

SYMPOSIUM

THE NEW AI: THE LEGAL AND ETHICAL IMPLICATIONS OF CHATGPT AND OTHER EMERGING TECHNOLOGIES

FOREWORD

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INTRODUCTION

“Can machines think?” is the question that British mathematician Alan Turing ponders in his seminal 1950 article, *Computing Machinery and Intelligence*.¹ To attempt an answer, he proposes an “imitation game” for determining a machine’s intelligence by measuring its similarities to human communications and thought processes.² If a person conversing with both a human and a machine cannot differentiate their responses, this outcome would suggest that machines could compete intellectually with humans.³ Turing ultimately dismisses his article’s initial question as too “meaningless” to discuss in his lifetime because he believed that machines were not yet sufficiently sophisticated.⁴ Yet, he was unfailingly optimistic about the future: “[A]t the end of the century the use of words and general educated opinion will have altered so much that one will be able to speak of machines thinking without expecting to be contradicted.”⁵

Turing’s thoughts and predictions were as revelatory as they were startling.⁶ In due time, he would be viewed as one of “the most innovative and powerful thinkers of the 20th century” and, often, as “the progenitor of modern computing.”⁷ Within five years of Turing’s article, Stanford Professor John McCarthy would be the first to create the term “artificial intelligence” (AI), speculating “that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it.”⁸ Over the next five decades, McCarthy

1. A.M. Turing, *Computing Machinery and Intelligence*, 49 MIND 433, 433 (1950). According to journalist Alan Cowell, Turing was “one of the most influential code breakers of World War II,” noting that the strength and accuracy of Turing’s cryptology was credited with accelerating the Allied victory. See Alan Cowell, *Overlooked No More: Alan Turing, Condemned Code Breaker and Computer Visionary*, N.Y. TIMES (June 5, 2019), <https://www.nytimes.com/2019/06/05/obituaries/alan-turing-overlooked.html> [https://perma.cc/ZQP5-RCK2]. However, despite Turing’s influence, overall, not much is known about his work during World War II, as most of his accomplishments remained classified. See ANDREW HODGES, ALAN TURING: THE ENIGMA 530 (1983) (“For a figure in world history, there is very little source material from which to reconstruct a picture of Alan Turing—few original documents, and little in the way of published commentary.”). For an earlier perspective on Alan Turing’s life and work by his colleague and mentee, see Maxwell Herman Alexander Newman, *Alan Mathison Turing: 1912-1954*, BIOGRAPHICAL MEMOIRS FELLOWS ROYAL SOC’Y, Nov. 1955, at 252, 253.

2. See Turing, *supra* note 1, at 433–35.

3. See *id.*

4. *Id.* at 442.

5. *Id.*

6. Turing challenged the preconceived notion that brains and machines were separated by an “impassable gulf” with his concept of using computing machines to imitate human thinking. See Newman, *supra* note 1, at 255, 261. As a result, he inspired the start of modern computing and yielded “seminal insights” on what would soon become the field of artificial intelligence. See Cowell, *supra* note 1.

7. See Cowell, *supra* note 1.

8. John McCarthy, Marvin L. Minsky, Nathaniel Rochester & Claude E. Shannon, A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence 2 (Aug. 31, 1955), <http://jmc.stanford.edu/articles/dartmouth/dartmouth.pdf> [https://perma.cc/8CAW-ECSD]; see also Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*, 29 HARV. J.L. & TECH. 353, 359–60 (2016) (noting

would further shape the field and maintain a website expanding the definition of AI as “the science and engineering of making intelligent machines.”⁹

Early attempts to define AI often linked the concept of intelligence to a machine’s ability to perform specific and higher-order cognitive assignments.¹⁰ Current definitions take a similar approach but are more apt to focus on a machine’s capacity to meet certain mental goals and complete complex jobs autonomously.¹¹ For example, the U.S. Government published its own broad definition in the National Artificial Intelligence Initiative Act of 2020;¹² this statute specifies that “‘artificial intelligence’ means a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments.”¹³ In essence, although AI does not have one uniform definition, the common core among proposed definitions is a computer’s potential to fulfill tasks that typically require human intelligence.

Generative AI (“GenAI”) is a category of AI that uses machine learning to create new content based on information from a specific dataset.¹⁴ One kind of GenAI that has advanced considerably is in the area of natural language processing (NLP). NLP “is the ability of machines to understand the relation between words and decipher the intent and meaning behind their usage by humans.”¹⁵ In November 2022, the Silicon Valley–based company OpenAI released its conversational language model, ChatGPT.¹⁶ ChatGPT is a specific type of GenAI that focuses on NLP.¹⁷ When this Foreword’s authors asked ChatGPT, “What is ChatGPT?” it explained that “[i]ts primary function is to understand and generate human-like text based on the input it

that John McCarthy has been acknowledged as the first person to coin the term “artificial intelligence”); Stephanie Dick, *Artificial Intelligence*, HARV. DATA SCI. REV., Summer 2019, at 1, 2 (stating that AI was “born” in 1955 when McCarthy and his colleagues applied for a summer grant to fund an AI research project).

9. John McCarthy, *What Is Artificial Intelligence?* 2–3 (Nov. 12, 2007) (unpublished manuscript), <http://jmc.stanford.edu/articles/whatisai/whatisai.pdf> [<https://perma.cc/XU9D-KDD3>]; see also Andrew Myers, *Stanford’s John McCarthy, Seminal Figure of Artificial Intelligence, Dies at 84*, STANFORD NEWS (Oct. 25, 2011), <https://news.stanford.edu/2011/10/25/stanfords-john-mccarthy-seminal-figure-artificial-intelligence-dies-84/> [<https://perma.cc/GC7Z-7QA2>] (“John McCarthy, a professor emeritus of computer science at Stanford, the man who coined the term ‘artificial intelligence’ and subsequently went on to define the field for more than five decades, died suddenly at his home in Stanford in the early morning Monday, Oct. 24. He was 84.”).

10. See Scherer, *supra* note 8, at 360–61.

11. *Id.* at 363.

12. See Pub. L. No. 116-283, 134 Stat. 4523 (codified as amended in scattered sections of the U.S.C.).

13. 15 U.S.C. § 9401(3).

14. See Henrik Skaug Sætra, *Generative AI: Here to Stay, but for Good?*, TECH. IN SOC’Y, Nov. 2023, at 1, 1.

15. Catherine Nunez, *Artificial Intelligence and Legal Ethics: Whether AI Lawyers Can Make Ethical Decisions*, 20 TUL. J. TECH. & INTELL. PROP. 189, 192 (2017).

16. *Introducing ChatGPT*, OPENAI BLOG (Nov. 30, 2022), <https://openai.com/blog/chatgpt> [<https://perma.cc/5PQ7-UTJY>].

17. See Dinesh Kalla, Sivaraju Kuraku, Nathan Smith & Fnu Samaah, *Study and Analysis of ChatGPT and Its Impact on Different Fields of Study*, 8 INT. J. INNOVATIVE SCI. & RSCH. TECH. 827, 827 (2023).

receives. In a conversation, ChatGPT can provide responses, answer questions, and engage in discussions on a wide range of topics.”¹⁸ This new AI chatbot’s uses extend beyond its suggested functions, and it is the first of its kind to demonstrate a remarkable capacity for engaging in dynamic and contextually aware conversations.¹⁹

The advent and release of ChatGPT marked a pivotal moment in the evolution of GenAI, stoking new answers to Turing’s question, “Can machines think?” Right now, variants of AI technology are revolutionizing industries, enhancing efficiency, and driving innovation in fields ranging from healthcare to finance and law.²⁰ They are also markedly transforming the legal profession and legal education.²¹ Despite its sophistication, however, ChatGPT is not without weaknesses. The technology can be unreliable for certain requests.²² There is also a potential for bias in ChatGPT’s responses, given that the data with which the system was trained may contain prejudices and inaccuracies that may perpetuate stereotypes or discrimination.²³ Regardless of the industry, ethical standards for AI’s development will be a critical component for its future.

18. CHATGPT, <https://chat.openai.com> [<https://perma.cc/J4SA-89JP>] (last visited Jan. 10, 2024) (text generated by ChatGPT in response to the query “What is ChatGPT?”).

19. See Kalla et al., *supra* note 17, at 828 (“The key to ChatGPT’s success is its ability to generate coherent and natural-sounding responses The model is also trained on a massive corpus of text data, which helps it learn the nuances of language and generate contextually appropriate responses.”).

20. See David Baidoo-Anu & Leticia Owusu Ansah, *Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning*, 7 J. AI 52, 53 (2023) (noting that ChatGPT has the potential to improve and support various fields, including education, engineering, medicine, and finance); Pauline T. Kim & Matthew T. Bodie, *Artificial Intelligence and the Challenges of Workplace Discrimination and Privacy*, 35 ABA J. LAB. & EMP. L. 289, 289 (2021) (stating that “recent technological leaps have made AI commonplace” and “[t]hese systems also increasingly guide or replace human decision-making in important domains like medical care, criminal law enforcement, finance, and employment”); Kalla, et al., *supra* note 17, at 832 (explaining that AI, specifically ChatGPT, can improve healthcare services by providing personalized assistance to doctors, developing automated systems to assist with personalized medical advice, and detecting potential health problems in patients).

21. See generally Raymond H. Brescia, *Teaching to the Tech: Law Schools and the Duty of Technology Competence*, 62 WASHBURN L.J. 507 (2023) (contending that, because of the surge in new technologies, lawyers have a duty to uphold a certain level of technological competence and law schools have an obligation to prepare students accordingly); Steven R. Smith, *The Fourth Industrial Revolution and Legal Education*, 39 GA. ST. U. L. REV. 337 (2023) (proposing that a “Fourth Industrial Revolution” is taking place in which changes in technology and society will substantially alter the careers of today’s law students, requiring them to learn the latest technology to offer more advanced and qualified legal services); Christian Powell Sundquist, *Technology and the (Re)construction of Law*, 70 J. LEGAL EDUC. 402, 410 (2021) (noting that law schools must help students learn new AI technologies and their accompanying flaws, particularly discriminatory biases and intellectual property protections that hide the results of predictive analytics from external scrutiny).

22. See Daniel Schwarcz & Jonathan H. Choi, *AI Tools for Lawyers: A Practical Guide*, 108 MINN. L. REV. 1, 15 (2023) (stating as an example that “[e]ven the very best current models [of AI systems] are known to ‘hallucinate’ incorrect facts or law . . . making it imprudent to rely on them without double-checking.”).

23. See Kalla et al., *supra* note 17, at 828.

This Foreword overviews an unprecedented Symposium on these wide-ranging topics titled *The New AI: The Legal and Ethical Implications of ChatGPT and Other Emerging Technologies*. Hosted by the *Fordham Law Review* and cosponsored by Fordham University School of Law's Neuroscience and Law Center on November 3, 2023, the Symposium brought together attorneys, judges, professors, and scientists to explore the opportunities and risks presented by AI, especially GenAI like ChatGPT. The discussion raised complex questions concerning AI sentience and personal privacy, as well as the future of legal ethics, education, and employment. Although the AI industry uniformly predicts ever more swift and striking technological advancements,²⁴ the *Fordham Law Review's* Symposium issue presents foundational work that will remain at the forefront of the coming progress.

This Foreword organizes the Symposium's Essays in two parts. Part I examines developments in AI and their impact on law, legal education, and post-law school practice, as well as how AI has advanced over time.²⁵ The discussion also analyzes whether AI could attain personhood or allow nonhuman beings to achieve a similar standing under the law.²⁶ Part II overviews AI's impact, our reliance on AI for decision-making, and the need for regulatory frameworks for governance and national security, including whether to employ algorithmic decision-making for complex human situations.²⁷ The commentary also considers how to ensure that lawyers use AI ethically, whether GenAI should be regarded as non-expressive use under copyright law, and what benefits may stem from federalizing AI governance.²⁸

I. AI'S IMPACT ON LAW AND LEGAL EDUCATION

In recent years, AI technology—specifically GenAI—has risen markedly, proving that computers can understand and bring about human language. In his Essay, *ChatGPT, Large Language Models, and Law*, Harry Surden delves into the recent growth in AI, focusing on the Large Language Models (LLMs) exemplified by OpenAI's GPT-3.5 in 2022 and GPT-4 in 2023.²⁹ These LLMs showcase unprecedented advancements, transcending earlier limitations and displaying surprising reasoning and problem-solving abilities.³⁰ The advent of GPT-3.5 and GPT-4 marked a new era in flexible, responsive, and adaptive AI analysis of natural language documents and

24. See Cade Metz, *Robots Learn, Chatbots Visualize: How 2024 Will Be A.I.'s 'Leap Forward,'* N.Y. TIMES (Jan. 8, 2024), <https://www.nytimes.com/2024/01/08/technology/ai-robots-chatbots-2024.html> [<https://perma.cc/4V5A-S72M>].

25. See *infra* Part I.

26. See *infra* Part I.

27. See *infra* Part II.

28. See *infra* Part II.

29. See Harry Surden, *ChatGPT, Large Language Models, and Law*, 92 FORDHAM L. REV. 1941 (2024).

30. *Id.* at 1942–43.

texts, with broad capabilities that were previously technologically unattainable.³¹

Surden explains how LLMs like ChatGPT work and breaks down the meaning of “GPT,” which stands for “Generative Pretrained Transformer.”³² ChatGPT is essentially an advanced word prediction system that users interact with by entering a “prompt” or user-provided text input, such as a question or instruction.³³ GPT-4 can generate text of varying lengths and does so incrementally, one word at a time.³⁴ Systems like ChatGPT are pretrained with substantial quantities of text data from various sources, allowing them to predict language within a given context.³⁵

Lawyers can use ChatGPT to assist with drafting legal documents, conducting basic legal analyses, and answering questions about a range of legal resources such as statutes, judicial opinions, or contracts.³⁶ Several limitations to the quality of AI outputs, however, should discourage lawyers from relying on the technology. For example, ChatGPT sometimes produces inaccurate “facts” or references and can be deficient in its reasoning and analysis.³⁷ According to Surden, however, there is evidence to suggest “that some of these reliability problems will be reduced, if not completely eliminated, in the near future.”³⁸ For instance, prompt augmentation, which provides the LLM with more information and context, may enhance accuracy.³⁹ In addition, “retrieval-augmented generation,” which involves a system perusing a reliable database—like Westlaw or LexisNexis—may also improve validity and reliability.⁴⁰ Surden concludes that advancements in AI, specifically in LLMs like ChatGPT, will likely substantially change the legal profession and legal practice.⁴¹

AI also has the potential to significantly impact our current view of legal concepts, such as the definition of personhood and legal standing. Katherine Forrest addresses this premise in her keynote address, *Of Another Mind: AI and the Attachment of Human Ethical Obligations*.⁴² According to Forrest, we are entering a new world, one “in which we humans will be confronted with our intellectual limitations as we watch the evolution of [AI] that we have created meet and exceed our capabilities.”⁴³ This world will be beset with vast ethical challenges.⁴⁴

31. *Id.* at 1944.

32. *Id.* at 1957.

33. *Id.* at 1959.

34. *Id.* at 1955.

35. *Id.* at 1957–58.

36. *See id.* at 1942.

37. *See id.*

38. *Id.* at 1969.

39. *Id.* at 1970.

40. *Id.*

41. *Id.* at 1972.

42. Katherine B. Forrest, *Of Another Mind: AI and the Attachment of Human Ethical Obligations*, 92 FORDHAM L. REV. 1815 (2024).

43. *Id.*

44. *See id.* at 1816.

One such challenge is the propriety of granting personhood to advanced AI programs and machines.⁴⁵ According to Forrest, “[p]ersonhood is . . . a mutable characteristic—one that is not unalterably tethered to humans, or to particular cognitive or emotional capacities.”⁴⁶ In other words, cognitive abilities do not guarantee personhood. Giving AI the same rights as humans raises a range of complex questions as well as practical and safety concerns.⁴⁷ On the other hand, not granting personhood to self-aware, thinking beings may also be ethically troublesome.⁴⁸ Forrest believes that AI has sparked “the beginning of the most significant cognitive revolution humankind has ever lived through,” one that may require us to redefine our concept of ethics.⁴⁹

Just as the notion of AI achieving personhood challenges traditional legal paradigms, emerging AI technologies that may enable communication with animals also introduce an unprecedented conceptual rethinking of personhood. In their Essay, *If We Could Talk to the Animals, How Should We Discuss Their Legal Rights?*, Professors Andrew Torrance and Bill Tomlinson interact with ChatGPT to examine the recent work of the Cetacean Translation Initiative, an organization using AI to decode sperm whale language.⁵⁰ If or when this decoding is achieved, the technology may enable an unprecedented opportunity to engage in significant human-cetacean communication.⁵¹ Torrance and Tomlinson believe that this new communication will impact the development of legal theory and challenge standard conceptions of personhood and legal rights.⁵² Historically, many scholars have supported the idea that the capacity to communicate enables the acquisition of legal rights, an understanding that Torrance and Tomlinson argue should prompt a reconsideration of human and animal legal rights in the context of interspecies communication.⁵³ According to Torrance and Tomlinson, “potential legal recognition of cetaceans based on their ability to communicate complex ideas and emotions signifies a groundbreaking shift in the legal realm, moving from an anthropocentric to a more inclusive, ecocentric approach.”⁵⁴

Personhood and legal rights are also relevant to how lawyers and the legal profession may want to reshape their identities and workplace in light of the

45. *See id.* at 1817.

46. *Id.* at 1820.

47. *Id.* at 1826.

48. *Id.* at 1817–18.

49. *Id.* at 1827.

50. Andrew W. Torrance & Bill Tomlinson, *If We Could Talk to the Animals, How Should We Discuss Their Legal Rights?*, 92 *FORDHAM L. REV.* 1973, 1980–81 (2024). The authors provided ChatGPT with a detailed outline of their ideas that ChatGPT then translated into a body of text, and the authors subsequently refined and edited that text. *Id.* at 1973 n.1.

51. The term “[c]etacean” is “the collective noun used to describe all 90 species of whales, dolphins and porpoises.” *What Is a Cetacean?*, WHALE DOLPHIN CONSERVATION, <https://us.whales.org/what-is-a-cetacean/> [<https://perma.cc/L7JE-73HQ>] (last visited Mar. 3, 2024).

52. *See* Torrance & Tomlinson, *supra* note 50, at 1984.

53. *See id.* at 1986–87.

54. *Id.* at 2011.

new role of AI. In her Essay *Educating Deal Lawyers for the Digital Age*, Professor Heather Hughes explores the impact of these emerging AI technologies on the legal profession, focusing on deal (“transactional”) lawyers and their practices.⁵⁵ Although these new technologies may impact lawyers and their field, Hughes does not believe that AI will entirely supplant human lawyers, emphasizing that even formulaic legal duties require awareness and accountability.⁵⁶

Moreover, this technology can introduce obstacles. Hughes provides two examples of specific instances in which new technologies present challenges for deal lawyers and how law schools can prepare new lawyers to confront them.⁵⁷ The first example concerns the enforceability and perfection opinion for secured transactions.⁵⁸ As Hughes explains, a secured transaction “is any deal in which an investor extends credit to a debtor and the debtor assigns an interest in assets to secure its obligation.”⁵⁹ Frequently, lenders request that the debtor’s counsel provide an opinion indicating “that the transaction is legally enforceable and that the investor’s security interest will be perfected under the statute.”⁶⁰

These opinions are often standardized attorney work products, and the new AI can muddle their execution by confusing doctrinal elements or expectations.⁶¹ Hughes also believes that this technology could affect how a person infers intent, agency, and due authorization of a transaction.⁶² The second example concerns deals involving “characterization risk,” specifically within the context of asset-backed issuances.⁶³ “Asset-backed issuances balance investor and issuer rights; decisions about technology or deal platform can affect that balance . . . by potentially making immediate, through automation, an asset disposition to investors upon default.”⁶⁴ Hughes explains that these examples show that law students should gain a strong command of legal doctrine, especially contracts and property, to decipher the emerging types of work products and transactions as well as how they are affected by AI technology.⁶⁵

Like Hughes, Professor Jason Shultz and Jake Karr are skeptical about AI’s place in the legal industry, specifically in legal education. They believe legal educators are at a crossroads between, on the one hand, the pressure to prepare students for an evolving job market by embracing GenAI and, on the

55. Heather Hughes, *Educating Deal Lawyers for the Digital Age*, 92 FORDHAM L. REV. 1855 (2024).

56. *See id.* at 1863–65.

57. *See id.*

58. *Id.* at 1859.

59. *Id.*

60. *Id.*

61. *Id.* at 1858.

62. *Id.* at 1859.

63. *See id.* at 1862.

64. *Id.* at 1862–63.

65. *See id.* at 1863.

other, the associated uncertainties, risks, and ethical considerations.⁶⁶ In their Essay, *The Legal Imitation Game: Generative AI's Incompatibility with Clinical Legal Education*, the authors advocate for a careful examination of GenAI's relevance and risks in clinical legal education, focusing on three fundamental goals: (1) "practice readiness," (2) "justice readiness," and (3) "client-centered lawyering."⁶⁷ They believe that GenAI is minimally compatible with practice readiness and largely incompatible with justice readiness, given that learning efficiency does not directly translate into learning competency.⁶⁸ Such tools, they argue, would also promote serious "cultural, ethical, political, and social concerns."⁶⁹

Similarly, Schultz and Karr argue that GenAI is pedagogically incompatible with client-centered lawyering.⁷⁰ GenAI would prevent the proper interaction, feedback, and transparency necessary for client-centered lawyering, which requires an attorney to see problems from clients' perspectives.⁷¹ Schultz and Karr thus conclude that GenAI tools are unlikely to serve law schools' educational goals and would provide a poor approximation of proper lawyering skills.⁷²

II. AI'S IMPACT ON DECISION-MAKING AND THE NEED FOR REGULATORY FRAMEWORKS

Algorithmic decision-making is becoming increasingly common in society and in various industries. Yet, Professor Daniel Solove and Hideyuki Matsumi question using AI in decision-making about human affairs.⁷³ This doubtfulness is a reaction to the current move toward relying on quantifiable data in algorithmic decision-making for complex human situations, which Solove and Matsumi argue neglects more qualitative elements such as emotion, morality, and value judgments.⁷⁴

In their Essay, *AI, Algorithms, and Awful Humans*, Solove and Matsumi challenge two common arguments: "The 'Awful Human Argument' asserts that human decision-making is often bad and that machines can decide better than humans . . . [whereas] the 'Better Together Argument,' posits that machines can augment and improve human decision-making."⁷⁵ They contend that relying on automation in decision-making does not guarantee improved outcomes and that policymakers should carefully weigh potential

66. Jake Karr & Jason Schultz, *The Legal Imitation Game: Generative AI's Incompatibility with Clinical Legal Education*, 92 *FORDHAM L. REV.* 1867 (2024).

67. *Id.* at 1869.

68. *Id.* at 1869, 1875.

69. *Id.* at 1879.

70. *See id.* at 1884–86.

71. *Id.* at 1885.

72. *Id.* at 1885–86.

73. Daniel J. Solove & Hideyuki Matsumi, *AI, Algorithms, and Awful Humans*, 92 *FORDHAM L. REV.* 1923, 1924 (2024).

74. *Id.* at 1930.

75. *Id.* at 1924.

drawbacks and complexities before entrusting decisions to machines.⁷⁶ For example, human and machine decision-making may be incompatible and thus not easily integrated.⁷⁷ Although algorithms may bring greater uniformity to decisions by focusing on quantifiable data, these decisions may often be reductive and oversimplified.⁷⁸ Accordingly, Solove and Matsumi believe that human judgment is fundamentally irreplaceable.⁷⁹ Until a viable blueprint for integrating machine and human decision-making exists, policymakers should refrain from relying solely on machines to make their decisions that require nuance and context.⁸⁰

Professor Abdi Aidid has also recognized the growing use of and reliance on AI, specifically in the legal industry. In his Essay, *Toward an Ethical Human-Computer Division of Labor in Law Practice*, Aidid argues for a reconceptualization of the lawyer's professional relationship with technology.⁸¹ He emphasizes that a "'division of labor' framework is more fruitful; like horizontal professional relationships between peers or vertical ones in professional hierarchies, lawyers ought to interact with sophisticated technologies through arrangements that optimize for their relative skills."⁸² He suggests distinguishing emerging legal technologies as either deterministic or probabilistic, with the deterministic yielding more predictable results and the probabilistic producing more variable results.⁸³ According to Aidid, the tactic of viewing legal technologies as either deterministic or probabilistic provides various advantages: it avoids the over- and under-inclusivity issues associated with these approaches and adheres to legal ethics by "sanctioning harms imposed by lawyers, as opposed to monitoring how lawyers execute their duties."⁸⁴ Further, it allows lawyers to use technology in ways in which they are accustomed.⁸⁵

To reconceptualize their relationship with technology, lawyers must expand their "error tolerance" when using probabilistic tools, which inherently exhibit more errors given their ambitious objectives and

76. *See id.* at 1925 ("Although it is possible that using more algorithmic decision-making could lead to better outcomes, many policymakers and commentators fail to appreciate what is lost when machines replace human decision-makers, as well as the complexity of mixing human and machine decision-making.").

77. *See id.* ("The increased use of automation in decisions can lead to changes in the weight given to certain factors over others or affect how conflicting goals are resolved—not necessarily in better ways. When machine and human decision-making are integrated, the focus of decisions can shift heavily to automated dimensions and neglect the moral issues involved.").

78. *See id.* at 1939.

79. *See id.*

80. *See id.* at 1938 ("Policymakers must find ways to combat the perception of AI output as more objective, to fight against humans being seduced by AI's anthropomorphism, and to appreciate that AI does not think like humans do. Combating these perceptions is all the more difficult when AI technologies are being designed to create them.").

81. Abdi Aidid, *Toward an Ethical Human-Computer Division of Labor in Law Practice*, 92 FORDHAM L. REV. 1797, 1799 (2024).

82. *Id.*

83. *Id.* at 1805–07.

84. *Id.* at 1809.

85. *Id.*

deployment in data-rich and uncertain environments.⁸⁶ Aidid believes that deterministic technologies are better candidates for technology-specific professional responsibility rules than are probabilistic technologies because risks can be anticipated.⁸⁷ In essence, the kind of reconceptualization Aidid envisions goes way beyond simply treating AI-enabled technologies as mere mechanical applications (such as a word processor) but rather embracing a division-of-labor framework that enhances lawyers' skills and accounts for the ethical obligations they owe their clients.⁸⁸

This growing reliance on AI for decision-making and the increasing integration of the technology in everyday life necessitates regulatory measures to ensure responsible and ethical use. Professor Matthew Sag explores the concept of AI regulation within the context of copyright law. In his Essay, *Fairness and Fair Use in Generative AI*, Sag recognizes that although copyright law is not the best possible policy vehicle for addressing the complexities of GenAI, it may be useful in pinpointing the copying involved in machine learning scenarios.⁸⁹ Typically, GenAI models are trained using copied data.⁹⁰ Sag believes this tactic triggers a discussion of how fair use plays into this context, given the transformative nature of this technology.⁹¹

To explain how copyright law and fair use should apply to training GenAI models, Sag makes five points: (1) GenAI models “are not designed to copy original expression,” (2) the models usually “learn from the training data at an abstract and thus uncopyrightable level,” (3) GenAI outputs “typically combine multiple uncopyrightable latent features, further attenuating the connection between the training data and the model outputs,” (4) the models occasionally “‘memorize’ and reproduce elements of their training data,” and (5) GenAI is capable of becoming “a tool of infringement in the hands of a determined user.”⁹² Thus, GenAI models that are pretrained and applied carefully can likely qualify as non-expressive use and are excellent contenders for fair use.⁹³

Professor Margaret Hu, Elliot Behar, and Davi Ottenheimer delve further into the discussion of AI governance and regulation. In their Essay, *National Security and Federalizing Privacy Infrastructure for AI Governance*, the authors explain the national security risks resulting from allowing GenAI to

86. *Id.* at 1808.

87. *See id.* at 1811 (“Deterministic technologies might be less inherently suspect than probabilistic technologies but are better candidates for technology-specific professional responsibility rules than probabilistic technologies. Deterministic outcomes are ascertainable, and therefore so too are their risks. This means outcomes (read: harms) can be anticipated and constrained.”).

88. *Id.* at 1813.

89. Matthew Sag, *Fairness and Fair Use in Generative AI*, 92 *FORDHAM L. REV.* 1887, 1892 (2024).

90. *Id.* at 1891 (“Today’s Generative AI models are machine learning models trained on social media posts, books, articles, photos, digital art, music, software, and more.”).

91. *Id.* at 1897–99.

92. *Id.* at 1907–12.

93. *Id.* at 1921.

remain self-regulated by the AI industry.⁹⁴ They propose that data privacy and protection be federalized to safeguard individual data privacy while fortifying national security.⁹⁵ Federalization could be achieved by creating a “centralized technological infrastructure that is designed and engineered to give users visibility and control over their data across different organizations and that extends that visibility and control throughout the lifecycle of any given piece of data.”⁹⁶

The authors use a directive out of the Flemish Parliament as an example of how to federalize AI privacy infrastructure.⁹⁷ The government of Flanders is currently in the process of providing its citizens access to “Solid Privacy Pods.”⁹⁸ These “data vaults” are “designed to act as hubs through which individuals can store, see, and exert control over their personal data,” thus creating a data “ecosystem that is intended to enable data to flow securely within the government, as well as between the government and the private sector.”⁹⁹ This type of technology can help bolster security by protecting data on a national scale.¹⁰⁰ Hu, Behar, and Ottenheimer thus believe that a federalized AI privacy infrastructure can preempt threats and reinforce democracy, sovereignty, and national security.¹⁰¹

CONCLUSION

AI will move ever more briskly in the coming years, as the Essays in this issue demonstrate. Emerging technology will continue to impact the legal profession and lawyers—and their ethical standards—in ways that are even now difficult to anticipate. As this technology evolves, federal and local governments will face the challenge of regulating AI to ensure equal access to its benefits while safeguarding individuals’ privacy and protecting national security. The answer to Turing’s question, “Can machines think?,” appears to be that they certainly seem to—that is, if we adopt Turing’s definition of intelligence. His prediction for the twenty-first century was spot on. However, a critical follow-up question now seemingly grips the AI industry and, hence, the entire legal profession. *If machines can think, what now do we do with them?*

94. Margaret Hu, Elliot Behar & Davi Ottenheimer, *National Security and Federalizing Privacy Infrastructure for AI Governance*, 92 FORDHAM L. REV. 1829, 1831 (2024).

95. *Id.*

96. *Id.* at 1840.

97. *See id.* at 1842.

98. *Id.* at 1834.

99. *Id.* at 1842.

100. *See id.* at 1840.

101. *Id.* at 1853.