

# ETHICA EX MACHINA OR: HOW I LEARNED TO STOP WORRYING AND LOVE CHATGPT | ETHICAL CONSIDERATIONS FOR TRUSTS AND ESTATES ATTORNEYS USING GENERATIVE AI

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## I. SYNOPSIS

ChatGPT and other generative artificial intelligence (“AI”) applications are not merely coming for our jobs; they are also among the most powerful, if not dangerous, tools available to lawyers today. With such immense power must also come rigorous commitment to using these tools responsibly. This article surveys common ethical issues facing lawyers using generative AI and it offers best practices for those hoping to do so successfully and responsibly.

## II. INTRODUCTION

AI is often portrayed in science fiction as an existential threat to humanity. A prevalent theme is that humans will be replaced, subjugated, or even annihilated by our very own robot offspring. Samuel Butler’s *Erewhon* (1872), inspired by Darwin’s *Origin of the Species* (1859), and even Mary Shelley’s *Frankenstein* (1818) and Fritz Lang’s *Metropolis* (1927) are some of the earliest science-fictional warnings about the perils of AI.<sup>02</sup> In the popular *Terminator* franchise, an AI defense system (SkyNet) becomes sentient, triggering

a nuclear holocaust and wiping out most life on Earth. Similar events force the vestiges of humankind underground in a last-ditch resistance against hegemonic machines in *The Matrix* trilogy, as relayed in the *Animatrix*, a series of short prequels and other stories considered sacred in that cinematic universe. Similar is the 2023 blockbuster, *Mission Impossible: Dead Reckoning Part One*, with *Part Two* expected in 2025.

These and other foreboding, fictional representations of AI have contributed to the public sense of anxiety, if not outright fear, about the future of man vs. machine. In the last couple of years, something beyond fiction has caused widespread consternation, along with a certain amount of enthusiasm in some corners: the advent of ChatGPT. The legal community has not been immune from that sometimes schizophrenic reaction. While ChatGPT and similar technological developments offer intriguing opportunities, there are reasons to worry beyond having to explain to a court, “I am not a cat.”<sup>03</sup>

Almost as infamous as the feline lawyer are the two lawyers who filed a powerful legal brief advancing certain legal

theories supported with citations to, and quotations from, multiple precedents that turned out to have been invented from whole cloth by ChatGPT.<sup>04</sup> The attorneys who filed that brief were later forced to admit that (1) the attorney who prepared the brief relied almost exclusively on ChatGPT for legal research, (2) the supervising attorney had been entirely unaware but had also done nothing to check the other's work product before signing and filing, (3) their brief cited and quoted several authorities that ChatGPT had simply made up (i.e., fake cases for fake propositions), and (4) they had initially been less than candid with the court when it questioned them about the integrity of their brief. Both attorneys then faced a highly publicized sanctions hearing, which was certainly more damaging to their careers than the mercy showed by the court, which imposed relatively small fines and made the lawyers apologize to any real judges whose names were ascribed to fake opinions.<sup>05</sup>

Meanwhile, a Colorado lawyer was suspended from practice in December 2023, following disciplinary proceedings in which he attempted to blame his reliance on false, AI-generated citations on "a legal intern ... who ... [made] some mistake."<sup>06</sup> And in New York, an attorney was referred by the Second Circuit Court of Appeals to its attorney-grievance panel in early 2024, after that attorney admitted to citing a nonexistent case from ChatGPT in a brief.<sup>07</sup>

While ChatGPT may be new, lawyers have relied on computer-based technologies for legal research for decades that now utilize AI in one form or another. While *Shepard's* may no longer be taught in law schools, and law firms have scrapped their physical libraries, there is no substitute for reading cases and more traditional forms of research to check and supplement leads received from computer searches. Recently released empirical data found that even leading legal AI tools offered by Lexis, Westlaw, and Thomson Reuters only provided correct, accurately sourced answers to legal queries 65 percent, 42 percent, and 20 percent of the time, respectively.<sup>08</sup> There is now growing concern that the rapid development of AI technologies, ChatGPT included, may ensnare lawyers, both those looking to cut corners by asking a computer to write their briefs and those trying in good faith simply to keep up with this rapidly developing innovation.

Whether lawyers can or should eschew ChatGPT or other AI technologies is, in the long run, probably unrealistic to a certain degree. It is hard to imagine a lawyer anywhere who can be found at a desk in the library cross-referencing multiple volumes of *Shepard's*. This article does not advocate for specific uses or implementations of AI. Instead, it presupposes that a lawyer is considering dipping a toe into the AI ocean and accordingly offers an overview of these technologies and ethical ways to use them. Or, to put it differently, this article is about how to use AI without having

to explain to a court either that you are not a cat or that your brief might as well be a fairy tale.

This article covers four overarching topics. First, it explains generally what AI and generative AI are, how they work, and what potential uses and limitations they entail for laypersons and lawyers. Second, it proposes several reasons why lawyers (especially trusts and estates lawyers) ought to care about AI and why they should consider incorporating AI into their practice. Third, this article surveys the principal benefits and risks of using AI, with emphasis on the perils posed to lawyers who use AI carelessly. And fourth and finally, it offers ethical guidance to lawyers seeking to use AI without being disciplined for doing so, including by identifying best and worst practices for lawyers seeking to employ AI while meeting their duties of competence, confidentiality, supervision, and candor with courts and clients.

### III. WHAT ARE AI AND GENERATIVE AI?

#### A. Generally

AI is an umbrella term that refers to various technologies that enable computers to engage in all sorts of human-like behaviors.<sup>09</sup> AI has a dizzying array of potential uses, from mundane tasks like recognizing symbols and images, to critically important ones like allocating and deploying energy, healthcare, or other resources based on copious amounts of data being collected and analyzed in real time.

AI is hardly new.<sup>10</sup> In fact, it is highly likely that anyone reading this already relies heavily on AI, even if they do not realize it. This is because AI is already woven deeply into the fabric of daily life. AI is a critical component of Google searches<sup>11</sup>; of navigation applications like Google Maps,<sup>12</sup> Waze,<sup>13</sup> and Apple Maps<sup>14</sup>; of applications like Siri<sup>15</sup> and Alexa<sup>16</sup>; of recommendation platforms like YouTube,<sup>17</sup> Pandora,<sup>18</sup> and Spotify<sup>19</sup>; of customer-service chatbots<sup>20</sup>; of spam filters for email applications like Gmail<sup>21</sup>; of biometric security functions, including those on smartphones<sup>22</sup>; and much, much more.<sup>23</sup>

And it is not just individuals who have come to rely on AI. Companies and entire sectors of the global economy run on AI, including for critical processes, from industries like healthcare, sports, self-driving cars, and robotics to retail, banking, finance, and healthcare.<sup>24</sup> AI is quite literally all around us.<sup>25</sup>

#### B. Distinguishing AI from Machine Learning

Although often used interchangeably by laypersons, the terms AI and Machine Learning ("ML") are not synonymous. Instead, ML is one particular use or application of AI, which typically entails an AI algorithm adapting over time, learning

and becoming more efficient at a particular task through cumulative data, experience, and reinforcement.<sup>26</sup> Not all kinds of AI are self-honing in this way, but the subsets of AI that entail ML generally are.

### C. Generative AI and Large Language Models

The way a particular AI tool functions depends on the specific application and intended use. Generative AI is a broad category of AI tools or applications that involve users creating “original”<sup>27</sup> content by running user prompts or inputs through an AI algorithm, which then generates data in response to those prompts/inputs.

One application of generative AI is presently taking the world by storm: so-called Large Language Models (“LLMs”). LLMs are AI tools that take text or other input data and create text-based outputs. Many kinds of data can serve as LLM inputs, such as text, audio, images, and computer code. What differentiates LLMs from other forms of generative AI is that LLMs process inputs and then generate outputs in the form of a *verbal* answer, be it simple prose, poetry, a joke, computer code, the first thousand digits of Pi, or an essay on *Moby Dick*.

The most popular generative AI application at present is ChatGPT. ChatGPT is a tool that was released in November 2022, by a now-famous technology company, OpenAI. OpenAI had previously gained acclaim for creating a nearly unbeatable AI for one of the world’s most popular online video games.<sup>28</sup> But even OpenAI’s dazzling success in that forum could not have presaged its creation of a product as revolutionary as ChatGPT.

ChatGPT is a predictive-text LLM that “interacts in a conversational way,” like a human.<sup>29</sup> Essentially, ChatGPT is designed to understand and communicate with humans through natural language by using a deep-learning model trained on vast amounts of publicly available data from the Internet.<sup>30</sup> When a user inputs a question or prompt, ChatGPT analyzes that text, looks for patterns amidst the data it was trained on, and generates a coherent response. And in creating that response, ChatGPT essentially functions like a predictive-text tool: its answers are in essence what ChatGPT believes to be the next-most-likely words and sentences based on its algorithm, its training, and user inputs.<sup>31</sup>

ChatGPT does not possess consciousness or understanding in the human sense. Instead, it relies on raw statistical associations when responding to a user prompt. ChatGPT might thus be likened to a very advanced version of predictive-text tools like AutoCorrect or AutoComplete apps, which try to anticipate what someone is typing based on (i) what they have already typed and (ii) what people typically type after having typed those prior words, as one

sees when typing in a Google search bar or in a messaging application. But, whereas those sorts of predictive-text programs are often prone to wildly (and sometimes hilariously) incorrect predictions, ChatGPT and other leading LLMs have proven to be impressively accurate and reliable much of the time.

There are both free and paid versions of ChatGPT available for use today. As of mid-2024, the free version of ChatGPT uses an older version of OpenAI’s algorithm, known as GPT-4, while the paid version grants users access to OpenAI’s “flagship model” algorithm, GPT-4o (with “o” supposedly standing for “omni”).<sup>32</sup>

### D. Uses for ChatGPT and Other LLMs

The potential uses for ChatGPT are legion, both for laypersons and professionals.

ChatGPT can be helpful to laypersons for general research, such as answering queries that might typically be posed to Google, such as, “how far away is the Moon?” or “when did California formally join the United States?” ChatGPT can also compose poetry, write or debug computer code, prepare a resume or job description, or create a unique story from a short prompt. As the saying goes, there may be something for everyone in the family: children can use ChatGPT to write a joke or obtain explanations of complex math problems; teenagers can ask for relationship advice or to translate their French homework; and adults can ask ChatGPT for potential travel itineraries or about the meaning of life. Although not exactly a one-size-fits-all tool, ChatGPT is intended to be wide-ranging in its applications for a mass audience.

ChatGPT and other LLMs also have potential for professionals. Emerging evidence suggests that lawyers and other professionals are already relying on ChatGPT and other AI applications for a range of tasks critical to those professionals’ lines of work.<sup>33</sup> Lawyers are using these tools to draft emails, letters, and other correspondence; review and summarize voluminous documents; draft legal instruments, pleadings, motions, and discovery; analyze and brief legal issues; and more.

### E. Limitations for ChatGPT and Other LLMs

Notwithstanding the broad-based potential for ChatGPT and other LLMs, these tools are not without their limitations, many of which are significant.

The *Mata v. Avianca* fiasco is one such example. ChatGPT and other major LLMs are known to hazard guesses, instead of conveying uncertainty about a prompt, and to have what are called “hallucinations,” which are made-up or fallacious answers that result from a misfire by an AI tool. Although

a universally accepted definition of an AI hallucination remains elusive, emerging scholarship has articulated multiple “dimensions” or ways in which lawyer AI tools may be said to have hallucinated: namely, failures of “correctness” and failures of “groundedness.” The proponents of those categorizations teach that correctness issues are present when a legal AI tool’s response either “contains factually inaccurate information,” refuses to provide an answer, or provides an irrelevant answer (collectively, an “incorrect” response). And groundedness issues arise when key factual propositions either are unsupported by any citation at all (i.e., “ungrounded”) or “are cited, but the source does not support the claim” (i.e., “misgrounded”).<sup>34</sup> Using those two axes, those authors define a hallucinated response from a legal AI tool as one that it is either incorrect or which is ungrounded or misgrounded.<sup>35</sup> They then found that leading legal AI tools offered by companies like LexisNexis, Westlaw, and Thomson Reuters tended to hallucinate less frequently than ChatGPT, but that they all still hallucinated at dangerously high rates, between 17 percent and 33 percent of the time, while GPT-4 hallucinated 43 percent of the time.<sup>36</sup> To put those numbers in perspective, consider how long you would retain a junior attorney if they came to you with fallacious answers between 1/5 and 1/3 of the times you asked them legal questions. Setting aside hallucinations, legal AI tools also gave incomplete responses to legal queries between 18 percent and 63 percent of the time, whereas GPT-4 did so only 8 percent of the time.<sup>37</sup> To put it bluntly, those erroneous-response rates are discouragingly (if not embarrassingly) high, especially for what many would consider the most cutting-edge legal AI tools ever built.<sup>38</sup> ChatGPT generally does not retain information from prior, separate conversations. Instead, each chat thread is self-contained. ChatGPT generally only remembers what you have said in a particular chat thread and “forgets” those conversations in any new threads that are opened.

Other major limitations of generative AI as it presently exists include the pervasive presence of bias, difficulties comprehending syntax and other human context in language, and overreliance on mathematical association of words and predictive-text models as a means of answering complex queries.

In Section VI below, strategies are discussed to manage these and other risks associated with the use of AI in the practice of law.

## IV. WHY SHOULD LAWYERS CARE ABOUT AI?

There are at least two reasons why all lawyers (and professionals who work with them) should care about AI. They should care first and foremost because the benchmarks that AI is meeting are verifiably remarkable. And legal professionals should also care about AI because

so many lawyers and their clients already seem to agree that AI is both inevitable and a potentially useful tool. There also can be no doubt that AI will create disturbances, if not seismic shifts, in the ways that estate planning lawyers will serve their clients in the future. The moment is opportune for lawyers to accept, if not embrace, the inexorable future of AI in the profession.

### A. By Many Objective Measures, AI Is Impressing

Limitations aside, ChatGPT and other AI tools are doing objectively incredible things. Take, for example, GPT-4, OpenAI’s fourth-generation version of ChatGPT, which recently became available to the public for free. GPT-4 has passed the Uniform Bar Exam (90<sup>th</sup> percentile score); the Wharton MBA exam (B or B-); U.S. Medical Licensing exams; an array of law-school exams; the SAT (verbal 93<sup>rd</sup> percentile and math 89<sup>th</sup> percentile); the GRE (verbal 99<sup>th</sup> percentile, math 80<sup>th</sup> percentile, and writing 54<sup>th</sup> percentile); and numerous Advanced Placement (AP) exams, including perfect scores of 5/5 on Art History, Biology, Environmental Science, Macro and Microeconomics, Psychology, Statistics, U.S. Government, and U.S. History, as well as passing scores of 4/5 on Physics 2, Calculus BC, Chemistry, and World History.<sup>39</sup> GPT-4 has even passed the written portions of the introductory, certified, and advanced sommelier exams.<sup>40</sup> And of course, ChatGPT has passed variations of the Turing Test.<sup>41</sup> At the time of these achievements, GPT-4 was in existence only about a year.<sup>42</sup>

### B. All the Cool Kids (and Clients, Competitors, and Subordinates) Are Using It

Even if one were skeptical that ChatGPT and LLMs had staying power based solely on their merits, it is impossible to ignore what the data tells us about how enamored the public has already become with these tools.

As of early 2024, less than two years after ChatGPT’s launch in November 2022, it boasted over 180 million users worldwide, 100 million weekly active users, and monthly website visits exceeding 1.675 billion.<sup>43</sup> It took ChatGPT just five days after becoming publicly available to eclipse one million users and just two months to reach 100 million users, both of which were the second-fastest adoption marks ever achieved by an online platform.<sup>44</sup>

Some surveys have found that users of ChatGPT and other AI tools are more likely to be male, with women less likely to use ChatGPT compared to men in the same occupation<sup>45</sup> and significantly less likely than men to report AI use at work (whether with or without work permission).<sup>46</sup> Perhaps unsurprisingly, ChatGPT use is higher among young people.<sup>47</sup> But, even still, survey after survey confirms that huge proportions of the public are using it. Some estimates

indicate that as many as half of all U.S. workers have already used ChatGPT, with incidence of use at work seemingly associated with one's occupation.<sup>48</sup> Lawyers have been relatively cautious about using AI at work, with only 30 percent of them reporting ChatGPT use at work compared to 64 percent of journalists, 63 percent of software developers, 65 percent of marketing professionals, and 45 percent of human resources professionals.<sup>49</sup> But when including all kinds of use, both at work and at home, several surveys have found that roughly half of U.S. lawyers have already used ChatGPT or other kinds of generative AI.<sup>50</sup> And of lawyers who report never having tried AI, about half of them either plan or expect to use AI in "their work within the next year" and/or believe the use of AI at work "will increase [their] efficiency."<sup>51</sup>

Perhaps even more importantly, data also shows that lawyers' clients are already using AI and that they may want their lawyers to do so, too. For instance, a 2023 survey by LexisNexis found that about one-third (32 percent) of legal-services consumers had used generative AI and that only about one-fifth (21 percent) of legal-services consumers had "significant" or "fundamental" "concern[s] about the ethical implications of generative AI on the practice of law."<sup>52</sup> If lawyers' clients are already using generative AI and tend to harbor minimal concerns about doing so in the practice of law, it seems unlikely that those same clients will be inclined to continue working with lawyers who resist becoming familiar with these tools. As a corollary to this, approximately two-thirds (68 percent) of Fortune 1000 in-house lawyers surveyed said they approve of outside counsel using generative AI, even though only one-third (38 percent) of law-firm leaders believed this to be the case.<sup>53</sup> Thus, there is even greater demand on the consumer side for aptitude with legal AI tools than lawyers may appreciate.

And it is not just clients who believe lawyers should be using AI; LexisNexis also surveyed law students and found that about half of them (46 percent) believe that AI will significantly transform the practice of law, meaning, the next generation of lawyers already believes in the potential of AI and is preparing accordingly.<sup>54</sup>

Private and public entities are also rushing to create efficiencies in their work by implementing AI tools. Some estimates have found that approximately 37 percent of private organizations worldwide had already implemented some form of AI by 2019, an increase of 270 percent over the preceding four years.<sup>55</sup> Similarly, other surveys revealed that between 1/3 and 1/2 of businesses are either already using generative AI or planning to do so soon, including for things like instant-messaging chatbots, recruiting, optimizing emails, and product recommendations.<sup>56</sup> Law firms are no different, with approximately half (45 percent) of the AmLaw 200 firms already reporting as of January 2024, that they

have begun using generative-AI tools for client work.<sup>57</sup> Although judges and judicial staff appear to hold decidedly dimmer views about the role of generative AI in law (at least at present),<sup>58</sup> they too are preemptively dedicating more resources and attention to the issue.<sup>59</sup>

### C. Further Reasons Why T&E Lawyers Should Care About AI

There are additional reasons why trusts and estates lawyers in particular should care about AI.

Out of all potential uses, consumers of legal services have indicated that their second-most-likely need for which they may consider using AI is to create an estate planning document.<sup>60</sup> Estate planners will thus face increasing pressure with greater acceptance of AI to demonstrate value for their services (in addition to the pressure they already face from pre-generative-AI competitors, such as RocketLawyer and LegalZoom), and it may well be most effective to do so with a plan that integrates appropriate use of AI-based estate planning tools. Lawyers are already accustomed to having to explain to clients the benefits of the computer programs they use to generate and customize estate planning instruments and the irreplaceable need for the lawyer's wisdom, experience, and creativity in finding solutions that can be as unique as individual clients themselves. There seems to be no doubt that this will be the continuing and existential challenge facing estate planning lawyers in the future as AI develops.

## V. BENEFITS AND RISKS OF LAWYERS RELYING ON AI

In evaluating whether and how to incorporate AI into the practice of law, lawyers must carefully weigh the countervailing benefits and risks of this technology and their intended uses for it.

### A. Benefits of Lawyers Using AI

The potential benefits of AI tools for a law practice are numerous. One of the most frequently cited benefits of AI is the efficiencies it engenders. Numerous studies have found that AI tends to help save users time, especially on repetitive or rote tasks and as users become more familiar with the technology.<sup>61</sup> That, in turn, has the potential to provide cost savings for both law firms and their clients. And perhaps because saved time and other efficiencies are often perceived as likely benefits of AI, in-house counsel (among others) tend to expect outside counsel to have lower bills as a result of using AI.<sup>62</sup> AI also promises to promote improved content quality, not because AI content is inherently as good or better than human content creation, but because it can help augment human creativity (e.g., by helping with

brainstorming or by fleshing out nascent ideas) and because it can help minimize human errors (e.g., by cleaning up typos and grammar errors or by flagging mistaken citations). AI is a powerful educator and trainer for students and inexperienced workers, with its vast store of knowledge and an inexhaustible supply of patience for even the slowest learners. And even though mass availability of generative AI is a recent development, the rate at which its availability and scalability have ramped up strongly suggests that this technology is positioned to keep pace with exploding demand. That forward-looking potential reinforces the many well-intentioned (if not dangerously over-optimistic) hopes that generative AI may alleviate issues with access to justice by underserved groups.<sup>63</sup>

## B. Risks of Lawyers Using AI

Having acknowledged these many potential benefits, it cannot be overstated that generative AI poses substantial risks for lawyers and their clients. Chief among those risks is the “hallucination” factor, discussed above. Reputation is the only true value a lawyer possesses; the risk to a lawyer’s career of a brief that cites fake cases is far greater than whatever sanction a court or bar association might impose.

Generative AI also suffers from transparency or, conversely, opacity issues. Little is publicly known about the algorithms underlying most major AI tools. In many ways, AI tools are black boxes into which few outsiders (e.g., scholars, would-be regulating agencies, etc.) have any visibility.<sup>64</sup> This makes it difficult for such outsiders to audit and diagnose AI problems with confidence. Indeed, even when one uncovers an error or faulty response in a generative AI tool, users are often left to deduce how that could have happened without any information about the underlying algorithm and with little specific information about the data that algorithm was trained on. Although trade secrets are not unique to the field of AI, the opacity of AI tools poses several problems in the public’s collective efforts to understand and to safely wield these tools, especially as lawyers.<sup>65</sup>

Because of the transparency and hallucination risks, generative AI has consistency and reliability issues. Even top-of-the-line generative AI models make mistakes with startling frequency, notwithstanding their state-of-the-art training data, proprietary refinement techniques, and the world’s leading data scientists and engineers. As noted previously, a recent study found that three of the most prominent legal AI tools available (Lexis+ AI by LexisNexis, Westlaw AI-Assisted Research, and Ask Practical Law AI by Thomson Reuters) only answered queries accurately 65 percent, 41 percent, and 19 percent of the time, respectively. GPT-4 (the version now available to the public for free), by contrast, gave accurate answers 49 percent of the time, while also hallucinating at a rate higher than

the other three legal tools, doing so on 43 percent of its answers.<sup>66</sup>

AI tools like ChatGPT also pose serious dangers to confidentiality. The most obvious danger is that many prominent generative-AI tools (like ChatGPT) are not confidential, meaning they neither promise nor ensure confidentiality of users’ prompts and other typed information. In fact, many AI tools expressly warn that user information may be reviewed by quality-control teams or otherwise fed back into an LLM’s algorithm as part of a refinement process. In either scenario, potentially sensitive details that a lawyer has typed into an AI tool may become publicized.<sup>67</sup> One way to mitigate this specific risk as a lawyer is to use lawyer-facing AI tools (i.e., ones specifically designed to be relied on by lawyers), many of which address a lawyer’s need for confidentiality by establishing various, redundant user-privacy measures. Such tools might include those offered by flagship legal-research companies (including LexisNexis or Westlaw/Thomson Reuters) or their lesser-known competitors, many of which go to great lengths in protecting confidentiality of user data. On the other hand, ChatGPT and other non-lawyer LLMs may not have been constructed with a lawyer’s duty of confidentiality in mind.

The other main threat to confidentiality stems from data-security issues, including those posed by hackers and other malicious actors, who might seek to access sensitive information typed into an AI tool. This risk is less easily mitigated by simply using a lawyer AI tool, as any computer-based application will always be at least potentially susceptible to data-security risks. And sometimes, these risks spring up not by virtue of any malicious actor but simply by bugged computer code, as when ChatGPT experienced an outage in 2023 where some users were suddenly able to view other users’ sensitive information (including other users’ names, addresses, email addresses, credit card information, and portions of chat threads).<sup>68</sup> Thus, this is a risk that must be constantly monitored, including by ensuring that one’s preferred AI tools are managed by teams that place paramount importance on data-security protections.

As with many areas of life, bias remains a rampant problem in AI. For decades, studies have found that early forms of AI systematically delivered biased results leading to suboptimal outcomes for specific groups of people.<sup>69</sup> This has also proven true with the advent of generative AI. A steady chorus of studies have concluded that generative AI tools are no different as they, too, generate biased responses that result from the underlying algorithm or training data (which, for the most part, are either nebulous or completely opaque to outsiders).<sup>70</sup> Unfortunately, the bias exhibited by many AI tools, and specifically by generative AI, has only exacerbated preexisting issues with bias. It has tended to impact most

negatively those groups that are already marginalized or that experience other harmful structural biases, including people of color and women.<sup>71</sup>

Although many more risks accompany the use of AI, the final risk noted here is that of human error. In sum, even those most well-trained and proficient users of a technology sometimes make mistakes when designing, building, and using it. This seems especially true when computer engineering is involved, but it is also inevitably true when something as powerful as generative AI is suddenly available for every single person on the planet.

## VI. ETHICAL CONSIDERATIONS FOR LAWYERS USING AI

Although the use of AI implicates various ethical duties for lawyers, maybe the four most salient are the duties of: (A) competence, (B) confidentiality, (C) supervision, and (D) candor (with courts and with clients). These concepts will be discussed in connection with the principal sources of California lawyers' ethical duties, which include: the California Business and Professions Code, the California Rules of Professional Conduct, decisions construing the Business and Professions Code and the Rules of Professional Conduct, and the rules, guidance, and disciplinary decisions promulgated by state and local bar associations.

### A. Competence and AI

#### 1. Governing Rules

In the context of an attorney's ethical duties, competence generally means providing legal services in a reasonably able and diligent manner. Competence does not mean perfection, but it does contemplate baseline levels of skill and effort. In California, there is a web of authorities that operationalize an attorney's duty of competence.

Business and Professions Code section 6067 provides that the attorney oath taken upon admission to the Bar carries with it several duties, including the duty to "faithfully [] discharge the duties of an attorney... to the best of [one's] knowledge and ability."<sup>72</sup> Business and Professions Code section 6068, in turn, enumerates various duties of attorneys, including several that correlate with the concept of competence. For instance, it imposes duties to maintain only "those actions, proceedings, or defenses ... as appear to him or her legal or just," to maintain inviolate client confidence and secrets, to "respond promptly to reasonable status inquires of clients and to keep clients reasonably informed," etc.<sup>73</sup>

The Rules of Professional Conduct take a more direct approach to codifying the duty of competence. Rules of Professional Conduct, rule 1.1(a), declares that attorneys

"shall not intentionally, recklessly, with gross negligence, or repeatedly fail to perform legal services with competence." Rules of Professional Conduct, rule 1.1(b), then defines competence as "apply[ing] the (i) learning and skill, and (ii) mental, emotional, and physical ability reasonably necessary for the performance of" the services which the attorney was retained to perform. Finally, Rules of Professional Conduct, rule 1.1(c), explains that incompetent attorneys can still provide competent representation to a client in three ways: (i) by associating or consulting with a competent lawyer for the matter; (ii) by acquiring sufficient learning and skill before performance is required; or (iii) by referring the matter to another lawyer who is competent. And as the comments to that rule confirm, the duty of competence implicitly imposes on attorneys a correlated "duty to keep abreast of the changes in the law and its practice, including the benefits and risks associated with relevant technology."<sup>74</sup>

There are also several state and local bar opinions that are germane to the intersection of competence and emerging legal technologies. For instance, in 2015, the California State Bar Association issued a formal opinion holding that an attorney's lack of competence in handling e-discovery issues could violate ethical duties and result in discipline.<sup>75</sup> The San Diego County Bar Association has also issued opinions that expressly extend the duty of competence to include issues involving electronically stored information and technology-assisted document review, holding that an attorney may fail to act competently if they cannot understand their client's technology and assist in complying with discovery obligations.<sup>76</sup> Also potentially relevant here are the many bar opinions and guidance confirming that attorneys must take reasonable steps to prevent data breaches or cyberattacks and that they must notify their clients and act swiftly in the event of such a breach.<sup>77</sup>

#### 2. Extrapolating Competence Rules to AI

Against this backdrop, there appear to be at least five ways that AI may implicate a lawyer's duty of competence.

First, attorneys endeavoring to use AI while complying with their duty of competence must embrace a lifelong-student mentality when it comes to AI. Specifically, attorneys should accept the fact that AI is going to be with us for some time and that they are going to need to familiarize themselves with this innovative technology, including its risks, benefits, and recommended and non-recommended uses.

Second, it is vitally important that any AI in the provision of legal services is checked by humans. That means that a human must review all generative-AI content used in drafting a motion, conducting legal research, preparing an outline for oral argument, or summarizing a voluminous document production. Even when lawyer-oriented AI tools

are used, the technology is just not advanced enough yet to warrant blind trust. Generative AI continues to hallucinate too much, and too little is known about why that continues to happen.

Third, attorneys seeking to use AI competently should begin exploring ways they can safely incorporate AI technologies, in concert with human oversight, into their practice. Lawyers and law firms alike (among countless other organizations and industries) are already racing to be among the earliest adopters of AI. It seems likely that they are doing so not because AI is poised to revolutionize the practice of law now, but rather because the initial promise AI has shown indicates that it might do that soon.

Fourth, attorneys should consider whether they need to notify their clients about particular uses of AI in advance. As the California Supreme Court has confirmed, communication with a client is a core component of competent representation.<sup>78</sup> As such, a discussion of competent AI use would be incomplete without considering whether clients ought to be informed about the proposed use. Although this is discussed in greater detail below in Section VI(D), the abridged version is that delegating meaningful work to another attorney generally requires disclosure to a client. From that, one can reasonably expect courts to require similar disclosures to a client where meaningful work is to be delegated to a legal AI tool.

Fifth and finally, the duty of competence requires attorneys to take proactive steps to encourage safe and competent use of AI by other attorneys and nonlawyer assistants at one's firm. To that end, attorneys should promulgate policies and procedures regarding the use of AI for client work. Anecdotal evidence suggests that the AM Law 200 has done so already. Additionally, such policies should probably emphasize the use of lawyer AI tools for lawyer tasks. Although a comprehensive comparison of available lawyer AI tools is beyond the scope of this article, recent data show two things: (1) such tools tend to outperform non-lawyer AI tools (like ChatGPT) when responding to legal queries, and (2) a wide chasm exists in the performance rates of current lawyer AI tools for lawyers and laypersons.<sup>79</sup> Ultimately, even if mistakes are made with AI, paying for and utilizing these lawyer-specific tools will be yet another reasonable step that one can show was taken to mitigate the risks of AI.

Focusing on these five issues will not ensure an error-free career with AI. But it will minimize the chance that a lawyer is found to have breached his or her duty of competence while using an AI tool.

## B. Confidentiality and AI

### 1. Governing Rules

As discussed above, Business and Professions Code section 6068 requires attorneys to “maintain inviolate the confidence, and at every peril to himself or herself, preserve” client secrets.<sup>80</sup> Rules of Professional Conduct, rule 1.6, similarly provides that attorneys shall not reveal a client's confidential information unless the client gives informed consent or disclosure is otherwise permitted.

It is important to recall that client confidentiality is distinct from, and not coextensive with, attorney-client privilege. An attorney's duty of confidentiality extends to any information obtained during a representation unless generally known, not merely to confidential communications between client and lawyer.<sup>81</sup> Confidentiality is thus broader than attorney-client-privileged information.

There are limited statutory and jurisprudential exceptions to confidentiality. The sole statutory exception under the Business and Professions Code is when an attorney reasonably believes that disclosure of client confidential information is reasonably necessary to prevent a crime likely to result in death or serious bodily harm to an individual.<sup>82</sup> Even then, in the rare case where this applies, an attorney may, but need not, disclose. The narrowness of this statutory exception underscores the California Legislature's intentional choice to exalt a lawyer's duty of confidentiality above nearly all other interests.<sup>83</sup> Even still, courts have also held that established exceptions to the attorney-client privilege may also apply and permit disclosure of confidential information.<sup>84</sup> Thus, if a crime-fraud or other Evidence Code exception applies to pierce the attorney-client privilege, it may also apply to override the attorney's duty of confidentiality, too.<sup>85</sup>

### 2. Extrapolating Confidentiality Rules to AI

Given the paramount importance of confidentiality for California lawyers, there are several things to keep in mind when considering the use of generative and other forms of AI.

First, as discussed above, AI is not inherently geared towards confidentiality. In fact, many AI tools expressly warn that they are not confidential, as user inputs either get fed back into the algorithm or are otherwise reviewed by quality-control teams for training purposes. Indeed, some generative AI tools have proven susceptible to novel security issues involving hacking<sup>86</sup> and unauthorized publication of user data.<sup>87</sup> As a result, lawyers should act as though everything they type into an AI tool will be publicized (similar to how many prudent lawyers write as though any communication they send to opposing counsel will likely end up in front



of a judge one day). As a practical matter, that means anonymizing or generalizing user inputs in a way that protects your clients' confidence, e.g., instead of typing in all the specific facts of your case and asking an AI tool for relevant authority, prompt it in a way that makes it difficult to tie to your client. So instead of asking a generative AI tool, "What are the best legal defenses for John Smith if his text messages show he unduly influenced his wife Jane by doing [X, Y, and Z] shortly before she died?" One might instead ask, "What legal defenses apply where undue influence consisting of [X, Y, and Z] is alleged?" Training oneself to anonymize user prompts for AI tools does entail some burden, but it is worth the relatively small amount of effort required. At the very least, it is a reasonable step you can show you took in trying to protect client confidences.

Second, and similarly important, is that lawyers should endeavor to use lawyer AI tools for legal tasks. To be sure, one can reasonably hope and expect that ChatGPT and other non-lawyer AI tools will continue to improve, such that they may close the performance gap with legal AI tools on legal tasks. But at present, non-lawyer AI tools simply do too little to manage the peculiar risks associated with a lawyer using AI tools: they hallucinate too much, they do too little to safeguard user confidentiality, and they were not trained on the kinds of data (i.e., primary legal authorities, much of which is not publicly available) necessary to earn a lawyer's reasonable reliance. Foremost among the things that ordinary AI tools often fail to do is ensure confidentiality of user information. The duty of confidentiality is too important to entrust client secrets to nonlawyer tools that are not similarly obsessed with confidentiality the way lawyers must be.

Third, when thinking about confidentiality, lawyers must also be mindful of data security. Even AI tools that promise to protect user data can be susceptible to hackers and other malicious actors. Perhaps because generative AI remains a nascent technology, there have not been any devastating, high-profile hacks of lawyer AI tools. But it is not hard to envision a scenario where someone might be incentivized to circumvent a lawyer AI tool's cybersecurity defenses to access a lawyer's confidential data.<sup>88</sup> Were that to happen, lawyers could expect to see the same kind of tactics seen with ransomware and other malware that take law firms' data hostage and demand ransom payments to release it.<sup>89</sup> The concomitant civil or ethics liability in such a scenario might depend on whether the lawyer can demonstrate that they took reasonable steps to secure repositories of confidential client information, including by only using AI tools that prioritize data security.<sup>90</sup>

## C. Supervision of Lawyers and Nonlawyer Assistants Who Use AI

As the California Supreme Court observed more than 50 years ago, "[e]ven though an attorney cannot be held responsible for every detail of office procedure, he must accept responsibility to supervise the work of his staff."<sup>91</sup> A lawyer's failure to exercise adequate supervision over subordinate attorneys or nonlawyer assistants may result in disciplinary proceedings by the Bar against both the lawyer and the lawyer's firm.<sup>92</sup> It may also result in malpractice and other civil liability.<sup>93</sup>

The following sections separately set forth the authority governing lawyers' independent duties to supervise subordinate attorneys and to supervisor nonlawyer assistants. A combined section then addresses the implications of AI on both duties.

### 1. *Governing Rules for Managing/Supervising Subordinate Attorneys Who Use AI*

The extent of an attorney's duty to oversee and direct other attorneys depends on whether they have managerial power at a firm and also whether they supervise subordinate attorneys at the firm.

Managerial lawyers are those with authority to manage a law firm. They must "make reasonable efforts to ensure that the firm has in effect measures giving reasonable assurance that all lawyers in the firm comply with [the Rules of Professional Conduct] and the State Bar Act [i.e., Business and Professions Code sections 6000-6243]."<sup>94</sup> Meanwhile, supervising lawyers are those with "direct supervisory authority over another lawyer, whether or not a member or employee of the same law firm." They must "make reasonable efforts to ensure the other [i.e., supervised] lawyer complies with [the Rules of Professional Conduct] and the State Bar Act."<sup>95</sup> Finally, lawyers may be deemed responsible for another lawyer's ethical violation in two scenarios: first, if they "order[] or, with knowledge of the relevant facts and of the specific conduct, ratif[y] the conduct involved"; and second, if they possess managerial or direct supervisory authority over the attorney acting improperly and "kn[e]w[] of the [violative] conduct at a time when its consequences c[ould have] be[en] avoided or mitigated but fail[ed] to take reasonable remedial action."<sup>96</sup>

As the comments to Rules of Professional Conduct, rule 5.1, make clear, these statutory duties envision managerial attorneys being proactive about "establish[ing] internal policies and procedures designed" to address the most common ethical issues affecting law firms, including "detect[ing] and resolv[ing] conflicts of interest, identify[ing] dates by which actions must be taken in pending matters, account[ing] for client funds and property, and ensur[ing]

that inexperienced lawyers are properly supervised.”<sup>97</sup> Furthermore, while Rules of Professional Conduct, rule 5.3, speaks to ethical/disciplinary responsibility, “[t]he question of whether a lawyer can be liable civilly or criminally for another lawyer’s conduct is beyond the scope of” the Rules of Professional Conduct.<sup>98</sup>

## 2. *Governing Rules for Managing/Supervising Nonlawyer Assistants Who Use AI*

Lawyers owe comparable duties to supervise “nonlawyer assistants” employed or retained at a firm, including “secretaries, investigators, law student interns, and paraprofessionals,” such as paralegals.<sup>99</sup> With respect to such nonlawyer assistants, *managerial* lawyers must “make reasonable efforts” to ensure their firm “has in effect measures giving reasonable assurance that [assistants’] conduct is compatible with the professional obligations of the lawyer,” i.e., the Rules of Professional Conduct and the State Bar Act.<sup>100</sup> And lawyers with *supervisory* responsibility over a nonlawyer assistant must “make reasonable efforts to ensure that the [assistant]’s conduct is compatible with the professional obligations of the lawyer.”<sup>101</sup> In either case, the effort required by managerial or supervisory attorneys presumptively entails both “appropriate instruction” at the outset, as well as ongoing “supervision concerning all ethical aspects of their employment.”<sup>102</sup> In other words, even the world’s best training program for nonlawyer assistants at the start of their career will not suffice. One or more lawyers must also monitor and actually supervise that nonlawyer assistant throughout his or her career for this duty to be satisfied.

Attorneys, whether managerial, supervisory, or otherwise, can become responsible for a nonlawyer assistant’s conduct if they “order[] or, with knowledge of the relevant facts and of the specific conduct, ratif[y] the conduct involved” or if they are managerial or supervisory lawyers with knowledge “of the [violative] conduct at a time when its consequences can be avoided or mitigated” and they “fail[] to take reasonable remedial action.”<sup>103</sup>

And while not a California authority, a January 2024 Florida Bar Ethics Opinion found that a generative AI tool was a “person” over whom an attorney owed a duty to supervise (among other duties).<sup>104</sup>

## 3. *Extrapolating Supervisorial Duties Over Lawyers and Nonlawyer Assistants to AI*

For both managerial and supervisory lawyers, the principal recommendation remains the same: start establishing internal policies and procedures about AI use *now*. The *Mata v. Avianca* case and similar ethical blunders should be all the warning one needs. In those policies and procedures, and in discussions with subordinate lawyers and assistants,

managerial and supervisory lawyers must provide clear guidance on: (i) when (if ever) one may use generative AI for client work; (ii) which AI tools one should use and, conversely, which tools one should avoid; (iii) how to use those tools ethically and effectively; and (iv) whether and when to disclose the use of AI to others, including other attorneys at the firm, a client, a judicial officer, or some other third party.

Although prophylactic policies will help, managerial and supervisorial lawyers cannot satisfy their duty to supervise with respect to AI merely by enacting them. Managerial and supervisorial lawyers must also encourage and audit subordinate attorneys’ and nonlawyer assistants’ compliance and success under those regimes. As more data is gathered and as AI technologies progress, managerial and supervisorial attorneys must also then revise and augment their AI policies.

Beyond enacting and enforcing AI policies and procedures, managerial and supervisory attorneys would also do well to arrange for CLEs and other opportunities to foster continued learning about AI. Even lawyers with thorough, up-to-date knowledge on the current state of legal AI tools may find their knowledge obsolete in a relatively brief time if they neglect to monitor developments in this fast-changing space.

## D. *Candor with Courts and Clients*

Attorneys owe separate duties of candor to courts and to clients. As with the foregoing Section VI(C), the law governing each independent duty of candor is outlined and then followed by a combined discussion of implications of AI on both.

### 1. *Governing Law re Candor with Courts*

Rules of Professional Conduct, rule 3.3(a), requires lawyers to be candid with courts by prohibiting three overarching kinds of conduct. First, Rules of Professional Conduct, rule 3.3(a), prohibits lawyers from being actively dishonest with courts, including by “mak[ing] a false statement of fact or law to a tribunal” and from “fail[ing] to correct a false statement of material fact or law previously made to the tribunal by the lawyer.”<sup>105</sup> Second, it bars lawyers from being dishonest with courts about legal authority, including specifically “fail[ing] to disclose to the tribunal legal authority in the controlling jurisdiction known to the lawyer to be directly adverse to the position of the client and not disclosed by opposing counsel,” or to “knowingly misquote to a tribunal the language of a book, statute, decision or other authority.”<sup>106</sup> And third, Rules of Professional Conduct, rule 3.3(a), precludes lawyers from “offer[ing] evidence that the lawyer knows to be false.”<sup>107</sup>

As a corollary to that third prohibition, Rules of Professional Conduct, rule 3.3(b), provides that a lawyer who “knows that a person intends to engage, is engaging or has engaged in criminal or fraudulent conduct” before a tribunal must take “reasonable remedial measures” to the extent permitted by the Business and Professions Code and the Rules of Professional Conduct. Such remedial measures may include attempting to dissuade the improper conduct and, if necessary, withdrawing. They do “not include disclosure of client confidential information, which the lawyer is required to protect under [section 6068(e) of the Business and Professions Code] and [Rules of Professional Conduct, [r]ule 1.6.”<sup>108</sup> In terms of duration, both this duty to take remedial measures and the aforementioned duties under Rules of Professional Conduct, rule 3.3(a), persist until “the conclusion of the proceeding.”<sup>109</sup>

Lastly, Rules of Professional Conduct, rule 3.3(d), imposes heightened duties of candor on lawyers appearing *ex parte* (i.e., without an opposing party present) before a tribunal. In *ex parte* hearings, a lawyer present “shall [i.e., must] inform the tribunal of all material facts known to the lawyer that will enable the tribunal to make an informed decision, whether or not the facts are adverse to the position of the client.”<sup>110</sup>

## 2. Governing Law Regarding Candor with Clients

Communicating candidly with clients is fundamental to being a lawyer. Indeed, the California Supreme Court held decades ago that failing to communicate adequately with a client also amounts to a failure to act competently as a lawyer.<sup>111</sup>

A lawyer’s duty to communicate with their clients is multifaceted, embracing many discrete components of a representation, including discussions about the means by which to accomplish a client’s objectives, about settlement offers, about matters requiring the client’s informed consent, and more.<sup>112</sup> Among other aspects of the duty to communicate candidly with clients, lawyers must keep a “client reasonably informed about significant developments relating to the representation.”<sup>113</sup> A lawyer’s failure to keep a client informed about a “significant development” is grounds for State Bar discipline.<sup>114</sup>

As one might expect, “[w]hether a particular development is significant will generally depend on the surrounding facts and circumstances,”<sup>115</sup> including the nature and scope of the representation.<sup>116</sup> But while that is as far as the Rules of Professional Conduct go in expressly delineating the limits of significance, state and local bar associations have helped fill in the gaps. Importantly, several bar associations have opined that a change in the lawyers working on a case and the decision to outsource services for a client both constitute significant developments or facts requiring disclosure to the client.<sup>117</sup>

## 3. Extrapolating Candor Rules to AI

Several best practices about AI are apparent from this constellation of rules about candor with courts and with clients.

With respect to courts, it is essential that lawyers verify whether their tribunal prohibits or otherwise requires disclosures about the use of AI. As of mid-2024, dozens of federal judges have enacted standing orders doing just that, i.e., prohibiting the use of generative AI in the absence of (i) human quality-control review of all AI outputs, and (ii) disclosure to the court.<sup>118</sup> Although there does not appear to be a comprehensive list of California state courts that have imposed similar rules regarding AI, surveys of state-court judges and courtroom staff bespeak strongly held beliefs by California state judicial branch employees about generative AI. As time wears on, it seems highly likely that most courts and/or judges will have express rules about the use of AI, either at the courthouse or courtroom level. Practitioners would therefore do well to check local rules about AI before using it for a particular case.

As for candor with clients, lawyers must be mindful of their duty to advise about “significant developments.” Because delegating work to another human attorney generally constitutes a significant development requiring disclosure to a client, it seems highly likely that delegating work to an AI tool would also be sufficiently significant to require disclosure. But the disclosure analysis will also likely entail a holistic evaluation of other relevant circumstances, including the importance of the task to be delegated, the likelihood that an AI tool will make a mistake on that task, the potential ramifications of such a mistake, the safeguards enacted to mitigate these and other risks, etc.<sup>119</sup> Thus, an attorney probably does not need to forewarn a client every time they want to perform a Google search powered by AI, or have Siri set up a calendar invite, or run spellcheck and cite-check software on a brief written entirely by a human. But an attorney probably should notify a client before having a legal AI tool draft key portions of a significant motion. Believe it or not, there are reported incidents of “AI lawyers” making appearances in court; it seems safe to predict that, among many other issues implicated, such a plan to have a legal AI tool virtually “appear” in court would almost certainly trigger a duty to notify the client in advance.<sup>120</sup>

### E. Guidance by State Bar Standing Committee on Professional Responsibility Regarding Additional Ethical Considerations

In late 2023, the California State Bar’s Standing Committee on Professional Responsibility and Conduct released a paper entitled “Practical Guidance For the Use of Generative Artificial Intelligence in the Practice of Law.” The document

is short, consisting of a one-page executive summary followed by barely over three pages of risks and best practices for lawyers to consider when incorporating AI into their practice. The State Bar's guidance raises several of the same concerns and corresponding ethical duties described above.<sup>121</sup> It also raises additional ethical considerations and recommendations that go beyond the scope of this article. Practitioners in California contemplating the use of generative AI at their firm should take a few minutes to read this guidance, as it will likely be Exhibit A in any future disciplinary proceedings against California lawyers who have misused AI.

## VII. CONCLUSION

The authors decided it would be fitting to ask ChatGPT's GPT-4 model to write the conclusion to this article, so here you have it: "In embracing AI, attorneys must balance innovation with ethical vigilance, ensuring that technological advancements enhance, rather than undermine, the core values of the legal profession. By fostering a culture of responsibility, transparency, and continuous learning, [attorneys] can leverage AI to improve efficiency and client service while maintaining the integrity and trust central to their practice. As they navigate this evolving landscape, attorneys should advocate for ethical AI development, engage in interdisciplinary collaboration, and prepare for future challenges, ultimately ensuring that AI serves as a tool to augment, not replace, the human expertise and judgment fundamental to the practice of law."<sup>122</sup>

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- 01 The authors would like to thank Alyssa Archuleta Stomack for her indefatigable efforts on this article, which were of immeasurable help.
- 02 See generally Contreras, *Science Fiction and the Law: A New Wigmorean Bibliography* (2022) 13 Harv. J. Sports & Ent. L. 65, 72 <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3647579](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3647579)> (as of June 27, 2024) (proposing catalog of science-fiction works that all lawyers would benefit from

reading, in the tradition of Wigmore's similar list of ordinary fiction novels).

- 03 Victor, 'I'm Not a Cat,' Says Lawyer Having Zoom Difficulties, N.Y. Times (May 6, 2021) <<https://www.nytimes.com/2021/02/09/style/cat-lawyer-zoom.html>> (as of June 27, 2024).
- 04 *Mata v. Avianca, Inc.* (S.D.N.Y. 2023) No. 1:22-CV-01461.
- 05 *Ibid.*
- 06 Karlik, *Disciplinary Judge Approves Lawyer's Suspension for Using ChatGPT to Generate Fake Cases*, ColoradoPolitics.com (Dec. 2, 2023) <[https://www.coloradopolitics.com/courts/disciplinary-judge-approves-lawyer-suspension-for-using-chatgpt-for-fake-cases/article\\_d14762ce-9099-11ee-a531-bf7b339f713d.html](https://www.coloradopolitics.com/courts/disciplinary-judge-approves-lawyer-suspension-for-using-chatgpt-for-fake-cases/article_d14762ce-9099-11ee-a531-bf7b339f713d.html)> (as of June 27, 2024).
- 07 *Lawyer Facing Discipline After Using ChatGPT to Cite Non-Existent Case*, Justia (Jan. 31, 2024) <<https://news.justia.com/lawyer-facing-discipline-after-using-chatgpt-to-cite-non-existent-case/>> (as of June 27, 2024).
- 08 Magesh et al., *Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools* (2024) Stanford Univ. <<https://law.stanford.edu/publications/hallucination-free-assessing-the-reliability-of-leading-ai-legal-research-tools/>> (as of June 27, 2024).
- 09 See, e.g., Kaplan & Haenlein, *Siri, Siri, In My Hand: Who's the Fairest in the Land? On Interpretations, Illustrations and Implications of Artificial Intelligence* (2019) Business Horizons <<https://www.sciencedirect.com/science/article/abs/pii/S0007681318301393>> (as of June 27, 2024) (defining artificial intelligence "as a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation").
- 10 Anyoha, *The History of Artificial Intelligence* (Aug. 28, 2017) Science in the News Blog <<https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>> (as of June 27, 2024) (tracing roots of modern AI technology to 1950s, when "[c]omputers could store more information and became faster, cheaper, and more accessible" and when "[m]achine learning algorithms also improved and people got better at knowing which algorithm to apply to their problem").
- 11 Hespell, *Our 10 Biggest AI Moments so Far* (Sept. 26, 2023) The Keyword <<https://blog.google/technology/ai/google-ai-ml-timeline/>> (as of June 27, 2024) (discussing Google's various uses of AI in its search engine as far back as 2001, when it began using machine learning to correct users' spelling).
- 12 Lau, *Google Maps 101: How AI Helps Predict Traffic and Determine Routes* (Sept. 3, 2020) The Keyword <<https://blog.google/products/maps/google-maps-101-how-ai-helps-predict-traffic-and-determine-routes/>> (as of June 27, 2024).
- 13 Link, *How Waze Uses AI to Navigate and Dominate the Game* (Oct. 20, 2019) Marketing Right Now <<https://medium.com/marketing-right-now/how-waze-uses-ai-to-navigate-and-dominate-the-game-729e075a09b2>> (as of June 27, 2024) (iterating various AI components in the Waze app).
- 14 But see Bradley, *Apple Maps Should Be Smarter By Now* (Feb. 11, 2023) Tech Perspective <<https://techspective.net/2023/02/11/apple-maps-should-be-smarter-by-now/>>

- (as of June 27, 2024) (lamenting numerous limitations and frustrations experienced by users of Apple Maps).
- 15 Wankhede, *Is Siri an AI? Will Apple Embrace ChatGPT and Modern AI?* (Feb. 1, 2024) Android Authority <<https://www.androidauthority.com/is-siri-ai-3409932/>> (as of June 27, 2024).
  - 16 Steele, *How is Alexa Using Artificial Intelligence?* (Oct. 12, 2023) Medium <<https://medium.com/@amysteele1999/how-is-alexa-using-artificial-intelligence-02dfec4bbb5d>> (as of June 27, 2024).
  - 17 Marr, *The Amazing Ways Youtube Uses Artificial Intelligence and Machine Learning* (Aug. 23, 2019) Forbes <<https://www.forbes.com/sites/bernardmarr/2019/08/23/the-amazing-ways-youtube-uses-artificial-intelligence-and-machine-learning/>> (as of June 27, 2024).
  - 18 Teradata, *How Pandora Knows What You Want to Hear Next* (Oct. 1, 2019) Forbes <<https://www.forbes.com/sites/insights-teradata/2019/10/01/how-pandora-knows-what-you-want-to-hear-next/>> (as of June 27, 2024) (Detailing Pandora’s decision to supplement work of “human musicologists” behind Music Genome Project with AI, including “machine listening—machine learning and artificial intelligence applied to music”).
  - 19 Kaput, *How Spotify Uses AI (and What You Can Learn from It)* (Jan. 26, 2024) Marketing Artificial Intelligence Inst. <<https://www.marketingaiinstitute.com/blog/spotify-artificial-intelligence>> (as of June 27, 2024) (describing Spotify’s use of AI in Discover Weekly playlist recommendations, in individualized year-end “Spotify Wrapped” playlists, and in making other content recommendations “on [users’] behavior and preferences”).
  - 20 Viliavin, *Customer Support: Using AI Chatbots for Efficiency And Empathy* (July 18, 2023) Forbes <<https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2023/07/18/customer-support-using-ai-chatbots-for-efficiency-and-empathy/>> (as of June 27, 2024) (describing virtues of AI-driven customer-service chatbots, particularly for “repetitive tasks and mundane inquiries ... so ... talented support agents can focus on building meaningful connections with customers” on important issues).
  - 21 See Amadeo, *Gmail’s AI-powered Spam Detection Is Its Biggest Security Upgrade in Years* (Dec. 4, 2023) ArsTechnica <<https://arstechnica.com/gadgets/2023/12/gmails-ai-powered-spam-detection-is-its-biggest-security-upgrade-in-years/>> (as of June 27, 2024) (heralding Gmail’s implementation of RETVec spam-filtering software, a “machine-learning [AI application] that uses visual ‘similarity’ to identify what words mean instead of their actual character content, which led to an “improve[ment] [in the] spam detection rate over the baseline [prior spam filter] by 38% and [a] reduc[tion] [in] the false positive rate by 19.4%”). See also generally Allisat, *AI Arms Race: The Evolving Battle Between Email Spam and Spam Filters* (Mar. 7, 2024) TechRadar <<https://www.techradar.com/pro/ai-arms-race-the-evolving-battle-between-email-spam-and-spam-filters>> (as of June 27, 2024).
  - 22 Yurdasen, *How Artificial Intelligence (AI) Is Used in Biometrics* (Apr. 20, 2023) Aratek <<https://www.aratek.co/news/how-artificial-intelligence-ai-is-used-in-biometrics>> (as of June 27, 2024) (delineating AI’s use in biometric verification, including to recognize faces, fingerprints, eyes, behavior such as keystroke dynamics, gait, and speech).
  - 23 Daley, *83 Artificial Intelligence Examples Shaking Up Business Across Industries* (June 26, 2024) BuiltIn <<https://builtin.com/artificial-intelligence/examples-ai-in-industry>> (as of June 27, 2024) (identifying leading examples of innovative AI applications “[f]rom virtual assistants and self-driving cars to checkout-free grocery shopping”). See also Marr, *15 Amazing Real-World Applications of AI Everyone Should Know About* (May 10, 2023) Forbes <<https://www.forbes.com/sites/bernardmarr/2023/05/10/15-amazing-real-world-applications-of-ai-everyone-should-know-about/>> (as of June 27, 2024).
  - 24 Daley, *83 Artificial Intelligence Examples Shaking Up Business Across Industries*, *supra*, BuiltIn <<https://builtin.com/artificial-intelligence/examples-ai-in-industry>>.
  - 25 See, e.g., Anyoha, *The History of Artificial Intelligence* (Aug. 28, 2017) Science in the News Blog <<https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>> (as of June 27, 2024) (commenting that “Artificial Intelligence Is Everywhere”).
  - 26 See *Artificial Intelligence (AI) vs. Machine Learning (ML)*, Google Cloud Topics <<https://cloud.google.com/learn/artificial-intelligence-vs-machine-learning>> (as of June 27, 2024) (comparing and distinguishing AI and ML, including by defining ML as “a subset of artificial intelligence that automatically enables a machine or system to learn and improve from experience”). See also generally *Artificial Intelligence (AI) vs. Machine Learning*, Columbia Univ. School of Engineering <<https://ai.engineering.columbia.edu/ai-vs-machine-learning>> (as of June 27, 2024) (defining ML as a “subcategory of AI [that] uses algorithms to automatically learn insights and recognize patterns from data, applying that learning to make increasingly better decisions”).
  - 27 Many would, perhaps rightly, take umbrage with the notion that generative AI results in the creation of truly “original” works. To the contrary, many have argued forcefully that generative AI impermissibly creates content derived from or that otherwise infringes on the content of others, including copyrighted works, on which such models are often trained. See generally, e.g., Sag, *Copyright Safety for Generative AI* (2023) 61 Hous. L.Rev. 295, 301 <<https://houstonlawreview.org/article/92126-copyright-safety-for-generative-ai>> (as of June 27, 2024) (warning “there are specific—but perhaps rare—contexts where the process of creating generative AI may cross the line from fair use to infringement because large language models sometimes ‘memorize’ the training data rather than simply ‘learning’ from it”). See also Reed, *ChatNYT* (Mar. 22, 2024) Harvard Law Today <<https://hls.harvard.edu/today/does-chatgpt-violate-new-york-times-copyrights/>> (as of June 27, 2024) (discussing the copyright-infringement lawsuit filed by the New York Times against OpenAI and its partner Microsoft based on ChatGPT’s alleged use of copyrighted material in training data and in responses that sometimes copy allegedly copyrighted works verbatim).
  - 28 In 2017, OpenAI launched a product called “OpenAI Five,” which consisted of five AI-powered bots trained to play

- a computer game called DOTA (formally, Defense of the Ancients) against five human teammates. By April 2019, the OpenAI Five team of bots trounced the then-reigning DOTA world champion team, OG, winning 2:0 in a best-of-three series. Over the ensuing month, OpenAI Five played in 42,729 DOTA matches, winning a shocking 99.4 percent of those games. See Wiggers, *OpenAI's Dota 2 Bot Defeated 99.4% of Players in Public Matches* (Apr. 22, 2019) Venture Beat <<https://venturebeat.com/ai/openais-dota-2-bot-defeated-99-4-of-players-in-public-matches/>> (as of June 27, 2024). See also Fangasadha et al., *Literature Review of OpenAI Five's Mechanisms in Dota 2's Bot Player* (2022) 2022 International Seminar on Application for Technology of Information and Communication (ISemantic), pp. 183-190 <<https://ieeexplore.ieee.org/document/9920480>> (as of June 27, 2024).
- 29 *Introducing ChatGPT* (Nov. 30, 2022) OpenAI <<https://openai.com/index/chatgpt/>> (as of June 27, 2024) (announcing release of ChatGPT and explaining generally some of its uses and limitations).
- 30 See generally Hashana et al., *Deep Learning in ChatGPT—A Survey* (2023) 2023 7th Int'l Conference on Trends in Electronics and Informatics (ICOEI) <<https://ieeexplore.ieee.org/document/10125852>> (as of June 27, 2024); *What Is Deep Learning?* (Apr. 30, 2024) McKinsey & Co. <<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-deep-learning>> (as of June 27, 2024).
- 31 Burtell & Toner, *The Surprising Power of Next Word Prediction: Large Language Models Explained, Part 1* (2024) Georgetown Center for Security and Emerging Technology <<https://cset.georgetown.edu/article/the-surprising-power-of-next-word-prediction-large-language-models-explained-part-1/>> (as of June 27, 2024) (explaining that LLMs generate outputs by “read[ing] text and predict[ing] what word is the most likely to follow it”).
- 32 The premium version of ChatGPT, GPT-4o, also purports to entail other benefits, including faster processing speeds, lower computing costs, and improved fluency in non-English languages. See *Hello GPT-4o* (May 13, 2024) OpenAI.com <<https://openai.com/index/hello-gpt-4o/>> (as of June 27, 2024).
- 33 See, e.g., State of AI In Legal—2024 Report (2024) Ironclad <[https://explore.ironcladhq.com/rs/528-QBH-821/images/State\\_of\\_AI\\_in\\_Legal\\_Report.pdf?version=0](https://explore.ironcladhq.com/rs/528-QBH-821/images/State_of_AI_in_Legal_Report.pdf?version=0)> (as of June 27, 2024) (finding 74 percent of surveyed U.S. legal professionals had used AI for legal work, and that 92 percent of those who had used AI believed it improved their work); Henry, *We Asked Every Am Law 100 Law Firm How They're Using Gen AI. Here's What We Learned* (Jan. 29, 2024) *The American Lawyer* <<https://www.law.com/americanlawyer/2024/01/29/we-asked-every-am-law-100-firm-how-theyre-using-gen-ai-heres-what-we-learned/>> (as of June 27, 2024) (detailing leading firms' early uses of generative AI, e.g., for drafting marketing materials like attorney bios, summarizing documents, generating transcripts, and also for more complex tasks like drafting legal material, legal research, and e-discovery).
- 34 Magesh et al., *Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools*, *supra*, Stanford Univ., section 4, at pp. 7-9 <<https://law.stanford.edu/publications/hallucination-free-assessing-the-reliability-of-leading-ai-legal-research-tools/>>.
- 35 *Id.*, section 4, at pp. 8-9.
- 36 *Id.*, section 6, at pp. 13-14.
- 37 *Ibid.*
- 38 No disrespect is directed at the efforts and truly incredibly accomplishments of the teams behind these AI tools. But the fact remains that many of these and other companies are aggressively marketing their AI tools as “error-free” or similarly infallible when that seems to be far from true. See *id.*, section 1, at p. 2 note 2 (cataloguing claims by leading legal-research companies, including one that says their tool “delivers 100% hallucination-free linked legal citations connected to source documents, grouping those responses in authoritative resources that can be relied upon with confidence,” and a second that claims, “Unlike even the most advanced LLMs, [the second leading AI tool] does not make up facts, or ‘hallucinate’”).
- 39 Varanasi, *GPT-4 Can Ace the Bar, but It Only Has a Decent Chance of Passing the CFA Exams. Here's a List of Difficult Exams the ChatGPT and GPT-4 Have Passed*. (Nov. 5, 2023) *Business Insider* <<https://www.businessinsider.com/list-here-are-the-exams-chatgpt-has-passed-so-far-2023-1>> (as of June 27, 2024)] (aggregating studies in which ChatGPT and other LLMs have passed various examinations).
- 40 Baker, *ChatGPT Just Passed Three Levels of the Master Sommelier Exam* (Mar. 14, 2023) *VinePair* <<https://vinepair.com/booze-news/chatgpt-passes-master-sommelier-exam/>> (as of June 27, 2024).
- 41 See Mei et al., *A Turing Test of Whether AI Chatbots Are Behaviorally Similar to Humans* (2024) *Proceedings of the Nat'l Academy of Sciences* <<https://www.pnas.org/doi/10.1073/pnas.2313925121>> (as of June 29, 2024) (measuring and comparing GPT-3 and GPT-4 behaviors against those exhibited in human interactions, concluding that GPT-4 “is actually picked as a human or ties significantly more often than a random human, while ChatGPT-3 is picked as human less often than a random human. In this particular sense, ChatGPT-4 would pass this Turing test, while ChatGPT-3 would fail it.”).
- 42 GPT-4 was released publicly on March 14, 2023. See Wiggers, *OpenAI Releases GPT-4, A Multimodal AI that It Claims Is State-of-the-Art* (Mar. 14, 2023) *Tech Crunch* <<https://techcrunch.com/2023/03/14/openai-releases-gpt-4-ai-that-it-claims-is-state-of-the-art/>> (as of June 27, 2024).
- 43 Mortensen, *How Many Users Does ChatGPT Have? Statistics & Facts* (2024) (Apr. 24, 2024) *SEO.AI* <<https://seo.ai/blog/how-many-users-does-chatgpt-have>> (as of June 29, 2024).
- 44 Hu, *ChatGPT Sets Record For Fastest Growing User Base—Analyst Note* (Feb. 2, 2023) *Reuters* <<https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/>> (as of June 29, 2024); Rao, *How Long It Took Popular Apps to Reach 100 Million Users* (July 13, 2023) *Visual Capitalist* <<https://www.visualcapitalist.com/threads-100-million-users/>> (as of June 27, 2024).

- 45 See Humlum & Verstergaard, *The Adoption of ChatGPT* (Apr. 24, 2024) Univ. of Chicago Becker Friedman Inst. <<https://bf.uchicago.edu/insight/research-summary/the-adoption-of-chatgpt/>> (as of June 9, 2024).
- 46 See Howington, *The AI Gender Gap: Exploring Variances in Workplace Adoption* (June 9, 2023) FlexJobs <<https://www.flexjobs.com/blog/post/the-ai-gender-gap-exploring-variances-in-workplace-adoption>> (as of June 27, 2024); Kohler, *The Gendered Impacts of AI on Women's Careers* (May 20, 2024) Forbes <<https://www.forbes.com/sites/lindsaykohler/2024/05/17/the-gendered-impacts-of-ai-on-womens-careers>> (as of June 27, 2024) (reporting on one study showing that "about 59% of men aged 18-65 use AI tools weekly, while 51% of women say they're currently using it.").
- 47 McClain, *Americans' Use Of ChatGPT Is Ticking Up, but Few Trust Its Election Information* (Mar. 26, 2024) Pew Research Center <<https://www.pewresearch.org/short-reads/2024/03/26/americans-use-of-chatgpt-is-ticking-up-but-few-trust-its-election-information/>> (as of June 27, 2024).
- 48 See, e.g., Humlum & Vestergaard, *The Adoption of ChatGPT*, *supra*, Univ. of Chicago Becker Friedman Inst. <<https://bf.uchicago.edu/insight/research-summary/the-adoption-of-chatgpt/>>; McClain, *Americans' Use of ChatGPT Is Ticking Up, but Few Trust Its Election Information* (Mar. 26, 2024) Pew Research Center <<https://www.pewresearch.org/short-reads/2024/03/26/americans-use-of-chatgpt-is-ticking-up-but-few-trust-its-election-information/>> (as of June 29, 2024). See also, e.g., *70% of Workers Using ChatGPT at Work Are Not Telling Their Boss; Overall Usage Among Professionals Jumps to 43%* (Feb. 1, 2023) FishbowlApp.com <<https://www.fishbowlapp.com/insights/70-percent-of-workers-using-chatgpt-at-work-are-not-telling-their-boss/>> (as of June 29, 2024) (finding from a survey of 11,793 professionals that nearly 43 percent reported using ChatGPT or other AI tools at work. Of those who used it, 68 percent did not report their usage); *Workers Increasingly Using AI on the Job* (May 9, 2024) HRO Today <<https://www.hrotoday.com/news/workers-increasingly-using-ai-on-the-job/>> (June 29, 2024) (commenting on poll that found, inter alia, 48 percent of respondents use AI at work).
- 49 Humlum & Vestergaard, *The Adoption of ChatGPT*, *supra*, Univ. of Chicago Becker Friedman Inst. <<https://bf.uchicago.edu/insight/research-summary/the-adoption-of-chatgpt/>>.
- 50 See, e.g., *ibid.* Accord Pacheco, *Analysis: Legal Workers Use AI for Research, Despite Red Flags*, Bloomberg Law (Apr. 4, 2024) <<https://news.bloomberglaw.com/bloomberg-law-analysis/analysis-legal-workers-use-ai-for-research-despite-red-flags>> (as of June 30, 2024).
- 51 *Wolters Kluwer Future Ready Lawyer 2023 Report: Embracing Innovation, Adapting to Change* (2023) Wolters Kluwer <<https://www.wolterskluwer.com/en/know/future-ready-lawyer-2023>> (as of June 29, 2024).
- 52 *Generative AI & the Legal Profession* (2023) LexisNexis <<https://lnlp.widen.net/s/mvgdghkdb/2023-gen-ai-full-survey-report>> (as of June 29, 2024).
- 53 See *New Survey Data from LexisNexis Points to Seismic Shifts in Law Firm Business Models and Corporate Legal Expectations Due to Generative AI* (Jan. 31, 2024) LexisNexis <<https://www.lexisnexis.com/community/pressroom/b/news/posts/new-survey-data-from-lexisnexis-points-to-seismic-shifts-in-law-firm-business-models-and-corporate-legal-expectations-due-to-generative-ai>> (as of June 18, 2024).
- 54 *Generative AI & the Legal Profession*, *supra*, LexisNexis <<https://lnlp.widen.net/s/mvgdghkdb/2023-gen-ai-full-survey-report>>.
- 55 Costello, *Gartner Survey Shows 37 Percent of Organizations Have Implemented AI in Some Form* (Jan. 21, 2019) Gartner <<https://www.gartner.com/en/newsroom/press-releases/2019-01-21-gartner-survey-shows-37-percent-of-organizations-have>> (as of June 27, 2024) (referencing key findings of 2019 report).
- 56 *The State of AI in 2023: Generative AI's Breakout Year*, p. 1 (2023) <[https://www.mckinsey.com/~media/mckinsey/business%20functions/quantumblack/our%20insights/the%20state%20of%20ai%20in%202023%20generative%20ais%20breakout%20year/the-state-of-ai-in-2023-generative-ais-breakout-year\\_vf.pdf](https://www.mckinsey.com/~media/mckinsey/business%20functions/quantumblack/our%20insights/the%20state%20of%20ai%20in%202023%20generative%20ais%20breakout%20year/the-state-of-ai-in-2023-generative-ais-breakout-year_vf.pdf)> (as of June 30, 2024).
- 57 See *New Survey Data from LexisNexis Points to Seismic Shifts in Law Firm Business Models and Corporate Legal Expectations Due to Generative AI*, *supra*, LexisNexis <<https://www.lexisnexis.com/community/pressroom/b/news/posts/new-survey-data-from-lexisnexis-points-to-seismic-shifts-in-law-firm-business-models-and-corporate-legal-expectations-due-to-generative-ai>>.
- 58 *State of the Courts Report 2024* (2024) Thomson Reuters Inst. <<https://legal.thomsonreuters.com/content/dam/ewp-m/documents/legal/en/pdf/reports/state-of-the-courts-report-2024.pdf>> (as of June 29, 2024) (observing, e.g., that only nine percent of survey respondents from judicial officers "think [generative AI] should be used" in a courtroom, while more than half said they were unsure whether it "can" or "should" be used in court, and only three percent said they had "no concerns" about using GenAI in court).
- 59 See, e.g., Hon. Chief Justice Roberts, *2023 Year-End Report on the Federal Judiciary* (2023) Supreme Ct. <<https://www.supremecourt.gov/publicinfo/year-end/2023year-endreport.pdf>> (as of June 29, 2024) (discussing at length "the latest technological frontier: artificial intelligence," including its "great potential," and the risks that come with its use in the practice of law). See also *State of the Courts Report 2024*, *supra*, Thomson Reuters Inst. <<https://legal.thomsonreuters.com/content/dam/ewp-m/documents/legal/en/pdf/reports/state-of-the-courts-report-2024.pdf>>; *State of California Benefits and Risks of Generative Artificial Intelligence Report*, Government (Nov. 2023) <[https://www.govops.ca.gov/wp-content/uploads/sites/11/2023/11/GenAI-EO-1-Report\\_FINAL.pdf](https://www.govops.ca.gov/wp-content/uploads/sites/11/2023/11/GenAI-EO-1-Report_FINAL.pdf)> (as of June 30, 2024).
- 60 Carroll, *New Survey Identifies How Consumers Would Be Willing to Use Generative AI to Address Legal Needs* (May 4, 2023) LexisNexis <<https://www.lexisnexis.com/community/insights/legal/b/thought-leadership/posts/new-survey-identifies-how-consumers-would-be-willing-to-use-generative-ai-to-address-legal-needs>> (as of June 27, 2024).
- 61 See, e.g., Alavi & Westerman, *How Generative AI Will Transform Knowledge Work* (Nov. 7, 2023) Harvard Business Review <<https://hbr.org/2023/11/how-generative-ai-will>>

- transform-knowledge-work> (as of June 27, 2024) (arguing that generative AI can be particularly useful in several major areas, including in “reducing [] cognitive load by automating some structured tasks,” which in turn “boost[s] your cognitive capacity for [remaining] unstructured tasks” that are less suited to AI).
- 62 LexisNexis, *2024 Investing in Legal Innovation: The Rise of GenAI at Top Firms & Corporations* (2024) p. 12 <<https://www.lexisnexis.com/pdf/genai-report.pdf>> (as of June 30, 2024).
- 63 See Chien & Kim, *Generative AI and Legal Aid: Results from a Field Study and 100 Use Cases to Bridge the Access to Justice Gap* (2024) UC Berkeley Public Law Research Paper Forthcoming, Loyola L.A. L.Rev., Forthcoming <<https://ssrn.com/abstract=4733061>> (demonstrating that “generative AI tools can significantly enhance legal professionals and narrow the justice gap” and recommending best practices). See generally Laskowski et al., *Generative Artificial Intelligence and Access To Justice: Possibilities, Concerns, Best Practices, and How to Measure Success* (2023) Arizona Summit on Artificial Intelligence Law and the Courts <<https://nacmnet.org/wp-content/uploads/AI-and-Access-to-Justice-Final-White-Paper.pdf>> (as of June 29, 2024).
- 64 Magesh et al., *supra*, *Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools*, *supra*, Stanford Univ., section 6, pp. 19-20 (observing that AI tools like ChatGPT and their subcomponents are like “a black box,” and that researchers can only “partially observe the way that information moves between” those components “due to the lack of documentation by providers” about how they work).
- 65 See *ibid*. See also *Addressing The Black Box Problem In Legal Generative AI* (June 6, 2024) World Litigation Forum <<https://worldlitigationforum.org/news/addressing-the-black-box-problem-in-legal-generative-ai/>> (as of June 29, 2024) (acknowledging challenges with opacity and transparency in legal AI tools).
- 66 Magesh et al., *supra*, *Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools*, Stanford Univ., pp. 13-15.
- 67 Although the authors have not yet found an example of this happening to lawyers or law firms, there are several notorious examples of major companies taking AI access away from their employees after sensitive internal data became public in just such a manner. See, e.g., Ray, *Samsung Bans ChatGPT Among Employees After Sensitive Code Leak* (May 2, 2023) Forbes <<https://www.forbes.com/sites/siladityaray/2023/05/02/samsung-bans-chatgpt-and-other-chatbots-for-employees-after-sensitive-code-leak/>> (as of June 29, 2024).
- 68 *March 20 ChatGPT Outage: Here’s What Happened* (Mar. 24, 2023) OpenAI <<https://openai.com/index/march-20-chatgpt-outage/>> (as of June 27, 2024) (conceding that OpenAI “took ChatGPT offline earlier this week due to a bug in an open-source library which allowed some users to see [1] titles from another active user’s chat history,” [2] “the first message of a newly-created conversation,” and [3] “payment-related information of 1.2% of the ChatGPT Plus subscribers who were active during a specific nine-hour window”).
- 69 See generally Manyika et al., *What Do We Do About Biases In AI?* (Oct. 25, 2019) Harvard Business Review <<https://hbr.org/2019/10/what-do-we-do-about-the-biases-in-ai>> (as of June 27, 2024) (discussing historical examples of biases discovered in AI, e.g., discrimination against U.K. medical students in the 1980s, which “was determined to be biased against women and those with non-European names,” and a criminal justice algorithm in Broward County, Florida that “misclassified African-American defendants as ‘high risk’ at nearly twice the rate it misclassified white defendants.”). See also *Addressing Bias in Artificial Intelligence: The Current Regulatory Landscape* (2023) Thomson Reuters <<https://www.thomsonreuters.com/en-us/posts/wp-content/uploads/sites/20/2023/08/Addressing-Bias-in-AI-Report.pdf>> (as of June 29, 2024) (outlining bias issues in AI as well as efforts to legislate and regulate AI bias in the US and abroad).
- 70 See, e.g., IBM Data and AI Team, *Shedding Light on AI Bias with Real World Examples* (Oct. 16, 2023) IBM <<https://www.ibm.com/blog/shedding-light-on-ai-bias-with-real-world-examples/>> (as of June 29, 2024) (“Bias can be found in the initial training data, the algorithm, or the predictions the algorithm produces.”). See also, e.g., Blouin, *AI’s Mysterious ‘Black Box’ Problem, Explained* (Mar. 6, 2023) U. Michigan-Dearborn <<https://umdearborn.edu/news/ais-mysterious-black-box-problem-explained>> (as of June 29, 2024) (defining the “black box problem” as the “inability for us to see how deep learning systems make their decisions”).
- 71 See, e.g., Schreiber et al., *What’s in a Name? Auditing Large Language Models for Race and Gender Bias* (2024) arXiv <<https://arxiv.org/pdf/2402.14875>> (as of June 29, 2024) (finding bias in the form of “a disparate impact along race and gender attributes that generally disfavors the marginalized group” in ways that “are not easily avoided and counteracted”); Zhou et al., *Bias in Generative AI* (2024) arXiv <<https://arxiv.org/pdf/2403.02726>> (as of June 29, 2024) (discovering “systematic gender and racial biases in both commercial and open-source AI generators,” including with image-generating AI tools Midjourney, Stable Diffusion, and DALLE 2, and contending that bias in such “[g]enerative AI tools ... can inadvertently perpetuate and intensify societal biases related to gender, race, and emotional portrayals in their images”); Sun et al., *Smiling Women Pitching Down: Auditing Representational and Presentational Gender Biases in Image-generative AI* (2024) 29 J. Computer-Mediated Communication, Issue 1 <<https://academic.oup.com/jcmc/article/29/1/zmad045/7596749>> (as of June 29, 2024) (revealing systematic gender biases in results of DALL-E 2, an image-generative AI tool, such as underrepresentation of women in male-dominated fields, overrepresentation of women in female-dominated occupations, and a “tend[ency] to depict more women than men with smiles and downward-pitching heads, particularly in female-dominated (versus male-dominated) occupations”).
- 72 Bus. & Prof. Code, section 6067.
- 73 Bus. & Prof. Code, section 6068, subs. (c), (e)(1), and (m).
- 74 Rules Prof. Conduct, com. 1 to rule 1.1. See also Cal. State Bar Form. Opn. 2015-193.
- 75 Cal. State Bar Form. Opn. 2015-193.



- 76 San Diego County Bar Association, Form. Opns. 2012-1 (competence includes understanding client's technology and applicable ESI rules) and 2018-3 (use of technology-assisted review of documents to be produced in discovery).
- 77 See, e.g., Cal. State Bar Form. Opn. 2020-203. See also Rules Prof. Conduct, rule 1.4(a).
- 78 *Calvert v. State Bar* (1991) 54 Cal.3d 765.
- 79 Magesh et al., *Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools*, *supra*, Stanford Univ., section 4, at pp. 13-14.
- 80 Bus. & Prof. Code, section 6068, subd. (e)(1).
- 81 See, e.g., State Bar Ass'n Form. Opns. 2016-195, 1993-133, 1988-96, 1986-87, 1981-58, and 1980-52; Los Angeles County Bar Ass'n Form. Opns. 386 (1980), 436 (1985), 452 (1988); Rest. 3d Law Gov. Lawyers, section 59.
- 82 Bus. & Prof. Code, section 6068, subd. (e)(2) ("An attorney may, but is not required to, reveal confidential information relating to the representation of a client to the extent that the attorney reasonably believes the disclosure is necessary to prevent a criminal act that the attorney reasonably believes is likely to result in the death of, or substantial bodily harm to, an individual.").
- 83 See, e.g., *Styles v. Mumbert* (2008) 164 Cal.App.4th 1163, 1168 (explaining that "[t]he duty of confidentiality of client information involves public policies of paramount importance" and "contributes to the trust that is the hallmark of the client-lawyer relationship"); accord *In re Jordan* (1972) 7 Cal.3d 930, 940-41 (declaring that "the protection of [client] confidences and secrets is not a rule of mere professional conduct, but instead involves public policies of paramount importance which are reflected in numerous statutes").
- 84 See, e.g., *Fox Searchlight Pictures, Inc. v. Paladino* (2001) 89 Cal. App.4th 294, 314; see *Gen. Dynamics Corp. v. Super. Ct. (Rose)* (1994) 7 Cal.4th 1164, 1189 ("[The] court must determine whether some statute or ethical rule, such as the statutory exceptions to the attorney-client privilege codified in the Evidence Code ... specifically permits the attorney to depart from the usual requirement of confidentiality.").
- 85 See, e.g., *Fox Searchlight Pictures, Inc. v. Paladino*, *supra*, 89 Cal. App.4th at 313-14 (reasoning that section 6068 of the Business and Professions Code "must be read in conjunction with other statutes and ethical rules which specifically permit the attorney to depart from the usual rules of client confidentiality," including California Evidence Code section 958 and its exception for "communication[s] relevant to an issue of breach, by the lawyer or by the client, of a duty arising out the lawyer-client relationship.").
- 86 Cohen et al., *Here Comes The AI Worm: Unleashing Zero-Click Worms that Target GenAI-Powered Applications* (Mar. 5, 2024) <<https://arxiv.org/pdf/2403.02817>> (as of June 30, 2024).
- 87 *March 20 ChatGPT Outage: Here's What Happened*, *supra*, OpenAI <<https://openai.com/index/march-20-chatgpt-outage/>> (detailing inadvertent revelation of confidential user information by ChatGPT).
- 88 See, e.g., Cohen et al., *supra*, *Here Comes The AI Worm: Unleashing Zero-Click Worms that Target GenAI-Powered Applications* <<https://arxiv.org/pdf/2403.02817>>
- 89 See, e.g., Shankar, *Ransomware Attackers Take Aim at Law Firms* (Mar. 12, 2021) Forbes <<https://www.forbes.com/sites/forbestechcouncil/2021/03/12/ransomware-attackers-take-aim-at-law-firms/>> (as of June 29, 2024); Marathe, *The Dark Side of Tech: 8 Law Firms That Suffered Data Breaches in 2023* (2023) The American Lawyer <<https://www.law.com/legaltechnews/2023/12/21/the-dark-side-of-tech-8-law-firms-that-suffered-data-breaches-in-2023/>> (as of June 29, 2024).
- 90 See, e.g., *Smith v. State Bar* (1985) 38 Cal.3d 525, 540 ("In deciding appropriate discipline, [courts] must consider relevant aggravating and mitigating circumstances as well as the underlying misconduct.").
- 91 *Vaughn v. State Bar* (1972) 13 Cal.3d 253, 260 (decided under predecessor statutes to modern-day Rules of Professional Conduct statutes).
- 92 *Matter of Whitehead* (Rev.Dept. 1991) 1 State Bar Ct.Rptr. 354, 368-69.
- 93 Prac. Guide Prof. Resp. & Liability (2024) The Rutter Group Ch. 6-C, section 6:162.
- 94 Rules Prof. Conduct, rule 5.1(a).
- 95 Rules Prof. Conduct, rule 5.1(b).
- 96 Rules Prof. Conduct, rule 5.1(c)(2).
- 97 Rules Prof. Conduct, com. 1 to rule 5.1.
- 98 Rules Prof. Conduct, com. 8 to rule 5.1.
- 99 Rules Prof. Conduct, com. to rule 5.3.
- 100 Rules Prof. Conduct, rule 5.3(a).
- 101 Rules Prof. Conduct, rule 5.3(b).
- 102 Rules Prof. Conduct, com. to rule 5.3.
- 103 Rules Prof. Conduct, rule 5.3(c)(2).
- 104 Fla. Bar Ethics Opn. 24-1 (Jan. 19, 2024) <<https://www.floridabar.org/etopinions/opinion-24-1/>> (as of June 30, 2024).
- 105 Rules Prof. Conduct, rule 3.3.
- 106 Rules Prof. Conduct, rule 3.3(a)(2).
- 107 Rules Prof. Conduct, rule 3.3(a)(3).
- 108 Rules Prof. Conduct, rule 3.3(b).
- 109 Rules Prof. Conduct, rule 3.3(c).
- 110 Rules Prof. Conduct, rule 3.3(d).
- 111 See *Calvert v. State Bar* (1991) 54 Cal.3d 765, 782.
- 112 See generally Rules Prof. Conduct, rule 1.4(a)-(b).
- 113 Rules Prof. Conduct, rule 1.4.
- 114 See *Chefsky v. State Bar* (1984) 36 Cal.3d 116, 127 ("[f]ailure to communicate with, and inattention to the needs of, a client are proper grounds for discipline.") (citing *Spindell v. State Bar* (1975) 13 Cal.3d 253, 260).
- 115 Rules Prof. Conduct, com. 1 to rule 1.4.

116 Prac. Guide Prof. Resp. & Liability (The Rutter Group 2024) Ch. 6-C, section 6:128.

117 See, e.g., State Bar Form. Opns. 2004-165 and 1994-138.

118 See Capone Kirk, et al., *Judges Guide Attorneys on AI Pitfalls with Standing Orders* (July 26, 2023) Bloomberg Law <<https://news.bloomberglaw.com/us-law-week/judges-guide-attorneys-on-ai-pitfalls-with-standing-orders>> (as of June 29, 2024). See also Mayfield, *Judicial Crackdown: 'This is Why I Have a Standing Order on the Use of AI'* (July 27, 2023) *The American Lawyer* <<https://www.law.com/2023/07/27/judicial-crackdown-this-is-why-i-have-a-standing-order-on-the-use-of-ai/>> (as of June 29, 2024).

119 See, e.g., State Bar Form. Opns. 2004-165 and 1994-138 (both construing prior rule); Los Angeles County Bar Ass'n Form. Opns. 473 (1993) and 518 (2006) (both construing prior rule applying similar factors to disclosure of outsourcing legal services); see also San Diego County Bar Ass'n Form. Opn. 2007-1 (construing former rule); Los Angeles County Bar Ass'n Form. Opn. 518 (2006) (construing former rule); Orange County Bar Ass'n Form. Opn. 2014-01 (construing former rule and whether use of outside attorney to "ghostwrite" documents may be a "significant development").

120 See Cassens Weiss, *Traffic Court Defendants Lose Their 'Robot Lawyer'* (Jan. 26, 2023) *ABA Journal* <<https://www.abajournal.com/news/article/traffic-court-defendants-lose-their-robot-lawyer>> (as of June 29, 2024).

com/news/article/traffic-court-defendants-lose-their-robot-lawyer> (as of June 29, 2024) (reporting on scuttled 2023 plan by tech company to have generative AI tools "argue" in California traffic court by generating real-time scripts for pro se parties to read on smart glasses while appearing in court). See also Merken, *Legal AI Startup DoNotPay Reaches Settlement In Customer Class Action* (June 6, 2024) Reuters <<https://www.reuters.com/legal/legalindustry/legal-ai-startup-donotpay-reaches-settlement-customer-class-action-2024-06-06/>> (as of June 27, 2024) (reporting on company's proposed settlement of class action alleging it provided substandard services and engaged in unauthorized practice of law by proposing to generate real-time scripts for traffic-court defendants to recite in pro se traffic proceedings).

121 See, e.g., Practical Guidance for the Use of Generative Artificial Intelligence in the Practice of Law, State Bar of California, Standing Committee on Professional Responsibility and Conduct (2023) <<https://www.calbar.ca.gov/Portals/0/documents/ethics/Generative-AI-Practical-Guidance.pdf>> (as of June 27, 2024) (identifying potential risks and recommending best practices for using AI vis-à-vis a lawyer's duties of confidentiality, of competence, to supervise subordinate lawyers and nonlawyer assistants, to communicate with clients, etc.).

122 This statement is the only AI-generated text (intentionally) used in this article.



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