

In the context of general skills, it is argued that ChatGPT supports the development of analytical thinking, critical reasoning and problem-solving by offering real-time research assistance and helping students refine their arguments. Specific skills, such as drafting legal documents are enhanced through AI-driven tools that provide students with ability to generate and

²² Tania Sourdin, "Judge v Robot? Artificial Intelligence and Judicial Decision-Making," University of New South Wales Law Journal 41, no. 4 (November 1, 2018): 1114-33, https://doi.org/10.53637/ZGUX2213.

²³ Prakash G and Nair, "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges."

²⁴ Ahmed Tlili et al., "What If the Devil Is My Guardian Angel: ChatGPT as a Case Study of Using Chatbots in Education," Smart Learning Environments 10, no. 1 (December 1, 2023): 1–24, https://doi.org/10.1186/S40561-023-00237-X/FIGURES/13.

²⁵ Mubin Ul Haque et al., "'I Think This Is the Most Disruptive Technology': Exploring Sentiments of ChatGPT Early Adopters Using Twitter Data," December 12, 2022, https://arxiv.org/abs/2212.05856v1.

²⁶ Puneet Kumar Gupta, Swati Raturi, and P. Venkateswarlu, "Chatgpt for Designing Technology," Course Outlines: Α Boon Bane to Modern 2023, or https://doi.org/10.2139/SSRN.4386113.

²⁷ Vivian Weiwen Xue, Pinggui Lei, and William C. Cho, "The Potential Impact of ChatGPT in Clinical and Translational Medicine," Clinical and Translational Medicine 13, no. 3 (March 2023), https://doi.org/10.1002/CTM2.1216.

review documents rapidly, fostering both practical skills and technical proficiency. ²⁸

Since its release to the public, studies on the use and impact of ChatGPT towards education have been prevalent.²⁹ For its ability in generating coherent, systematic, and informative responses,30 ChatGPT has gained substantial attention from researchers across various domains. Within the year 2022 alone, there have been around 500 articles that have mentioned ChatGPT in their title or abstract,³¹ and an increase to 1800 results in 2023 on Google Scholar. Particularly in the context of education, Mhlanga found 55 relevant articles that discuss the meaning of Open AI in relation to education across significant academic websites such as Web of Science, Scopus, Google Scholar, and ResearchGate.³² In further research, Kwan Lo also discovered 50 articles that specifically discuss ChatGPT in multiple subject domains such as economics, programming, English language, law, medical education, mathematics, software testing, sports science, and psychology.³³ The studies were produced by researchers from the US, UK, and Europe respectively, and disseminated across various platforms such as preprints on SSRN, prestigious journals and eBooks.³⁴ These studies confirm the considerable relevance of the impact ChatGPT has brought towards education.

These developments underscore the importance of learning resources and infrastructure in modern education. AI is becoming an indispensable resource that aids not only students but also teachers by supporting assessment, feedback, and course material generation. The use of AI tools such as ChatGPT in education supports personalized learning methods. These qualities foster a

_

Pablo Martí Federico, Mir Fernández Carlos, and J Navarro-Meneses Francisco, "Reimagining Higher Education in the Age of AI," Complex Systems in Social Sciences, 2024,

https://www.researchgate.net/publication/377472218_Reimagining_higher_education_i n_the_age_of_AI.

²⁹ Lo, "What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature."

³⁰ Xiaoming Zhai, "ChatGPT User Experience: Implications for Education," *SSRN Electronic Journal*, December 27, 2022, https://doi.org/10.2139/SSRN.4312418.

Sung-ho Bae et al., "One Small Step for Generative AI, One Giant Leap for AGI: A Complete Survey on ChatGPT in AIGC Era," *Jinwoochoi@khu.Ac*, April 4, 2023, https://arxiv.org/abs/2304.06488v1.

Dwivedi et al., "Opinion Paper: 'So What If ChatGPT Wrote It?' Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy."

³³ Lo, "What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature."

³⁴ Lo.

learning environment where students are empowered to meet educational outcomes effectively and efficiently.³⁵

The emerging pieces of literature suggest that ChatGPT holds promise in education, with potential benefits such as promoting inclusivity, enhancing collaboration, supporting academic tasks like writing and research, facilitating personalized learning, and assisting teachers in various aspects of teaching and assessment.³⁶ Tlili et al. observed a positive public discourse surrounding ChatGPT's use, emphasizing its potential inclusivity in curriculums and ability to enhance collaboration between students and lecturers. Although it is known from Cotton et al.³⁷ and Halaweh³⁸ that ChatGPT has been commonly utilized for language translation, content generation, and academic writing, Dwivedi et al. (2023) also highlighted the broad range of ChatGPT's uses across multidisciplinary subjects, encompassing teaching and research.

Chung Kwan Lo³⁹ and Farrokhnia et al.⁴⁰ further analyzed ChatGPT's relevance for personalizing students' and teachers' general inquiries, academic writing, examination preparation, generating course materials, and teaching assessments. Gupta et al. 41 and Cotton et al. 42 emphasized ChatGPT's potential in supporting student assessment and evaluation.

ChatGPT and Legal Education II.

Specifically for legal education, we have also identified several studies that set considerable expectations for ChatGPT's use in law schools. Some of the

³⁸ Mohanad

³⁵ Pablo Martí Federico, Mir Fernández Carlos, and J Navarro-Meneses Francisco, "Reimagining Higher Education in the Age of AI."

³⁶ Tlili et al., "What If the Devil Is My Guardian Angel: ChatGPT as a Case Study of Using Chatbots in Education."

³⁷ Tlili et al.

Halaweh, "ChatGPT in Education: Strategies for Responsible Implementation," Contemporary Educational Technology 15, no. 2 (April 1, 2023), https://doi.org/10.30935/CEDTECH/13036.

Lo, "What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature."

⁴⁰ Mohammadreza Farrokhnia et al., "A SWOT Analysis of ChatGPT: Implications for Educational Practice and Research," Innovations in Education and Teaching International 61, no. 3 (May 3, 2024): 460–74, https://doi.org/10.1080/14703297.2023.2195846.

⁴¹ Gupta, Raturi, and Venkateswarlu, "Chatgpt for Designing Course Outlines: A Boon or Bane to Modern Technology."

⁴² Debby R.E. Cotton, Peter A. Cotton, and J. Reuben Shipway, "Chatting and Cheating: Ensuring Academic Integrity in the Era of ChatGPT," Innovations in Education and International Teaching (March 2024): 228-39, https://doi.org/10.1080/14703297.2023.2190148.

utilization includes document and case analysis, legal writing, legal research, and assessment. Horizon Scanning (2017) provided a decent foundational piece, predicting the influence of artificial intelligence on the legal profession and education document analysis, case analysis, and legal writing, which are expected to be affected by AI advancements.⁴³

Some institutions have banned AI tools due to concerns over over-reliance and potential accuracy issues. However, others have embraced GenAI's instructional potential.⁴⁴ AI tools offer innovative ways to teach complex legal concepts, enhance writing skills, and simulate real-world scenarios, such as courtroom proceedings and client interactions. These AI-driven simulations create dynamic, hands-on learning experiences, better preparing students for modern legal practice.

Moreover, AI tools like LawGeex and ROSS Intelligence automate tasks like contract analysis and legal research, enhancing efficiency and deepening students' understanding of legal concepts through AI-powered analyses. By incorporating these tools into curricula, law schools can combine theoretical study with practical, technology-enhanced training.⁴⁵

On the other hand, Tlili et al. (2023) emphasize the opportunities offered by ChatGPT in the field of education, particularly in personalized learning, assessment, and legal writing.⁴⁶ It recognizes the potential for ChatGPT to enhance individualized educational experiences and improve the quality of legal writing tasks.

The practical applications of ChatGPT in scientific writing, research, and literature reviews were also noted by Zhang et al.⁴⁷ Additionally, its value as a language tool for proofreading, highlights the potential benefits of using ChatGPT to enhance the language proficiency and accuracy of legal documents. Perlman (2023) and Biswas (2023) emphasized the multifaceted role that ChatGPT can play in supporting legal professionals in various tasks.⁴⁸ Both

⁴³ Custers and Fosch-Villaronga, "Artificial Intelligence and the Legal Profession."

Ping Xiao, Yuanyuan Chen, and Weining Bao, "Waiting, Banning, and Embracing: An Empirical Analysis of Adapting Policies for Generative AI in Higher Education," SSRN Electronic Journal, May 24, 2023, https://doi.org/10.2139/SSRN.4458269.

⁴⁵ Aswathy G. Prakash and Vishnu Nair, "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges," *Law, Technology and Humans* 6, no. 3 (January 27, 2025): 60–79, https://doi.org/10.5204/LTHJ.3640.

Tlili et al., "What If the Devil Is My Guardian Angel: ChatGPT as a Case Study of Using Chatbots in Education."

⁴⁷ Bae et al., "One Small Step for Generative AI, One Giant Leap for AGI: A Complete Survey on ChatGPT in AIGC Era."

⁴⁸ Perlman, "The Implications of ChatGPT for Legal Services and Society."

noted ChatGPT to be utilized effectively in legal research, document generation, case, and law analysis.

A further test of ChatGPT's performance in legal exams and legal writing was conducted by Choit et al.49 They found that overall, ChatGPT's performance on law school exams indicates both great promise and great risk. It is to be anticipated that students will likely use them on law school exams. Essays written by ChatGPT consistently demonstrated excellent organization and style, as well as a firm grasp of fundamental legal principles. In contrast to real law students, ChatGPT struggled to identify pertinent topics and frequently merely applied laws to facts superficially.

The growing utilisation of ChatGPT in legal education and the profession presents substantial opportunities while simultaneously introducing critical ethical challenges. In academic contexts as mentioned above, reliance on AI risks diminishing critical thinking skills, fostering academic dishonesty, and perpetuating inaccuracies in high-stakes fields.⁵⁰ These inaccuracies, commonly referred to as "hallucinations," occur because AI models generate probabilistic outputs rather than verified facts, undermining the reliability of legal research.⁵¹ Additionally, GenAI often reflects biases inherent in its training data, leading to discriminatory or unfair outcomes. High-profile incidents, such as biased grading algorithms disproportionately disadvantaging certain student groups or the reinforcement of gender stereotypes through pronoun defaults, highlight these ethical risks. Furthermore, the opaque nature of AI systems complicates transparency and accountability, making it difficult to attribute responsibility for errors.

In educational settings, GenAI facilitates plagiarism and violation of Intellectual Property (IP) by producing unique outputs that evade traditional detection tools like Turnitin, which struggle with false positives and negatives detections.⁵² High-profile cases, such as a legal dispute involving a student

⁴⁹ Jonathan Choi et al., "ChatGPT Goes to Law School," Journal of Legal Education 71, no. 3 (March 20, 2022), https://jle.aals.org/home/vol71/iss3/2.

Kassym-Jomart Tokayev, "Ethical Implications of Large Language Models A Multidimensional Exploration of Societal, Economic, and Technical Concerns," International Journal of Social Analytics 8, no. 9 (September 24, 2023): 17–33, https://norislab.com/index.php/ijsa/article/view/42.

⁵¹ Negar Maleki, Balaji Padmanabhan, and Kaushik Dutta, "AI Hallucinations: A Misnomer Worth Clarifying" (IEEE Conference on Artificial Intelligence (CAI), 2025), https://doi.org/10.1109/CAI59869.2024.00033.

⁵² Rosario Michel-Villarreal et al., "Challenges and Opportunities of Generative AI for Higher Education as Explained by ChatGPT," Education Sciences 2023, Vol. 13, Page 856 13, no. 9 (August 23, 2023): 856, https://doi.org/10.3390/EDUCSCI13090856.

falsely accused of AI-assisted cheating, demonstrate the inadequacy of existing detection systems. This calls for educators to supplement technology-based assessments with professional judgment and alternative methods, such as analyzing writing styles and conducting oral examinations. However, these approaches are time-consuming and gives even more burden on educators.

III. Weakness and Concerns of ChatGPT in Legal Education

With the benefits and advantages ChatGPT brings, we must also acknowledge the weaknesses and risks associated with its use. ChatGPT lacks deep understanding and has difficulty evaluating the quality of responses. It could not fully grasp the concept behind the words and therefore could not provide consistent, accurate, and deep insights,⁵³ straying it to be off topic.⁵⁴ It also lacks an understanding of theoretical concepts.⁵⁵ Because ChatGPT collects data and information from the internet, it risks bias and discrimination.⁵⁶ It also lacks higher-order thinking skills such as analytical abilities to understand the context, common sense, and emotions of a human being.⁵⁷

In general, concerns over the use of AI in legal education include issues of transparency, ethics, liability, electronic personhood, and public acceptance. Halaweh (2023) addressed specific concerns related to text and idea generation by ChatGPT. The ability of ChatGPT to generate, edit, or paraphrase text raises challenges in assessment, as it may undermine the evaluation of students' critical thinking abilities by providing ready-made answers.

Other threats associated with ChatGPT include algorithmic biases, transparency, and critical thinking.⁵⁸ Algorithmic biases raise concerns about

⁵³ Ali Borji and Quintic Ai, "A Categorical Archive of ChatGPT Failures," February 6, 2023, https://arxiv.org/abs/2302.03494v8.

Gupta, Raturi, and Venkateswarlu, "Chatgpt for Designing Course Outlines: A Boon or Bane to Modern Technology."

Ranwir K Sinha et al., "Applicability of ChatGPT in Assisting to Solve Higher Order Problems in Pathology," *Cureus* 15, no. 2 (February 21, 2023), https://doi.org/10.7759/CUREUS.35237.

⁵⁶ Farrokhnia et al., "A SWOT Analysis of ChatGPT: Implications for Educational Practice and Research."

Grace H. Sun and Stephanie H. Hoelscher, "The ChatGPT Storm and What Faculty Can Do," *Nurse Educator* 48, no. 3 (May 1, 2023): 119–24, https://doi.org/10.1097/NNE.000000000001390.

⁵⁸ Tlili et al., "What If the Devil Is My Guardian Angel: ChatGPT as a Case Study of Using Chatbots in Education."

potential discrimination or unfairness in the outputs generated by ChatGPT. The lack of transparency in the functioning of ChatGPT algorithms poses challenges in understanding and addressing these biases. Additionally, there is a potential risk of reduced critical thinking skills among users who heavily rely on ChatGPT for answers and solutions.

Susnjak (2022) and Cotton et al. (2023) highlighted the threat that ChatGPT poses to academic integrity and plagiarism. This includes concerns related to plagiarism, as ChatGPT's ability to generate text could be misused by individuals seeking to pass off the generated content as their own work. These reviews draw attention to the ethical and integrity issues surrounding the use of ChatGPT in academic settings.

Concerns of bias in data, incorrect information, plagiarism, and intellectual property were also stressed by Lo (2023) and Ajevski.⁵⁹ The potential for biased data to influence ChatGPT's outputs raises concerns about the accuracy and reliability of the information it generates. Additionally, the risk of unintentional or deliberate plagiarism using ChatGPT as a tool is highlighted and how it relates to academic dishonesty.⁶⁰ These concerns highlight the need to address ethical considerations and ensure the responsible use of ChatGPT in legal education.

TABLE 1. Relevant studies on the use of ChatGPT in legal education

Topic		Sources/References	
General Uses of ChatGPT	Conversational assistance	Sabzalieva & Valentini	Farrokhnia et al. (2023)
		(2023)	
	Language translation	Halaweh (2023)	Lo (2023)
		Farrokhnia et al. (2023)	Gupta et al. (2023)
		Cotton et al. (2023)	
	General inquiries	Sabzalieva & Valentini	Cotton et al. (2023)
		(2023)	Lo (2023)
		Lo (2023)	Gupta et al. (2023)
		Farrokhnia et al. (2023)	
	Recreation	Perlman (2023)	Cotton et al. (2023)
Specific uses of ChatGPT in legal education	Legal research	Tlili et al. (2023)	Perlman (2023)
		Else (2023	Kung et al. 2023
		Lucey & Dowling	Lo (2023)
		(2023)	Gupta et al. (2023)
		Thorp (2023)	
	Case analysis	Perlman (2023)	Biswas (2023)
	Law analysis	Perlman (2023)	Biswas (2023)
	Legal writing	Zhang et al. (2022)	Farrokhnia et al. (2023)
		Tlili et al. (2023)	Lo (2023)
		Lo (2023)	

⁵⁹ Ajevski et al., "ChatGPT and the Future of Legal Education and Practice."

⁶⁰ Halaweh, "ChatGPT in Education: Strategies for Responsible Implementation."

Topic		Sources/References	
		Perlman (2023)	Mhlanga (2023) ⁶¹
		Biswas (2023)	Gupta et al. (2023)
	Examination	Kung et al. (2022)	Lo (2023)
		Tlili et al. (2023)	Choit et al. (2023) ⁶²
		Lo (2023)	
	Teaching (materials,	Farrokhnia et al. (2023)	Chung Kwan Lo (2023)
	curriculum, assessment)	Perlman (2023)	Gupta et al. (2023)
		Cotton et al. (2023)	Lo (2023)
	Transparency/Plagiarism	Zhang et al. (2022)	Khalil and Er 2023
		Antonello et al. (2023)	Susnjak (2022)
		Sabzalieva & Valentini	Biswas (2023)
		(2023)	Farrokhnia et al. (2023)
		Lo (2023)	Cotton et al. (2023)
		Halaweh (2023)	
		Garcia-Penalvo 2023	
	Academic integrity	Susnjak (2022)	Halaweh (2023)
		Cotton et.al (2023)	Garcia-Penalvo 2023
		Rossenblat et. al (2023)	Farrokhnia et al. (2023)
Concerns of using		Zhang et al. (2022)	Cotton et al. (2023)
ChatGPT		Lo (2023)	
	Ethics	Zhang et al. (2022)	Perlman (2023)
		Sabzalieva & Valentini	Farrokhnia et al. (2023)
		(2023)	
	Liability	Horizon Scanning	
		(2023)	
	Electronic personhood	Zhang et al. (2022)	Biswas (2023)
		Sabzalieva & Valentini	
		(2023)	
	Public acceptance	Horizon Scanning	
		(2023)	

With the strengths, weaknesses, and opportunities ChatGPT has to offer to legal education, it is crucial to investigate how far ChatGPT has been used by students and lecturers. Law schools will face numerous challenges related to learning, teaching, and researching with the presence and easy access of ChatGPT. These concerns about using ChatGPT in legal education spark inquiries on how to create strategies and techniques to use ChatGPT in the most responsible way to maintain academic integrity.

Owivedi et al., "Opinion Paper: 'So What If ChatGPT Wrote It?' Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy."

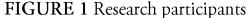
⁶² Choi et al., "ChatGPT Goes to Law School."

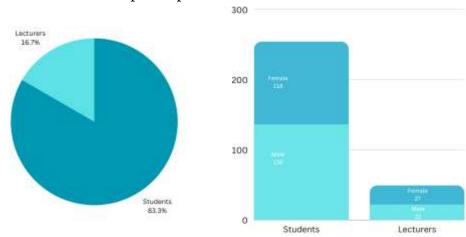
Methods

Based on non-probability purposive sampling we conducted surveys towards active/enrolled law students and lecturers in Indonesia. The questionnaires were administered in two ways. The first is by direct online distribution to students and lecturers of the authors' academic affiliations. The second is through an indirect distribution to online student and lecturer groups and academic communities on online social media platforms.

The substance of the questionnaires between students and lecturers is parallel. We asked both open and closed-ended questions such as their knowledge of ChatGPT, general uses of ChatGPT, specific uses of ChatGPT in legal studies, satisfaction with using ChatGPT, and preference for using and recommending ChatGPT for legal studies. However, the lecturers are additionally asked about their knowledge and use of AI in general, the use and effectiveness of ChatGPT in teaching, and their opinion on the concerns of using AI in legal education.

The questionnaires were disseminated to 57 universities across Indonesia. A total of 333 students were surveyed, consisting of 177 male students (53.2%) and 156 female students (46.8%). The students are primarily from the undergraduate level (92.5%), followed by graduate students (6.9%), and doctoral students (0.6%). The difference in the number of students surveyed can be attributed to the overall disparity and variation in the ratio of university students across different levels of education. In general, the majority of university students in Indonesia are at the undergraduate level compared to postgraduate or doctoral levels. As a result, there is a larger pool of undergraduate students available for research studies, making them more accessible and easier to reach for survey purposes.





Limitations

This research was conducted within five months of when ChatGPT was officially released to the public on 30th November 2022 which is a considerable amount of time to observe how quickly ChatGPT has caught the attention of law students and lecturers across Indonesia. The authors recognize some limitations to this study. First, due to the overall massive number of law students coming from hundreds of law schools in Indonesia, this study was aimed at a very small portion of the overall total number of law students and lecturers. However, the samples collected are specifically aimed at law students and lecturers fulfilling their objectivity.

Second, the varying level of higher education may create bias. The author recognizes that legal education in Indonesia consists of undergraduate, graduate, and doctoral schools. Thus, there is a difference in the ratio between the three levels of law students. Since this research involves engaging with students at the university level, it is expected that a larger proportion of undergraduate students will be involved in the surveys compared to students at higher academic levels. The higher number of undergraduate students surveyed reflects the larger population of undergraduate students in Indonesian universities. While it would be ideal to have a balanced representation of students across all academic levels, the practical constraints and the availability of resources may limit the feasibility of surveying an equal number of students from each level. However, efforts can be made to ensure that the survey sample is representative and diverse within the available pool of undergraduate students to obtain a comprehensive understanding of the impact of ChatGPT in legal education.

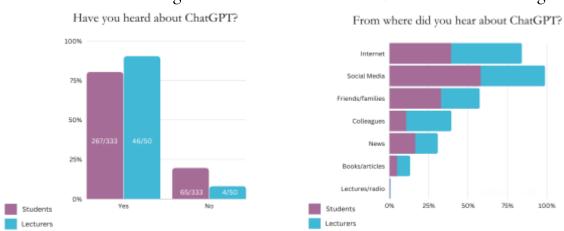
Third, the disparity in sample size between students and lecturers may result in an unequal representation of perspectives and experiences, as the views of lecturers may be underrepresented compared to those of students. However, the diversity of insights from lecturers allows for a more nuanced understanding of the impact of ChatGPT in legal education, considering the varying viewpoints and experiences of different lecturers.

Exploring the Impact of ChatGPT in Indonesian Legal Education

I. Knowledge of ChatGPT

The survey's findings shed light on the students' and lecturers'63 knowledge of ChatGPT and their sources of information about it. A significant portion of students has heard of ChatGPT. We found that the lecturers show a higher degree of awareness than the students.⁶⁴ Respectively, students knew ChatGPT from social media platforms, the internet, friends or families, news media, and books/articles.⁶⁵ A small number of students mentioned hearing about ChatGPT from the radio, their lecturers, or through the survey itself. Meanwhile, lecturers knew ChatGPT respectively from the internet, and social media sites, lecturers cited books or articles, friends or families, and coworkers. 66 These survey results show that both students and professors are aware of ChatGPT to a significant degree, with lecturers showing a higher level of awareness overall. This highlights the significance of the internet and social media in increasing the awareness of lecturers and students to ChatGPT.

FIGURE 2 Knowledge of ChatGPT FIGURE 3 Sources of knowledge



See Figure 1. Participants and number of participants based on gender

⁶⁴ Figure 2

Figure 3

⁶⁶ Figure 3

II. General Uses of ChatGPT in Indonesian Legal Education

We found that a sizable majority of students are familiar with ChatGPT.⁶⁷ This demonstrates an interest in the use of language models powered by AI in academic settings. While 47.1% of students who are aware of ChatGPT have used it at least once, showing the existence of an interest in and experimenting with the technology.⁶⁸ Most students have not used ChatGPT.⁶⁹ The Authors found this interesting as they hypothesized that there will be a higher percentage of students that have used ChatGPT after being aware of the technology. This means that these students may be a potential untapped user pool. And as a growing technology with growing users, there is a likelihood that these students will soon experiment with ChatGPT.

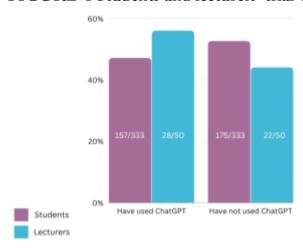


FIGURE 4 Students and lecturers' trial with ChatGPT

Lecturers may have acquired knowledge about new technologies and how they may be used in the teaching profession demonstrated by their high degree of awareness. 70 With more than half of lecturers having used ChatGPT directly, this suggests a high adoption rate among them. 71 There is room for more research in the possibility of increased usage in the future noting the sizable percentage of lecturers have not yet used ChatGPT. 72

⁶⁷ Figure 2

⁶⁸ Figure 4

⁶⁹ Figure 4

⁷⁰ Figure 4

⁷¹ Figure 4

⁷² Figure 4

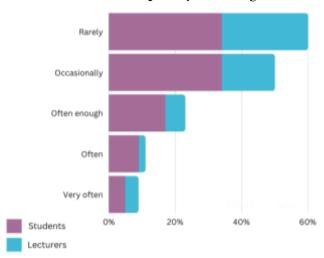


FIGURE 5 Frequency of using ChatGPT

Furthermore, the data shows a wide range of usage patterns when looking at how frequently students and lecturers who have used ChatGPT do so. The survey reveals that some students have not yet utilized ChatGPT as a tool for their law studies, and some use it as a tool in their academic work.⁷³ Lecturers mostly use ChatGPT infrequently (26%) or occasionally (16%) which suggests that even while a sizable proportion of professors have tried ChatGPT,⁷⁴ they might not regularly include it in their teaching methods. The Authors suggest this pattern of usage may be influenced by elements like time restraints, reservations about relying on AI-generated content, or the need for further technical training.

Students value using ChatGPT for a variety of purposes. The most often reported uses (58%) and specific legal-related inquiries illustrate the site's potential as a source for finding information and expertise in law.⁷⁵ ChatGPT's utility in removing language barriers is demonstrated by the fact that 12% of students utilize it for language translation.⁷⁶

⁷³ Figure 4

⁷⁴ Figure 5

⁷⁵ Figure 6

⁷⁶ Figure 6

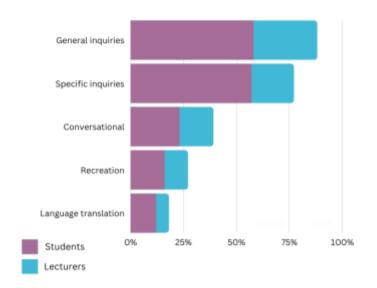


FIGURE 6 General usage of ChatGPT

The most frequent reason for using ChatGPT among lecturers according to the data is to make general enquiries.⁷⁷ This suggests that lecturers have not explored a variety of law-related uses with ChatGPT. However, the Authors suggest that some lecturers are aware of ChatGPT's capacity to promote legal education and answer topic-specific questions.⁷⁸ Although less frequently mentioned, other uses of ChatGPT show how versatile it is as a tool that can help lecturers with a variety of administrative duties.⁷⁹

III.Specific Uses of ChatGPT in Indonesian Legal Education

Among the students surveyed, 133 students utilized ChatGPT for academic assistance. This indicates that a substantial proportion of students recognize the potential benefits of ChatGPT as an academic support and enhancement tool.⁸⁰ In contrast, most students have not yet utilized ChatGPT for academic purposes.⁸¹ This suggests that the student population has room for further exploration and adoption of this technology.

⁷⁷ Figure 6

⁷⁸ Figure 6

⁷⁹ Figure 6

⁸⁰ Figure 7

⁸¹ Figure 7

575

It is noteworthy that 32% of students have employed it for legal research. This indicates that these students view ChatGPT as a functional tool for gaining access to legal information and conducting academic research. In addition, many students have utilized ChatGPT for case analysis (26%), law analysis (24%), and legal writing (20%). The Authors hypothesized that ChatGPT would be prevalent in the Indonesian legal education sphere, particularly in legal writing assignments and tasks like a part of the research. Armstrong found that, given legal writing-related prompts, ChatGPT mainly gives false answers and fake references. We found that legal writing is the fourth highest use of ChatGPT out of five uses. This reflects that students may be deterred from using ChatGPT for legal writing and research purposes due to its inability to find reliable resources and give accurate answers.

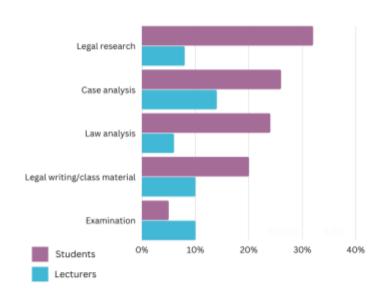


FIGURE 7 Use of ChatGPT in Legal Education

Furthermore, only 5% of students have utilized ChatGPT specifically for examination purposes. This suggests that students are less likely to rely on ChatGPT during exams, possibly due to concerns about academic integrity, limitations in real-time problem-solving abilities, or the requirement for independent critical thinking skills in assessments. Choi et al. found that ChatGPT is capable of passing legal exams, noting that it lacks the ability to pinpoint main legal issues in questions, stay focused on the essay topic, write non-superficial essays, identify technical legal terms in the exam, and apply

⁸² Figure 7

IRAC in most cases.⁸³ It's crucial to note that ChatGPT performed better when provided multiple questions type exams and when not faced with questions filled with incorrect substances.⁸⁴ This means that ChatGPT could easily excel in questions that are not case-based, especially if not designed to avoid cheating through AI language models. Hence, ChatGPT is still unreliable to provide promising results for examinations, which likely leads to students' hesitance to use ChatGPT for their legal exams.

In contrast, 76% of lecturers surveyed (38 lecturers) have not utilized ChatGPT in their teaching, while the other 24% of lecturers have. This indicates that only a minority of instructors are actively utilizing ChatGPT. A substantial proportion of instructors have not yet explored or integrated ChatGPT into their teaching practices. This finding suggests that there is an opportunity to raise awareness of the downsides and promote the benefits of ChatGPT as a teaching aid among these lecturers. When analysing the specific use of ChatGPT by these lecturers in the field of legal education, case analysis is found to be the most prevalent application, with 14% (7 lecturers) employing ChatGPT for this purpose. Other areas of application include legal research (85), producing course materials (10%), examination (10%), and law analysis (6%). These results indicate that lecturers may need extra help in doing case analysis than other uses of ChatGPT.

In the context of teaching, it is revealed that there is a low adoption rate of ChatGPT among lecturers. A minority of lecturers have utilized ChatGPT in their classrooms, but the majority have not yet adopted this technology. This highlights the hesitance of lecturers in using ChatGPT for their teaching. This may be related to the downsides of ChatGPT, including but not limited to the occurrence of fake references and inaccurate answers, or the need for further technical training to use ChatGPT–for instance, on how to correctly write prompts to the ChatGPT.

IV. Satisfaction and Preferences of Using ChatGPT

The findings indicate that a considerable proportion of students (27%) express occasional satisfaction with the responses provided by ChatGPT, suggesting a noteworthy level of performance for a substantial segment of the student. Furthermore, a proportion of 19.7% of students expressed their satisfaction with ChatGPT's responses on a regular basis, indicating a greater degree of contentment. Nonetheless, a minority of students (6.3%) express

⁸³ Figure 7

⁸⁴ Figure 7

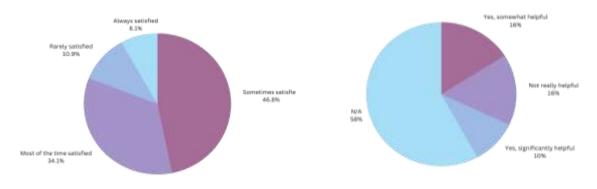
infrequent satisfaction with ChatGPT's responses, suggesting that the platform may not consistently fulfil their inquiries and expectations. Interestingly, 4.7% of students are completely satisfied with ChatGPT's responses, suggesting consistent usefulness.

Among the surveyed lecturers, a minority (18%) do not find ChatGPT beneficial, possibly due to personal preferences or contextual factors. However, 16% of lecturers agree that ChatGPT has helped them save time and effort in the classroom, indicating its usefulness in streamlining teaching processes. Furthermore, 10% of lecturers consider ChatGPT to be a significant aid to their instruction, highlighting its positive impact on their teaching practices in the field of legal education.

In general, the analysis suggests that ChatGPT possesses the capacity to exert a favorable impact on the field of legal education. Although there is variability in satisfaction levels among students, a particular subgroup consistently perceives ChatGPT's responses as valuable. Likewise, although certain lecturers may not perceive it as advantageous, others regard it as a beneficial instrument for augmenting their pedagogical approaches and mitigating their workload.

FIGURE 8 Student satisfaction





A majority (41.1%) of students hold a neutral position towards using ChatGPT in their academic studies which indicates their lack of experience in using ChatGPT, uncertainty about its benefits, or concerns about drawbacks.85 Meanwhile, 22.3% of students somewhat believe that ChatGPT should help them in their studies, showing openness to its potential benefits. On the other hand, 14.8% strongly believe in the value of ChatGPT for their legal education,

⁸⁵ Figure 10 and 11

recognizing its potential in research, writing, and legal knowledge. In contrast, 14.2% somewhat disagree with using ChatGPT in their academics, expressing hesitation due to concerns about overreliance, biased responses, or hindered critical thinking. A small percentage of students (7.5% or 25 students) strongly oppose ChatGPT in legal studies, raising concerns about accuracy, reliability, and ethics.

Among lecturers, the majority (52%) hold a neutral stance on incorporating ChatGPT into legal education. 20% (10 lecturers) are somewhat in favor of using ChatGPT, recognizing its potential with reservations. Conversely, 14% (7 lecturers) are somewhat opposed to its use, while 8% (4 lecturers) vehemently oppose it, citing significant objections or concerns. A minority of lecturers (6% or 3 professors) believe that ChatGPT should be integrated into legal education, advocating for its value and potential in enhancing the learning experience.

FIGURE 10 Student position for using ChatGPT in studies

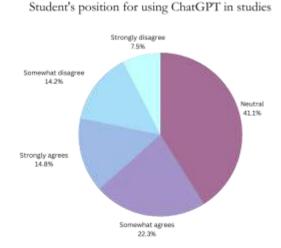
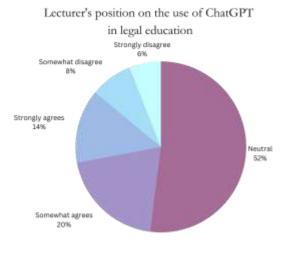


FIGURE 11 Lecturers position for using ChatGPT in studies



Furthermore, 42% (21 lecturers) are somewhat in agreement that they would recommend ChatGPT to their students as a study aid. These professors recognize the potential benefits of ChatGPT for enhancing student learning, though they may have reservations or use restrictions. While 40% (20 lecturers) are hesitant to suggest ChatGPT to their students, 10% (5 professors) strongly disagree with the use of ChatGPT by their students. A smaller portion, 8% (4 instructors) recommend ChatGPT strongly to their students. These professors are ardent believers in ChatGPT's benefits and value, and they actively encourage students to use it as a study aid.

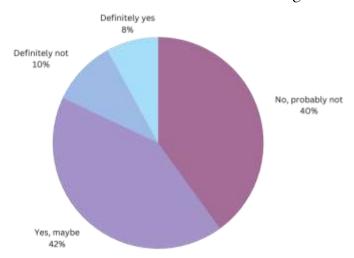


FIGURE 12 Lecturers recommendation for using ChatGPT

It is implied that there is a variety of experiences and perspectives regarding the use of ChatGPT in legal education among professors. Some professors actively share their experiences and recommend ChatGPT, while others express reservations or discourage its use. Divergent viewpoints emphasize the need for additional discussions, training, and research to address concerns and ensure the effective integration of AI tools such as ChatGPT in legal education.

V. Implications of ChatGPT in Legal Education

The implication of ChatGPT on legal education is not only attributed to its swift and readily understandable responses to a variety of questions but also its ability to aggregate and summarize massive amounts of information as well as generate human-like responses. As a branch of social science that relies heavily on written words, ChatGPT has altered the way law students and lecturers learn and teach. As presented in the result of this study, ChatGPT has been tested to

generate content for legal research, legal writing, case and law analysis, examination, and creating teaching materials.

For legal research and writing, ChatGPT is used to assist in identifying relevant literature, generating hypotheses, and writing papers.⁸⁶ This could arguably improve or worsen a student's creativity and critical thinking if not guided with the appropriate analytical skills to filter and inspect ChatGPT's responses. Despite ChatGPT being trained on large amounts of data, the data that it processes are at risk of being incorrect, inaccurate, and biased. This becomes a limitation when ChatGPT is used for tasks that require high cognitive skills such as legal research and writing.⁸⁷

On the other hand, since ChatGPT is essentially a language model, it serves a better purpose of being a language tool for tasks such as translation and paraphrasing. ChatGPT can help with language translation tasks by generating translations from one language to another. It can provide assistance in understanding and communicating in different languages, although it may not match the accuracy and nuance of professional human translators as well as helping to reframe content in a different way while maintaining the original meaning, much like the commonly used Grammarly or Quillbot. ChatGPT's ability to provide suggestions and corrections to improve the clarity and coherence of writing is particularly beneficial for non-native speakers in Indonesia.

However, because of ChatGPT's shortcomings in understanding the context and nuances of a particular subject such as law, it becomes an unreliable tool for analysing case laws and legal instruments. Moreover, with the susceptibility that legal education has towards a country's legal system and cultural context. The misuse of this weakness creates a potential for ChatGPT to be employed for the purpose of manipulating others by generating false or misleading legal documents.⁸⁸

Much like the double-edged sword analogy applied to technology, ChatGPT could bring both positive and negative impacts for law school examinations. On the one hand, it could assist lecturers in preparing examination questions and assessing student performance, particularly for takehome or paper-based exams. Supporting the evidence that it performs better for

Kathryn Amstrong, "ChatGPT: US Lawyer Admits Using AI for Case Research," May 2023, https://www.bbc.com/news/world-us-canada-65735769.

⁸⁶ Stephen Atlas, ChatGPT for Higher Education and Professional Development: A Guide to Conversational AI (University of Rhode Island, 2023).

⁸⁷ Atlas

essay-type exams compared to multiple choices (although not absolute).89 On the other hand, it promotes dishonesty and creates opportunities for students to violate academic integrity as to contract cheating. 90

Within this context, it would force law schools to adjust the means of evaluating student learning and progress. Student assessment will go beyond the traditional examination, papers, projects, and presentations, and must consider a wider range of learning outcomes to require students to demonstrate their critical thinking, problem-solving, and communication skills.

Nevertheless, ChatGPT exhibits a noteworthy potential to aid law students and lecturers due to its substantial precision and dependability in producing results, as well as its capacity to accommodate the intricacies of legal matters. Given the capabilities of generative AI and the rapid rate at which it is being adopted by law schools, universities will inevitably need to evaluate their approach to these technological developments. Examining the implications of ChatGPT on teaching and learning warrants the consideration of how law schools should prepare students to become professionals that are adaptive to the changes in the legal sector.

VI. Future Directions

Generative AI like ChatGPT is transforming education, offering innovative solutions to enhance learning. In 2016, the Georgia Institute of Technology introduced Jill Watson, an AI teaching assistant developed on IBM's Watson platform, to manage forum questions for its Knowledge-Based Artificial Intelligence (KBAI) class. Jill demonstrated how AI could efficiently scale personalized learning, delivering tailored support to large numbers of students.⁹¹

Legal education is also evolving with AI integration. Institutions like Yale Law School offer courses on AI's impact, such as Artificial Intelligence, Robots, and the Law, and train AI models for legal applications. Georgetown Law provides 17 AI-related courses and resources like Lexis+ AI while allowing professors to set AI usage policies for assignments. Globally, universities like India's National Law University, Delhi, and North Carolina Central University

⁸⁹ Choi et al., "ChatGPT Goes to Law School."

⁹⁰ Cotton, Cotton, and Shipway, "Chatting and Cheating: Ensuring Academic Integrity in the Era of ChatGPT."

⁹¹ Prakash G and Nair, "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges."

Law are leveraging AI to create personalized learning and foster global collaboration.⁹²

If legal education is to stay relevant to AI developments, the curriculum must be informed by considerations for practicing skills relevant to the legal profession. Changes to legal education should not abandon the teaching of legal methodology and legal doctrine. The advancements in technology cannot be ignored by law schools, and ChatGPT provides a new impetus for law schools to review the curriculum in order to ensure it supports students' transition to new methods of working

One might argue that we can use technology, such as AI detectors, as a solution to reduce harm posed by ChatGPT. However, relying solely on technological solutions like AI detectors to identify assignments generated by ChatGPT is fraught with challenges and limitations. These detectors work on statistical probabilities, which cannot conclusively prove plagiarism if contested by students. As generative AI evolves rapidly, detectors struggle to keep up, testing their systems against advanced models like GPT-4 without guaranteed accuracy. Additionally, these tools often yield false positives, misidentifying human-written content as AI-generated. Research has shown error rates as high as 19–30%, further casting doubt on their reliability. Even Turnitin, a leading academic integrity tool, acknowledges that its AI detection feature is not infallible, urging instructors to rely on their professional judgment. Moreover, these programs can be circumvented with simple techniques, such as rephrasing text or using rewriter tools, making them an unreliable long-term solution. ⁹⁴

Instead of depending on detection tools, universities can address the challenges posed by generative AI by rethinking assessment methods. AI performs best with descriptive or summarization tasks, so assessments should prioritize complex reasoning, analysis, and synthesis over simple fact-based questions. Requiring students to reference verifiable sources, analyze recent legal developments, or use specific licensed materials can further discourage reliance on AI. Assignments involving multimedia elements, oral presentations, or reflections tied to students' personal experiences can also limit AI-generated responses, as these tasks demand a human touch.

⁹² Prakash and Nair.

⁹³ Ajevski et al., "ChatGPT and the Future of Legal Education and Practice."

⁹⁴ Geoffrey Fowler, "We Tested Turnitin's ChatGPT-Detector for Teachers. It Got Some Wrong. - The Washington Post," accessed January 27, 2025, https://www.washingtonpost.com/technology/2023/04/01/chatgpt-cheating-detection-turnitin/.

Since change and development are inevitable, aversion and blocking ChatGPT is not an effective solution. Even using technological solution such as ChatGPT or AI detector is not the most reliable resort With the wide range of inquiries that ChatGPT could assist in legal education, institutions will therefore need to carefully consider the extent to which they allow students to engage with ChatGPT when writing their assessments and communicate this policy clearly to students. Such policy should be aimed to promote the responsible and ethical use of AI systems such as GPT, ensuring that students engage in critical thinking, understand the limitations of AI-generated content, and maintain academic integrity.

There are several steps that can be taken to mitigate the risk of plagiarism when using ChatGPT. Teaching students how to utilize the technology properly, emphasizing the value of citing sources, when necessary, is one efficient strategy. This can be accomplished by holding workshops, and training sessions, or including lessons on academic honesty and plagiarism in the curriculum. Additionally, utilizing tools that can automatically check student work for instances of plagiarism is another strategy. This can be incorporated into the grading procedure, enabling instructors to find and fix any potential problems immediately.

Digital literacy must be pushed further for students and lecturers. It is important for law schools to demonstrate ChatGPT's capabilities and not only consider the threats and its potential use. It might be the opportunity to minimize its threats and adjust ChatGPT to the curriculum, learning goals, and assessment approaches. ChatGPT presents not only challenges but also opportunities for higher education. Law schools can incorporate these tools into their curriculum to equip students with essential digital literacy and employability skills. Communicating openly with students about the ethical implications of using AI for academic work reinforces the value of academic integrity and personal accountability. By emphasizing skills like complex reasoning and interpersonal communication, universities can prepare students for future careers where technology serves as a tool, not a replacement. An understanding of AI's capabilities and weaknesses could enhance students' ability to properly evaluate, assess, and make use of new technologies such as ChatGPT.

Conclusion

This study has revealed that, despite the optimistic projections put forth by scholarly literature regarding the integration of ChatGPT in legal education,

584

Indonesian law schools exhibit a notable degree of skepticism towards its implementation in pedagogy and academic pursuits. Our research indicates that ChatGPT is utilized by students to a greater extent than by lecturers, despite a greater portion of lecturers having experimented with AI out of the overall pool. Within the considerable number that ChatGPT is used in law schools, it is relevant to be utilized for legal research, case analysis, law analysis, legal writing, and examination respectively.

The reservations for the use of ChatGPT encompass concerns pertaining to plagiarism, academic integrity, and potential impairment of students' critical thinking. Additionally, ChatGPT's limitations in providing contextual responses for intricate and situational legal inquiries contribute to the prevailing skepticism. Nonetheless, ChatGPT has impacted certain aspects of legal education: students' way of conducting legal research and writing, analysing cases and laws, conducting examinations, as well as lecturers' methods of preparing teaching materials and conducting student assessments. These impacts call for law schools to make curriculum adjustments, establish policies for the responsible use of AI systems, modify assessment methods, and further promote digital literacy.

References

- Ajevski, Marjan, Kim Barker, Andrew Gilbert, Liz Hardie, and Francine Ryan. "ChatGPT and the Future of Legal Education and Practice." *Law Teacher* 57, no. 3 (March 22, 2023): 352–64. https://doi.org/10.1080/03069400.2023.2207426.
- Amstrong, Kathryn. "ChatGPT: US Lawyer Admits Using AI for Case Research," May 2023. https://www.bbc.com/news/world-us-canada-65735769.
- Atlas, Stephen. ChatGPT for Higher Education and Professional Development: A Guide to Conversational AI. University of Rhode Island, 2023.
- Bae, Sung-ho, Kyung Hee University, South Korea, Chaoning Zhang, Chenshuang Zhang, Chenghao Li, Yu Qiao, et al. "One Small Step for Generative AI, One Giant Leap for AGI: A Complete Survey on ChatGPT in AIGC Era." *Jinwoochoi@khu.Ac*, April 4, 2023. https://arxiv.org/abs/2304.06488v1.
- Bala Sathya, K, and G Ganesh Narayanan. "New Paradigm of Outcome-Based Education A Higher Education Boon." *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 5 (April 11, 2021): 495–97. https://turcomat.org/index.php/turkbilmat/article/view/1041.

- Bennett, Judith, Tim Miller, Julian Webb, Rachelle Bosua, Adam Lodders, and Scott Chamberlain. "Current State of Automated Legal Advice Tools," 2018.
 - https://networkedsociety.unimelb.edu.au/research/projects/2016/futureof-work/regulating-automated-legal-services.
- Borji, Ali, and Quintic Ai. "A Categorical Archive of ChatGPT Failures," February 6, 2023. https://arxiv.org/abs/2302.03494v8.
- Choi, Jonathan, Kristin Hickman, Amy Monahan, and Daniel Schwarcz. "ChatGPT Goes to Law School." Journal of Legal Education 71, no. 3 (March 20, 2022). https://jle.aals.org/home/vol71/iss3/2.
- Cotton, Debby R.E., Peter A. Cotton, and J. Reuben Shipway. "Chatting and Cheating: Ensuring Academic Integrity in the Era of ChatGPT." Innovations in Education and Teaching International 61, no. 2 (March 3, 2024): 228-39. https://doi.org/10.1080/14703297.2023.2190148.
- Custers, Bart., and Eduard. Fosch-Villaronga. "Artificial Intelligence and the Legal Profession," 2022. https://www.academia.edu/36920594/Artificial_Intelligence_and_the_L egal_Profession.
- Dwivedi, Yogesh K., Nir Kshetri, Laurie Hughes, Emma Louise Slade, Anand Jeyaraj, Arpan Kumar Kar, Abdullah M. Baabdullah, et al. "Opinion Paper: 'So What If ChatGPT Wrote It?' Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy." International Journal of Information Management 71 (August 1, 2023): 102642. https://doi.org/10.1016/J.IJINFOMGT.2023.102642.
- Farrokhnia, Mohammadreza, Seyyed Kazem Banihashem, Omid Noroozi, and Arjen Wals. "A SWOT Analysis of ChatGPT: Implications for Educational Practice and Research." Innovations in Education and Teaching International 61, 3 2024): 460–74. no. (May 3,https://doi.org/10.1080/14703297.2023.2195846.
- Geoffrey Fowler. "We Tested Turnitin's ChatGPT-Detector for Teachers. It Got Some Wrong. - The Washington Post." Accessed January 27, 2025. https://www.washingtonpost.com/technology/2023/04/01/chatgptcheating-detection-turnitin/.
- Goldsworthy, Daniel. "The Future of Legal Education in the 21st Century." Review 41, Adelaide Law no. 1 (2020): 243–65. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3007972.
- Gupta, Puneet Kumar, Swati Raturi, and P. Venkateswarlu. "Chatgpt for Designing Course Outlines: A Boon or Bane to Modern Technology,"

- 2023. https://doi.org/10.2139/SSRN.4386113.
- Halaweh, Mohanad. "ChatGPT in Education: Strategies for Responsible Implementation." *Contemporary Educational Technology* 15, no. 2 (April 1, 2023). https://doi.org/10.30935/CEDTECH/13036.
- Haque, Mubin Ul, Isuru Dharmadasa, Zarrin Tasnim Sworna, Roshan Namal Rajapakse, and Hussain Ahmad. "I Think This Is the Most Disruptive Technology': Exploring Sentiments of ChatGPT Early Adopters Using Twitter Data," December 12, 2022. https://arxiv.org/abs/2212.05856v1.
- Lo, Chung Kwan. "What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature." *Education Sciences* 13, no. 4 (April 1, 2023): 410. https://doi.org/10.3390/EDUCSCI13040410/S1.
- Maleki, Negar, Balaji Padmanabhan, and Kaushik Dutta. "AI Hallucinations: A Misnomer Worth Clarifying." IEEE Conference on Artificial Intelligence (CAI), 2025. https://doi.org/10.1109/CAI59869.2024.00033.
- Michel-Villarreal, Rosario, Eliseo Vilalta-Perdomo, David Ernesto Salinas-Navarro, Ricardo Thierry-Aguilera, and Flor Silvestre Gerardou. "Challenges and Opportunities of Generative AI for Higher Education as Explained by ChatGPT." *Education Sciences 2023, Vol. 13, Page 856* 13, no. 9 (August 23, 2023): 856. https://doi.org/10.3390/EDUCSCI13090856.
- OpenAI, GPT-4. "GPT-4 | OpenAI." Accessed January 27, 2025. https://openai.com/index/gpt-4-research/.
- Pablo Martí Federico, Mir Fernández Carlos, and J Navarro-Meneses Francisco. "Reimagining Higher Education in the Age of AI." *Complex Systems in Social Sciences*, 2024. https://www.researchgate.net/publication/377472218_Reimagining_higher_education_in_the_age_of_AI.
- Perlman, Andrew M. "The Implications of ChatGPT for Legal Services and Society." *SSRN Electronic Journal*, December 5, 2022. https://doi.org/10.2139/SSRN.4294197.
- Prakash, Aswathy G., and Vishnu Nair. "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges." *Law, Technology and Humans* 6, no. 3 (January 27, 2025): 60–79. https://doi.org/10.5204/LTHJ.3640.
- Prakash G, Dr. Aswathy, and Vishnu Nair. "Integrating Generative AI into Legal Education: From Casebooks to Code, Opportunities and Challenges." *SSRN Electronic Journal*, November 27, 2024. https://doi.org/10.2139/SSRN.5037609.

- Rani, Sita, Gurpeet Kaur, and Soumi Dutta. "Educational AI Tools: A New Revolution in Outcome-Based Education." In Explainable AI for Challenges, Recent Trends and 43–60, Education: 2024. https://doi.org/10.1007/978-3-031-72410-7_3.
- Robert, and Cai. "ChatGPT Statistics and User Numbers 2024 OpenAI Chatbot," May 2024. https://www.tooltester.com/en/blog/chatgptstatistics/.
- Semmler, Sean, and Zeeve Rose. "Artificial Intelligence: Application Today and Implications Tomorrow." Duke Law & Technology Review 16, no. 1 (December 5, 2017). https://scholarship.law.duke.edu/dltr/vol16/iss1/3.
- Sinha, Ranwir K, Asitava Deb Roy, Nikhil Kumar, and Himel Mondal. "Applicability of ChatGPT in Assisting to Solve Higher Order Problems Pathology." Cureus 15, 2 (February no. 21, https://doi.org/10.7759/CUREUS.35237.
- Sourdin, Tania. "Judge v Robot? Artificial Intelligence and Judicial Decision-Making." *University of New South Wales Law Journal* 41, no. 4 (November 1, 2018): 1114-33. https://doi.org/10.53637/ZGUX2213.
- Sun, Grace H., and Stephanie H. Hoelscher. "The ChatGPT Storm and What Faculty Can Do." Nurse Educator 48, no. 3 (May 1, 2023): 119-24. https://doi.org/10.1097/NNE.000000000001390.
- Tlili, Ahmed, Boulus Shehata, Michael Agyemang Adarkwah, Aras Bozkurt, Daniel T. Hickey, Ronghuai Huang, and Brighter Agyemang. "What If the Devil Is My Guardian Angel: ChatGPT as a Case Study of Using Chatbots in Education." Smart Learning Environments 10, no. 1 (December 1, 2023): 1-24. https://doi.org/10.1186/S40561-023-00237-X/FIGURES/13.
- Tokayev, Kassym-Jomart. "Ethical Implications of Large Language Models A Multidimensional Exploration of Societal, Economic, and Technical Concerns." International Journal of Social Analytics 8, no. 9 (September 24, 2023): 17–33. https://norislab.com/index.php/ijsa/article/view/42.
- Xiao, Ping, Yuanyuan Chen, and Weining Bao. "Waiting, Banning, and Embracing: An Empirical Analysis of Adapting Policies for Generative AI in Higher Education." SSRN Electronic Journal, May 24, 2023. https://doi.org/10.2139/SSRN.4458269.
- Xue, Vivian Weiwen, Pinggui Lei, and William C. Cho. "The Potential Impact of ChatGPT in Clinical and Translational Medicine." Clinical and Translational Medicine 13, 3 (March 2023). no. https://doi.org/10.1002/CTM2.1216.
- Zhai, Xiaoming. "ChatGPT User Experience: Implications for Education."

SSRN Electronic Journal, December 27, 2022. https://doi.org/10.2139/SSRN.4312418.

Ziyad, Mohammed. "Artificial Intelligence Definition, Ethics and Standards." The British University of Egypt, 2018. https://www.researchgate.net/publication/332548325_Artificial_Intelligence_Definition_Ethics_and_Standards.

Acknowledgment

The authors gratefully acknowledge financial support from Lembaga Pengelola Dana Pendidikan (LPDP), Ministry of Finance, Republic of Indonesia that made this research possible. The funder had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Funding Information

This research was financially supported by Lembaga Pengelola Dana Pendidikan (LPDP), Ministry of Finance, Republic of Indonesia

Conflicting Interest Statement

The authors state that there is no conflict of interest in the publication of this article.

Generative AI Statement

None

Notification

Starting from the 2024 issue, our journal has transitioned to a new platform for an enhanced reading experience. All new articles and content will now be available on this updated site. However, we would like to assure you that archived issues from 2016 to 2023 are still accessible via the previous site. You can view these editions by visiting the following link: https://journal.unnes.ac.id/sju/jils/issue/archive.