LEGAL EDUCATION'S ROLE IN COMBATING AUTOMATION BIAS AND COMPLACENCY WITH GENERATIVE AI IN THE PRACTICE OF LAW

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Market-driven efficiencies will result in generative AI as an integral part of the practice of law. Despite this reality, however, recent judicial decisions highlight the risks of generative AI in the practice of law. In each case, an attorney filed documents with the court that included nonexistent cases "hallucinated" by generative AI. The attorneys did not confirm the cases' actual existence before relying on them and were subsequently sanctioned by the court.

These cases illustrate that, like aviation, self-driving vehicles and healthcare, the legal industry is not immune from automation bias and complacency. Automation bias is the blind reliance on AI by humans despite not understanding the AI's process. Automation complacency is the long-term degradation of human skill in a profession due to reliance on AI. Such complacency occurs when humans become passive monitors of AI-generated work, as opposed to producing the work themselves.

The stakes in humans' lives and societies based on sound legal infrastructure are high. Because all lawyers go to law school, legal education has unique potential to act as a counter measure to automation bias and complacency by ensuring that students learn to use generative AI with an understanding of these risks. Importantly, law schools can train students to not only develop subject-matter expertise, but about the importance of retaining and expanding that expertise.

إن الكفاءات المدفوعة بِعجلة السوق ستجعل الذكاء الاصطناعي المُبتَكِر جزءًا لا يتجزأ من الممارسات القانونية. وعلى الرغم من هذه الحقيقة، إلا أن القرارات القضائية الصادرة مؤخرًا تُسَلِّط الضوء على مخاطر استخدام الذكاء الاصطناعي المُبتَكِر في الممارسات القانونية بَعدما قدَّم مُحامون إلى المحكمة في القضايا ذات الصلة مُستنداتٍ تشتمل على قضايا غير حقيقية اختلقها "هذيان" الذكاء الاصطناعي المُبتَكِر؛ إذ لم يتحقق المحامون من الوجود الفعلي لتلك القضايا قبل الاستناد إليها، ما أدى إلى توقيع العقوبات عليهم من قِبل المحكمة بعدئذٍ.

توضح هذه الحالات أن المجال القانوني—مِثله مِثل مجالات الطيران والمركبات الذاتية القيادة والرعاية الصحية—غير مُحصَّن ضد التحيُّز للأتمتة والاستسلام للأتمتة. إن التحيُّز للأتمتة هو اعتماد الإنسان الأعمى على الذكاء الاصطناعي على الرغم من عدم إدراكه

لكيفية عمل الذكاء الاصطناعي، أمَّا الاستسلام للأتمتة فهو التدهور الطويل المدى لمهارات الإنسان في مهنةٍ ما نتيجةً لركونه المُطلَق إلى الذكاء الاصطناعي. فَيحدث هذا الاستسلام عندما يصبح الإنسان مُجرد مُراقبًا سلبيًا للعمل الذي يضطلع به الذكاء الاصطناعي بدلًا من قيامه بالعمل بنفسه.

إن حياة الأشخاص والمجتمعات المَرهونة بِالبنية الأساسية القانونية الراسخة محفوفةٌ بالمخاطر. نظرًا إلى أن جميع المحامين يتلقون تعليمهم من كُليات الحقوق، فإن تعليم القانون يتمتع بِقدرةٍ فريدةٍ على العمل بمثابة تدابير وقائية ضد التَحيُّز للأتمتة والاستسلام للأتمتة، إذ يضمن أن يتعلَّم الطلاب استخدام الذكاء الاصطناعي المُبتَكِر بعد استيعابهم لتلك المخاطر. ومن الضروري أن تُدَرِّب كليات الحقوق الطلاب ليس فقط على كسب الخبرة في المجال، بل وأيضًا على استبقاء تلك الخبرة وتوسيعها.

الذكاء الاصطناعي المُبتَكِر، تعليم القانون، المحاكم الأمريكية، التحيُّز للأتمتة، الاستسلام للأتمتة

"Technochauvinism – The belief that technology is always the solution"[1]

"Generative AI presents grave dangers for the uninformed, hasty, or lazy."[2]

I.   Introduction and Summary

When sanctioning an attorney for filing a document that included non-existent cases obtained from ChatGPT, a judge recently observed "it is not necessarily the use of AI in and of itself that causes such offense and concern, but rather the attorney's failure to review the sources produced by AI without proper examination and scrutiny."[3] There is a generative AI "moment" happening in the United States as the legal profession grapples with what the new technology means for the practice of law. As companies rapidly develop generative AI platforms designed specifically for lawyers, we hear joyful choruses of generative AI's inevitable proliferation in the law and shameful dirges of attorneys disgraced for blindly relying on generative AI to the detriment of their careers and clients.

While generative AI is new, industries grappling with increased professional human-AI interactions is not. Aviation and self-driving vehicle industries have long analyzed pitfalls in the integration of AI into professional human endeavors. Like

the law, healthcare is also experiencing a swell of possibilities in what generative AI can do for medical professionals. Safety and healthcare industries have observed human biases that must be mitigated by implementing counter measures for safe and effective use of AI. These human biases include automation bias, which is humans' tendency to blindly trust AI, and automation complacency, defined as a decrease in humans' skills based on overreliance on AI.

The legal profession should consider these biases as it integrates generative AI into the practice of law. Attorneys are obviously susceptible to these biases as shown by the multiple recent sanctions of lawyers using generative AI to obtain hallucinated cases, then relying on hallucinated cases in court filings without having verified their existence. As we start to use generative AI, awareness of these biases will allow the legal profession to create counter measures to mitigate the deleterious effect of these biases. Current counter measures to automation bias include Rule 11 sanctions, Standing Orders and the Rules of Professional Conduct. Automation complacency, however, may be more difficult to counter.

Legal education has a unique ability to act as a counter measure to both automation bias and automation complacency. Careful consideration of how generative AI is introduced to law students can ensure law students understand the risks inherent in using generative AI while learning how to use it. Ensuring students continue to develop subject matter expertise and legal research and writing skills may guard against automation complacency. Law students and attorneys on the whole do not appear to view generative AI favorably, but appear resigned to market pressures resulting in its inevitable use as a mainstay. Law schools can help law students retain agency as critical thinkers and subject matter experts by situating generative AI within a larger framework of core skills with known risks. Some scholars have suggested similar approaches to teaching medical students about responsible use of AI.

Humans created law to peacefully resolve disputes involving humans' life, liberty and property. Laws is a complex and imperfect system with a uniquely human nucleus. Law's impact on human lives and society is too important to allow large-scale automation bias and complacency to strip it of its human core. Law schools have an obligation to intentionally and conscientiously integrate generative AI into curriculums cognizant of these risks.

II.   Increased Generative AI Use in the Practice of Law

Generative AI is broadly defined as a "catch-all term referring to artificial intelligence that produces original content in response to human prompting."[4] Lawyers utilize large language models in which a generative AI platform is provided a dataset of legal sources, then can generate legal work product, such as contracts and legal research, by synthesizing and mimicking the language models in the dataset.[5]

Despite ChatGPT becoming public less than two years ago, the legal profession has rapidly embraced generative AI. Companies that currently provide commercial legal research databases are already rolling out generative AI products, such as Lexis+AI.[6] Companies are quickly building in-house closed dataset generative AI platforms for law firms.[7] Attorneys are utilizing generative AI such as ChatGPT 4 to assist in everyday tasks such as letter writing and marketing.[8] The U.S. legal profession is anticipating that generative AI will drastically alter the practice of law.[9]

III.   Risks Associated with Use of Generative AI by Lawyers

There are many risks of lawyers using generative AI. Risks associated with human interaction with AI are categorized as systematic, statistical and human.[10] Some of the more well-known systematic and statistical risks relating to generative AI and the law are intellectual property infringement, biased datasets and violations of client privacy through prompt interacts with open dataset generative AI platforms.[11] While not disregarding these salient risks, this article focuses on two less-discussed human risks: (1) automation bias and (2) automation complacency. Discussions of generative AI and legal education require critical analysis of how to mitigate these risks when integrating generative AI into legal education. If these risks are not addressed during legal education, generative AI's efficiencies will come at the cost of deleterious impacts on legal reasoning and subject-matter expertise of law students and young lawyers.

If wide-spread and sustained, these risks can lead to a "dumbing down" of the practice of law that is unacceptable given the stakes of law in people's lives, including life, liberty and property. Human created legal systems to resolve the most important disputes in our lives. Generative AI can and will get really good at the practice of law, but humans have to stay good at it also. Otherwise, we will lose the ability to distinguish quality generative AI work product from bad, and more broadly, lose the humanness of law. Direct human intelligence, creativity, empathy

and nuanced problem-solving and analytical skills require continued direct human engagement with the development of law through creation, analysis and presentation of legal arguments.

A. Automation Bias as a Risk to Generative AI Use by Lawyers

"Automation bias" is defined as "the tendency of humans to blindly trust AI-generated outputs without critically evaluating them."[12] As explained in a recent Forbes article, "[t]his is one of the most concerning biases when discussing generative AI, as it causes individuals to place unwarranted trust in AI systems, assuming they are infallible."[13] The healthcare industry is increasingly studying automation bias as AI provides "clinical decision support" to physicians.[14] Clinic decision support can suggest prescriptions or diagnoses by applying algorithms to patient data.

One recent study found "clinicians favored automated decision-making systems, relying on the AI-based tool, despite the presence of contradictory or clinically nonsensical information."[15] Healthcare researchers have expressed concern that "[c]linical decision support tools based on imperfect AI assistive technologies have the potential to result in patient harm because clinicians may trust the output of AI tools over their own judgment."[16] Another recent study found AI bias by prescribers relying on AI to recommend prescriptions for patients.[17] Prescribers' reliance on AI clinical support systems resulted in fewer human errors when the AI was correct, and more human errors when the AI was not correct.[18] Ultimately, the prescribers followed the AI-recommended prescription in error a significant amount of the time.[19] Other industries are also analyzing automation bias as AI is integrated into professional settings, such as personnel selection and public sector decision-making.[20]

Automation bias is a huge risk for attorneys utilizing generative AI. While it is anticipated that generative AI legal work product will be top-notch before long, it is not yet. As one U.S. attorney recently opined:

> "Though the software appears omniscient when it comes to information in its training set, it is a far cry from omnipotent and will often produce vague and nonspecific output unless carefully prompted or managed to do otherwise. . . The largest risks to attorneys using generative AI may be overestimating the capabilities of the software or being overly credulous as to its output."[21]

Despite rapid improvements, early generative AI legal work product has created "hallucinations."[22] A Massachusetts Judge recently explained "AI hallucinations are false or completely imaginary information generated by an AI system in response to user inquiries."[23] A hallucination occurs when generative AI "simply 'make[s] stuff up."[24] Hallucinations are a by-product of large language models mimicking datasets.[25]

Six recent cases in U.S. courts illustrate very public examples of lawyers engaging in automatic bias while using generative AI, including the following:

- *Mata v. Avianca, Inc.* (S.D.N.Y., June 22, 2023): Ordering $5,000.00 fine as Rule 11 sanction for filing a brief with hallucinated cases and related actions.[26]

- *Park v. Kim* (Second Circuit, January 30, 2024): Finding attorneys' lack of reasonable inquiry is a potential violation of Rule 11, referring attorney to the Court's Grievance Panel for further investigation and for consideration of a referral to the Committee on Admissions and ordering attorney to provide a copy of the ruling to her client for filing a brief with hallucinated cases.[27]

- *United States v. Michael Cohen* (S.D.N.Y., March 20, 2024): Finding attorney's reliance on hallucinated cases "embarrassing and certainly negligent, perhaps even grossly negligent" but not imposing sanctions because the attorney's reliance on hallucinated cases was not "done in bad faith."[28]

- *Smith v. Farwell, et al.* (Massachusetts Superior Court, February 12, 2024): Ordering $2,000 sanction against attorney for "knowing failure to review" hallucinated case citations "for accuracy, or at least ensure that someone else in his office did" before filing them with the court.[29]

- *Will of Samuel* (Superior Court of New York, January 11, 2024): Determining the court would be "well within its discretion to sanction" attorney for filing documents that included hallucinated cases and determining a sanctions hearing will be scheduled.[30]

- *People v. Crabill* (Colorado Office of Presiding Disciplinary Judge November 22, 2023): Approving stipulated disciplinary action against attorney for filing documents with hallucinated cases.[31]

In each case, open source generative AI was used to do legal research, the AI hallucinated cases, and the hallucinated cases were inserted into motions or other pleadings filed with the court. In each case, the court either considered or ordered sanctions or disciplinary action against the attorney who filed briefs with hallucinated cases. Attorneys' explanations for filing court documents with hallucinated cases typify automation bias, combined with lack of knowledge regarding emerging technologies. For example, in one case, the attorney explained to the court:

> "the citations and opinions in question were provided by Chat GPT which also provided its legal source and assured the reliability of its content. . . . [I] relied on the legal opinions provided [] by a source that has revealed itself to be unreliable. [I] never utilized Chat GPT as a source for conducting legal research prior to this occurrence and therefore was unaware of the possibility that its content could be false."[32]

In another case, the individual who located the hallucinated cases stated:

> "As a non-lawyer, I have not kept up with emerging trends (and related risks) in legal technology and did not realize that Google Bard was a generative text service that, like Chat-GPT, could show citations and descriptions that looked real but actually were not. Instead, I understood it to be a super-charged search engine and had repeatedly used it in other contexts to (successfully) find accurate information online.[33]

The pattern in these cases is the same – the attorney was unfamiliar with generative AI, and blindly trusted generative AI outputs without confirming their authenticity through established and trusted sources. One court recently described the "tendency of some attorneys and law firms to utilize AI in the preparation of motions, pleadings, memoranda and the other court papers, then blindly file their resulting work product in court without first checking to see if it incorporates false or misleading information" as a "disturbing development."[34] The court described

the attorney's submission of hallucinated cases as "fail[ing] to take basic, necessary precautions that likely would have averted the submission of the Fictitious Case Citations. His failure in this regard is categorically unacceptable."[35] The obvious result of these cases is "any information supplied by a Generative AI system must be verified before it can be trusted."[36] Unfortunately, the accuracy bias is at odds with this mandate. These cases also illustrate the danger in trusting generative AI when the AI's process is not understood by the user. In such cases, the human critical thinking, legal reasoning, and writing process upon which legal argumentation is based is replaced with a "black box" of unknown processes.[37]

B. Automation Complacency as a risk to Generative AI use by Lawyers

Automation complacency is defined as "[w]hen humans over-rely on automated systems or have their skills attenuated by such over-reliance."[38] Automation complacency is related to automation bias, but is a more long-term detrimental effect of a human relying on AI to complete a task. For decades the aviation and vehicle industries have grappled with automation complacency by pilots using AI to fly planes and vehicle operators monitoring self-driving vehicles.[39] Those industries observe "[a]utomation transforms the role of operators from active controllers to passive supervisors, necessitating their vigilance to continuously monitor the automation and intervene in the event of unlikely and unexpected abnormalities."[40] This shift from the operator role to the "passive monitor of automation" creates "reduce cognitive engagement" and a decrease in humans' abilities to "fully comprehend the ongoing processes" of the AI.[41]

The results of automation complacency include humans' inability to "detect automation failures," and crucially for attorneys, "deterioration of operators' skills over time."[42] Automation complacency seems exceeding difficult to counter given that "[p]eople are generally efficient actors, taking the route that requires the least cognitive effort."[43] Not surprisingly, therefore, "[w]hen paired with a machine, the impulse is to offload more and more of one's cognitive load onto the machine."

Although the recent high-profile sanctions of attorneys filing documents with hallucinated cases reflect more automation bias than complacency, these biases are connected. If an attorney relies on generative AI work product from automation bias, the more likely the attorney will ultimately experience automation complacency, particularly if the attorney has not developed legal reasoning and writing skills or subject matter expertise. It is intuitive that the more an attorney

allows generative AI to conduct legal research and drafting, the more attenuated that attorneys' skills will become in those areas. The cases discussed above illustrate the likelihood that as legal generative AI platforms improve, attorneys will continue to rely on them.

It is clear that even in the face of chronic unreliability, attorneys have and continue to rely on generative AI platforms that are inappropriate for legal research. As closed dataset generative AI platforms proliferate, attorney use will also proliferate. As attorney use proliferates, the risk of automation bias will be eclipsed by the risk of automation complacency, and the potential large-scale "dumbing down" of human legal reasoning and writing skills.

IV. Counter Measures to Mitigate Risks of Automation Bias and Complacency by Lawyers

Researchers in aviation and self-driving vehicle industries analyze "counter measures," which are steps that industries can take to mitigate automation complacency.[44] Some counter measures include "increasing operators' accountability for the automation's decisions and overall performance and training or expertise."[45] Several potential counter measures exist in the U.S. legal system to mitigate automation bias and complacency by attorneys using generative AI, including Rule 11 sanctions, standing orders by judges and courts, and the rules of professional responsibility. Potential other counter measures include reputational damage and loss of clients by public censure from incompetent use of generative AI, and loss of malpractice insurance coverage or increased premiums for such coverage. As discussed in the next section, legal education is a potentially powerful counter measure to automation bias and complacency.

a. Rule 11

Federal Rule of Civil Procedure 11 and its state counterparts require lawyers to engage in "reasonable inquiry under the circumstances" that the legal arguments they assert are based on existing law or non-frivolous bases to extend or change law.[46] A lawyer accused of violating Rule 11 is generally given an opportunity to self-correct.[47] If the sanctionable behavior is not corrected, the lawyer can be required to pay the other sides' costs and fees and a penalty to the court.[48] Rule 11 is the main counter measure used to hold human generative AI users' accountable for automation bias in the cases discussed above.

However, as law-specific generative AI platforms improve and do not provide hallucinations, Rule 11 may be too blunt to be an effective counter measure. Rule 11's "non-frivolous" standard is meant to address the outbounds of allowable legal contentions. Instead of hallucinated cases, in the coming years what may emerge is attorney automation bias or complacency leading to arguments that miss important issues or nuances that could have benefitted the client. Such arguments may not be nonfrivolous, but may simply be not as good as they otherwise would be if the attorney had not relied on generative AI and experienced automation risk or complacency. As such, we likely cannot rely on Rule 11 as an effective counter measure to automation bias and complacency as legal generative AI platforms improve.

b. Standing Orders

U.S. judges in various courts have issued Standing Orders regarding use of generative AI by attorneys in cases before their courts.[49] These orders direct attorneys to disclose to the court when they utilize generative AI, certify that no generative AI was used, or that if it was used, that the attorney confirmed the integrity and accuracy of the generative AI's work product.

For example, U.S. Court of International Trade Judge Vaden entered an Order requiring that any filing containing text drafted with the assistance of generative AI "must be accompanied by: (1) A disclosure notice that identifies the program used and the specific portions of text that have been so drafted; [and] (2) A certification that the use of such program has not resulted in the disclosure of any confidential or business proprietary information to any unauthorized party."[50] U.S. Magistrate Judge Gabriel A. Fuentes in the U.S. District Court for Northern Illinois recently updated his Standing Order to require "any party using any generative AI tool in the preparation or drafting of documents for filing with the Court must disclose in the filing that AI was used and the specific AI tool that was used to conduct legal research and/or to draft the document."[51]

As another example, a June 21, 2023 General Order from the U.S. Bankruptcy Court for the Northern District of Texas, entitled In Re: Pleadings Using Generative Artificial Intelligence states:

> "If any portion of a pleading or other paper filed . . . has
> been drafted utilizing generative artificial intelligence,
> including but not limited to ChatGPT, Harvey.AI, or

> Google Bard, the court requires that all attorneys [] filing such pleadings or other papers verify that any language that was generated was checked for accuracy, using print reporters, traditional legal databases, or other reliable means."[52]

The Order noted that generative AI hold "no allegiance to any client, the rule of law, or the laws and Constitution of the United States and are likewise not factually or legally trustworthy sources without human verification."[53]

As legal generative AI platforms improve, these Standing Orders may be a more effective counter measure to automation bias and complacency than Rule 11 sanctions to the extent they require attorneys to certify that they have checked generative AI work product and/or explicitly disclose when generative AI is used. Both of these counter measures require attorneys to affirmatively investigate sources relied upon and meaningful analyze generative AI work product. At least during this time when legal generative AI platforms are still nascent and not yet reliable, these affirmative steps seem like reasonable counter measures. It is likely that such Standing Orders will ultimately become local rules and a discrete number of approaches will develop. For example, one district may require disclosure, which another may require certification that all generative AI work product is verified prior to filing.

c. Rules of Professional Responsibility

The rules of professional responsibility will also likely be an effective counter measures to automation bias and complacency. The California Bar Association recently published guidance identifying ethical rules that are implicated by the use of generative AI.[54] The Florida State Bar Association also recently issued an Advisory Opinion regarding use of generative AI.[55] Additionally, at least one U.S. attorney has been disciplined and suspended from the practice of law for filing a motion with a Colorado state court that included hallucinated cases.[56] The recent California and Florida bar guidance and Colorado disciplinary action highlight the following professional responsibility duties are most implicated by using generative AI: (1) confidentiality, (2) competence and diligence, (3) candor to the tribunal.

The duty of confidentiality prohibits a lawyer from revealing information relating to the representation of a client without the client's consent, with few

exceptions.[57] This duty also requires a lawyer to make "reasonable efforts to prevent the inadvertent or unauthorized disclosure" or access to confidential information.[58] The main concern regarding confidentiality is how generative AI platforms use, store or share confidential client information provided by an attorney in prompts and dialogues with the generative AI.[59] Uploading privileged or confidential client information to such platforms implicates professional responsibility rules prohibiting such disclosure, such as Model Rule of Professional Conduct ("Rule") 1.6.[60]

The duty of competence set forth in Rule 1.1 requires a lawyer provide "competent representation to a client" which "requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation."[61] The duty of diligence in Rule 1.3 requires a lawyer act with "reasonable diligence" in representing a client.[62] Both of these duties are related to automation bias. If an attorney has competence regarding generative AI awareness and risks, and is diligent in confirming generative AI work product, the attorney is successfully resisting automation bias. An attorney who is subject to automation bias is not complying with duties of competence and diligence.

Once guidance like the California Bar's guidance becomes advisory opinions by state bar committees, and use of generative AI leads to more disciplinary proceedings, professional responsibility mandates will likely be an effective counter measure to automation bias. The cases discussed above illustrate violations of the duty of candor to the tribunal, which is similar to Rule 11 in requiring good faith presentation of claims and defenses.[63]

V. Legal Education as a Counter Measure to Automation Bias and Complacency

The section above discussed ways that acceleration of generative AI use could have deleterious effects on the law through a "dumbing down" of the profession cumulatively subject to automation bias and complacency. Law schools have a number of duties in the face of this potential outcome, including (1) preparing students to pass bar exams (without using generative AI) by effectively teaching subject-matter expertise in doctrinal classes, (2) preparing students to competently represent clients in disputes, (3) fostering critical thinking and legal reasoning skills, (4) developing writing and research skills and (5) developing effective oral

communication skills and "soft skills" necessary to counsel clients and meaningfully engage with other stakeholders involved in dispute resolution.

Similarly, law schools should ensure that students learn about automation bias and complacency when learning how to use generative AI. Market-driven efficiencies are likely to accelerate use of generative AI by lawyers.[64] As a result, law schools will feel pressure to train "practice-ready" graduates capable of using generative AI.[65] However, law schools have an obligation to temper this pressure with careful integration of generative AI-related skills to guard against wide-spread detriment to students, clients, and the legal profession through automation bias and complacency.

More junior professionals with less experience in a field can be especially subject to automation bias.[66] Professional schools, therefore, have a unique duty to ensure that those coming up in a profession understand this tendency. Medical schools need to teach about automation bias in prescribing and diagnosing. As explained by one medical school faculty member: "Faculty should serve as an example for students by ensuring that students have the right critical analysis skills and are comfortable with questioning results instead of accepting what is being given to them. This builds students' confidence in trusting their instincts, which could deter them from automation bias."[67]

U.S. law students can only practice law if they pass a bar exam and an ethics exam. As of now, and for the foreseeable future, students themselves, with no help from generative AI, must pass these exams. For "bar courses" such as constitutional law, criminal law, property and torts, automation complacency would negatively impact students' crucial ability to pass the bar in these subjects. It would also decrease subject-matter expertise needed to effectively prompt, edit and critically analyze generative AI work product.

The risk-reward calculation in doctrinal bar subject courses tilts toward not utilizing generative AI to make sure students can pass the bar and develop subject-matter expertise. Keeping generative AI out of these parts of curriculum is a counter measure to automation complacency because students must learn these subjects instead of relying on generative AI for subject-matter expertise. For classes in which the law will directly regulate generative AI, such as intellectual property, generative AI will be discussed more as a subject of law rather than as a tool used by lawyers in the practice of law. In professional responsibility courses,

generative AI will likely organically filter into course curriculum as existing rules are interpreted to address use of generative AI by lawyers.

The more difficult question involves courses such as legal research and writing and skills courses such as pre-trial advocacy or contract drafting. These courses are faced with the reality that "market-ready graduates" will be expected to effectively utilize generative AI to efficiency draft legal documents in the coming years. This market-driven expectation is potentially at odds with implications of automation complacency and bias.

It is important that law schools closely consider implications of changes to legal research and writing and skills-based classes. We need to better understand the impact of automation complacency before we begin supplanting teaching drafting and legal research and writing skills with using generative AI. If students are not taught to draft contracts and pleadings themselves – to conquer the blank page – how can we expect them to meaningfully edit generative AI work product as lawyers? If we do not continue to require students to engage in the cognitive process of building these types of work product, will we face a scenario in which the better the generative AI gets, the worse attorneys' foundational legal reasoning abilities will become? While up for debate, prudence dictates that for the time being these courses should resist integrating generative AI as a counter measure to automation compliance.

In the face of the reality of both increased use and the risks discussed above, perhaps for the next couple years, law schools would benefit most by adding stand-alone generative AI courses to their curriculums. A stand-alone generative AI course would teach students about these biases while teaching students how to utilize generative AI in practice. If a student understands automation bias and complacency, arguably there is a lesser chance the student will be subject to such biases. A stand-alone Generative AI course could also address counter measures, with an emphasis on the importance of Rule 11 and ethical duties. Ensuring that students are aware of counter measures when learning how to use generative AI will assist in responsible use and potentially guard against automation bias and complacency. Such course would focus more on uses and risks of generative AI in the practice of law, and less on intellectual property or regulatory aspects of generative AI.

Stand-alone generative AI-specific courses have multiple benefits. First, stand-alone generative AI-specific courses enable students to begin developing

skills to interface with generative AI technology in practice. The market will likely soon be demanding this, and such courses are a necessary response to this demand. Second, and equally as important, such courses would ensure students are aware of the risks of using generative AI and the practice of law such as automation bias and complacency. Third, a stand-alone generative-AI class would allow students to study generative AI more holistically to understand its various potential uses and risks. Fourth, this approach relieves some of the pressure for other parts of the curriculum to integrate generative-AI specific subject matter more gradually where its use will facilitate learning outcomes.

Finally, stand-alone generative AI courses allow discussion of these larger questions about generative AI and the law. Students and lawyers alike are concerned about the implications of generative AI. At recent panels regarding generative AI and the law, law students and lawyers have repeatedly voiced dismay, fear, and in some cases gratitude that they are retiring. We are facing looming questions about professional identity and the role of humans in the law moving forward. Despite the pull of technochauvinism and obvious benefits to emerging technology, lawyers and educators have agency in determining generative AI's place in the practice of law. A stand-alone generative AI course in law school curriculum would foster human agency in the face of this technology to ensure it works for us, our clients and profession.

VI.   Conclusion

Market-driven efficiencies will result in generative AI as an integral part of the practice of law. Despite this reality, however, we have already seen six published decisions highlighting the risks of generative AI in the practice of law without an understanding of the technology and the risks associated with it. Like aviation, self-driving vehicles, and healthcare, the legal industry is not immune from automation bias and complacency. The stakes in humans' lives and societies. Because all lawyers go to law school, legal education has unique potential to act as a counter measure to these risks by ensuring students use generative AI with an understanding of the risks. Importantly, law schools can train students to not only develop subject-matter expertise, but about the importance of retaining and expanding that expertise.

1 National Institute of Standards and Technology, U.S. Department of Commerce Special Publication 1270, Glossary (March 2022) (hereinafter "NIST Publication 1270"), available at https://doi.org/10.6028/NIST.SP.1270.

2 *See* Colin E. Moriarty, *The Legal Ethics of Generative AI – A robot may not injure a lawyer or, through inaction, allow a lawyer to come to harm*, COLORADO LAWYER, at 32 (October 2023) (hereinafter "Moriarty, Part 3").

3 Will of Samuel, 2024 WL 238160, 2024 N.Y. Slip Op. 24014 (Surrogates Court, New York, Kings County Jan. 11, 2024).

4 John Bliss, *Teaching Law in the Age of Generative AI*, 6 (posted on 17 January 2024), forthcoming in JURIMETRICS, accessed at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4682456.

5 *See* Moriarty, Part 3, *supra* note 2, at 32 (Large language models "have had shocking success in mimicking human understanding and production of language. They have accomplished this not by being taught how to encode language directly, but by being fed enormous amounts of written language and being asked to synthesize a map or algorism that successfully produces language matching what already existing.").

6 *See* Transform Your Legal Work, https://www.lexisnexis.com/en-us/products/lexis-plus-ai.page; Matt Reynolds, LexisNexis announces new generative artificial intelligence platform, ABA JOURNAL, May 5, 2023, available at https://www.abajournal.com/web/article/lexisnexis-announces-new-generative-ai-platform-lexis-ai. *See also* Colin E. Moriarty, *The Legal Challenges of Generative AI – Part 1: Skynet and HAL Walk Into a Courtroom*, COLORADO LAWYER, at 31-32 (July/August 2023) (Hereinafter "Moriarty, Part 1") (discussing emerging generative AI platforms for attorneys).

7 Zach Warren, *Generative AI in law firms: For many, such technologies are still a great unknown*, Reuters (May 23, 2023), available at https://www.reuters.com/legal/transactional/generative-ai-law-firms-many-such-technologies-are-still-great-unknown-2023-05-23/; Laura Lorek, *How lawyers can take advantage of ChatGPT and other large language models disrupting the legal industry*, ABA Journal (May 11, 2023), available at https://www.abajournal.com/web/article/how-lawyers-can-take-advantage-of-ChatGPT-and-other-large-language-models-disrupting-the-legal-industry.

8 Lorek, *supra* note 7.

9 *Id.*

10 NIST Publication 1270, *supra* note 1, at ii.

11 For discussions of these risks, see Colin E. Moriarty, *The Legality of Generative AI – I'm sorry User. I'm afraid I can't do that – Part 2*, COLORADO LAWYER, at 35-37 (September 2023) (hereinafter Moriarty, Part 2"); Bob Lambrechts, *May it Please the Algorithm*, J. KAN. B. ASS'N, January 2020.

12 Ken Knapton, *Biases in LLM Generative AI: A Guide to Responsible Implementation*, Forbes (Sept. 6, 2023), available at https://www.forbes.com/sites/forbestechcouncil/2023/09/06/navigating-the-biases-in-llm-generative-ai-a-guide-to-responsible-implementation/?sh=68eb40ef5cd2.

13 *Id.*

14 Sarah Jabbour, David Fouhey, Stephanie Shepard, Thomas S. Valley, Ella A. Kazerooni, Nikola Banovic, Jenna Weins & Michael W. Sjoding, *Measuring the Impact of AI in the Diagnosis of Hospitalized Patients – A Randomized Clinical Vignette Survey Study*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Vol. 330, No. 23, p. 2275 (Dec. 19, 2023) (concluding "[a]though standard AI models improve diagnostic accuracy, systematically biased AI models reduced diagnostic accuracy, and commonly used image-based AI model explanations did not mitigate this harmful effect"); Rohan Khera, Melissa A. Simon & Joseph S. Ross, *Automation Bias and Assistive AI – Risk of Harm from AI-Driven Clinical Decision Support, Editorial Opinion*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Vol. 330, No. 23, p. 2255 (Dec. 19, 2023). *See also* David Lyell, Farah Magrabi, Magdalena Z. Raban, L.G. Pont, Melissa T. Baysari, Richard O. Day & Enrico Coiera, *Automation Bias in Electronic Prescribing*, BMC MEDICAL INFORMATICS AND DECISION MAKING (2017) 17-28 (finding automation bias omission and commission errors in e-prescribing based on study).

15 Khera, et. al, *supra* note 14, at 2255, discussing findings of Jabbour, et. al, *supra* note 14.

16 *Id.* at 2256.

17 Lyell, et. al, *supra* note 14.

18 *Id.*

19 *Id.*

20 *See* Durdula Kupfer, Rita Prassl, Jürgen Fleib, Christine Malin, Stefan Thalmann & Bettina Kubicek, *Check the box! How to deal with automation bias in AI-based personnel selection*, FRONTIERS IN PSYCHOLOGY 14:1118723, 5

April 2023; Saar Alon-Barkat & Madalina Busuioc, *Human-AI Interactions in Public Sector Decision Making: "Automation Bias" and "Selective Adherence" to Algorithmic Advice*, Journal of Public Admin Research and Theory, 2023, 33, 153-169.

[21] Moriarty, Part 2 *supra* note 11 and Moriarty, Part 3, *supra* note 2 at 31, 32. Moriarty describes the "current state" of legal generative AI legal work product as "an untrained entry-level intern with full access to the Internet and great technical writing skills but without experience, content, or particular loyalty to your company." *Id.*

[22] *See* Ziwie Ji, Nayeon Lee, Rita Frieske, Tiezheng Yu, Dan Su, Yan Xu, Etsuko Ishii, Yejin Bang, Delong Chen, Ho Shu Chan, Wenliang Dai, Andrea Madotto & Pascale Fund, Survey of Hallucination in Natural Language Generation, Center for Artificial Intelligence Research, Hong Kong University of Science and Technology, 19 Feb. 2024 (hereinafter Ji, et al Survey), available at https://arxiv.org/pdf/2202.03629.pdf. *See also* Moriarty, Part 2, *supra* note 11, at 34, n. 92 (discussing hallucinations and Ji, et al. Survey).

[23] Smith v. Farwell, et al., No. 2282CV01197 at 9 (Mass. Super. Ct. Feb. 12, 2024) (Findings, Rulings and Order Imposing Sanction).

[24] *Id.*

[25] Moriarty, Part 1, *supra* note 6, at 42.

[26] *See* Mata v. Avianca, Inc., 1:22-cv-01461-PKC (S.D.N.Y. June 22, 2023) (Opinion and Order on Sanctions).

[27] Park v. Kim, 91 F.4th 610 (2d Cir. 2024).

[28] United States v. Michael Cohen, 1:18-cr-00602-JMF (S.D.N.Y. March 20, 2023) (Opinion and Order). New York

[29] Smith v. Farwell, et al., No. 2282CV01197 at 1 (Mass. Super. Ct. Feb. 12, 2024) (Findings, Rulings and Order Imposing Sanction).

[30] Will of Samuel, 2024 WL 238160, 2024 N.Y. Slip Op. 24014 (Surrogates Court, New York, Kings County Jan. 11, 2024).

[31] People v. Crabill, No. 23PDJ067, 2023 BL 425604 (Colo. O.P.D.J. Nov. 22, 2023). For examples of pro se parties filing documents that include hallucinated cases, see Morgan v. Community Against Violence, et. al, 1:23-cv-00353-WJ-JMR, 15 (D.N.M. October 23, 2023) (Memorandum Opinion and Order Granting In part Defendants' Motion to Dismiss) (noting pro se party filed documents that included non-existent cases and warning the party of potential sanctions if future filings included non-existent cases); Kruse v. Karlen, No. ED 111172, 2024 WL 559497 (Mo. Ct. App. Feb. 13, 2024); Thomas v. Pangburn, CV 423-046, 2023 WL 9425765 (S.D. Ga. Oct. 6, 2023) (Order and Report and Recommendation recommending dismissal as sanction for reliance on hallucinated cases), *adopted and affirmed* at Thomas v. Pangburn, 4:23-cv-46, 2024 WL 329947 (S.D. Ga. Jan. 29, 2024).

[32] Affidavit, Mata v. Avianca, Inc., 1:22-cv-01461-PKC, Dkt.#32-1, filed May 25, 2023, ¶¶8-10 (S.D.N.Y.).

[33] Declaration of Michael Cohen, 1:18-cr-00602-JMF, Dkt#104, filed December 29, 2023, page 14 of 25, ¶20.

[34] Smith v. Farwell, et al., No. 2282CV01197 at 1 (Mass. Super. Ct. Feb. 12, 2024) (Findings, Rulings and Order Imposing Sanction).

[35] *Id.* at 7.

[36] *Id.* at 1.

[37] *See* Tim Nguyen, *Editorial: ChatGPT in Medical Education: A Precursor for Automation Bias?*, JMIR Med Educ 2024, vol. 10, e50174, p. 2 ("[o]ne of the common ethical concerns with AI is that it can essentially be a black box where the results from the AI are illogical, and the AI developer cannot track how it produced those erroneous results").

[38] NIST Publication 1270, *supra* note 1, at 49 of 77.

[39] *See e.g.,* Peng Liu, *Reflections on Automation Complacency*, Int'l. J. of Human-Computer Interaction (Oct. 9, 2023). Liu discusses various researchers' views on the concept of automation complacency and conceptual, methodological, and operational debates surrounding the concept.

[40] *Id.* at 1.1.

[41] *Id.* at 1.

[42] *Id.*

[43] Joseph Avery, *Fumble! Anti-Human Bias in the wake of Socio-Technical System Failures*, 53 Ariz. St. L.J. 1009, 1018 (2021).

[44] *Id.*

[45] Liu, *supra* note 39, at 2.4.

[46] Fed. R. Civ. P. 11(b) (by presenting to the court a pleading, written motion, or other paper . . . an attorney . . . certifies that to the best of the person's knowledge, information, and belief, formed after an inquiry reasonable under the circumstances: . . . (2) the claims, defenses and other legal contentions are warranted by existing law or by a nonfrivolous argument for extending , modifying, or reversing existing law or for establishing new law"). For an

example of a state counterpart, see MONT. R. CIV. P. 11(b) (2) (same language). *See also* § 1335 The Elements of the Standard of Certification, 5A Fed. Prac. & Proc. Civ. § 1335 (4th ed.).

[47] FED. R. CIV. P. 11(c).

[48] *Id.*

[49] A collection of existing Standing Orders can be found at the University of Chicago Library, Generative AI in Legal Research, Education and Practice, Judicial Orders on AI Use ("Collection of Standing Orders"), available at https://guides.lib.uchicago.edu/AI/Practice.

[50] Order on Artificial Intelligence, U.S. Court of International Trade The Honorable Stephen Alexander Vaden, Judge (June 8, 2023), available at Collection of Standing Orders, *supra* note 49.

[51] Standing Order for Civil Cases before Magistrate Judge Fuentes (June 21, 2023), available at Collection of Standing Orders, *supra* note 49.

[52] In re: Pleadings Using Generative Artificial Intelligence, General Order (N.D. Tx. Bankr. June 21, 2023), available at Collection of Standing Orders, *supra* note 49.

[53] *Id.*

[54] *See* State Bar of California Standing Committee on Professional Responsibility and Conduct, Practical Guidance for the Use of Generative Artificial Intelligence in the Practice of Law (hereinafter "California Bar Guidance") available at https://www.calbar.ca.gov/Portals/0/documents/ethics/Generative-AI-Practical-Guidance.pdf.

[55] Florida State Bar Assoc. Committee on Professional Ethics, FL Eth. Op. 24-1 (Jan. 19, 2024) (hereinafter "Florida Bar Advisory Opinion"), available at https://www.floridabar.org/etopinions/opinion-24-1/.

[56] People v. Zachariah C. Crabill, 23PDJO67 (Colo. Nov. 22, 2023).

[57] Model Rule of Professional Conduct 1.6, available at https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_6_confidentiality_of_information/.

[58] *Id.*

[59] Generative AI in Litigation: Overview, Practical Law Practice Note Overview w-040-5027 ("counsel should avoid putting sensitive, confidential, or privileged information into public models like ChatGPT whenever possible. If counsel decide to use public generative AI models, they should select platform settings that allow the user to prevent the information they enter into the platform from being used to train the platform."); Florida Bar Advisory Opinion, *supra* note [ ], at 2 ("Use of 'self-learning' generative AI raises the possibility that a client's information may be stored within the program and revealed in response to future inquiries by third parties").

[60] *See* California Bar Guidance, *supra* note [ ] at 2 (directing lawyers not input confidential client information into any generative AI platform that "lacks accurate confidentiality and security protections, (2) anonymize client information," and follow additional safeguards), available at https://www.calbar.ca.gov/Portals/0/documents/ethics/Generative-AI-Practical-Guidance.pdf.

[61] Model Rule of Professional Conduct 1.1: Competence, available at https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_1_competence/.

[62] Model Rule of Professional Conduct 1.3: Diligence, available at https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_3_diligence/.

[63] California Bar Guidance, *supra* note 55 at 4. Additional professional responsibility duties that are implicated by attorney use of generative AI include the duty to communicate with clients about the use of technologies such as generative AI and the duty not to charge clients for time saved by using generative AI. *Id. See also* Florida Bar Advisory Opinion, *supra* note 56, at 5-6.

[64] *See e.g.,* Danielle Braff, *The fate of billable hours is in the hands of artificial intelligence*, ABA JOURNAL (March 1, 2024), available at https://www.abajournal.com/web/article/the-fate-of-billable-hours-is-in-ais-hands?utm_source=sfmc&utm_medium=email&utm_campaign=weekly_email&promo=&utm_id=815721&sfmc_id=57666764 ("If all the firms are speeding ahead with the technology and are able to get the work done faster and at a lower cost, then those tech-savvy firms could crush those still depending on human time and effort").

[65] John Bliss, *supra* note 4, at 27, 43 (discussing the importance of "preparing practice-ready graduates" in addition to "helping students critically evaluate AI outputs and other AI-related learning outcomes).

[66] *See* Nguyen, *supra* note 37, at 3 ("Multiple studies have found that algorithmic appreciation – a user's valuing of an algorithm's outputs – is lower for users who have more experience in a task than those who are considered nonexperts in that task").

[67] Nguyen, *supra* note 37, at 3.