Large Language Models: AI's Legal Revolution

Adam Allen Bent
University of Illinois Urbana-Champaign
LARGE LANGUAGE MODELS: AI’S LEGAL REVOLUTION

Adam Allen Bent*

Abstract

This article contemplates and advocates for the use of Artificial Intelligence (“AI”) through Large Language Models (“LLM”) in legal practice. The author ultimately addresses the need to orient LMMs within varying legal contexts including academia, private practice, as well as the U.S. court system. Additionally, the author emphasizes the inevitability of AI and LLM systems infiltrating legal practice, and the reality that the industry must acknowledge and accept these systems to regulate and to provide better while still ethical legal services. Large Language Models: AI’s Legal Revolution, begins by walking the reader through the history of technological innovation of AI, all the way to modern LLM systems. This in turn lays a foundation for understanding what exactly the product is that should shape the legal landscape, and why we should be paying better attention to it. The article then compares and contrasts the current LLM products on the market, including a discussion of their capabilities in the context of legal work. Finally, the article discusses the different practical areas of law where LLMs can prove to enhance the legal industry, how so, and the benefits that LLMs may bring to the landscape of law in the twenty-first century.

I. INTRODUCTION
II. A HISTORY OF CHATBOTS
   A. ELIZA
   B. PARRY
   C. Jabberwacky
   D. Dr. Sbaitso
   E. ALICE
   F. SmarterChild
   G. Watson
   H. Siri, Alexa, Cortana, & Google Assistant

* MS 2024, University of Illinois Urbana-Champaign; JD 2019, University of Florida Levin College of Law; BA 2015, University of South Florida. This Article was created by the biological mind of the Author: No LLMs were used in the making of the Article and no special thanks are required for AI.
I. ChatGPT, Bing Chat & Bard .............................................................. 116
III. LARGE LANGUAGE MODELS IN THE LEGAL MARKETPLACE .......... 118
   A. ChatGPT .................................................................................... 120
   B. Bing Chat ............................................................................... 121
   C. Bard ....................................................................................... 122
   D. CoCounsel ............................................................................... 123
   E. Lexis+ AI .................................................................................. 124
IV. BIFURCATING LLMs ...................................................................... 125
   A. Non-Legal LLMs ....................................................................... 127
   B. Legal LLMs ............................................................................. 129
V. BANNING LLMs IS NOT THE SOLUTION ...................................... 131
   A. An Inability to Effectively Determine LLM Use ......................... 131
   B. Failing to Understand the Dichotomy of LLMs ......................... 132
   C. Legal Efficiency ....................................................................... 133
VI. RECOMMENDATIONS FOR A PATH FORWARD ............................ 134
   A. Law Schools ........................................................................... 134
   B. Practitioners ........................................................................... 136
   C. The Judiciary .......................................................................... 136
VII. CONCLUSION ............................................................................. 137

“A new, a vast, and a powerful language is developed for the future use of analysis, in which to wield its truths so that these may become of more speedy and accurate practical application for the purposes of mankind than the means hitherto in our possession have rendered possible.”

Ada Lovelace, Notes by the Translator, Sketch of the Analytical Engine Invented by Charles Babbage, Esq., in SCIENTIFIC MEMOIRS, SELECTED FROM THE TRANSACTIONS OF FOREIGN ACADEMIES OF SCIENCE AND LEARNED SOCIETIES, AND FROM FOREIGN JOURNALS 697 (Richard Taylor et al. eds. 1843).

“I believe that at 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.”

A. M. Turing, Computing Machinery and Intelligence, 59 MIND 433, 442 (1950).
“I have invented ... a lawyer of superhuman skill, learning, patience, and acumen, whom I shall call Hercules.”

RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 105 (1978).

“Advances in computational technology have hastened the spread of automation to cognitive tasks once performed by white collar workers.”


“The incorporation of ... Large Language Models into the legal industry is ... inevitable.”


I. INTRODUCTION

“In brisk and brutal fashion, the ... computer ... [has] unseated humanity.”[1] Those were the indelible words used to describe the moment when IBM’s Deep Blue computer beat the world chess champion and grandmaster, Garry Kasparov, in 1997.[2] With Kasparov’s stunning defeat, Deep Blue and its artificial intelligence “held the world spellbound.”[3] Deep Blue’s conquest over Kasparov was hailed as nothing less than a milestone for AI.[4] Kasparov himself noted, “I faced a machine that had no comparison.”[5]

2. See id.
4. See id.
And Deep Blue faced a formidable opponent. Kasparov was "chess champion of the USSR at the age of 12" and "came to international fame at the age of 22 as the youngest world chess champion in history in 1985." Prior to facing Deep Blue, Kasparov "had never lost a match." Put simply, Kasparov was the crème de la crème — "the best human [chess player] on planet Earth" — the foremost grandmaster that humanity could call to the task of facing AI.

How could Deep Blue, a mere machine, beat Kasparov? How was a computer — inorganic, lifeless, and unconscious — able to trounce Kasparov’s supreme intellect, remarkable expertise, and decades of rigorous training? The answer: Deep Blue used "thousands of lines of complex mathematical equations and logic expressions," enabling Deep Blue to process millions of variables a second, easily finding the best move.

Kasparov’s computations — organic, conscious, and altogether human — were simply no match for AI. Kasparov even noted that, "[Deep Blue] made moves beyond anyone’s mind." When asked why he could not keep pace, Kasparov quipped, "I’m a human being." In short order, Deep Blue bludgeoned humanity’s most formidable contender, out-computing the best biological mind on the planet.

Advancements in AI skyrocketed in the ensuing decades. AI continued pummeling human experts, but in increasingly complex arenas, such as when AlphaGo drubbed the Go world champion in 2016. And AI ventured into new domains, like when IBM unveiled...
Project Debater in 2019, the first AI system designed to debate humans on complex topics. And now, AI is even being combined with quantum computing, supercharging AI by harnessing the raw power of quantum physics. These are just some examples amongst many, but the point is clear: AI is “transforming every walk of life.”

With AI’s unrelenting advance, it would only be matter of time before intelligent machines would come for law. And that time is now. The invention of an avant-garde chatbot, large language models (LLMs), has thrown the legal profession into an array of panic, fear, see also Niikan Akpan, Google Artificial Intelligence Beats Champion at World’s Most Complicated Board Game, PBS: NewsHour (Jan. 27, 2016, 2:40 PM), https://www.pbs.org/newshour/science/google-artificial-intelligence-beats-champion-at-worlds-most-complicated-board-game (“So Go is probably the most complex game ever devised by man.”).


20. IBM Project Debater, OPEN TO DEBATE, https://opentodebate.org/debaters/ibm-project-debater/#:~:text=IBM%20Project%20Debater%20is%20the,driven%20speechwriting%20and%20delivery%2C%20listening%20to%20%26%238211%3B%20the%20debate%20%26%238211%3B%20(last%20visited%20Feb.%203,%2024).


Quantum computing employs the properties of quantum physics like superposition and entanglement to perform computation. Traditional [computers] use binary encoding of data represented electrically as “on” or “off” states [denoted as 0 or 1]. Quantum bits or “qubits” can simultaneously operate in multiple states.\[0, 1, any number between 0 and 1, and any of those numbers simultaneously,\] enabling unprecedented levels of parallelism and computing efficiency.


23. See infra text accompanying notes 24–31 (discussing how law is, after all, mostly a system of rules applied to factual scenarios.)

and amazement.\textsuperscript{25} Practitioners, law schools, judges, and bar associations are at a loss for how to grapple with such advanced technology.\textsuperscript{26} And for good reason; LLMs can perform a plethora of cognitive tasks once thought to be the sole province of a legal mind.\textsuperscript{27} With breakneck speed, tasks such as drafting contracts, writing judicial opinions, and even composing law journal articles can be performed almost entirely by LLMs.\textsuperscript{28} Like Deep Blue’s crushing defeat of Kasparov, LLMs can speedily bludgeon the best trained legal minds.\textsuperscript{29} Put simply, LLMs are “poised to fundamentally reshape the practice of law.”\textsuperscript{30} And since LLMs are here to stay, “[t]he best advice is to be ready for the . . . revolution.”\textsuperscript{31}

But ready the law is not.\textsuperscript{32} The legal profession has been caught flat-footed, totally unprepared for the firestorm that LLMs have caused.\textsuperscript{33} A chorus of confusion and uncertainty has engulfed the legal profession,\textsuperscript{25} legal industry reacts to goldman sachs generative ai report: keep calm and panic, law.com (mar. 30, 2023, 10:13 pm), https://www.law.com/legaltechnews/2023/03/30/legal-industry-reacts-to-goldman-sachs-generative-ai-report-keep-calm-and-panic/#:~:text=COMMENTARY-,Legal%20Industry%20Reacts%20to%20Goldman%20Sachs%20Generative%20AI%20Report%3A%20Keep,would%20mean%20for%20the%20industry (discussing lawyers’ reactions to a report that AI could have a significant impact on the legal industry, which included fear, surprise, and relief).


\textsuperscript{27} See Villasenor, supra note 24.

\textsuperscript{28} See infra Part V.

\textsuperscript{29} See infra Part V.

\textsuperscript{30} Villasenor, supra note 24.


\textsuperscript{33} See, e.g., id. (discussing how a lawyer cited a case produced by ChatGPT, unaware that it was entirely fabricated, which presented the judge with a novel issue).
profession. Law schools are unsure how to proceed. Practitioners cannot find their footing. And judges, not yet fully comprehending LLMs, are beginning to implement regulations for their use—rules which do not accurately reflect the nuances of the technology.

This Article is cutting-edge and at the very forefront of legal discourse—and will be so for years to come. The Article provides a framework for orienting the legal profession. This Article’s objectives are thus: (1) law schools, practitioners, and judges must understand LLMs; (2) comprehension of LLMs includes knowing that LLMs can be demarcated by type; (3) blanket bans on LLMs are misguided and

34. Compare Villasenor, supra note 24 (explaining the numerous ways in which large language models can be used in legal practice), with Sloan, supra note 26 (explaining that the University of Michigan Law School has banned large language models for applications).

35. See, e.g., Lauren Coffey, Law Schools Split on ChatGPT in Admissions Essays, INSIDE HIGHER ED. (Aug. 4, 2023), https://www.insidehighered.com/news/tech-innovation/artificial-intelligence/2023/08/04/law-schools-split-using-chatgpt-admissions (“Some say failing to teach law students to use artificial intelligence is ‘malpractice,’ but the role ChatGPT should have in law school . . . is unclear.”).


37. Compare Megan Cerullo, Texas Judge Bans Filings Solely Created by AI After ChatGPT Made Up Cases, CBS NEWS (June 2, 2023, 2:07 PM), https://www.cbsnews.com/news/texas-judge-bans-chatgpt-court-filing/ (noting that Judge Starr limited LLM use because LLMs “make stuff up—even quotes and citations”), with GPT-4 Alone is Not a Reliable Legal Solution—but It Does Enable One, CASETEXT (May 5, 2023), https://casertext.com/blog/cocounsel-harnesses-gpt-4s-power-to-deliver-results-that-legal-professionals-can-rely-on/#:~:text=Unlike%20even%20the%20most%20advanced,
not%20to%20answer%20all%20[hereinafter GPT-4 Alone is Not a Reliable Legal Solution] (noting that “[u]nlike even the most advanced LLMs, CoCounsel does not . . . hallucinate.”). See infra Part III (explaining some LLMs are undoubtedly prone to hallucinating, but LLMs designed for law either eliminate hallucinations or severely restrict their occurrence).


39. See infra Parts II, III.

40. See infra Part IV.
could not be technologically achieved even if desired;\textsuperscript{41} and (4) LLMs must be fully integrated into the legal profession.\textsuperscript{42}

This Article is presented in seven parts. Part II provides a history of chatbots. Beginning with Alan Turing’s remarkable thought experiment for intelligent machines, this Part covers the major developments in chatbot history, culminating with LLMs that dominate modern society. Most of those in the legal community have little to no knowledge of the evolution of chatbots. Most legal academics, practitioners, and judges are unsure as to how the legal profession arrived in its current state, one besieged by LLMs. This Part provides a framework for understanding how the legal profession’s LLM dilemma came to pass.

Part III provides a synopsis of the major LLMs in the legal marketplace. This Part is not designed to be a comprehensive analysis of every LLM. Rather, it is to provide an overview of the most prominent LLMs. This Part includes LLMs that were designed for a general audience but that also have legal applications, such as ChatGPT. It also comprises LLMs specifically designed for law, like CoCounsel. Most legal academics, practitioners, and judges are unfamiliar with the technology and capabilities of LLMs. As just one example, most legal professionals are unaware that the training data for LLMs can vary dramatically, such as some LLMs using purely static data to answer inquiries, i.e., they not connected to the internet, while others have access to live data, i.e., they are connected to the web or other live databases. This Part assists legal professionals by providing an overview of the most prominent LLMs.

Part IV bifurcates LLMs by type: LLMs not made for law but having legal applications (non-legal LLMs); and LLMs tailor-made for legal use (legal LLMs). This Part demarcates LLMs to highlight the fact that rules and regulations concerning LLM use have largely missed the mark: They have failed to recognize the nuances between LLM types. Regulations thus far have attributed the most onerous features of \textit{some} LLMs, such as being prone to hallucinations and failing to keep data private, with that of \textit{all} LLMs. While it is true that some LLMs are prone to hallucinations and face privacy issues (non-legal LLMs), that is \textit{not} the case for other LLMs (legal LLMs). LLMs specifically designed for law do not hallucinate or severely restrict their occurrence and have strict privacy measures. Consequently, any rules and regulations

\textsuperscript{41} See infra Part V.
\textsuperscript{42} See infra Part VI.
concerning LLM use must not be superficial; those regulating LLMs must understand the nuances in different LLM types.

Part V identifies why banning LLMs is not the solution to the legal profession’s LLM dilemma. A common reaction amongst many legal professionals is to simply ostracize that which is technologically new—especially for a technology that can perform much of the cognitive work performed by legal academics, practitioners, and judges. LLMs are a disruption of the status quo and a potential threat to the old guard. As such, it is rational that one would want to simply ban LLMs altogether. But that sentiment is an exercise in futility. Whatever one’s aversion to LLMs, they are now—and will continue to be—a fabric of the legal profession. Even if one desired to ban LLMs altogether, technologically speaking, it is simply impossible. Furthermore, outright bans on LLMs are superficial: They fail to acknowledge the dichotomy between the different types of LLMs (non-legal LLMs versus legal LLMs). And lastly, prohibitions for all LLM use fail to recognize that LLMs can streamline numerous legal tasks, solving much of the inefficiency that plagues the legal industry.

Part VI proposes recommendations for integrating LLMs into the legal profession. Only three paths exist in the age of LLMs: banishment; no regulation; or fully embracing LLMs with oversight. Part V shows that banishment is futile. And Part IV reveals that nuances in LLM technology make no regulation unviable. Accordingly, the only plausible path forward is to fully embrace LLMs while trying to oversee their use. Part VI provides recommendations for integrating LLMs into law. The recommendations function as a framework in which LLMs can be incorporated into the legal profession. Whatever one’s aversion to LLMs, there is no escaping the fact that they will be a major component of law. The best that law can do is to oversee their use—understanding that they will be incorporated into nearly every facet of the legal profession.

II. A HISTORY OF CHATBOTS

In 1950, “Alan Turing—an English mathematician, logician, and cryptographer”43—took the world by storm. In that year, he

---

published his seminal paper, *Computing Machinery and Intelligence*. He made a revolutionary claim: A computer exhibits intelligence if it can deceive a person into believing that the computer is human. Alan Turing devised a method to assess a computer’s ability to exhibit human-like intelligence, what he called the “imitation game,” and what is now referred to as the Turing Test.

The Turing Test is comprised of three participants: a human interrogator; a machine, i.e., a computer; and a human subject. The interrogator’s objective is to determine which of the other two is the human subject and which is the computer. The interrogator is in a separate room and interacts with the computer and human subject through typed communications, asking questions to both the computer and the human subject, not knowing which is which. Based on that exchange, the interrogator must then decide which participant was human and which was a computer. The computer has human-like intelligence if the interrogator cannot distinguish between the computer and the human subject. If the interrogator cannot differentiate between the two, the computer has passed the Turing Test.

Alan Turing was unable to execute the Turing Test during his lifetime due to the limited technology of his day. But the Turing Test

---

44. See generally A.M. Turing, *Computing Machinery and Intelligence*, 59 Mind 433 (1950) (analyzing whether computers and other machines can “think” like human beings).

45. See id. at 433–34 (noting how the question, “Can machines think?” should be replaced with determining whether a machine can deceive a human into believing that the machine is human). Turing uses the term “machine,” as a synonym for computer. See id.

46. Id. at 433.


48. See Turing, supra note 44 at 433–34.

49. See id.

50. See id.

51. See id.

52. See id. at 434–35 (discussing how the human interrogator could be fooled into believing that the computer was the human subject).

53. See supra text accompanying notes 44–47.

54. See discussion infra Section II.A (discussing how the first chatbot, ELIZA, was not created until 1966); see also René Peralta, *Alan Turing’s Everlasting Contributions to Computing, AI and Cryptography*, Nat’l Inst. of Standards & Tech. Blog (June 23, 2022), https://www.nist.gov/blogs/taking-measure/alan-turings-everlasting-contributions-computing-ai-and-cryptography (stating that Alan Turing passed away in 1954, “before computers as we know them existed”).
was the spark that ignited chatbot development. Alan Turing ushered in a new era by conceptualizing chatbots, creating the foundation for the development of chatbot technology. The Turing Test galvanized researchers to create early chatbots, like ELIZA, hoping to convince human interrogators that chatbots were flesh and blood. In the ensuing decades, the goal of a chatbot passing the Turing Test led to revolutionary advancements in artificial intelligence, culminating in highly advanced chatbots like ChatGPT. The Turing Test was the catalyst for the chatbot landscape we face today, leaving lawyers, judges, bar associations, law schools, and society at large scrambling to grapple with the implications of such advanced technology.

55. See Will Oremus, Google’s AI Passed a Famous Test—and Showed How the Test is Broken, WASH. POST (June 17, 2022, 7:00 AM), https://www.washingtonpost.com/technology/2022/06/17/google-al-lambda-turing-test/ (“[T]he ‘Turing test’ became a benchmark for machine intelligence.”).

56. See id.

57. See discussion infra Section II.A.

58. See Oremus, supra note 55.

59. See James H. Moor, Preface to THE TURING TEST: THE ELUSIVE STANDARD OF ARTIFICIAL INTELLIGENCE (James H. Moor ed., 2003) (stating that Turing’s famous article “Computing Machinery and Intelligence” was “the most influential and widely read... in the philosophy of artificial intelligence.”).


A. ELIZA

Chatbots became a reality in 1966. In that year, Joseph Weizenbaum, a computer science professor at MIT, created the very first chatbot. Named ELIZA, the chatbot was designed to simulate a psychotherapist. ELIZA would carry out conversations with human users through text-based communications. ELIZA functioned largely by “returning the user’s sentences in the interrogative form” or restating the user’s inputs in a modified sentence. For example, if a user said, “I feel anxious,” ELIZA could respond by asking, “What caused you to feel that way?”

ELIZA created the illusion of compassion and engaging in meaningful conversation through a technology known as pattern matching. In computer programming, “[p]attern matching is a technique where you test an expression to determine if it has certain characteristics.” In the context of ELIZA, the chatbot would analyze input sentences from the user and test the sentence to determine whether it contained keywords which were programmed into ELIZA’s database. Next, ELIZA would produce a scripted response assigned to the keywords. Taking from the prior example, if a user typed a sentence containing the phrase, “I feel,” ELIZA’s programming would

67. Adamopoulou & Moussiades, supra note 63.
68. See Yoshiko Goda et al., Conversation with a Chatbot Before an Online EFL Group Discussion and the Effects on Critical Thinking, 13 J. INFO. & SYS. EDUC. 1, 3–4 (2014).
69. Id. at 3.
73. See id.
recognize those keywords. ELIZA could then match the keywords with a scripted response: “What caused you to feel that way?” The result was that ELIZA produced the false impression of empathy, so much so that several “users were taking [ELIZA] seriously and were opening their hearts to it.”

**Figure 1.** Sample of a conversation between ELIZA and a human user.

| Human: Men are all alike.  |
| ELIZA: In what way? |  
| Human: They’re always bugging us about something specific or other.  |
| ELIZA: Can you think of a specific example?  |
| Human: Well, my boyfriend made me come here.  |
| ELIZA: Your boyfriend made you come here?  |
| Human: He says I’m depressed much of the time.  |
| ELIZA: I am sorry to hear you are depressed.  |
| Human: It’s true. I’m unhappy.  |

ELIZA marked a tremendous milestone in the development of chatbot technology. A machine intelligently engaged in dialogue with a person for the first time in human history. ELIZA forever changed society’s understanding of intelligence, demonstrating that cognitive tasks previously thought to be purely human, such as conversing, could be mimicked by machines. ELIZA established that Alan Turing’s vision of intelligent machines could be a reality. Despite its limitations, ELIZA was a resounding success for chatbot

74. See Goda et al., supra note 68, at 3.
75. See id.
76. Joseph Weizenbaum, supra note 64 (discussing users were taking ELIZA seriously, but ELIZA did not pass the Turing Test).
77. See Natale, supra note 64, at 718.
79. See Natale, supra note 64.
80. See Sharma et al., supra note 65.
81. Eliza was capable of convincing users that they were communicating with another human being—the type of machine Turing had envisioned. See id; supra notes 44–53 and accompanying text.
technology, becoming “a source of inspiration for the subsequent development of other chatbots.”

B. PARRY

In 1972, Kenneth Colby, a psychiatrist “who merged his backgrounds in psychiatry and computer science to become a pioneer in . . . artificial intelligence,” built upon the success of ELIZA with the creation of PARRY. Colby designed PARRY to imitate a person suffering from schizophrenia, Psychiatrists would then converse with PARRY through text-based exchanges, unaware that PARRY was in fact a chatbot.

PARRY’s technology was very similar to ELIZA’s. Like ELIZA, PARRY used pattern matching and scripted responses to create the illusion of a sentient being. Colby programmed PARRY so that the chatbot would test users’ sentences to determine if the inputs had certain characteristics. PARRY would analyze users’ sentences to establish whether the inputs contained keywords. Then PARRY would produce a scripted response which was assigned to the keyword.

But PARRY also differed from ELIZA in several key areas. Unlike ELIZA, PARRY had a relatively large number of “patterns against which any input was matched.” Whereas ELIZA had only 200 response pairs, responses which corresponded to different keywords

82. Adamopoulos & Moussiades, supra note 63.
86. See Adamopoulos & Moussiades, supra note 63.
87. See Shum et al., supra note 70, at 12 (noting that PARRY is “rule-based and has a similar structure to ELIZA”).
88. See id.
90. See id.
91. See id.
92. See infra text accompanying notes 93–98.
93. McTear, supra note 89.
and phrases, PARRY contained approximately 6000 response pairs. Unlike ELIZA, which functioned largely by restating users’ inputs in a modified form, PARRY was far more participatory, “always hav[ing] something [unique] to say.” The result was that PARRY met its objective: mimicking a patient suffering from schizophrenia.98

Figure 2. Portion of a conversation between PARRY and a human psychiatrist.99

<table>
<thead>
<tr>
<th>Human:</th>
<th>Why are you in the hospital?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARRY:</td>
<td>I shouldn’t be here.</td>
</tr>
<tr>
<td>Human:</td>
<td>Who brought you here?</td>
</tr>
<tr>
<td>PARRY:</td>
<td>The police.</td>
</tr>
<tr>
<td>Human:</td>
<td>What trouble did you have with the police?</td>
</tr>
<tr>
<td>PARRY:</td>
<td>Cops don’t do their jobs.</td>
</tr>
<tr>
<td>Human:</td>
<td>What do they do instead?</td>
</tr>
<tr>
<td>PARRY:</td>
<td>Cops arrest the wrong people.</td>
</tr>
<tr>
<td>Human:</td>
<td>They arrest the right ones sometimes.</td>
</tr>
</tbody>
</table>

PARRY was a substantial advancement for chatbots.100 PARRY’s vastly expanded response pairs and participatory engagement made PARRY better resemble a conscious being than ELIZA. Indeed, PARRY was the first chatbot to pass the Turing Test.102 In 1979, through text-based conversations, five psychiatrists interviewed PARRY and a person with schizophrenia.103 The purpose of this

95. See McTear, supra note 89.
96. See id.
97. Id.
99. See McTear, supra note 89.
100. See Jon F. Heiser et al., Can Psychiatrists Distinguish a Computer Simulation of Paranoia from the Real Thing?: The Limitations of Turing-Like Tests as Measures of the Adequacy of Simulations, 15 J. PSYCHIATRIC R.SCH. 149, 160 (1979) (noting that the chatbot was the first to pass the Turing Test).
101. See McTear, supra note 89, at 33–34.
102. See Heiser et al., supra note 100.
103. See id at 149, 160.
experiment was “to test whether experienced psychiatrists could distinguish a computer simulation of a patient from a real patient….” 104 The psychiatrists could only identify PARRY and the human patient half of the time, demonstrating that PARRY passed the Turing Test.105 PARRY may seem miniscule by today’s standards, but it was a considerable improvement in chatbot technology. 106

C. Jabberwacky

Chatbots reached yet another technological milestone in 1988. 107 In that year, a British programmer named Rollo Carpenter created Jabberwacky. 108 Unlike ELIZA and PARRY, which were designed solely for the context of psychology, 109 Jabberwacky was constructed for a more lighthearted purpose: “to simulate natural human chat in an interesting, entertaining, and humorous manner.” 110

Jabberwacky produced the illusion of interest and humor through numerous technologies. 111 Like ELIZA and PARRY, Jabberwacky used pattern matching. 112 But Jabberwacky’s pattern matching differed from ELIZA and PARRY in essential ways. 113 ELIZA and PARRY had static databases; that is, ELIZA and PARRY’s scripted responses for keywords were pre-programmed and unchanging. 114

104. Id. at 150 (alteration in original).
105. See id. at 158, 160.
106. See generally MCTEAR, supra note 89 (discussing that PARRY was able to keep a conversation based on the 6,000 different patterns it contained).
107. See Adamopoulou & Moussiades, supra note 63.
109. See supra text accompanying notes 63–106.
112. See id.
113. See infra text accompanying notes 115–17.
114. See Arfan Ahmed et al., Arabic Chatbot Technologies: A Scoping Review, 2 Comput. Methods & Programs Biomedicine Update, no.1, 2022, at 1 (2022) (“Rule-based chatbots used a fixed set of rules … to interact with the user. This type of chatbot used only predefined responses to reply to the users’ questions and cannot learn through user interactions.”); see also Shum et al., supra note 70, at 12 (noting that ELIZA and PARRY were rule-based chatbots).
Furthermore, ELIZA and PARRY did not examine the context of the entire conversation to produce the optimal response. In stark contrast, Jabberwacky learned how to converse with users by recording the inputs of all users across all conversations that Jabberwacky had previously. When a user input a specific sentence, Jabberwacky would analyze the sentence in the context of all users and all conversations—and in the context of the entire conversion with the user now conversing with Jabberwacky—producing the optimal response to the user’s input.

Jabberwacky was a monumental leap in chatbot technology. Never before had chatbots learned. Prior to Jabberwacky, chatbots could mimic humans in conversation, even convincingly so, but they did not learn; they simply parroted scripted responses based on keywords from a user’s inputs. Jabberwacky changed that, releasing chatbots from the chains of human oversight. Jabberwacky was able to learn, adapt, change, and grow—setting the bar as the first-ever AI chatbot.

D. Dr. Sbaitso

Chatbots set another benchmark in 1991, changing the way in which conversations between chatbots and humans could take place. Made by Creative Labs, Dr. Sbaitso was designed for the

---

115. See Shum et al., supra note 70, at 10 ("Despite impressive successes, these systems . . . were mostly based on hand-crafted rules. As a result, they work well only in constrained environments.").


117. See id. ("Jabberwacky stores everything everyone has ever said, and finds the most appropriate thing to say using contextual pattern matching techniques.").

118. Compare Zhenhui Peng & Xiaojuan Ma, A Survey on Construction and Enhancement Methods in Service Chatbots Design, 1 TRANSACTIONS PERSUASIVE COMPUTING & INTERACTION 204, 207 (2019) (stating that ELIZA and PARRY were bound by pattern response rules), with Dong-Min Park et al., Systematic Review on Chatbot Techniques and Applications, 18 J. INFO. PROCESSING SYS. 26, 27 (2022) (noting that Jabberwacky “was one of the earliest attempts to create AI through human interaction”).

119. See Adamopoulou & Moussiades, supra note 63 ("Artificial intelligence is firstly used in the domain of the chatbots with the construction of Jabberwacky.").

120. See Peng & Ma, supra note 118 (referring to earlier rule-based chatbots which used manually constructed rules); see also supra text accompanying notes 63–106.

121. See Adamopoulou & Moussiades, supra note 63.

122. See About the Jabberwacky AI, supra note 116.

context of psychology: Dr. Sbaitso simulated a psychologist engaging in conversations with users. Dr. Sbaitso’s defining feature was its ability to communicate with users through speech, making it an early example of a text-to-speech chatbot.

Dr. Sbaitso’s innovation was not the content of what the chatbot said; in fact, Dr. Sbaitso’s responses were limited, mirroring the algorithm used for ELIZA. What made Dr. Sbaitso groundbreaking was its ability to communicate via speech. Furthermore, Dr. Sbaitso, “was intended not so much for communication as for demonstrating the features of sound . . . and the quality of . . . speech reproduction.” And Dr. Sbaitso’s verbal prowess was not confined to the dark corners of some computer lab; Dr. Sbaitso was available on personal computers (not the internet)—bringing chatbots into homes, offices, and other personal spaces.

Despite the simplicity of its responses, Dr. Sbaitso was a watershed moment for chatbots. Dr. Sbaitso represented an early example of a chatbot conversing with users through speech. Dr. Sbaitso, “was able to synthesize speech . . . in a certain aspect, it became more human than its predecessors even though it could not converse in a more complicated and complex way.” And through its availability on personal computers, Dr. Sbaitso helped take chatbots from the recesses of computer labs to the mainstream of the public eye.

Dr. Sbaitso differed from the others in the ability to use . . . a digital voice to communicate with users.”

125. See id.; see also Stiefel, supra note 85(describing that the goal of Creative Labs was to extend the function of chatbots through text-to-speech application).
126. See Deryugina, supra note 124.
127. See Mariciuc, supra note 123.
128. Deryugina, supra note 124.
129. See Chetan Bulla et al., A Review of AI Based Medical Assistant Chatbot, 3 Res. & Applications Web Dev. & Design, no.2, 2020, at 6 (noting that Dr. Sbaitso was available on MS DOS Personal Computers). Cf. About the Jabberwacky AI, supra note 116 (stating that Jabberwacky “went on the web in 1997” only after Dr. Sbaitso’s debut in 1991).
130. See Mariciuc, supra note 123 (discussing Dr. Sbaitso’s ability to use an AI generated voice to communicate to users).
131. See id.
133. See Bulla et al., supra note 129.
Sbaitso may seem small by the standards of today, but it played a pivotal role in the trajectory of chatbots.\textsuperscript{134}

E. ALICE

In 1995, chatbots broke free from the confines of isolated computers, throwing off the tethers of disconnected machinery.\textsuperscript{135} With the creation of ALICE, chatbots invaded the domain of the information superhighway: the internet.\textsuperscript{136} Made by Richard Wallace,\textsuperscript{137} ALICE was not restricted to any particular role,\textsuperscript{138} such as a psychologist like Dr. Sbaitso.\textsuperscript{139} ALICE was designed so that a general audience could engage in conversation with a chatbot.\textsuperscript{140}

ALICE’s technology was akin to ELIZA’s.\textsuperscript{141} Resembling ELIZA, ALICE used pattern matching and scripted responses.\textsuperscript{142} Wallace designed ALICE so it would analyze users’ inputs to ascertain if the inputs contained keywords.\textsuperscript{143} ALICE would then produce a scripted response which Wallace assigned to the keyword.\textsuperscript{144}

But ALICE also diverged from ELIZA in crucial ways.\textsuperscript{145} ALICE had “more than 40,000 [response pairs], whereas the original ELIZA had only about 200.”\textsuperscript{146} And in stark contrast to ELIZA, ALICE could

\begin{itemize}
\item \textsuperscript{134} See supra text accompanying notes 123–33.
\item \textsuperscript{135} See Adamopoulou & Moussiades, supra note 63 ("Another step forward in the history of chatbots was the creation, in 1995, of ALICE (Artificial Linguistic Internet Computer Entity), the first online chatbot . . . ").
\item \textsuperscript{136} See id. (noting that, in 1995, ALICE became the first online chatbot).
\item \textsuperscript{137} See Pavel Smutny & Petra Schreiberova, Chatbots for Learning: A Review of Educational Chatbots for the Facebook Messenger, 151 Comput. & Educ. 1, 2 (2020).
\item \textsuperscript{138} See Margaret Rouse, ALICE (Artificial Linguistic Computer Entity), TECHOPEDIA, https://www.techopedia.com/definition/380/artificial-linguistic-computer-entity-alice#:~:text=Artificial%20Linguistic%20Computer%20Entity%20(ALICE)%20is%20a%20language%20processing%20chatbot,based%20on%20human%20entry%20input
\item \textsuperscript{139} See Deryugina, supra note 124.
\item \textsuperscript{140} See Rouse, supra note 138.
\item \textsuperscript{142} See id.
\item \textsuperscript{143} See id. at 196.
\item \textsuperscript{144} See id.
\item \textsuperscript{145} See infra text accompanying notes 146–49.
\item \textsuperscript{146} Wallace, supra note 141; see also McTear, supra note 89, at 32 (discussing the limited amount of response pairs that ELIZA had).
\end{itemize}
be accessed online. Furthermore, Wallace developed ALICE using Artificial Intelligence Markup Language (AIML). Created by Wallace and first used for ALICE, AIML is a programming language that can be used to invent chatbots.

ALICE marked an enormous turning point for chatbots. For the first time in the history, a machine intelligently conversed with a human via the internet. ALICE forever changed the dynamic of how chatbots could converse with people, demonstrating that chatbots could engage in dialogue with humans online. And while ALICE did resemble ELIZA in some respects, such as using pattern matching, ALICE also superseded ELIZA. ALICE contained more than 40,000 response pairs, a colossal number compared to ELIZA’s mere 200. On top of that, Wallace created ALICE by first inventing AIML, a programming language which spurred countless others to create chatbots using the same language.

F. SmarterChild

Chatbots broke new ground in 2001 with the invention of SmarterChild. Made by ActiveBuddy, a software company, SmarterChild was developed for instant messaging. The chatbot was accessible on instant messaging platforms, such as AOL Instant Messenger. The “goal was to make a [chat]bot people would actually use, and to do that [SmarterChild had to be a user’s] best friend

---

147. See Wallace, supra note 141 (stating that ALICE was available on the web.)
148. See Smutny & Schreiberova, supra note 137.
149. See Wallace, supra note 141.
150. See infra text accompanying notes 151–55.
151. See Rouse, supra note 138.
152. See id.; see also Wallace, supra note 141.
153. See Wallace, supra note 141.
154. See id.
155. See id.; see also Adamopoulou & Moussiades, supra note 63, at 5 (“Thanks to its usability, ease of learning and execution, and the availability of pre-authored AIML collections, AIML is the most used chatbot language.”).
156. See Mariciuc, supra note 123.
158. See Goldberg, supra note 157.
159. See id.
on the internet.” SmarterChild could engage in general conversation with users. But the chatbot could also provide other data “such as stock information, sports scores, [and] movie quotes.”

SmarterChild had a revolutionary technological capability: It could answer user queries by obtaining information from online databases. SmarterChild was not confined to the strictures of static databases or users’ responses like the chatbots preceding it. SmarterChild could tap-in to live, online data—answering users’ questions on a broad range of subjects.

SmarterChild was a monumental breakthrough in chatbot development.

It was the first time that a chatbot could ... retrieve information from [online] databases about movie times, sports scores, stock prices, news, ... weather, [and much more]. This ability marked a significant development in both the machine intelligence and human-computer interaction trajectories as information systems could be accessed through discussion with a chatbot.

And SmarterChild was a resounding success, bringing chatbots to more people than ever before. SmarterChild brought chatbots to more people than ever before as “[m]ore than 30 million people” used SmarterChild. Further, “[a]t its height, SmarterChild chatted with 250,000 people a day.” SmarterChild directly shaped the chatbot

161. See id.
163. See Ariana Eunjung Cha, Web May Hold the Key to Achieving Artificial Intelligence, Wash. Post (Sept. 6, 2002), https://www.washingtonpost.com/archive/politics/2002/09/06/web-may-hold-the-key-to-achieving-artificial-intelligence/78199be8-8030-4081-9376-d3cd471884c6/.
164. See id.; see also discussion supra Sections II.A–D.
165. See Mariciuc, supra note 123 (stating that SmarterChild “provided information . . . obtained from the databases to which it had access”).
166. Cf. Khan & Das, supra note 162.
167. Adamopoulos & Moussiades, supra note 63, at 3.
168. See Khan & Das, supra note 162.
169. Id.
170. Maunz, supra note 160.
landscape of contemporary society: “[W]e talk to [chatbots] . . . just like people talked to SmarterChild . . . decades ago.”171

G. Watson

Chatbot technology went through a remarkable transformation in 2011.172 In that year, IBM unveiled its newest innovation: Watson.173 The chatbot “was originally a research experiment to determine whether a computer could be taught to read [substantial] volumes of text such as Wikipedia, newspapers, and other text-based sources of information and produce reliable evidence-driven answers in response to natural language questions.”174 Stated differently, Watson “was first created as a question answering” system, one which intelligently answered inquiries from humans by analyzing large quantities of publicly available data.175 Watson was revealed to the public when it competed on Jeopardy against two all-time Jeopardy champions, Ken Jennings and Brad Rutter.176 But Jennings and Rutter were no match for Watson’s raw computing power, with Jennings humorously stating in defeat, “I, for one, welcome our new computer overlords.”177

Watson achieved its intellectual dominance through a technology known as cognitive computing.178 A combination of cognitive science, data science, and neuroscience,179 cognitive computing simulates human thinking in a computerized form.180 Further, “[u]sing self-
learning algorithms that use data mining, pattern recognition and natural language processing, [cognitive computing] can mimic the way the human brain works," but on a much grander scale.\textsuperscript{181} Human cognition, which comprises reasoning, learning, and inference, is "one of the most sophisticated thinking systems in existence."\textsuperscript{182} And yet, the human mind has a major biological impediment: It simply cannot process large amounts of data.\textsuperscript{183} Cognitive computing bypasses that limitation:

These cognitive systems... rely on... algorithms and neural networks to process information by comparing it to a teaching set of data. The more data the system is exposed to, the more it learns, and the more accurate it becomes over time.... This sort of process could be done for any field in which large quantities of complex data need to be processed and analyzed to solve problems...\textsuperscript{184}

Watson was revolutionary.\textsuperscript{185} Never before had an inorganic machine imitated the organic processes of the human mind.\textsuperscript{186} Before Watson, chatbots had the outward appearance of human cognition through conversation, but they did not possess the internal modalities of human comprehension.\textsuperscript{187} Watson changed that dynamic: Watson began the age of cognitive chatbots— an era in which AI mirrors the biological processing of the human brain, but on a much grander scale.\textsuperscript{188}

H. Siri, Alexa, Cortana, & Google Assistant

Chatbots reached yet another technological milestone with the advent of the voice-controlled intelligent personal assistant (VIPA).\textsuperscript{189} These are "programs capable of understanding and responding to

\begin{itemize}
  \item \textsuperscript{181} \textit{Id.}
  \item \textsuperscript{182} Chen et al., supra note 174, at 690.
  \item \textsuperscript{183} See id.
  \item \textsuperscript{184} Marr, supra note 180.
  \item \textsuperscript{185} See Gupta et al., supra note 178, at 86.
  \item \textsuperscript{186} See discussion supra Sections II.A–D.
  \item \textsuperscript{187} See discussion supra Sections II.A–D.
  \item \textsuperscript{188} See supra text accompanying notes 178–84.
  \item \textsuperscript{189} See Bettina Minder et. al., \textit{Voice Assistants in Private Households: A Conceptual Framework for Future Research in an Interdisciplinary Field}, Humans. & Soc. Sci. Commc’ns, April 19, 2023, at 2 ("One of the recent emergent digital technologies... is voice assistants (VAs).")
\end{itemize}
users using synthetic voices.”

VIPA’s can be used for “simple tasks like getting the weather report or managing emails.” But VIPA’s can also conduct more complex tasks. It can also be said that, “[VIPA’s] can revolutionize the way people interact with computing systems.” VIPA’s were made available to the public when Apple introduced Siri in 2011. From there, VIPA’s exploded onto the marketplace. Not to be outdone by Apple, Amazon and Microsoft introduced VIPA’s of their own in 2014: Amazon with Alexa and Microsoft with Cortana. Google quickly followed suit in 2016 with Google Assistant.

At their core, Siri, Alexa, Cortana, and Google Assistant use similar technology. They all begin by using automatic speech recognition (ASR) software, which converts human speech into a machine-readable format. Next, the chatbots use deep learning to process the input and produce a response.

Deep learning is a subset of machine learning, which is essentially a neural network with three or more layers. These neural networks attempt to simulate the behavior of the human brain… allowing it to “learn” from large amounts of data. While a neural

191. Id.
192. See id.
193. Id.
195. See infra text accompanying notes 196–98.
199. See infra text accompanying notes 200–02.
network with a single layer can still make approximate predictions, additional hidden layers can help to optimize and refine for accuracy.\textsuperscript{202}

\textbf{Figure 3.} Deep neural network architecture\textsuperscript{203}

Siri, Alexa, Cortana, and Google Assistant were a giant leap forward for chatbots.\textsuperscript{204} Prior to Siri, Alexa, Cortana, and Google Assistant, mainstream chatbots had not mimicked the neural structure of the human brain.\textsuperscript{205} Siri, Alexa, Cortana, and Google Assistant changed that, employing deep learning to imitate the neurological processes of the human mind.\textsuperscript{206} Further still, these chatbots merged deep learning

\textsuperscript{203} Meriem Bahi & Mohamed Batouche, Deep Learning for Ligand-Based Virtual Screening in Drug Discovery, in INTERNATIONAL CONFERENCE ON PATTERN ANALYSIS AND INTELLIGENT SYSTEMS 2 fig.1 (Mohamed Amroune et al., eds., 2018).
\textsuperscript{204} See supra text accompanying notes 189–202.
\textsuperscript{205} See discussion supra Sections IIA–H (discussing how Watson’s cognitive computing began to mimic the biological processes of the human brain, but it did not employ deep learning—which more accurately reflected the neurological processing of the human mind).
\textsuperscript{206} See Anushya, supra note 201.
with automatic speech recognition, bringing chatbots nearer to closing the gap between man and machine.  

I. ChatGPT, Bing Chat & Bard

Chatbots reached monumental heights with the introduction of LLMs. These are “deep learning models with a [vast] number of parameters trained in an unsupervised way on large volumes of text.” LLMs began to appear in 2018. The technology then advanced exponentially—culminating in state-of-the-art LLMs like ChatGPT, Bing Chat, and Bard.

To generate responses for users, LLMs go through a series of procedures. Prior to any inquiries from users, LLM designers collect “billions of pages scraped from the internet — like blog posts, tweets, Wikipedia articles[,] … news stories,” data from libraries, and so on. Next, the data goes through a procedure known as tokenization, the process of breaking-down the data into smaller units, such as “words, phrases or even individual characters.” Then LLM

---

207. See Pahwa et al., supra note 200; see also Anushya, supra note 201 (explaining how digital assistants use deep learning and automatic speech recognition to mimic humans).

208. See generally Anthony Lancaster, Beyond Chatbots: The Rise of Large Language Models, FORBES (Mar. 20, 2023, 6:00 AM), https://www.forbes.com/sites/forbestechcouncil/2023/03/20/beyond-chatbots-the-rise-of-large-language-models/?sh=35707e172319. I am grouping these chatbots together in this Section, as their basic technology, functionality, and timeframe for entering the market are similar.


210. See id.

211. See id.


216. Id.

217. Id.
designers create an artificial neural network, i.e., they employ deep learning, a “machine learning process . . . that uses interconnected nodes or neurons in a layered structure that resembles the human brain.” Thereafter, LLMs will use the artificial neural network to analyze the tokenized data, determining the relationships and patterns in the tokens. Then users will give LLMs a prompt. And lastly, LLMs will generate a response by predicting the most likely next word or sequence of words based on the training data.

Chatbots have gone through a remarkable metamorphosis in only seven decades. Beginning in 1950 when Alan Turing first conceptualized intelligent machines, chatbots have transformed: Chatbots have gone from the conceptual, to the real, to outwardly imitating humans, to inwardly imitating the biological processes of the human mind—culminating in the ability to effortlessly surpass society’s most learned. In a single lifetime, chatbots have gone through a breakneck evolution, from the theoretical to trouncing society’s intelligentsia. And learned professions, like law, cannot ignore AI’s capabilities: With the debut of LLMs, the days of lawyerly work being produced solely by a lawyer’s mind are over. Lawyers must now share that space with LLMs. The legal profession must learn how to co-exist with a new learned class: LLMs.

---

219. See Roose, supra note 215.
220. See id. (referring to LLMs ability to do specific jobs when calibrated for them).
221. See id.
222. See infra text accompanying notes 223–32.
223. See Turing, supra note 44, at 433–34 (referring to Turing’s description of the Imitation Game).
224. Cf. id.
225. See Natale, supra note 64 (noting that ELIZA was the first chatbot).
226. See, e.g., Heiser et al., supra note 100 (discussing how PARRY was the first chatbot to pass the Turing Test).
228. See Turing, supra note 44, at 433–34 (referring to Turing’s description of the Imitation Game).
229. See generally Lowrey, supra note 62 (discussing how AI may one day take over jobs previously held by college-educated workers).
231. See id.
232. See id.
As 2022 drew to a close, the legal profession was operating as normal, blissfully unaware that LLMs were about to upend the course of legal practice, ethics, and norms. Before that moment, and unaided by LLMs, lawyers were at the mercy of their organic thinking. There were no shortcuts: Judges and judicial law clerks dutifully performed their tasks, such as drafting judicial opinions; law firm partners and associates tirelessly aided their clients, executing duties like writing briefs; and in-house counsel assiduously helped their companies, conducting tasks such as drafting contracts. Then, without warning, modern LLMs exploded onto the marketplace, forever changing the legal profession. Beginning with ChatGPT, LLMs

233. See Yogesh K. Dwivedi et al., “So What if ChatGPT Wrote It?” Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy, INTL J. INFO. MGMT., Aug. 2023, at 1, 46 (2023) (stating that LLMs, like ChatGPT, “appear[] to have largely caught institutions off guard and scrambling to adapt to a shifting reality”); cf. Chow & Perrigo, supra note 212 (noting that generative AI, such as ChatGPT, caught many off guard, even tech companies).


demonstrated that many lawyerly tasks were no longer the sole province of a lawyer’s mind.239

And ChatGPT was only the beginning; immediately following its introduction, a wave of LLMs burst onto the market.240 The first to enter the fray were tech giants, like Microsoft with Bing Chat241 and Google with Bard.242 Though not specifically designed for law, these LLMs could perform a plethora of cognitive tasks done by lawyers.243 But what began as LLMs not designed for law quickly developed into LLMs tailor-made for the legal industry.244 And now, LLMs “are coming for the legal profession.”245 LLMs are “poised to fundamentally re-shape the practice of law.”246 To manage life with LLMs, “[t]he best advice is to be ready for the . . . revolution.”247

This Part provides an analysis of the major LLMs in the legal market. The LLMs include those not specifically designed for law but have legal applications, such as ChatGPT.248 This Part also includes LLMs designed exclusively for the legal profession.249 This Part does not cover all the LLMs in the legal marketplace; instead, it provides a review of the most significant LLMs—helping legal academics, practitioners, and judges acclimate to AI’s legal revolution.
A. ChatGPT

ChatGPT has sent the legal world into a frenzy with its extensive knowledge base and processing power. Debuting in late 2022, GPT 3.5 was one of the first viable LLMs. Available to the public at no cost, GPT 3.5 “was trained using text databases from the internet . . . including a whopping 570GB of data obtained from books, web texts, Wikipedia, articles and other pieces of writing on the internet.” It “is one of the largest and most powerful language-processing AI models . . . with 175 billion parameters.” And GPT 4, available to subscribers for a fee, was unveiled in March of 2023. Unfortunately, OpenAI, ChatGPT’s parent company, has not disclosed how much data GPT 4 is trained on. But what is known is that GPT 4 has the ability to connect to the internet; that is, GPT 4 can obtain live data to answer users’ inquiries.

Despite being designed for a general audience, ChatGPT has numerous legal applications. Users obtain responses from ChatGPT.
by typing prompts into the chatbot. ChatGPT will then provide an answer to the prompt. In swift order, ChatGPT can draft legal documents, such as contracts; conduct legal research; summarize points of law; answer legal questions; and even assist in drafting judicial opinions. Like it or not, ChatGPT is part of the legal landscape: “If you are a [legal professional] who is not using [ChatGPT], your opponents are. They are going to do better work than you.”

B. Bing Chat

Nipping at the heels of ChatGPT, Microsoft unveiled Bing Chat in February of 2023. Created for general use by the public, Bing Chat is like ChatGPT: Bing Chat is an LLM that is trained on large amounts of data to predict the most likely next word or sequence of words in a given sentence based on its training data. Bing Chat is connected to the internet to access live data and provides updated answers to users’ inquires. Further, “Bing [Chat] reviews results from across the web to find . . . the answer you’re looking for.”

259. See Introducing ChatGPT, OpenAI, https://openai.com/blog/chatgpt (last visited Feb. 7, 2024) (“ChatGPT . . . is trained to follow an instruction in a prompt and provide a detailed response.”)

260. See id.

261. See Lorek, supra note 238; see also Klingensmith, supra note 62 (noting that a Columbian judge publicly acknowledged using ChatGPT to help draft judicial opinions).

262. See Lorek, supra note 238.


264. See Chris Morris, Microsoft Opens its Bing Chatbot to Basically Everyone, FORTUNE (Mar. 16, 2023, 11:54 AM), https://fortune.com/2023/03/16/microsoft-opens-bing-chatbot-to-everyone-gpt-4-openai/ (stating that Microsoft “opened the doors” to Bing’s chatbot to everyone).

265. See Partha Pratim Ray, ChatGPT: A Comprehensive Review on Background, Applications, Key Challenges, Bias, Ethics, Limitations and Future Scope, 3 INTERNET THINGS & CYBER-PHYSICAL SYS. 121, 123–27 (2023) (noting that ChatGPT predicts the next word in a given sentence based on its training data and Bing Chat functions like ChatGPT).


267. Id.
Bing Chat has several legal applications notwithstanding the fact that it was designed for the general public. Users operate Bing Chat either by typing prompts or making verbal commands into the chatbot. Bing Chat will then supply an answer to the prompt. Like ChatGPT, Bing Chat can conduct legal research, summarize points of law, and answer legal questions. But Bing Chat does not draft legal documents, such as contracts. The legal profession must be cognizant of Bing Chat and its implications for law because “[s]oon [legal questions] will be answered by ... [Bing Chat] combing the web and deciding what information to provide.”

C. Bard

Not to be outdone by OpenAI or Microsoft, Google launched its own LLM, Bard, in March of 2023. Like ChatGPT and Bing Chat, Bard was created for general use by the public. It “has been trained on what Google is calling an ‘infiniset’ of data.” And resembling...
Bing Chat, Bard is connected to live internet information. That means that Bard can access live data and provide updated answers to users’ inquiries.

Bard has numerous legal applications irrespective of the fact that Bard was invented for general use. To operate Bard, users type prompts or make verbal commands into the chatbot. Bard will then provide an answer to the prompt. Without delay, Bard can: draft legal documents, such as leases; conduct legal research; summarize points of law; and answer legal questions. With this in mind, “now is the time for [legal professionals] to put [Bard] on their radar, understand how it works, and . . . prepare for the AI-driven searches of the future.”

D. CoCounsel

With lightning speed, the legal technology industry created its own LLMs. The first legal LLM to enter the market was CoCounsel, unveiled in March of 2023. Created by Casetext, CoCounsel is powered by GPT 4. But in stark contrast to ChatGPT, Bing Chat, and Bard, CoCounsel is trained on up-to-date caselaw, statutes, and other legal material. Thus, CoCounsel is connected to live legal data,

---

277. See id.
278. See id.
279. See infra text accompanying notes 280–83.
281. See Toscano, supra note 276; cf. Bard, supra note 280.
283. Miki, supra note 282.
enabling CoCounsel to provide the newest legal answers to users’ inquiries.\textsuperscript{288}

Purposely made for law, CoCounsel has a plethora of legal applications.\textsuperscript{289} CoCounsel operates much like other LLMs, such as ChatGPT.\textsuperscript{290} CoCounsel uses a text-based interface: Users type prompts into the chatbot.\textsuperscript{291} CoCounsel then speedily produces an answer to the prompt, completing tasks like “document review, legal research memos, deposition preparation, and contract analysis.”\textsuperscript{292} In short, “CoCounsel is changing how the law is practiced.”\textsuperscript{293} It “automat[es] critical, time-intensive tasks and free[s] … lawyers to focus on the most impactful aspects of practice.”\textsuperscript{294}

E. Lexis+ AI

Not to be outmatched by Casetext, LexisNexis quickly introduced its own LLM, launching Lexis+ AI in May of 2023.\textsuperscript{295} Unlike ChatGPT, Bing Chat, and Bard, Lexis+ AI’s training data includes Lexis’s database of caselaw, statutes, secondary sources, and other legal material.\textsuperscript{296} Accordingly, the chatbot is connected to live legal data from LexisNexis, enabling Lexis+ AI to provide up-to-date legal answers to users’ prompts.\textsuperscript{297}

\textsuperscript{288} See Haight, supra note 287.
\textsuperscript{289} See infra text accompanying notes 290–94.
\textsuperscript{290} See Haight, supra note 287.
\textsuperscript{292} Casetext, supra note 286.
\textsuperscript{294} Id.
\textsuperscript{295} See Reynolds, supra note 244 (describing how Lexis+ AI was unveiled in May of 2023).
Tailored for law, Lexis+ AI has numerous applications for legal work. Lexis+ AI functions like other LLMs. Lexis+ AI uses a text-based interface: Users communicate with Lexis+ AI by typing prompts into the chatbot. Within seconds, Lexis+ AI produces an answer. Lexis+ AI “can draft summaries, legal documents and communications.” And “[t]he platform also provides citations, including relevant caselaw, [and] authorities.” Legal professionals must become familiar with this LLM, as “it is expected to transform the [legal] industry and streamline many time-consuming legal tasks.”

IV. BIFURCATING LLMs

In May of 2023, U.S. District Judge Brantley Starr became the very first federal judge to implement rules for LLM use in federal court. Judge Starr issued a requirement that “lawyers in cases before him [must] certify that they did not use [LLMs] to draft their filings without a human checking their accuracy.” As to the reason for the requirement, Judge Starr stated that LLMs “are prone to hallucinations.” Further, “[o]n hallucinations, they make [things] up—even quotes and citations.”

Within weeks, a second federal judge followed suit. In June of 2023, Judge Stephen Vaden “issued an order requiring lawyers to

(discussing how Lexis AI uses LLMs to provide a search of the LexisNexis database); Lexis+ Litigation Analytics, LEXISNEXIS SUPPORT HOME, https://supportcenter.lexisnexis.com/app/answers/answer_view/a_id/1102550/~/lexis%2B-litigation-analytics (last visited Feb. 7, 2024) (noting that the Lexis+ Litigation Analytics are updated weekly and Lex Machina is updated daily).

298. See infra text accompanying notes 299–304.
299. See Reynolds, supra note 244.
300. See id.
301. See id.
302. Id.
303. Id.
304. Id. (discussing large language models generally, which includes Lexis+ AI).
306. Id.
307. Id.
308. Id.
disclose their use of [LLMs] to create legal documents.”

Judge Vaden’s primary concern was that using LLMs would result in confidential client information being shared with an unauthorized party.

Judges Brantley and Vaden are only the beginning; there will undoubtedly be an avalanche of rules and regulations concerning the use of LLMs in law. And there should be: No client ought to be at the mercy of LLMs that are prone to hallucinations, i.e., fabricating information, or sharing confidential data. But the examples of Judges Starr and Vaden demonstrate how the legal profession does not fully comprehend LLMs, at least not yet.

Judges Starr and Vaden grouped all LLMs into a single class, one in which every LLM is prone to hallucinations and fails to keep data private. And that sentiment is one which is ubiquitous in the legal profession. But it is simply not true. Are some LLMs notorious for hallucinating? Absolutely. Are certain LLMs not private? You bet. But are all LLMs prone to hallucinations? Not at all.

---

310. Id.
311. See id.
313. See id.
314. See, e.g., GPT-4 Alone is Not a Reliable Legal Solution, supra note 37 (noting that “[u]nlike even the most advanced LLMs, CoCounsel does not . . . hallucinate”); see also supra text accompanying notes 305–11.
315. See supra text accompanying notes 305–11.
316. See, e.g., Reynolds, supra note 244 (“Data, security, privacy and client confidentiality are . . . issues that are top of mind for lawyers as they consider adopting [LLMs] . . .”).
317. See, e.g., GPT-4 Alone is Not a Reliable Legal Solution, supra note 37 (“Our product and engineering teams took up (and delivered on) the challenge of creating a product that could take advantage of GPT-4’s tremendous raw power while eliminating the serious limitations—like hallucinations—that curb the professional utility of the model when used on its own.”); e.g., Reynolds, supra note 244 (“[Lexis+ AI is a] private model interaction[, where there is no risk of a user interaction being subsumed into a wider model or where any users’ information can flow to another user of our service.”).
hallucinating and exposing private data? Most assuredly no.320 There are LLMs tailor-made for law—chatbots which do not hallucinate or severely restrict their occurrence and have strict privacy measures.321

LLMs cannot, and should not, be lumped into a single group.322 The legal profession must understand the nuances between LLMs made for general use and LLMs designed specifically for law.323 While the former is prone to hallucinating and can expose private data,324 the latter is tailored for the legal industry—specially crafted to eliminate hallucinations or limit their occurrence and to keep data private.325 Discussions and regulations of LLMs in the legal sphere must be cognizant of this dichotomy between LLMs; those who regulate must understand the technology of what they are regulating.326 This Part provides an overview of the distinction between LLMs made for general use (non-legal LLMs) and LLMs designed specifically for law (legal LLMs).

A. Non-Legal LLMs

Non-legal LLMs are those which are designed for general use by the public and not tailored for the legal industry.327 Non-legal LLMs, such as ChatGPT, Bing Chat, and Bard, were not created with legal
practice in mind. They are prone to hallucinating and they fail to keep data private. That is not to say that non-legal LLMs can never be used for law. Indeed, despite not being invented for legal practice, non-legal LLMs have numerous legal applications. Instead, it is only to say that legal professionals using these chatbots must be cognizant of their limitations.

Non-legal LLMs are prone to hallucinating, “which refers to generating outputs that are not grounded in the input data or factual information.” This phenomenon “refers to mistakes in the generated text that are semantically or syntactically plausible but are in fact incorrect or nonsensical.” The non-legal LLM “is generating text that is not ‘faithful’ to the source input content.” Put simply, “you can’t [completely] trust what the machine is telling you.”

In addition, non-legal LLMs do not keep data private. Non-legal LLMs collect users’ inputs—data which can be shared with third parties. Cf. Johnson, supra note 252 (describing how ChatGPT was unveiled to the public); Morris, supra note 264 (noting that the public has access to Bing Chat); De Vynck & Tiku, supra note 275 (noting that the public can use Bard).

See, e.g., Lance Eliot, Generative AI ChatGPT Can Disturbingly Gobble Up Your Private and Confidential Data, Forewarns AI Ethics and AI Law, FORBES (Jan. 27, 2023, 8:00 AM), https://www.forbes.com/sites/lanceeliot/2023/01/27/generative-ai-chatgpt-can-disturbingly-gobble-up-your-private-and-confidential-data-forewarns-ai-ethics-and-ai-law/?sh=3f26e6fe7f6b (stating that information provided to ChatGPT is now used in its database and is no longer confidential); Field, supra note 318 (describing how ChatGPT often fabricates responses to users’ queries).

See, e.g., Lorek, supra note 238 (noting how ChatGPT can be utilized for law).

See discussion supra Sections III.A–C.


Bertalan Meskó & Eric J. Topol, The Imperative for Regulatory Oversight of Large Language Models (or Generative AI) in Healthcare, NPJ DIGIT. MED., July 6, 2023, at 1, 3. Meskó and Topol describe LLMs hallucinating in the context of medicine, but the principle is the same for non-legal LLMs.


Smith, supra note 334.

As just one example, OpenAI’s privacy policy states in part, “we may provide your [inputs] to third parties without further notice to you.” In short, the data provided via conversations with non-legal LLMs is not confidential.

B. Legal LLMs

Legal LLMs are those which are specifically designed for law. Legal LLMs, like Lexis+ AI and CoCounsel, were created for the legal industry. These LLMs are designed to eliminate hallucinations or limit their occurrence and to keep data private. Accordingly, legal LLMs are custom built for law: They harness the power of generative AI while eliminating or severely restricting the pitfalls associated with non-legal LLMs.

In stark contrast to non-legal LLMs, legal LLMs do not hallucinate or severely limit the occurrence of hallucinations. Whereas non-legal LLMs are prone to “spouting plausible falsehoods,” legal LLMs eliminate or restrict hallucinations. For example, “CoCounsel does not make up facts, or ‘hallucinate,’ because [the designers have] implemented controls to limit CoCounsel to answering from known, reliable data sources—such as [Casetext’s] comprehensive, up-to-date database of case law, statutes, regulations, and codes—or not to answer at all.” Similarly, “the risk of hallucination is minimal with

338. See id.
340. See Thorbecke, supra note 337.
341. See, e.g., Casetext, supra note 286 (noting that CoCounsel is an “AI legal assistant”); Reynolds, supra note 244 (noting how LexisNexis created the generative AI platform, Lexis+ AI, specifically for law).
342. See, e.g., Casetext, supra note 286 (stating how CoCounsel was created for legal use); Reynolds, supra note 244 (describing how the LLM, Lexis+ AI, was made for legal use).
343. See, e.g., GPT-4 Alone is Not a Reliable Legal Solution, supra note 37 (“CoCounsel does not make up facts, or ‘hallucinate’ . . . .”); Reynolds, supra note 244 (describing how Lexis+ AI does not share data).
344. See supra text accompanying notes 341–43.
345. See, e.g., GPT-4 Alone is Not a Reliable Legal Solution, supra note 37 (describing how CoCounsel does not fabricate information).
347. See, e.g., GPT-4 Alone is Not a Reliable Legal Solution, supra note 37.
348. Id. (emphasis added).
Lexis+ AI.\textsuperscript{349} That is because it “leverages trusted and authoritative content directly from LexisNexis throughout its development.”\textsuperscript{350}

And unlike other LLMs, legal LLMs do not share data.\textsuperscript{351} Information which users share with legal LLMs is private.\textsuperscript{352} For instance, CoCounsel is secure: “CoCounsel uses dedicated servers to access GPT-4, meaning… data isn’t sent to ‘train’ the model as part of publicly accessible knowledge.”\textsuperscript{353} Attorney and client “information stays private and is secured by bank-grade AES-256 encryption.”\textsuperscript{354} Likewise, Lexis+ AI is private:

\[\text{[Lexis+ AI is a] private model interaction[]}, \text{where there is no risk of a user interaction being subsumed into a wider model or where any users’ information can flow to another user of our service…. [LexisNexis] partner[s] with major cloud providers like Microsoft and [Amazon Web Services] in order to ensure that [the] infrastructure is completely private.}\textsuperscript{355}

For those still concerned about confidentiality when using legal LLMs, bear this in mind: For decades, client data via legal research has been shared with online legal research platforms.\textsuperscript{356} For years, when lawyers and other legal professionals employ online legal research tools like Lexis, Westlaw, or Bloomberg, they have been using at least some client information to conduct legal research.\textsuperscript{357} Accordingly, the

\begin{itemize}
  \item \textsuperscript{349} \textit{Lexis+ AI Transforms Legal Work But Does Not Hallucinate}, TODAY'S GEN. COUNS. (June 7, 2023), https://www.todaysgeneralcounsel.com/lexis-ai-transforms-legal-work-but-does-not-hallucinate/.
  \item \textsuperscript{350} \textit{Id}.
  \item \textsuperscript{351} \emph{See GPT-4 Alone is Not a Reliable Legal Solution}, supra note 37.
  \item \textsuperscript{352} \emph{See id}. Private in this context means that data is not purposefully shared with third parties. In the modern, interconnected information age, there is always the danger of data breaches. But data breaches are not unique to legal LLMs: they are an issue for any business or organization that houses electronic data. Accordingly, those concerned about privacy must not single-out legal LLMs but must instead take issue with the larger problem: the potential for data breaches in the era of interconnectivity. Absent society’s return to paper storage (which has no capability of electronic data breaches), data privacy will remain an issue for every industry.
  \item \textsuperscript{353} \textit{CASETEXT}, supra note 286.
  \item \textsuperscript{354} \textit{Id}.
  \item \textsuperscript{355} Reynolds, supra note 244 (fifth alteration in original).
  \item \textsuperscript{356} \textit{Cf. The Evolution of Legal Research}, THOMPSON REUTERS (Oct. 12, 2022), https://legal.thomsonreuters.com/blog/the-evolution-of-legal-research/ (noting that Westlaw users can input their own client’s information and receive back legally and factually similar cases).
  \item \textsuperscript{357} \textit{Cf. id} (describing that even with AI advancements, lawyers have routinely performed legal research online, using confidential information from clients to get answers).
\end{itemize}
issue of client confidentiality on legal research platforms is not novel:358 Legal LLM providers, like LexisNexis, simply extended their privacy protections to their LLMs.359 That is not to say that client confidentiality is unimportant; indeed it is. It is only to say that the privacy concern over LLMs is not new; it is one that online legal research platforms have been overseeing for decades.360 For those opposed to LLMs being used in law, the argument that it breaches client confidentiality, at least for legal LLMs, does not hold water:361 LLMs are here to stay, and the law must learn how to coexist with this new technology.362

V. BANNING LLMs IS NOT THE SOLUTION

Terrified of the unknown, the legal industry largely views LLMs with fear, mistrust, and a threat to the old guard.363 But like it or not, LLMs are here. No amount of handwringing, suspicion, or banning will negate AI’s legal revolution. The age of LLMs is upon us. AI’s technological onslaught will not wait for the legal profession. The best that legal professionals can do is accept AI’s insurgency and incorporate LLMs into the legal fold. This Part provides a discourse as to why banning LLMs is not a viable solution to AI’s legal insurgency.

A. An Inability to Effectively Determine LLM Use

For argument’s sake, let us assume that banning LLM use was the answer. Let us imagine the future of law school curriculum and legal practice as one in which LLMs were strictly forbidden. Could prohibiting LLMs work? Even if proscribing LLMs was the goal, would doing

358. Cf. id. (illustrating that lawyers commonly divulge confidential information from clients when using legal research platforms such as Westlaw).

359. See Reynolds, supra note 244.

360. Cf. The Evolution of Legal Research, supra note 356 (noting that traditional legal research, i.e., using print material, has largely been traded for conducting legal research via online platforms).

361. See, e.g., Reynolds, supra note 244 (stating that Lexis+ AI does not share data and is private).

362. See, e.g., Mostafa Soliman, Navigating the Ethical and Technical Challenges of ChatGPT, N.Y. Sr. Bar J., July/Aug., 2023, at 26, 26–28 (“As technology continues to develop, it is inevitable that [LLMs] will be incorporated into the practice of law.”).

363. See Marathe supra note 25. This Article’s mention of the legal industry obviously does not include the legal technology industry, which has embraced LLMs. See, e.g., Reynolds, supra note 244 (discussing how legal research services CaseText and Thomson Reuters are focusing efforts on the development of generative AI).
so be successful? No, at least from a technological perspective. Except in instances where a law student or attorney is technologically prevented from accessing LLMs, there is no reliable method for determining whether an LLM was utilized; no software exists that can effectively ascertain whether an LLM created the text at issue. Further, “scientists . . . say using software to accurately spot [LLM use] might simply be impossible.” Law students and attorneys could use LLMs without others truly knowing that LLMs were being employed. Thus, even if banishing LLMs was the aim, technologically, it is not one that could be achieved.

B. Failing to Understand the Dichotomy of LLMs

Banning LLMs also fails to acknowledge the dichotomy in LLMs: the distinction between non-legal LLMs and legal LLMs. Blanket prohibitions on LLMs are often rooted in the belief that all LLMs function equally. That is simply not true. Legal LLMs are tailored for the legal profession, addressing the issues of hallucinations and privacy. Outright bans on all LLMs because of the characteristics of


365. For example, law students not having access to LLMs for timed, in-class exams.

366. See Geoffrey A. Fowler, Detecting AI May Be Impossible. That’s a Big Problem for Teachers, WASH. POST (June 2, 2023, 12:30 PM), https://www.washingtonpost.com/technology/2023/06/02/turnitin-ai-cheating-detector-accuracy/.

367. Id.

368. Cf. id. In extreme cases, others could discern that LLMs were being used, such as when lawyers rely on non-legal LLMs that hallucinate caselaw and the attorneys fail to verify that the cases are real. See Benjamin Weiser & Nate Schweber, The ChatGPT Lawyer Explains Himself, N.Y. TIMES (June 8, 2023), https://www.nytimes.com/2023/06/08/nyregion/lawyer-chatgpt-sanctions.html (describing how lawyers used ChatGPT to do legal research, ChatGPT hallucinated caselaw that did not exist in some instances, and the attorneys failed to check the accuracy of the caselaw that ChatGPT generated).

369. See Fowler, supra note 366.

370. See supra Part IV.

371. See, e.g., Thomsen, supra note 305 (providing a case in which a federal judge in Texas treated all LLMs as non-legal LLMs by presuming all LLMs are prone to hallucinations).

372. See supra Part IV.

373. See supra Part IV.
some LLMs is misguided; it is a superficial understanding of this new technology.\textsuperscript{374}

C. Legal Efficiency

Additionally, prohibiting LLMs does not account for the fact that LLMs can increase legal efficiency.\textsuperscript{375} LLMs provide an opportunity to streamline legal processes.\textsuperscript{376} As just one example amongst many, LLMs could be used by courts to quicken judicial work.\textsuperscript{377} This is important, as “[i]t’s no secret that the American [judicial] system moves with the speed of a tectonic plate.”\textsuperscript{378} One of the largest reasons for the judiciary’s glacial pace is a shortage of judges, law clerks, and other staff.\textsuperscript{379} And for those judicial personnel who are present, the mental tasks required are performed entirely by human minds—slowing the processing of courts.\textsuperscript{380} For example, at the appellate level, much of a judge’s (or law clerk’s) work is drafting judicial opinions, an extremely laborious and time-consuming task.\textsuperscript{381} Legal LLMs could be used to draft judicial opinions, exponentially increasing judicial efficiency.\textsuperscript{382} That is not to say that the holding of the case would be decided by AI. The actual decision of the case would still be decided by judges; legal LLMs would merely be used to reduce the time-intensive task of writing judicial opinions—drafts that would then go through review by law clerks and judges before being issued as

\textsuperscript{374} See supra Part IV.
\textsuperscript{375} See Lorek, supra note 238 (noting that Legal LLMs can conduct routine legal tasks much more efficiently).
\textsuperscript{376} See id.
\textsuperscript{377} Cf. Villasenor, supra note 24 (“[LLMs] will make it much more efficient for [legal professionals] to draft documents requiring a high degree of customization . . . ”).
\textsuperscript{380} Cf. Rachel Treisman, What Even is a Draft Opinion? Here’s How the Supreme Court’s Process Works, NPR (May 3, 2022, 1:56 PM), https://www.npr.org/2022/05/03/1096141704/supreme-court-opinion-process (noting that judicial opinions are drafted by people).
\textsuperscript{381} See id.
\textsuperscript{382} Cf. Villasenor, supra note 24 (stating that legal documents can be drafted by large language models).
published opinions. And this is just one example: There are untold instances where LLMs could be used to streamline legal work, both inside and outside of the judiciary.

VI. RECOMMENDATIONS FOR A PATH FORWARD

There is no beating around the bush: LLMs are here and are fundamentally changing the course of law. The central question now becomes: How ought the legal profession respond to LLMs? In what way does the law navigate AI’s technological insurgency? There are only three paths forward: banishment; no regulation; or embracing LLMs with oversight. The only viable option is embracing LLMs while overseeing their use. As shown in Part V, even if complete banishment were technologically feasible—which it is not—doing so would negate the benefits of LLMs. At the same time, no regulation is unviable. Therefore, the sole course of action is embracing LLMs while overseeing their use. Indeed, “[t]he incorporation of ... Large Language Models into the legal industry is ... inevitable.” This Part provides recommendations for integrating LLMs into law. The recommendations function as a framework in which LLMs can be integrated into the legal profession.

A. Law Schools

In the avant-garde era of LLMs, law schools will have to go through a transformation. First, measures must be taken to adequately train students. In legal research and writing courses, students...
ought to be taught both: the traditional method, i.e., performing tasks unaided by LLMs; and how to use LLMs for those same tasks.\textsuperscript{393} LLM use will become the norm in legal practice.\textsuperscript{394} Lawyers will undoubtedly oversee that work and verify its accuracy—which is why students must also be trained in the traditional method.\textsuperscript{395} Accordingly, law schools need to teach students both approaches. Furthermore, students should be taught the differences between non-legal LLMs and legal LLMs.

Second, law schools must hire some faculty and/or staff who have technical training in AI, such as those having degrees in AI, computer science, data science, machine learning, or similar education.\textsuperscript{396} The technical training would be in addition to the faculty and/or staff having a law degree.\textsuperscript{397} The future of legal practice will be composed of AI and LLMs.\textsuperscript{398} As such, it would behoove law schools—and the students they are training—to have personnel who have technical knowledge of AI.

And third, law schools and law journals will have to determine what the future of legal scholarship will entail.\textsuperscript{399} Law articles can now be written almost entirely by LLMs.\textsuperscript{400} And there is no software to effectively determine whether the text was generated by an LLM or the author.\textsuperscript{401} Thus, law journals and law schools will need to decide

\textsuperscript{393} Cf. Lorek, supra note 238 (stating that large language models can be used to conduct legal research and writing).
\textsuperscript{394} See Soliman, supra note 362, at 27.
\textsuperscript{395} Cf. Lorek, supra note 238 (noting that large language models are simply a tool for efficiency, one which will be overseen by trained attorneys).
\textsuperscript{396} This is not to say that a classical liberal arts education is of no use, but its utility is diminishing in comparison to technical training.
\textsuperscript{397} See Brian Leiter, Paths to Law Teaching, THE U. OF CHI. THE L. SCH., https://www.law.uchicago.edu/careerservices/pathstolawteaching (Nov. 2022) (noting that most law professors hold a law degree, such as a Master of Law). Not all instructors at law schools are considered faculty, which is why this Article refers to both faculty and staff.
\textsuperscript{398} See, e.g., Lorek, supra note 238.
\textsuperscript{399} See infra text accompanying notes 400–02.
\textsuperscript{400} Cf. Chris Stokel-Walker, ChatGPT Listed as Author on Research Papers, 613 NATURE 620, 620 (2023) (discussing how ChatGPT was listed as an author on several scientific papers); cf. Dwivedi et. al., supra note 233, at 2 ("Transformative artificially intelligent tools, such as ChatGPT, designed to generate sophisticated text indistinguishable from that produced by a human, are applicable across a wide range of contexts.")
\textsuperscript{401} See Fowler, supra note 366.
how LLMs will impact legal scholarship and what measures to follow.\footnote{402}

B. Practitioners

The legal profession must accept that LLMs will be fully integrated into the practice of law.\footnote{403} LLMs will perform numerous time-intensive tasks that once took legal professionals hours, days, or weeks to complete.\footnote{404} As such, regulations for LLMs should account for lawyers fully employing LLMs. That does not mean that LLMs should go unregulated.\footnote{405} Those making regulations will have to ensure that information provided by LLMs is adequate.\footnote{406} Further still, regulators will need to set standards for the different types of LLMs: They will have to determine what type of work can be performed by non-legal LLMs and legal LLMs.\footnote{407} The future of legal practice will incorporate AI; the legal profession must now grapple with regulating its use for practitioners.\footnote{408}

C. The Judiciary

This Article recommends that judiciaries fully embrace LLMs and begin to employ them in the course of judicial work.\footnote{409} LLMs can be used to draft judicial opinions, orders, and other time-intensive tasks.\footnote{410} This does not mean that judicial decision making should be

\footnote{402} Cf. Stokel-Walker, \textit{supra} note 400 (explaining how the scientific community is also having to grapple with the issue of academics using large language models to draft articles).

\footnote{403} See West \& Allen, \textit{supra} note 22 (stating that AI is “transforming every walk of life”).

\footnote{404} See Lorek, \textit{supra} note 238.

\footnote{405} Cf. Weiser \& Schweber, \textit{supra} note 368 (explaining how lawyers failed to verify the cases generated by ChatGPT and those cases were shown to be fictitious).

\footnote{406} Cf. Benjamin Weiser, \textit{ChatGPT Lawyers Are Ordered to Consider Seeking Forgiveness}, \textit{N.Y. Times} (June 22, 2023), https://www.nytimes.com/2023/06/22/nyregion/lawyers-chatgpt-schwartz-loduca.html (explaining how lawyers used ChatGPT, did not verify whether the generated text was accurate and were issued fines).

\footnote{407} See \textit{supra} Part IV.

\footnote{408} Cf. Villasenor, \textit{supra} note 24 (explaining how large language models will transform legal practice).

\footnote{409} See \textit{infra} text accompanying notes 410–13.

\footnote{410} Cf. Steve Lohr, \textit{A.I. is Coming for Lawyers, Again}, \textit{N.Y. Times} (April 10, 2023), https://www.nytimes.com/2023/04/10/technology/ai-is-coming-for-lawyers-again.html (discussing how large language models can perform many legal tasks, such as drafting legal text and are merely an aid, rather than a replacement).
decided by AI. Rather, LLMs can be utilized for the laborious tasks that take judges, law clerks, and other personnel hours, days, or weeks to complete. This would streamline judicial processes, helping to alleviate the “crawling pace” of judicial work.

VII. CONCLUSION

Following his being conquered by Deep Blue, Kasparov had an idea: What if human chess players could pair with AI in a new type of chess? Kasparov called his new game “advanced chess.” Each human chess player would work in tandem with AI, utilizing the raw computing power of AI while also harnessing the skills of seasoned chess players.

Like the dramatic showdown between Deep Blue and Kasparov, the legal profession is facing its own turning point—one in which AI can now effortlessly surpass the cognitive abilities of legal minds. LLMs have obliterated the notion that lawyerly tasks are solely the province of legal professionals. Where does the law go from here? How should the legal profession proceed? The answer: Like Kasparov’s advanced chess, the legal profession must now practice law in a new way—“advanced law.” Being no match for AI, legal professionals must now fully incorporate LLMs into the legal sphere. This Article provided a framework for orienting the legal profession and giving recommendations for integrating LLMs into the legal world. Legal professionals have no choice but to utilize the technology: Some lawyers have said that “[i]f you are a [legal professional] who is not using

411. See Marla N. Greenstein, Al and a Judge’s Ethical Obligations, A.B.A. (Feb. 3, 2020), https://www.americanbar.org/groups/judicial/publications/judges_journal/2020/winter/ai-and-judges-ethical-obligations/ (discussing how AI “is not equivalent to ... the intelligence that we expect from judges”)
412. Cf. Villasenor, supra note 24 (noting that large language models will make legal work more efficient); cf. Kluger, supra note 378 (“It’s no secret that the American [judicial] system moves with the speed of a tectonic plate.”)
413. Cf. Kluger, supra note 378 (stating that judicial work moves at an extremely slow pace).
415. Id.
416. See id.
[LLMs], your opponents are." And "[t]hey are going to do better work than you."

In 1950, Alan Turing revolutionized the world by conceptualizing chatbots. And he was prophetic in saying, "it seems probable that once the machine thinking method ha[s] started, it would not take long to outstrip our feeble powers." And that turning point is now; AI has outmatched the legal profession. With the debut of LLMs, the days of lawyerly work being produced solely by a lawyer's mind are over. Legal professionals must learn how to co-exist with a new learned class—LLMs. And these chatbots are only the beginning; LLMs will become faster, more sophisticated, and better trained. Only those legal professionals willing to play "advanced law" will survive AI's insurgency. Brace yourselves: AI's legal revolution has begun.

417. Lorek, supra note 238.
418. Id.