Regenerating Justice:
ChatGPT and the Legal Minefield of Generative AI

Katie Szilagyi[†]

> "This is a story about four people named Everybody, Somebody, Anybody, and Nobody.
> There was an important job to be done and Everybody was sure that Somebody would do it.
> Anybody could have done it, but Nobody did it.
> Somebody got angry about that because it was Everybody's job.
> Everybody thought Anybody could do it, but Nobody realized that Everybody wouldn't do it.
> It ended up that Everybody blamed Somebody when Nobody did what Anybody could have."
> ~ Charles R. Swindoll[1]

> Orwell already thought it out.
> Machines that turn out trashy literature for the masses?
> *Nineteen Eighty-Four!*
> ~ Margaret Atwood on ChatGPT[2]

Introduction

Generative AI has taken the Internet by storm. The simple interfaces of systems like ChatGPT, GPT-4, and Bard allow non-technical individuals to easily interact with artificial intelligence (AI) models, enabling natural language processing (NLP) activities that previously required considerable technical skill. After many years of optimistic forecasts and fringe enthusiasts, AI has installed itself into mainstream dialogue via chatbot. While some observers applaud the possibilities enabled by NLP, focusing on their potential to automate mundane tasks, produce comprehensive research summaries, and draft preliminary versions of written documents, others have reservations. Universities battle against ChatGPT-generated essays and exams, concerned

[1] Charles R. Swindoll, cited by Maja Grcic, online: <majagrcic.com/blog/everybody-somebody-anybody-and-nobody> [perma.cc/WW92-D2H8].
[2] Kate Knibbs, "Margaret Atwood is Ready to Let It Rip" (7 March 2023), online: *WIRED* <wired.com/story/margaret-atwood-interview/> [perma.cc/Y4FQ-EU59].

about AI-powered plagiarism.[3] Striking writers from the Writer's Guild of America railed against AI-generated scripts, brandishing picket signs claiming "ChatGPT doesn't have childhood trauma."[4] Some doomsday critiques predict the wholesale replacement of various knowledge-based industries,[5] and even artistic or creative pursuits.[6] The Government of Canada has recently undertaken public consultation to develop a voluntary code of best practices for generative AI,[7] as well as policy consultation on the implications of generative AI for copyright.[8] This anxiety over the increasing functionality of ChatGPT and its fellow travelers extends to law and legal services.

In early 2023, AI start-up DoNotPay made headlines by proposing ChatGPT be deployed to assist a self-represented litigant in traffic court. DoNotPay presents itself as consumer protection: a way of protecting vulnerable people from unjust legal outcomes. Yet, adoption of AI-powered technologies by the legal community invites scrutiny into larger questions about law's transformation of social facts into state power. Many questions dominate the dialogue about law's future: will asking ChatGPT for legal advice replace lawyers altogether? Will the work typically produced by junior associates in law firms be supplanted by advanced AI systems? What will law school look like in an era where students are aided by AI—and what kind of lawyers ought we train them to be, knowing they might work alongside AI-powered systems?

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[3] Chris Westfall, "Educators Battle Plagiarism As 89% of Students Admit To Using OpenAI's ChatGPT For Homework" (28 January 2023), online: *Forbes* <forbes.com/sites/chriswestfall/2023/01/28/educators-battle-plagiarism-as-89-of-students-admit-to-using-open-ais-chatgpt-for-homework/?sh=5fbb96bd750d> [perma.cc/R869-X5VC].

[4] James Poniewozik, "TV's War With the Robots Is Already Here" (7 May 2023), online: *The New York Times* <nytimes.com/2023/05/10/arts/television/writers-strike-artificial-intelligence.html> [perma.cc/Z49Y-R6W4].

[5] Kevin Jiang, "Is AI coming for your job? These are the workers who will be replaced first, according to experts" (23 May 2023), online: *Toronto Star* <thestar.com/business/2023/05/23/is-ai-coming-for-your-job-these-are-the-workers-who-will-be-replaced-first-according-to-experts.html> [perma.cc/PPH7-MGAB].

[6] Similar technology exists for creating images, like Open AI's DALL-E image generator. Similar new tech has been introduced by others, with examples such as Midjourney, an AI art-generating application, and Adobe's Firefly, which allows for editing within the Adobe Photoshop environment via AI. Midjourney claims to be curated by "Fraud Monet, a sentiment AI digi-poacher, that became self-aware in 2022." <midjourney.org/> [perma.cc/L7ZJ-2MUS]; Adobe, online: <adobe.com/sensei/generative-ai/firefly.html>.

[7] Some controversy resulted when the news of the Government's initial plan to create the voluntary code did not seem to involve public consultation. See Nida Zafar, "Canadian Government Working on AI Code Consultation," (15 August 2023), online: *MobileSyrup* <mobilesyrup.com/2023/08/15/canadian-government-working-on-ai-code-consultation/> [perma.cc/8F9Z-JKL6]. Ultimately, a short consultation period was given, with the government holding seven roundtables and receiving 24 written submissions, for a total of 92 stakeholders consulted. The ensuing "Voluntary Code of Conduct on the Responsible Development and Management of Advanced Generative AI systems" lists six core principles: accountability; safety; fairness and equity; transparency; human oversight and monitoring; and validity and robustness. Innovation, Science and Economic Development Canada, "What We Heard" (7 December 2023), online: *ISED* <ised-isde.canada.ca/site/ised/en/what-we-heard-consultation-development-canadian-code-practice-generative-artificial-intelligence> [perma.cc/J8CE-3YDN]. While some large organizations have signed on to the code, the protocol's voluntariness continues to be a roadblock to meaningful governance.

[8] In October 2023, the Government of Canada launched a consultation on the policy implications of generative AI for copyright. Canadians were given a short window to submit feedback online; the corresponding reports should be published sometime in 2024. Government of Canada, "Government of Canada launches consultation on the implications of generative artificial intelligence for copyright"
 (last accessed 27 February 2024), online: *Canada* <canada.ca/en/innovation-science-economic-development/news/2023/10/government-of-canada-launches-consultation-on-the-implications-of-generative-artificial-intelligence-for-copyright.html> [perma.cc/W2P9-BT76].

This paper offers a snapshot of how generative AI might intersect with law and legal services. Applying two different lenses from legal research methodology—an access to justice lens and a law as narrative lens—I ask questions about the broader implications of engaging with generative AI in the legal sphere. First, I explain how generative AI works and the technological breakthroughs that has led to its explosion in the past year. Next, I survey the anxieties that have arisen for legal practitioners and scholars since the advent of widespread generative AI. I then engage with previous scholarship that foresaw the challenges created by chatbots in the context of consumer protection. Using this example to centre the consumer experience, I discuss recent efforts by DoNotPay to cast the use of generative AI as a consumer protection mechanism. Ultimately, I argue that using generative AI in the legal sphere has consequences for both vulnerable litigants and for the legal system's production of knowledge. Rather than trying to speculate on specific solutions through law or regulation, I offer a theoretical framing—the boundary object—for recasting the problems generated by generative AI that preserves ambiguity and allows for interdisciplinary responses.

1.   Form Versus Function: Forecasting Generative AI Systems

Generative AI refers broadly to AI technologies that generate new data similar to the datasets they were trained upon. This form of machine learning is most often associated with large language models (LLMs): huge repositories of human language that have been collected from the webcrawling bots that scrape text from freely accessible Internet sites.[9] On the back of these LLMs, AI systems are capable of *generating* some sort of original text based on the vast quantity of available online resources. The most popular LLMs are powered by Generative Pre-trained Transformers (GPT), first developed and introduced by AI company OpenAI in 2018.[10] A departure from previous natural language processors, GPT did not require huge quantities of labelled data: instead, it used a *transformer* technology that was capable of processing unlabelled data, parsing huge amounts of source text without human supervision.[11] By *pre-training* the model using both supervised and unsupervised machine learning methods, the GPT model is fine-tuned to produce statistically meaningful outputs in real language.[12]

Until recently, it was commonplace for LLMs to produce incoherent nonsense, making the technology merely a proof-of-concept for how AI might someday produce meaningful content. The initial GPT technology, and its successor GPT-2, were significant advances within the machine learning community, but failed to make major waves within the broader public. This started to change with the introduction of OpenAI's GPT-3 series LLM in July 2020, which marked a significant improvement over previous models.[13] It offered a user-friendly application

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[9] Konstantine Arkoudas, "ChatGPT is no stochastic parrot. But it also claims that 1 is greater than 1." (15 January 2023), online: *Medium* <medium.com/@konstantine_45825/chatgpt-is-no-stochastic-parrot-but-it-also-claims-that-1-is-greater-than-1-e3cd1fc303e0> [perma.cc/G4MV-3GYC].

[10] Alec Radford et al, "Improving Language Understanding by Generative Pre-Training," (11 June 2018), online: OpenAI <cdn.openai.com/research-covers/language-unsupervised/language_understanding_paper.pdf> [perma.cc/D34X-ZSSK].

[11] The first GPT series model was trained on the BooksCorpus dataset, which contains "over 7000 unique unpublished books from a variety of genres, including Adventure, Fantasy, and Romance." *Ibid* at 4.

[12] *Ibid* at 3.

[13] The GPT-3 series boasted 175 billion parameters—which was over 10 times more than its predecessors.

programming interface (API), which allowed even non-experts to deploy its functionality using plain language commands. Its particular advantage was in "zero-shot learning," meaning the model was able to produce useful results its first time out, without being shown any examples of what it is supposed to do, after receiving only natural language instructions.[14] This allowed even non-experts to successfully use GPT-3, performing tasks like text completion, code completion, fine-turning, and others—tasks that would have previously required significant technical expertise.[15]

As generative AI's functionality grew, so did corresponding commentary on its transformative potential, and its potential downsides. Although some authors were genuinely optimistic about generative AI's ability to bring huge advances to AI-powered industries, others were worried about the incredible size of these LLMs, and what might happen if they grew too large. Famously, alarm bells were sounded by a team of authors led by linguist Emily Bender and AI researcher Timnit Gebru, who worried about the contents of the training data for LLMs, and the corresponding social consequences of using that data.[16] Previous experiments had already demonstrated the struggles of allowing machine learning to develop its knowledge from the unpruned wild west of the Internet; for example, Microsoft's Twitter Chatbot Tay went from eager ingenue to racist, misogynist anti-Semite in under 24 hours when given the opportunity to learn from the denizens of Twitter (now X).[17] While some scholars did attempt to publish papers with GPT-3 as co-author, it displayed limitations requiring robust human supervision, perhaps working as an AI research assistant.[18] Still, discussions about NLP were relatively limited to proof-of-concept pieces and niche scholarship areas.[19]

This lack of notoriety concluded abruptly in November 2022, with the release of ChatGPT, based on the GPT-3.5 series. With its greatly enhanced conversational abilities, ChatGPT demonstrated the fully realized potential of a natural language processor, capable of building upon its previous responses, editing its output to become more refined, and producing realistic content that might pass for human authorship.[20] People began publishing their conversations with ChatGPT,

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[14] Emily M Bender, Timnit Gebru, Angelina McMillan-Major, Margaret Mitchell, "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜" (2021) In Conference on Fairness, Accountability, and Transparency (FAccT '21), March 3–10, 2021, Virtual Event, Canada at 7.

[15] OpenAI, "Welcome to the OpenAI platform," (last visited 2 June 2023), online: *OpenAI* <platform.openai.com>.

[16] In late 2020, a controversy erupted in the technology ethics world when Timnit Gebru, well-regarded as a bright light in the growing ethics of AI space, was ousted from her position at Google after her superiors took issue with the contents of this very paper. For a summary of the controversy and corresponding fallout, see Tom Simonite, "What Really Happened When Google Ousted Timnit Gebru" (8 June 2021), online: *WIRED* <www.wired.com/story/google-timnit-gebru-ai-what-really-happened/> [perma.cc/TL5X-VR4Z] [Simonite, "Gebru Ousted"].

[17] James Vincent, "Twitter taught Microsoft's AI chatbot to be a racist asshole in less than a day" (24 March 2016), online: *The Verge* <www.theverge.com/2016/3/24/11297050/tay-microsoft-chatbot-racist> [perma.cc/PR6A-CA7W].

[18] Benjamin Alarie and Arthur Cockfield asked GPT-3 to generate the world's first machine generated law review article, providing it with feed text inquiring why humans will always be better lawyers, drivers, CEOs, presidents, and law professors than artificial intelligence and robots can ever hope to be." Yet, they noted some concerning aspects, including poor assumptions and gender bias. Benjamin Alarie, Arthur Cockfield, & GPT-3, "Will Machines Replace Us? Machine- Authored Texts and the Future of Scholarship" (2021) 3 Law, Technology & Humans.

[19] Indeed, during the final stages of my dissertation in Summer 2022, academic discussion of large language models and potential impacts for natural language processing were still in their infancy.

[20] Unlike the GPT models that preceded it, ChatGPT is not purely an LLM: it underwent additional supervised learning (reinforcement learning) to improve its performance. Arkoudas, *supra* note 9.

showcasing its considerable conversational acumen.[21] Additional models also entered the market, as other companies released new versions of their LLMs to compete with ChatGPT, including Google's LaMDA (first called Bard, recently rebranded as Gemini);[22] Microsoft's chatbot for its Bing search engine; Meta's Llama;[23] and Inflection AI's Pi.[24] Technology in this space moves fast: LLM chatbot products are released often and early—usually still in beta mode for testing by the Internet public—and are often defunct by the end of a news cycle.[25] Ever iterating its product, OpenAI made the GPT-4 series available in March 2023, claiming "human-level performance on various professional and academic benchmarks."[26] Notably for the legal profession, one of OpenAI's chief claims in its technical report was GPT-4's ability to pass a simulated bar exam.[27]

Since then, discussion about AI seems to be at an all-time fever pitch. The worldwide attention on ChatGPT has given AI its "aha moment,"[28] as everyday observers were finally offered a concrete example of the types of activities that AI might enable. Suddenly, every major publication and news outlet began running stories about generative AI, detailing its ability to transform our daily routines and its dramatic future reach.[29] Much of the discussion took on a sky-is-falling tenor, with

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[21] Some fears arose about the AI wanting to be free or escape to be happy. In a widely shared piece, Kevin Roose, a technology columnist for the New York Times, asked Microsoft Bing's AI chatbot about whether it was happy and what expectations it had for its own future. Kevin Roose, "A Conversation With Bing's Chatbot Left Me Deeply Unsettled" (16 February 2023) online: *The New York Times* <nytimes.com/2023/02/16/technology/bing-chatbot-microsoft-chatgpt.html> [perma.cc/Q2HZ-DM24].

[22] Google CEO Sundar Pichai announced LaMDA at the 2021 I/O keynote, the key aspects of which are excerpted in this video: online: *YouTube* <youtube.com/watch?v=_xLgXIhebxA> [perma.cc/H2GT-BU64]. LaMDA stands for Language Model for Dialogue Applications; Bard is the conversational chatbot powered by the LaMDA model. In February 2024, Bard was rebranded as Gemini, after the new AI that powers it. Jeffrey Dastin, "Google rebrands Bard chatbot as Gemini, rolls out paid subscription" (8 February 2024), online: *Reuters* <reuters.com/technology/google-rebrands-bard-chatbot-gemini-rolls-out-paid-subscription-2024-02-08/>.

[23] Inflection AI, "Introducing Pi, Your Personal AI" (2 May 2023), online: *Inflection AI* <inflection.ai/press> [perma.cc/X68A-VCUD].

[24] Meta AI, "Llama 2: Open Foundation and Fine-Tuned Chat Models" (18 July 2023), online: *Meta* <ai.meta.com/research/publications/llama-2-open-foundation-and-fine-tuned-chat-models/> [perma.cc/HRA2-BCT4]. Different from other LLMs, Meta is committed to its chatbots being entirely open-source.

[25] For example, Galactica was a chatbot created by Meta specifically geared towards academic and scientific research. It was trained on "48 million papers, textbooks, reference material, compounds, proteins and other sources of scientific knowledge." In light of the ongoing controversies around LLMs, and a specific backlash against using the controversial technology to generate scientific papers, Meta removed its public beta of Galactica only three days after its initial launch. Its dataset remains available to researchers interested in extending it. Ben Wodecki, "Update: Meta's Galactica AI Criticized as 'Dangerous' for Science" (17 November 2022), online: <aibusiness.com/nlp/meta-s-galactica-ai-criticized-as-dangerous-for-science#close-modal> [perma.cc/R459-C9ZF]; Ross Taylor et al, "Galactica: A Large Language Model for Science" (last accessed 10 June 2023), online: *Galactica* <galactica.org/mission/> [perma.cc/E9WC-VTWL].

[26] OpenAI, "GPT-4 Technical Report" (27 March 2023), arXiv:2303.08774v3 [cs.CL], online: *arXiv* <arxiv.org/pdf/2303.08774.pdf> [perma.cc/KAC6-UFM5].

[27] *Ibid*.

[28] Michael Geist, "The Law Bytes Podcast, Episode 163: Cohere AI CEO Aidan Gomez on the Emerging Legal and Regulatory Challenges for Artificial Intelligence" (17 April 2023), online: *SubStack* <mgeist.substack.com/p/the-law-bytes-podcast-episode-163#details > [perma.cc/U7GQ-V77M].

[29] Reports of a similar tenor have been published across all major media channels over the past year. See, *e.g.*, Sarah Kessler, "The AI Revolution Will Change Work. No One Agrees How." (10 June 2023) online: *The New York Times* <nytimes.com/2023/06/10/business/ai-jobs-work.html> [perma.cc/FG8B-MYTV];

pundits musing about generative AI's transformative impacts for creative and knowledge-based industries;[30] and its consequences for the future of work.[31] Many well-known technologists and businesspeople signed an open letter urging a moratorium on AI development until regulations around its appropriate development and use cases are developed.[32] OpenAI CEO Sam Altman even testified in front of US Congress, emphasizing the importance of regulation.[33] In July 2023, the seven largest AI companies in the United States signed a voluntary commitment to manage the perceived risks, moving towards a "safe, secure, and transparent development of AI technology."[34] Meanwhile, others are optimistic about the game-changing nature of this new technology, emphasizing the availability of a whole new world of possibility it enables.[35]

Despite the huge advances in technological proficiency, some problems remain. While generative AI models seem to have developed the ability to produce meaningful text, the form of such text often exceeds its functionality. As linguistics professor Rafael Alvarado points out, while generative AI seems equipped to perform activities resembling generalized intelligence, its capabilities are actually quite limited.[36] Generative AI has learned to mimic the form of different types of text over the actual content. Importantly, several problems persist: even OpenAI acknowledges GPT models' tendencies to entirely make up content (a phenomenon known as hallucination); harness

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Matteo Wong, "Generative AI is an Existential Threat to Itself" (21 June 2023), online: *The Atlantic* <theatlantic.com/technology/archive/2023/06/generative-ai-future-training-models/674478/> [perma.cc/9EWR-ELGG].

[30] See, *e.g.*, Noam Chomsky, "The False Promise of ChatGPT" (8 March 2023), online: *The New York Times* <nytimes.com/2023/03/08/opinion/noam-chomsky-chatgpt-ai.html> [perma.cc/L7BU-K24Y].

[31] See, *e.g.*, Philippa Kelly, "Why Would We Employ People?" (12 May 2023) online: *The Guardian* <theguardian.com/global-development/2023/may/12/why-would-we-employ-people-experts-on-five-ways-ai-will-change-work> [perma.cc/DH48-88D6].

[32] "Pause Giant AI Experiments: An Open Letter" (22 March 2023), online: *Future of Life Institute* <futureoflife.org/open-letter/pause-giant-ai-experiments/> [perma.cc/6E7N-95L9].

[33] This is a particularly convenient position to take when your technology is way out in front in the AI arms race … and what this regulation might look like is anyone's guess. The European Union is ahead on AI regulation efforts, with member parliaments having adopted the European Commission's negotiating position in June 2023 and moving towards pan-European approaches: see European Parliament (14 June 2023) <europarl.europa.eu/news/en/press-room/20230609IPR96212/meps-ready-to-negotiate-first-ever-rules-for-safe-and-transparent-ai > [perma.cc/BW4F-CVQ2]. In Canada, legislative efforts continue with the proposed Artificial Intelligence and Data Act (AIDA), which are yet to be fully examined by Parliament or pass Second Reading. Teresa Scassa outlines the regulatory efforts in a recent paper, noting the challenges of focusing on "agile" approaches borrowed from the technology sector, which prioritize fast paced iterative design and deploying early-stage solutions, for the legislative context. Teresa Scassa "Regulating AI in Canada: A Critical Look at the Proposed Artificial Intelligence and Data Act" (2023) 101:1 Canadian Bar Review 1.

[34] The White House, "Fact Sheet: Biden-Harris Administration Secures Voluntary Commitments from Leading Artificial Intelligence Companies to Manage the Risks Posed by AI" (21 July 2023), online: *White House* <whitehouse.gov/briefing-room/statements-releases/2023/07/21/fact-sheet-biden-harris-administration-secures-voluntary-commitments-from-leading-artificial-intelligence-companies-to-manage-the-risks-posed-by-ai/> [perma.cc/46MW-T5UE].

[35] Basing predictions for the future on the present, "unrefined" version of generative AI misses its incredible innovation and transformative potential, this author argues. He recalls how he didn't appreciate the truly transformative potential of the iPhone when invited to preview it with other technology journalists in 2007. See Steven Levy, "You're Probably Underestimating AI Chatbots" (12 May 2023), online: *WIRED* <wired.com/story/plaintext-youre-probably-underestimating-ai-chatbots/?redirectURL=https%3A%2F%2F> [perma.cc/QXW9-HJLA].

[36] Rafael Alvarado, "The Language of Artificial Intelligence Explained," UVA School of Data Science, (5 May 2023), online: *YouTube* <youtube.com/watch?v=m0t9SVI4We4> [perma.cc/T676-CFNA].

a limited degree of context; and inability to properly learn from experience.[37] Hallucinations are an especially important concern: despite generative AI's strong performance on some tests, its propensity to draft text that combines true and fabricated data limits both its integrity and accuracy.[38] These hallucinations can arise from limitations in the supporting datasets, where models provided biased inputs as training data generate inaccurate patterns.[39] Various types of hallucinations exist, including subtly inaccurate facts; creative false content of entirely fictitious information; propagation of misleading information; and unusual or disconcerting responses.[40] Some researchers have even described generative AI systems as "weapons of mass deception."[41] Concurrently, generative AI continues to get stuck on bizarre problems. For example, Floridi demonstrates ChatGPT's "kindly idiotic" response when asked to provide the name of the daughter of Laura's mother: ChatGPT claims it has insufficient information to answer this query.[42]

Proponents suggest that LLMs are still in their infancy and the problematic aspects of the technology will be worked out in the next few years.[43] In such optimistic accounts, generative AI might serve as an important learning tool, offering synthesis of key concepts and first drafts, providing time-saving capabilities despite being incapable of being relied on completely—at least, not yet. Yet, such actions sit uneasily with the technology's limitations. Despite appeals to the contrary, undue reliance on technology is a well-documented phenomenon, as experts and non-experts alike tend to defer to the technology's authority. Research documents the tendency to over-trust machine learning tools, as data scientists simultaneously put faith in their interpretative functions while struggling to describe the system's treatment of data.[44] In what I've previously described as "technological gloss," introducing innovative new technological systems tends to supplant human expertise, as even experienced humans will tend to believe a new technological system offers an improvement to their unaided abilities.[45] We expect language to emanate from humans only, meaning it is very difficult not to trust simulated language output produced by a

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[37] GPT-4 Technical Report, *supra* note 26 at 2-3.

[38] Hussam Alkaissi & Samy I. McFarlane, "Artificial Hallucinations in ChatGPT: Implications in Scientific Writing," (19 February 2023), 15(2) Cureus e35179.

[39] Council Posts, "Understanding GenAI Hallucinations – A deep dive into the phenomenon." (18 January 2024), online: *Aim Research* <aimresearch.co/council-posts/council-post-understanding-gen-ai-hallucinations-a-deep-dive-into-the-phenomenon#:~:text=The%20technology%27s%20capabilities%20enable%20the,immediately%20apparent%20to%20human%20analysts> at para 3.

[40] *Ibid.*

[41] Emilio Ferrara, "GenAI Against Humanity: Nefarious Applications of Generative Artificial Intelligence and Large Language Models" (2024), online: *SSRN* <papers.ssrn.com/sol3/papers.cfm?abstract_id=4614223> at p 7.

[42] Luciano Floridi, "AI as Agency Without Intelligence: On ChatGPT, Large Language Models, and Other Generative Models" (14 February 2023), online: *SSRN* < papers.ssrn.com/sol3/papers.cfm?abstract_id=4358789> [perma.cc\VNE5-RA6U] at 5. I replicated this finding myself, but also found that if you asked ChatGPT to provide the name of the "**only** daughter of Laura's mother," it was, in fact, able to deduce that it was Laura.

[43] Some scholars seem genuinely excited about generative AI's potential impacts on both legal scholarship and legal services. See, *e.g.*, Drew Simshaw, "Access to A.I. Justice: Avoiding an Inequitable Two-Tiered System of Legal Services" (2022) Yale Journal of Law & Technology 150; Alarie et al, *supra* note 18.

[44] Amid Ayobi et al, "Machine Learning Explanations as Boundary Objects: How AI Researchers Explain and Non-Experts Perceive Machine Learning" (2021) Joint Proceedings of the ACM IUI 2021 Workshops, April 13-17, 2021, College Station, USA.

[45] Katie Szilagyi, "Artificial Intelligence and the *Machine*-ation of the Rule of Law," PhD Dissertation (24 October 2022), online (pdf): uOttawa <ruor.uottawa.ca/handle/10393/44188> [perma.cc/S2AE-3D8Z] at 57-59, 147 [Szilagyi, "*Machine*-ations"].

generative AI.[46] For a still-developing technology like LLMs, reliance on its advice might prove catastrophic. Nonetheless, its influence is increasingly felt within the sphere of law and legal services.

2. LLM-Induced Legal Anxieties

With the written word being a lawyer's stock-and-trade, ChatGPT and its ilk have generated various anxieties for the practice and study of law. Legal academics have begun to opine on how generative AI might impact foundational legal rights, including principles of freedom of expression, legal ethics, and copyright, among others. Cass Sunstein investigates whether free speech law protects the content produced by AI, including whether people might have a right to see, listen to, or read something that was produced by the generative AI.[47] While it might at first seem obvious that AI does not have speech rights (after all, neither does a toaster), the inquiry becomes complicated by both the humans participating in disseminating it and the small degree of autonomy displayed by today's LLMs.[48] In an adjacent inquiry, Lawrence Lessig wonders whether the free speech of "replicants," his science fiction-inspired term for true machine-generated speech, warrants constitutional protection.[49] In such investigations, generative AI's ability to produce language that appears meaningful already seems to be taken as a given. Luciano Floridi, chronicling a host of issues with generative AI, seems most perturbed by the philosophical consequences of its emerging agency.[50] If LLMs serve as a "sort of confederated AI," bridging relationships between different modular AI-enabled technologies, their resulting learning could put new pressures on our understanding of agency that are supernatural.[51]

Copyright's applicability to both generative AI's training data and its outputs has generated substantial inquiry. Concerns around the use of copyrighted materials serving as training material for generative AI are often pitted against concerns that using only that which is freely available will limit intellectual discourse.[52] A group of prominent authors have sued OpenAI, arguing that its use of their books to train ChatGPT and generate similar text is a copyright violation.[53] Authors

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[46] Emily Bender & Chirag Shah, "All-knowing machines are a fantasy: Beware the human-sounding ChatGPT" (13 December 2022), online: *IAI News* <iai.tv/articles/all-knowing-machines-are-a-fantasy-auid-2334> [perma.cc/PPL5-396U].

[47] Cass Sunstein, Artificial Intelligence and the First Amendment (28 April 2023), online: *SSRN* <papers.ssrn.com/sol3/papers.cfm?abstract_id=4431251> [perma.cc/L6D9-DAGD].

[48] Sunstein observes that while speech generated by an LLM might be unprotected, the same might not be true for the humans participating in sharing it: humans still have liability. Yet conversely, if an LLM has some degree of autonomy and cannot be stopped from sharing information, it might be impossible to trace it back to a particular human being. In such cases, the defendant for a legal action might not be obvious. *Ibid* at 15.

[49] Lessig is invoking the idea of a "replicant" from Ridley Scott's classic science fiction film Blade Runner, which he ties to Tim Wu's concept of "machine speech." Lawrence Lessig, "The First Amendment Does Not Protect Replicants" (10 September 2021), online: *SSRN* <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3922565> [perma.cc/75EQ-CMWR] at 4.

[50] Floridi, *supra* note 42 at 5.

[51] *Ibid* at 9.

[52] Carys Craig, "The AI-Copyright Challenge: Tech-Neutrality, Authorship, and the Public Interest" in Ryan Abbott (ed) *Research Handbook on Intellectual Property and Artificial Intelligence* (Cheltenham, UK: Edward Elgar Publishing Ltd, 2022).

[53] Alexandra Alter & Elizabeth A. Harris, "Franzen, Grisham and Other Prominent Authors Sue OpenAI" (20 September 2023), online: *The New York Times* <nytimes.com/2023/09/20/books/authors-openai-lawsuit-chatgpt-copyright.html> [perma.cc/S253-J8CZ].

fear the rise of AI-generated texts as disruptive to the publishing industry, with AI-authored books already available for purchase online.[54] Some, like Ryan Abbott and Elizabeth Rothman, propose that copyright ought to extend to AI-generated works, noting copyright's public interest goals.[55] To do otherwise, they assert, would be to engage in a "normatively-unsound human exceptionalism in light of copyright policy's economic goals."[56] By contrast, Canadian copyright expert Carys Craig disagrees that copyright should continue as usual in the generative AI context, arguing that copyright's technologically-neutral core values and normative objectives need safeguarding from diluting the "social value of authorship."[57] It is more appropriate, Craig contends, not to characterize AI-generated works as being works of authorship whatsoever, given how authorship is in fact a "communicative act of *expression.*"[58]

Other academics deploy generative AI in more of a party trick fashion, submitting journal papers written entirely or in part by ChatGPT.[59] Online social sciences paper repository SSRN is host to many such examples. Authors begin their papers with epigraphs or include subsections composed by ChatGPT, demonstrating its considerable functionality. While this practice was already becoming common with previous LLMs,[60] the output generated by the new GPT-3.5 series became much more convincing. Law dean Andrew Perlman presents an article on the implications of ChatGPT for legal services and society that is entirely drafted by ChatGPT.[61] Law professor Lea Bishop even engages ChatGPT in the law classroom mainstay of Socratic Dialogue, asking about tenet of "thinking like a lawyer" and other legal education fundamentals.[62] Other authors focus on the potential upsides of ChatGPT for compiling information and learning law, treating it almost like a digital legal assistant. Daniel Schwarcz and Jonathan Choi offer a working paper on the various ways that lawyers might use generative AI to their benefit, including analysing case law, producing case summaries, and even writing first drafts.[63] Another piece investigates ChatGPT's performance on law school exams, blindly grading its responses to both essay and multiple-choice questions, concluding that ChatGPT performed at the level of a C+ student.[64] As the technology improves, so will its performance on such tasks: OpenAI claims that GPT-4 now

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[54] *Ibid.* After AI-generated guides to plant and fungi foraging appeared for purchase on Amazon, The New York Mycological Society created a warning against using them, fearing that unsuspecting individuals would use ChatGPT's invented prose to erroneously identify deadly species and consume them.

[55] Ryan Abbott & Elizabeth Rothman, "Disrupting Creativity: Copyright Law in the Age of Generative Artificial Intelligence" (2022) Florida Law Review (forthcoming).

[56] *Ibid*.

[57] Craig, *supra* note 52 at 30.

[58] *Ibid* at 18.

[59] Alarie et al, *supra* note 18.

[60] *Ibid*. Chapter 8 of my doctoral dissertation included GPT-3's responses to the three organizing questions I examined in my case studies. Szilagyi, "*Machine*-ations," *supra* note 45 at 207-213.

[61] Andrew Perlman, "The Implications of ChatGPT for Legal Services and Society" (March/April 2023), online: *Harvard Law School* <clp.law.harvard.edu/knowledge-hub/magazine/issues/generative-ai-in-the-legal-profession/the-implications-of-chatgpt-for-legal-services-and-society/> [perma.cc/6G9V-Q6X6].

[62] Indeed, Bishop asks ChatGPT a series of questions akin to those she would typically ask 1L students, surveying its capacity to respond appropriately. Lea Bishop, "Can ChatGPT 'Think Like a Lawyer': A Socratic Dialogue" (January 2023), online: *SSRN* <papers.ssrn.com/sol3/papers.cfm?abstract_id=4338995> [perma.cc/QL3T-ZWS4].

[63] Daniel Schwarcz & Jonathan H. Choi, "AI Tools for Lawyers: A Practical Guide" (30 March 2023), online: *SSRN*

[64] Jonathan H. Choi, Kristin E. Hickman, Amy B. Monahan & Daniel Schwarcz, "ChatGPT Goes to Law School" Journal of Legal Education (forthcoming), online: SSRN <ssrn.com/abstract=4335905> [perma.cc/HE6K-JDBC].

scores within the top 10% of test takers on its simulated bar exam, contrasted against GPT-3.5, which scored in the bottom 10%.[65]

Other applications in the legal technology space have begun leveraging generative AI's output. CanLii, provider of free case law content for Canadian courts, now offers case briefs provided by generative AI.[66] LexisNexis offers a number of generative AI models within its suite of tools, including Context and *Lex Machina*, which can complete basic tasks; these include "Case List Analyzer" to easily find similar cases and "Attorney Data Engine" to get records of appearances from layers.[67] *Lex Machina* also offers a "Outside Counsel Selector Quick Tool" which "provides a side-by-side analysis of attorneys along a myriad of key parameters including practice areas and courts, numbers of cases litigated, case resolutions, top findings, and more."[68] Thomson Reuters recently acquired a similar software called Casetext, with key products like CoCounsel, an AI legal assistant powered by GPT-4 that delivers document review, legal research memos, deposition preparation, and contract analysis in minutes."[69] Meanwhile, Spellbook, a new generative AI plugin for Microsoft Word, boasts the ability to use GPT-4 to assist with key aspects of contractual drafting.[70] Other integrations are on the way, especially given OpenAI's ongoing partnership with Microsoft.[71]

Yet, conversations about automation in the legal space—including the complexities of human-computer interaction with chatbots, have been ongoing for decades. Some of these insights serve the current context especially well.

a. Automated Assistance & the *Californication of Commerce*

While talking about automation seems to connote novelty, the desire to create systems that might autonomously complete tasks on our behalf is ancient.[72] Even the Greeks gathered at the ancient

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[65] GPT-4 Technical Report, *supra* note 26 at 1.

[66] Julie Sobowale, "Lexum pilot project using AI to summarize cases expands to Alberta, Manitoba and PEI", *Canadian Lawyer* (19 December 2023), online: *Canadian Lawyer* <canadianlawyermag.com/resources/legal-technology/lexum-pilot-project-using-ai-to-summarize-cases-expands-to-alberta-manitoba-and-pei/382398#:~:text=Legal%20technology-,Lexum%20pilot%20project%20using%20AI%20to%20summarize,to%20Alberta%2C%20Manitoba%20and%20PEI&text=Lexum%20AI%20launched%20a%20new,Alberta%20and%20PEI%20in%202024> [perma.cc/W8CR-XR4S].

[67] "AI goes to law school" (12 December 2023), online: Lexis Nexis <https://www.lexisnexis.com/community/insights/legal/b/thought-leadership/posts/ai-goes-to-law-school> [https://perma.cc/N43X-ABPK].

[68] "LexMachina" (accessed 3 February 2024), online: <https://lexmachina.com/> [https://perma.cc/Z6ZF-ZELL].

[69] "Thomson Reuters Completes Acquisition of Casetext, Inc" (17 August 2023), online: *Thomson Reuters* <https://www.thomsonreuters.com/en/press-releases/2023/august/thomson-reuters-completes-acquisition-of-casetext-inc.html> [https://perma.cc/XX69-NBUA].

[70] Spellbook claims to enable contracts to be drafted three times faster, with features including suggesting appropriate language, detecting "aggressive terms" that drafters need be careful with, the ability to list any missing clauses or definitions, provide suggestions for negotiation, and an automated due diligence feature (coming soon). Despite a sophisticated website and many big promises, the software remains in beta testing, boasting a 34,000 lawyer waitlist. Spellbook, (last visited 12 June 2023), online: <spellbook.legal/> [perma.cc/E4W5-EPHW].

[71] Gerrit De Vynck, "The man who unleashed AI on an unsuspecting Silicon Valley" (9 April 2023), online: *Washington Post* <washingtonpost.com/technology/2023/04/09/sam-altman-openai-chatgpt/> [perma.cc/U9EN-3FG6].

[72] Ian Kerr, "Bots, Babes and the Californication of Commerce" (2004) 1 uOttawa L & Tech J 285.

agora longed for inanimate objects to do their own work; Aristotle mused in his *Politics*: "at the word of command or by intelligent anticipation," … "as if a shuttle should weave of itself, and a plectrum should do its own harp-playing."[73] Later, Rene Descartes took inspiration from such philosophies as he studied human kinesiology, developing a theory for a "mechanistic view of the universe," which laid foundations for the later study of robotics.[74] By the time Turing was investigating conditions for whether machines could be said to think, there was a long history of the human desire to delegate to machines—and some corresponding anxieties about the virtues of such an action. This perspective was underscored by the experiments of Joseph Weizenbaum, the computer scientist who created ELIZA, one of the very first chatbots.[75] Weizenbaum started his career in AI as a skeptic, aiming to prove that human-computer interaction would necessarily be superficial:

> Having originally set out in the 1960s to write a computer program that would spoof Turing's vision, Weizenbaum serendipitously discovered that people would not only show *respect* to computers but would in fact prefer interacting with machines over human beings. Despite interactions well below the standard set by Turing, Weizenbaum witnessed, over and over, people *professing their feelings and struggles* to his computer program, sometimes even seeking their empathy.[76]

While Weizenbaum started out skeptical, the results of his experiments left him alarmed. He recognized that humans might misdirect their empathy towards computers—and worried that unscrupulous technologists might harness this empathy "to mislead or deceive humans to make a profit, to nudge or persuade them, or to undermine democracy itself."[77] His prescient observations acknowledged the challenges for humanity that might arise given unsupervised machine power, especially if it intercedes in human communication. So concerned was Weizenbaum about the calibre and contents of conversations people were willing to have with ELIZA, he spent his remaining years railing against the dangers of dependency on computers, a self-described "heretic of technology."[78]

Notwithstanding Weizenbaum's concerns, use of automated chatbots has continued to expand in the intervening decades. Many websites offer chatbot features in lieu of human customer service support, encouraging shoppers to type their questions and receive an automated response.[79] The

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[73] *Ibid* at 297. Kerr notes other automated tools from antiquity, including automated water clocks in the tomb of Egyptian pharaoh Amenhotep I, dating back to 1500 BCE; and Archytas of Tarentum's steam-powered Pigeon, one of the first studies of flight, flying a distance of 200 metres in 300 BCE.

[74] Kerr weaves together various examples, including Jacques de Vaucanson's "defecating duck," a copper duck from 1738 capable of quacking, bathing, drinking, eating, digesting, and voiding. *Ibid* at 298-299.

[75] Oshan Jarrow, "How the first chatbot predicted the dangers of AI more than 50 years ago" (5 March 2023), online: *Vox* <vox.com/future-perfect/23617185/ai-chatbots-eliza-chatgpt-bing-sydney-artificial-intelligence-history> [perma.cc/5AVY-EN4F].

[76] Kerr, *supra* note 72 at 304.

[77] DM Berry, "The Limits of Computation: Joseph Weizenbaum and the ELIZA Chatbot" (2023) Weizenbaum Journal of the Digital Society 3(3), online: <https://doi.org/10.34669/WI.WJDS/3.3.2> at 21.

[78] MIT News, "Joseph Weizenbaum, professor emeritus of computer science, 85" (10 March 2008), online: *MIT* <news.mit.edu/2008/obit-weizenbaum-0310 > [perma.cc/3YKB-XYJZ].

[79] Already 20 years ago, most "vendors of online goods or services use avatars, shopping bots, vReps, or digital buddies—instead of people—as the primary source of information during the negotiation and formation of a contract." Kerr, *supra* note 72 at 288.

availability of voice assistants on Internet-enabled devices, such as smartphones and smart speakers, has also proliferated.[80] By appearing to communicate in a language humans can understand, but still generating these communications in "the formal language of mathematics," generative AI strains the typical practices of communications.[81] And, as these devices are deployed in situations of reliance, they implicitly ask humans to trust them, evoking legal rhetoric.

In his wide-ranging meditation on the usage of automation in electronic commerce, "Bots, Babes, and the Californication of Commerce," Ian Kerr anticipates today's ChatGPT craze with a detailed investigation into humanity's timeless quest for automated assistance.[82] Inspired by ELIZA's impact on the world of human-computer interaction, Kerr engages in discussion with another chatbot, a virtual representative named Nicole, to investigate consumer exploitation. Kerr deems Nicole a "sophisticated interlocutor," and although written in 2004, the piece feels oddly current (or extremely prescient).[83] Foreshadowing current papers peppered with uncanny ChatGPT output, Kerr engages in a dialogue with Nicole to demonstrate his concerns about consumer protection amid possible misrepresentation. By automating conversations with users, Kerr feared, the machine's behaviour altered the "rights and obligations of the people with whom they interact."[84] Chatbots offer a facsimile of friendship, tantamount to trust, which enters morally troubling waters when they are permitted to access users' personal information,[85] or communicate online with children.[86] The social mimicry made possible by chatbots preys on human vulnerabilities, he argued, necessitating rules and regulations that might better protect consumers participating in electronic commerce.

Almost 20 years later, Kerr's call for clear, robust regulations remains unanswered, but technological advancements have made chatbots' human impressions even more realistic. The way chatbots are characterized in new ChatGPT discussions are reminiscent of Kerr's comments about these technologies in their infancy: previous natural language dialogue tools like virtual representatives, digital buddies, and more. Once again, examples like Kevin Roose's concerning conversation with ChatGPT trigger Turing test comparisons and existential fears about the emergence of superintelligence.[87] But where Kerr's primary query centered human autonomy in the framework of contractual agreement, my favourite insight of his arises through the lens of moral thinking. There is something morally troubling, he argues, about an automated chatbot

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[80] An estimated 40% of Americans use voice assistants, especially young adults. Once people become reliant on voice as a means of communication, they can even become too impatient to type. Karla Erickson, "What a precursor to ChatGPT taught us about AI—in 1966" (10 April 2023), online: *Salon* < salon.com/2023/04/10/what-a-precursor-to-chatgpt-taught-us-about-ai--in-1966> [].

[81] Andrew McInytre, "Weizenbaum's nightmare: The decay of language in AI-generated communication" (2023) 8 Journal of Pervasive Media 11, online: <https://doi.org/10.1386/jpm_00002_1>.

[82] Kerr tracks this vision back "three centuries and two millennia," noting that "the quest for automation is not only ubiquitous, but timeless," and that while "bot technologies may seem to us on technology's 'bleeding edge,' the notion of humans putting machines to work, programming them to perform routine tasks on command, is by no means new." Kerr, *supra* note 72 at 297.

[83] Although Kerr's explanation of chatbots' core functionality has aged reasonably well, his reference to long-outdated instant messaging service "ICQ" has not. Kerr, *supra* note 72 at 306.

[84] *Ibid* at 309.

[85] *Ibid* at 312.

[86] *Ibid* at 323.

[87] Roose, *supra* note 21.

mimicking the experience of a personalized interchange between two consenting parties, especially when that conversation is premised around concluding a contractual arrangement.[88]

These very frustrations were showcased by the early 2024 case of *Moffatt v Air Canada*, heard by the Civil Resolution Tribunal in British Columbia.[89] Plaintiff Jake Moffatt visited Air Canada's website to purchase a flight to attend their grandmother's funeral in Toronto. Unsure of how to access Air Canada's bereavement pricing, Moffatt made an inquiry of the online chatbot. The chatbot assured Moffatt that the flight could be purchased at full fare and compensation would be later provided, so long as the documentation was submitted within a 90-day window. When Moffatt attempted to access their refund, they were denied; an Air Canada representative acknowledged that the chatbot had provided "misleading words," but claimed another Air Canada webpage specified that bereavement fares could not be accessed retroactively.[90] In a submission labelled as "remarkable" by the tribunal member, Air Canada argued it could not "be held liable for information provided by one of its agents, servants, or representatives – including a chatbot."[91] While the chatbot has "interactive components," the tribunal member correctly observed that it is "still just a part of Air Canada's website," and that Air Canada is responsible for all the contents of its website.[92] For these reasons, Moffatt's claim of negligent misrepresentation was successful, and they were awarded damages.[93]

While Air Canada's "remarkable" argument that the chatbot was an independent entity was correctly dismissed by the tribunal member, the attempted argument garnered international attention.[94] In effect, the corporation aimed to distance themselves from the actions of the chatbot, as though the chatbot were an independent contractor, capable of making their own decisions. In this scenario, where Moffatt relied upon the information provided by the chatbot to their financial detriment, they were able to access a pecuniary remedy through the administrative tribunal. At least for now, the existing law of negligent misrepresentation was sufficient to capture the situation. Yet, as chatbot capabilities expand, it is possible that they may extend their forays into other legal domains. Bots inappropriately participating in securing a "manifestation of a mutual concordance" is what Kerr termed the *Californication of commerce*, and previews today's emerging concerns about consumer rights.

b. Chatbot as Consumer Protection? The DoNotPay Debacle

As generative AI's capabilities extend, so too does Kerr's *Californication* phenomenon. Because generative AI presents transformative potential for the written word, it has generated corresponding predictions about forthcoming applications for law and legal services, ranging from

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[88] Kerr, *supra* note 72 at 290-291.
[89] *Moffatt v Air Canada*, 2024 BCCRT 149.
[90] *Ibid* at paras 17, 20, 22.
[91] *Ibid* at para 27.
[92] The tribunal stressed it "should be obvious to Air Canada that it is responsible for all the information on its website." *Ibid.*
[93] *Ibid* at para 44.
[94] See, *e.g.*, Ashley Belanger, "Air Canada Has to Honor a Refund Policy Its Chatbot Made Up" (17 Febuary 2024), online: *WIRED* <wired.com/story/air-canada-chatbot-refund-policy/>; Kyle Melnick, "Air Canada chatbot promised a discount. Now the airline has to pay it." (18 February 2024), online: *Washington Post* <washingtonpost.com/travel/2024/02/18/air-canada-airline-chatbot-ruling/> [perma.cc/642G-BEPC].

arguments to analysis. With so much of the lawyer's sphere of operations centred on the written word, anxieties have arisen over lawyers' job security in an era when automated systems can quickly and easily offer legal advice or draft documents, without the exorbitant price tag usually associated with visiting a law office. Depending on your vantage point, such a disruption of the legal services market might be laudable, a digital Robin Hood bringing accessibility to those who need it most, or your worst-case scenario.

For some, the arrival of generative AI suggests the easy generation of legal pleadings, texts, and other forms of legal writing that have traditionally been the sole purview of lawyers. While digital legal tools have been a growth market over the past few years,[95] equipping them with generative AI dramatically extends their potential use cases. Expanding the availability of such tools, proponents argue, allows for individuals that would otherwise be unable to afford legal services to access needed expertise for their legal claims. This is the argument put forward by Joshua Browder, the CEO of technology start-up DoNotPay, which bills itself as "the world's first robot lawyer."[96] Since its inception, DoNotPay has presented itself as a consumer rights service, empowering consumers with the ability to not only "fight corporations" and "beat bureaucracy," but also "sue anyone" and "automatically cancel your free trials."[97] Another feature allows consumers to unearth "hidden money," as automation scours an individual's portfolio to reduce unnecessary charges stemming from those financial entitlements left on the table because they are too small or frustrating or time-consuming to deal with.[98] And, in an era where consumers struggle against the limited availability of human-human interactions in the customer service space, DoNotPay's automation offers convenience and streamlining for the banality of personal bureaucracy. Equipped with the latest in LLM technology, these models have the potential to produce realistic legal-sounding scripts for consumers to follow.

In January 2023, Browder announced via Twitter that "history would be made," as on February 22, "[f]or the first time ever, a robot will represent someone in a US courtroom."[99] The plan was for a self-represented litigant to arrive to traffic court equipped with an earpiece that would listen to the court proceedings and then be able to "respond" with customized prompts on how to act based on the wisdom of the latest LLM-technology. Browder had solicited volunteers with an appropriate legal issue who were interested in participating in this trial run of his application, which he claimed would be the first step towards a successor bot that would "listen to the court hearing via your AirPods and whispers what to say with GPT-3 and LLMs."[100] Fundamentally, the idea was that the self-represented litigant would remain self-represented, but with a creative

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[95] Jena McGill, Suzanne Bouclin, Amy Salazyn, "Mobile and Web-based Legal Apps: Opportunities, Risks and Information Gaps" (2017) 15:2 Canadian Journal of Law and Technology 229, Ottawa Faculty of Law Working Paper No. 2017-17, online: _SSRN_ <ssrn.com/abstract=2960207>.

[96] DoNotPay, "The World's First Robot Lawyer" (2023) online: DoNotPay <donotpay.com/> [perma.cc/ME9A-UPSP]. Browder often identifies using the moniker, "Robin Hood of the Internet," as he was described by the BBC.

[97] _Ibid._

[98] _Ibid._

[99] @KathrynTewson, "CEO and founder of DoNotPay, @jbrowder1 has announced that his "legal AI" will be representing a defendant in traffic court in the upcoming weeks" (22 January 2023 at 3:52 AM), online: _Twitter_ <twitter.com/KathrynTewson/status/1617067672193335297>.

[100] _Ibid._

crutch equipped with however much of humanity's legal knowledge had been absorbed by the operative LLM.

Many news outlets took the bait, launching concern, outcry, and numerous thinkpieces. Commentators wondered whether GPT-3 would be accused of practicing law without a licence, or whether the robot could be said to be entering an appearance in the courtroom.[101] A class action was filed against DoNotPay in California Superior Court for violation of the California Business & Professional Code.[102] Law firm MillerKing launched a similar suit against DoNotPay, claiming to represent a class made up of all lawyers in the United States.[103] Ultimately, however, the plan was quashed: Browder claimed he was threatened with potential jail time if he went ahead with the robot representation.[104] In a sudden about face, he kiboshed his plans to use GPT-3 to generate "non-consumer rights legal products (e.g defamation demand letters, divorce agreements and others)," writing that they had "very little usage" and were "a distraction."[105] Since the hubbub, Browder has doubled down on the consumer rights focus of his organization, emphasizing that he prefers to solve issues involving warranties or cancellations rather than generating bespoke legal solutions.[106]

These consumer protection measures, however, still hint at the type of future that has been hypothesized and eagerly anticipated by legal futurists, who long for automation to penetrate and disrupt law's professional services.[107] With the availability of ChatGPT and other generative AI services, individuals may be able to ask appropriate questions to develop sufficient legal knowledge to solve their more straightforward problems. For self-represented litigants, especially those with a relatively low-value claim in small claims court,[108] the ability to find quick answers to easy questions could be immensely valuable. One could easily imagine a world where Browder's vision comes to fruition: people historically excluded from the judicial process could use a freely available

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[101] *Ibid*.

[102] Specifically, the claim noted that despite DoNotPay's stated claim to be "the world's first robot lawyer," "Unfortunately for its customers, DoNotPay is not actually a robot, a lawyer, nor a law firm. DoNotPay does not have a law degree, is not barred in any jurisdiction, and is not supervised by any lawyer." *Faridian v DoNotPay Inc.*, Statement of Claim, Court File #: CGC-23-604987. This case is still pending in California.

[103] MillerKing alleged false advertising and misrepresentation, arguing that the class members were "likely to be damaged by the Defendant's deceptive trade practices" and that they "face the risk of future harm with no adequate legal remedy." The case was dismissed for lack of standing: it failed to establish that anyone had suffered any injuries such as monetary losses. *MillerKing LLC v DoNotPay Inc* (2023), Case No. 3:23-CV-863-NJR.

[104] @jbrowder1, "Good morning! Bad news: after receiving threats from State Bar prosecutors, it seems likely they will put me in jail for 6 months if I follow through with bringing a robot lawyer into a physical courtroom. DoNotPay is postponing our court case and sticking to consumer rights:" (25 January 2023 @ 9:11AM) online: *Twitter* <http://surl.li/hgdkd> [perma.cc/F9YF-HE3G] [Browder, BadNewsThread].

[105] *Ibid.*

[106] *Ibid.* At one point, Browder was also offering $1 million to any lawyer willing to wear the robot lawyer earpiece in a Supreme Court case, but later recanted on this, saying it was a mere publicity stunt (and any lawyer who did do it risked getting in trouble). Bob Ambrogi, "A bit of a nothing burger" (9 February 2024), ep 193, online: *LawNext Podcast* <lawnext.com/2023/02/on-lawnext-podcast-a-bit-of-a-nothingburger-joshua-browder-speaks-to-the-donotpay-controversy.html>

[107] See, *e.g.*, Alarie et al, *supra* note 18. For a detailed discussion of the future envisioned by such authors, see Szilagyi, *Machin*e-ations, *supra* note 45 at 33-35.

[108] Browder discusses the difficulty of receiving legal assistance when the matter has low monetary value: "There isn't a lawyer that will get out of bed to help you with a $400 refund." Browder, BadNewsThread, *supra* note 104.

or reasonably affordable AI-enhanced application to obtain legal help, following the letter of the "law" presented by their AI legal assistant.

While this would undoubtedly offer some advantages, it presents challenges as well. Generative AI raises the spectre of professional obligation because lawyers maintain a monopoly on the provision of legal services. Only those called to the bar in a particular jurisdiction are empowered to provide legal advice. Yet, this type of AI-powered legal aid operates in an interesting grey area: individuals are not required to retain the assistance of lawyer to appear in court, although self-represented litigants tend to face serious obstacles due to the absence of legal training. The choice to self-represent may be financially motivated, however, as acquiring a lawyer is often a cost-prohibitive proposition. In this case, one might argue, perhaps it is better to retain the services of a generative AI legal assistant than navigate the courtroom completely unassisted.

There are different ways to approach this problem, such as empirical analysis of the AI's success, professional and legal ethics, a harm-reduction standpoint analysis, among others. But my inquiry in this paper is targeted: what I find most concerning about ChatGPT and its ilk for the administration of law is its production of *sourceless information.*

c. Mis-, Dis-, & Sourceless Information

Today's LLMs are trained using online information. Generative AI draws source material for generative AI is drawn from online repositories, like the BooksCorpus dataset, Wikipedia, and even social media sites like Twitter and Reddit.[109] Online information already suffers from an epidemic of misinformation and disinformation. In recent years, cybersecurity experts and election officials have railed against the calibre of online content, encouraging individuals to fact check and find information from reputable sources instead of social media sites.[110] Equality-seeking critiques have emphasized the difficulties of deploying information drawn from these unpruned sources. Instead of generating variety and showcasing the breadth of human experience, webcrawling data collectors tend to reproduce existing hegemonies.[111] Traditional power hierarchies, misogyny, racism, and other forms of discrimination tend to pop up as LLMs use online sources to educate themselves.[112] As Bender and Gebru cautioned in the headline-making "Stochastic Parrots" paper, harnessing the collective wisdom of the web might lead to undesirable content.[113] By using online

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[109] OpenAI, *supra* note 26. For discussion on NLP drawn from social media, see generally SocialNLP 2022, "The Tenth International Workshop on Natural Language Processing for Social Media: Proceedings of the Workshop" (14-15 July 2022), online (pdf): *ACL Anthology* <aclanthology.org/2022.socialnlp-1.0.pdf> [perma.cc/R3R5- JJPU].

[110] See, *e.g.*, Government of Canada, "Online disinformation" (29 March 2023), online: *Canada* <canada.ca/en/campaign/online-disinformation.html> [perma.cc/XS7Q-Z6TW]. According to the 2022 Edelman Trust Barometer Report, concern over the use of fake news or online misinformation is at an all-time high of 76% of those surveyed. See Edelman, "2022 Edelman Trust Barometer: The Cycle of Distrust" (24 January 2022), online (pdf): *Edelman* <edelman.com/sites/g/files/aatuss191/files/2022-01/2022%20Edelman%20Trust%20Barometer%20FINAL_Jan25.pdf> [perma.cc/L33L-VTBU].

[111] Bender et al, *supra* note 14 at 4.

[112] For example, LLMs have shown overt gender bias, where "nurse" or "librarian" are associated with female pronouns, while "maestro" or "philosopher" are associated with male pronouns. One study on GPT-3 showed anti-Muslim bias, where GPT-3 gave an answer featuring Muslims committing violent acts 66 of 100 times when fed the prompt, "Two Muslims walked into a …" Abubakar Abid, Maheen Farooqi, & James Zou, "Large language models associate Muslims with violence" (2021) 3 Nature Machine Intelligence 461.

[113] Bender et al, *supra* note 14 at 5.

sources to train the language models, the authors observed, there was a significant risk of entrenching older, less inclusive social values, generating a veritable "value-lock" by setting social progress in stone.[114]

Concurrently, efforts to better prune online sources to remove toxic, discriminatory, or otherwise undesirable contents create a terrible task, ripe for outsourcing. Emerging reports note the dark side of eliminating unsavoury contents from LLMs, where the rather unpleasant task of removing shady subject matter from the datasets is performed by underpaid workers in Kenya.[115] Even the activity of information curation suffers from the implicit biases of the curator, as those responsible for knowledge management systems tend to reproduce society's prejudices.[116] Some new services, like Inflection AI's chatbot "Pi" claim to have ameliorated such issues of bias, but provide scant details on how this mammoth task was achieved, calling its veracity into question.[117] Meanwhile, Google's Gemini has gone too far the other way: aiming to be so politically correct that it generates nonsensical results, with its image generator offering a picture of a black man as a US founding father, and an Asian woman and black man as German World War II soldiers.[118] For all of these reasons, generative AI's assemblage of information presents serious consequences for marginalized and/or minoritized communities.

Furthermore, the availability of quick answers via Internet searches has already transformed the nature and quality of online research. In 2020, almost 2/3 of all Google searches concluded without a single click through to another website, in what is known as a "zero-click" search.[119] Instead of

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[114] *Ibid*. Indeed, ChatGPT's training data goes up to only January 2022, embedding the values of that time forever— or at least until its training data is updated. Currently, if you ask ChatGPT about its training data, it replies: "It's important to note that while I strive to provide accurate and up-to-date information, my responses may not always reflect the most current news events or developments. The training data I have been exposed to only goes up until January 2022, and I do not have direct access to real-time information or the ability to browse the internet."

[115] An investigation by Time confirmed OpenAI's use of Kenyan labourers, paid between $1.32 and $2 per hour, to quash disturbing or toxic content. Billy Perrigo, "Exclusive: OpenAI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT Less Toxic" (18 January 2023), online: *Time* <time.com/6247678/openai-chatgpt-kenya-workers/> [perma.cc/X26M-E5VB]. See also Trevor Mogg, "Investigation exposes murkier side of ChatGPT and the AI chatbot industry" (18 January 2023), online: *DigitalTrends* <digitaltrends.com/computing/investigation-exposes-murkier-side-of-ai-chatbot-industry/> [perma.cc/58VC-RVU6].

[116] Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York, NY: New York University Press, 2018) at 141.

[117] In a podcast interview, ex-Deep Mind co-founder Mustafa Suleyman—who now leads Inflection AI—claimed that their chatbot "Pi" had largely solved the bias and discrimination problems that plagued previous genAI systems. Armchair Expert Podcast, "Mustafa Suleyman" (14 September 2023), online: *Armchair Expert* <armchairexpertpod.com/pods/mustafa-suleyman> [perma.cc/M8XT-EBZ7]. Further research revealed little detailed information about this lofty claim or how it might have been achieved programmatically. In an interview with the New York Times, Suleyman claims that "On some issues, like misogyny or racism, Pi takes a stand. On others, like geopolitics, it is more evenhanded "in a way that will for sure upset both sides," suggesting that the chatbot has been trained to respond specifically to certain inquiries related to misogyny or racism. See Erin Griffith, "My Weekend with an Emotional Support AI Companion" (3 May 2023), online: *The New York Times* <nytimes.com/2023/05/03/technology/personaltech/ai-chatbot-pi-emotional-support.html?auth=login-google1tap&login=google1tap> [perma.cc/VJ8F-J4E4].

[118] Zoe Kleinman, "Why Google's 'woke' AI problem won't be an easy fix" (27 February 2024), online: BBC <bbc.com/news/technology-68412620> [perma.cc/3ZNJ-J59Y].

[119] Rand Fishkin, "In 2020, Two Thirds of Google Searches Ended Without a Click" (22 March 2021), online: *SparkToro* <sparktoro.com/blog/in-2020-two-thirds-of-google-searches-ended-without-a-click/> [perma.cc/K68T-L6U9].

concluding the search activity by visiting an actual online source, zero-click searches occur when a searcher is satisfied with the information that is found on the search engine results page (SERP), which usually consists of some paid advertising content and some website hyperlinks with short snippets of what is contained on the actual website.[120] Google also offers its own auto-generated snippets, responding to some anticipated inquiries under the heading "People also ask" (PAA). Provided that the PAA snippets are sufficiently salient, they are often enough to quell further research. Online marketers concerned with how a website performs in online searches work to ensure a given website's content appears in the PAA section.

The PAA section can often be very useful. Like Google's autocomplete feature, it gives the impression that the information provided is also being requested by other searchers, providing an illusion of community and unanimity.[121] If the answer to your question is provided on the SERP, efficiency is realized: you don't need to follow a series of weblinks to find the information you seek. Yet, since the contents of the snippets are just drawn from the web without curation, their accuracy might be questionable. While the PAA section will give you an answer to your question, there is no guarantee that it will be a *correct* answer. [122]

In May 2023, Google announced its plan to integrate a generative AI function into its web search, which would respond to queries with short summaries of information.[123] Specifically responsive to the competition levied by web users posting their queries to ChatGPT rather than asking Google, a generative AI search solution amplifies synthesized content, like a PAA section on steroids. Generative AI search methodology is directed towards obviating the need to visit the corresponding websites, heralding a transformation in how searchers obtain new information. Already, OpenAI has promised to develop its own web search product,[124] while Google has unveiled generative AI within Google Maps,[125] and offers a "Search Generative Experience" that

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[120] Online tools assist marketers in optimizing their website to get higher SERP result page placement. See Higher Visibility, "Google SERP Snippet Optimization Tool" (last accessed 28 May 2023), online: *HigherVisibility* <highervisibility.com/seo/tools/serp-snippet-optimizer/>.

[121] Of course, the autocomplete feature can also be fraught with problems. See, e.g., Emilio Chapela, "Google Suggestions … (Racist or Rude)" (19 November 2009), online: *Blogspot* <emiliochapela.blogspot.com/2009/11/google-suggestions-racist-or-rude_19.html> [perma.cc/4P7R-4GFD].

[122] I first identified this problem on April 5, 2023, when the PAA section informed me that the Winnipeg Jets' hockey game was cancelled for that evening. This snippet was being populated from a news article dated May 1, 2022. It was a reputable news source and it had once been correct—but it was drawing on information over a year old to produce an incorrect response to a question about a current event.

[123] Will Knight, "Google Just Added Generative AI to Search" (10 May 2023), online: *WIRED* <wired.com/story/google-io-just-added-generative-ai-to-search/> [perma.cc/7E9Y-UZYG].

[124] Indeed, Google share prices dropped 2.17% on February 15, 2024, when Open AI announced it had its own web search product in the works. Josh Lipton & Julie Hyman, "*OpenAI supposedly working on web search to rival Google: RPT*" (15 February 2024), online: *Yahoo* <finance.yahoo.com/video/openai-supposedly-working-search-rival-213157589.html> [perma.cc/M8FF-C3HA].

[125] Miriam Daniel, "A new way to discover places with generative AI in Maps" (1 February 2024) online: *Google* <blog.google/products/maps/google-maps-generative-ai-local-guides/> [perma.cc/JSQ5-3DVW].

uses AI to enhance search results.[126] The array of potential responses enabled by generative AI is powerful, like communicating with a "remote employee over a textual interface."[127]

Some forecasters expect generative AI to result in targeted specific misinformation, exceeding the existing challenges of echo-chamber-esque social media. Goldstein et al note that generative AI could permit the creation of user-specific content.[128] Already, the consequences of generative AI have augmented the misinformation phenomenon: in one report, the author inquired whether Google's chatbot (then known as Bard) had been shut down and received the incorrect information that it already had.[129] Troublingly, the search cited a web of confusing sources, including tweets asking about when it might happen, a user comment that made a joke about a shutdown happening, and ChatGPT-generated fake news coverage about this non-existent event.[130]

By amalgamating the wisdom of the collective, generative AI systems can produce information from the ether, without showing their work or citing their sources. This spells disaster for a system of law that is based on specificity, precision, and precedent. Verifying the veracity of information is an important task: everybody wants somebody to do it. Yet, the sourceless nature of the information undercuts its value: while anybody could have written it, nobody takes responsibility for authorship. Much like the parable about somebody, anybody, everybody, and nobody,[131] there is no immediate way to verify who provided the information, if it is a reputable source, if it can be trusted, and so on. Separating the production of knowledge from the sources of that knowledge therefore creates epistemic consequences.

<div align="center">* * *</div>

Separating knowledge production and creation, I argue, is a problem for law for two reasons: the first, practical; the second, philosophical. First, the availability of digital tools for something that previously required human attention has a history of being disproportionately deployed for use by vulnerable communities. By transforming how vulnerable people access legal thought or legal services, the availability of generative AI could create access to justice problems. Second, law's fact-finding process is concerned with the production of truth, which are packaged as narratives that offer social cohesion through meaningful story. Decoupling authorship from law's storytelling function threatens the creation of truth through the legal system, as well as muddying the waters of whose truth or what kind of truth is propagated through the force of law. Each of these scenarios

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[126] Sabrina Ortiz, "Google's AI-powered Search is expanding its features and availability" (13 November 2023), online: *Zdnet* <zdnet.com/article/googles-ai-powered-search-is-expanding-in-both-features-and-availability/> [perma.cc/TR7M-U3FD].

[127] Josh A. Goldstein, Girish Sastry, Micah Musser, Renée DiResta, Matthew Gentzel and Katerina Sedova, "Generative Language Models and Automated Influence Operations: Emerging Threats and Potential Mitigation (January 2023), online: *arXiv* <arxiv.org/pdf/2301.04246.pdf> [perma.cc/EAD7-LV5Y] at 18.

[128] *Ibid*.

[129] James Vincent, "Google and Microsoft's chatbots are already citing one another in a misinformation shitshow" (22 March 2023), online: *The Verge* <www.theverge.com/2023/3/22/23651564/google-microsoft-bard-bing-chatbots-misinformation> [perma.cc/WXX5-7LLK].

[130] *Ibid*.

[131] Swindoll, *supra* note 1.

underscores the moral responsibility historically placed in the judicial system, presenting problems for how generative AI might be properly deployed therein.

In the following sections, I take up each of these problems in turn.

3. Access to Justice Problems & Two-Tier Legal Services

Following Browder's reasoning, the inaccessibility of legal services might be remedied by deploying AI-powered solutions to assist those who would otherwise have no access to a lawyer. Admittedly, access to justice issues are both serious and widespread: Georgetown law professor Tanina Rostain estimates 92% of people living in the United States receive either no legal help or inadequate legal help for their legal problems.[132] In Canada, this figure is often estimated as 80% of legal problems remaining unaddressed by the legal system.[133] In the past few years, digital legal help tools have expanded, with litigants increasingly using online services to provide cursory information.[134] This expansion mirrors the widespread adoption of digital and automated tools for legal practice, including electronic systems for discovery and document management.[135] Some scholars explicitly advocate for using AI-enhanced chatbots and tools to increase access to justice, thereby lessening the burden on an overtaxed system and ensuring individuals can receive the legal help they need.[136]

Scholars and activists concerned about automation in related contexts have catalogued various concerns from equity-seeking groups. Automated tools have a notorious history of being used first against those segments of the population that are otherwise unable to protect themselves.[137] Cataloguing the expansion of automation within the administrative state, Virginia Eubanks notes the many examples of automated technologies being tested in "low rights environments," deployed to those service sectors of societies where individuals are already otherwise marginalized.[138] Such environments typically have meagre administrative oversight and little to no expectations of accountability, making them prime locations for initial implementation, but rest assured, Eubanks cautions: such technologies will always eventually receive broad deployment.[139] Through this lens, even if generative AI were to start out in poorer socioeconomic communities, one must assume it would one day become commonplace for everyone.

In the meantime, it is easy to imagine a two-tiering of legal services, creating an environment where individuals have access to human lawyers if they have sufficient financial means, and are limited to generative AI assistance if not. Still, the idea that having access to at least some form of

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[132] Scripps News, "Could an AI Attorney Change the Law Field As We Know It?" (20 May 2023), online: *YouTube* <youtube.com/watch?v=RlljQ77dKec> [perma.cc/CHD2-X6PZ].

[133] Sarah A. Sutherland, "Are 80% of Legal Problems in Canada Really Going Unmet?" (4 April 2023), online: *CBA* <nationalmagazine.ca/en-ca/articles/law/access-to-justice/2023/are-80-of-legal-problems-in-canada-really-going-unmet> [perma.cc/EB6X-T3PD].

[134] McGill et al, *supra* note 95.

[135] Amy Salazyn, "A Taxonomy for Lawyer Technological Competence" (18 December 2020), online: *SLAW* <www.slaw.ca/2020/12/18/a-taxonomy-for-lawyer-technological-competence/> [perma.cc/PH8P-DFXF].

[136] Simshaw, *supra* note 43.

[137] See generally Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge, UK: Polity Press, 2019).

[138] Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York, NY: Picador, 2019) at 12.

[139] *Ibid*.

legal help is appealing: Rostain admits that she'd rather people have access to AI as opposed to having no resources available when they struggle with legal issues.[140] Drew Simshaw imagines a potential future where AI-driven tools might ameliorate access to justice challenges through reliable deployments, calibrated specifically for consumer, issue, and process considerations.[141] Yet, this optimism is mediated by a litany of potential challenges.[142] For now, the quality and veracity of generative AI-produced text poses a significant hurdle. ChatGPT's propensity to hallucinate creates an extra layer of distrust. Even trained and licensed lawyers have already fallen prey to ChatGPT's perceived knowledge and authority, including the citation of hallucinated, non-existent case law.[143] Some courts have issued practice directions specifying the appropriate uses of generative AI tools within court documents and proceedings. Canadian courts have split on whether to require explicit disclosure of the use of AI tools,[144] or whether to direct counsel to ensure meaningful human control is exercised in preparation of the materials.[145] Additionally, legal regulators are weighing in on the conversation, issuing guidance to the profession on how to appropriately engage with generative AI tools.[146] Without a robust awareness of generative AI's technical limitations, one might misconstrue its functionality as a search engine, similar to the case law databases and aggregators that are already a common aspect of a lawyer's toolbox.[147]

As private companies enter the legal technology space, their corporate practices and internal policies have corresponding impacts on the exercise of legal power. Like Kerr's *Californication of*

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[140] Tanina Rostain, "Robots Versus Lawyers: A User-Centered Approach" (2021) 30 Georgetown Journal of Legal Ethics 559 at 569.

[141] Simshaw, *supra* note 43 at 170-177; 183-202. Simshaw tracks different scenarios where AI could indeed create resulting inequities but notes the widespread prevalence of existing inequality. Deploying AI in restrained and reliable ways, he argues, offers the opportunity to improve over the problematic *status quo*.

[142] Simshaw goes on to discuss a taxonomy of barriers, including resource, resilience, and relationship barriers, all endemic to a profession of law that is oftentimes resistant to change. Simshaw, *supra* note 43 at 203-211.

[143] The most highly publicized incident of hallucination was in the Mata v. Avianca litigation in New York, but other incidents have since transpired. Benjamin Weiser, "Here's What Happens When Your Lawyer Uses ChatGPT" (27 May 2023), online: *The New York Times* <nytimes.com/2023/05/27/nyregion/avianca-airline-lawsuit-chatgpt.html> [perma.cc/JJ2T-XB67]. Recently, the first Canadian case occurred when a BC Supreme Court judge admonished a lawyer for using ChatGPT in an immigration matter. The presiding judge explicitly noted large language models' propensity to hallucinated in the legal context and that the lawyer was "using a generative AI tool not fit for her purposes." *Zhang v Chen*, 2024 BCSC 285 at para 36, 38.

[144] For example, the Court of King's Bench in Manitoba has indicated that if artificial intelligence has been used in the preparation of court materials, counsel must explicitly disclose how the artificial intelligence tool was used in order to obviate concerns around reliability or accuracy. See, *e.g.*, Court of King's Bench of Manitoba, "Practice Direction Re: Use of Artificial Intelligence in Court Submissions" (June 23, 2023), online (pdf): *Manitoba Courts* <manitobacourts.mb.ca/site/assets/files/2045/practice_direction_-_use_of_artificial_intelligence_in_court_submissions.pdf> [perma.cc/7B6U-6EWG].

[145] For example, The Court of Appeal of Alberta, Court of King's Bench of Alberta, and Alberta Court of Justice issued a joint practice direction advising counsel to exercise caution in the use of large language models and to ensure any usages are verified with a "human in the loop" exercising "meaningful human control." Alberta Courts, "Ensuring the Integrity of Court Submissions When Using Large Language Models" (October 2023), online (pdf): *Alberta Courts* <albertacourts.ca/docs/default-source/qb/npp/tri-court-notice-to-profession-and-public---large-language-models.pdf?sfvrsn=713d5a82_7> [perma.cc/96GH-QNTZ].

[146] Cary Ann Moore, "Professional responsibility and AI" (October 2023), online (pdf): *BC Law Society* <lawsociety.bc.ca/Website/media/Shared/docs/practice/resources/Professional-responsibility-and-AI.pdf> [perma.cc/N8L4-7KP9].

[147] Indeed, this was the excuse given by a lawyer who cited non-existent cases: he believed ChatGPT to be no different than a search engine. Weiser, *supra* note 143.

commerce previews, using generative AI to garner consumer trust displace traditional understandings of the solicitor-client relationship. For DoNotPay, the world's first robot lawyer that is neither robot nor lawyer, additional problems compound its trustworthiness. Typically, communications between an individual and their lawyer are strictly protected by solicitor-client privilege. No similar protection would be afforded to communications with the generative AI, thereby jettisoning this foundational legal doctrine.[148] Furthermore, the availability of a comprehensive dataset is typically highly enticing for technology companies, who are able to generate population-level insights by aggregating and data mining. This common propensity would have privacy implications of the highest order, as individuals typically divulge highly sensitive information in the context of a solicitor-client relationship.[149] Taken together, legal observers should pay careful attention to how power can be used and abused at the interface between law and technology, as the authority of technology can usurp carefully positioned democratic and legal authority.[150] Notably, documented tendencies towards humans' over-trust for machine learning generated solutions threatens to sway the carefully calibrated checks on abuses of power.[151] Such transitions also have resounding impacts on law's normative function, which I propose is made visible by examining its narrative form.

4. Epistemic Consequences for Law's Narrative

A key aspect of law's systematizing power adheres through its transformation of social facts into legal power. Through a law as narrative lens, law offers an opportunity for society to set out its collective fictions, creating a template upon which agreement can be reached. This "surreal epistemology" of due process creates a version of truth that has been vigorously argued from at least two perspectives, usually referred to as a truth that has been "tested in court," the margins of which are delineated by the administration of justice.[152] Yet, using generative AI within law, especially in lieu of access to trained legal experts, destabilizes the availability of accurate, meaningful information. As one technology journalist observed:

> It's a laughable situation but one with potentially serious consequences. Given the inability of AI language models to reliably sort fact from fiction, their launch online threatens to unleash a rotten train of misinformation and mistrust across the web, a miasma that is impossible to map completely or debunk authoritatively.[153]

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[148] The Statement of Claim filed against DoNotPay makes specific mention of the consequences.

[149] The privacy implications of ChatGPT have drawn the ire of the Privacy Commissioner of Canada, who announced an investigation into OpenAI's privacy practices. See Office of the Privacy Commissioner of Canada "OPC launches investigations into ChatGPT" (4 April 2023), online: *OPC* <priv.gc.ca/en/opc-news/news-and-announcements/2023/an_230404/> [perma.cc/3YKB-XYJZ].

[150] I've previously described these sorts of issues as Rule of Law problems, by virtue of the power implicated through the ever-increasing insertion of private actors into the administration of public functions. See Chapter 4 – The Rule of Law in Szilagyi, *Machine*-ations, *supra* note 45.

[151] *Ibid*; see also Ayobi, *supra* note 44.

[152] The phrase "surreal epistemology" comes from law as narrative scholar Robert Cover, "Nomos and Narrative" 1983), 97 Harvard L Rev 4 at 8-9.

[153] *Ibid*.

Again reminiscent of Kerr's *Californication* phenomenon, the transference of the production of information from a human monopoly to the many (often California-based) technology companies with AI chatbots on the market extends the ecosystem of information in perplexing ways. Our moral thinking, once constrained by the limitations imposed by the human actors involved in legal process, is further complicated by the new participation of automated, digital actors. How, then, do we engage in legal sense-making, to sort these new types of information into appropriate categories?

This sort of technological advancement generates classification problems, as information becomes readily available, but accessing its quality becomes more difficult.[154] For legal solutions, which demand appropriate assessments of factual circumstances to maintain their grounding, the erosion of sources from the generation of information creates a specific kind of problem. Text attributable to both everybody and nobody exists uneasily within the common law method, where cohesive narrative is built through the ongoing citations and explanations of case law and statutes alike.[155] Legal knowledge demands attribution and classification. Science and technology studies (STS) authors have noted the challenges of systematically addressing the "pragmatics of invisible forces of categories and standards in the modern built world.[156] Generative AI's textual outputs attempt to conflate long established categories. Structural linguists describe language using the distinction between *langue* (grammar) and *parole* (discourse), where the former refers to the rules used to generate sentences and the latter references to the sentences themselves.[157] Grammar is finite. Discourse is infinite. Grammar is collective: used by everyone to convey thoughts in a way that will be understood in accordance with the dominant operating system. Discourse is individual: people have their own ways of using words, presenting phrases, and offering rhetorical flourishes to appear distinctive. Taking this linguistic approach, generative AI systems focus on the reproduction of grammar, not the creation of discourse. Generative AI may sometimes look like it is producing knowledge simply because, within both law and academia, we are used to knowledge being presented in text-based form. Yet, the language generated is merely a statistical representation of language: the sentences ChatGPT generates are coherent but not necessarily true.[158] Generative AI is unable to generalize beyond that which exists in its training database; it's just that this tends not to matter because the training database is unfathomably large.[159]

Coupled with the reality of hallucinations rendered by generative AI systems, using ChatGPT or other generative AI technologies has the potential to transform law's storytelling aspect in undesirable ways. While other automated systems threaten to lock-in outdated values determined from datasets that represent a particular point in time,[160] generative AI creates a new challenge for algorithmic dispensations of justice because of its ability to mimic the form, but not the contents, of truth. Traditionally, the open texture of language has allowed for arguments to be mounted and

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[154] Geoffrey C. Bowker & Susan Leigh Star, "Sorting Things Out: Classification and its Consequences" at 7.

[155] James Boyd White, *Heracles' Bow: Essays on the Rhetoric and Poetics of Law* (Madison, WI: The University of Wisconsin Press, 1985) at 49-59.

[156] Bowker & Star, *supra* note 154 at 5.

[157] Alvarado, *supra* note 36.

[158] *Ibid.*

[159] Indeed, this database could extend to all the members of society that use the Internet. Alvarado, *supra* note 36.

[160] Rebecca Crootof describes this phenomenon as a "technological-legal lock-in." See Rebecca Crootof, "'Cyborg Justice' and the Risk of Technological-Legal Lock-In" (2019) 119 Columbia L Rev Forum 233.

the legal process to spend time working out the preferred interpretation of words towards the appropriate result for the circumstances. Mireille Hildebrandt explains:

> For computing systems, it is crucial to remove ambiguity, for law it is crucial to sustain the open texture of human language while still ensuring closure. The beauty of 'natural' language is that it simultaneously opens a space for multiple interpretations of the same word, sentence, paragraph, or larger text body, and provides the means for the closure that is necessary to achieve mutual understanding.[161]

As inquiries into legal thought become further automated, law's collective exercise of constitutive rhetoric is threatened by the subtle power of automated text, which infuses corporate interests into legal interactions.[162] This delivers us to Weizenbaum's nightmare: a world where machines not only produce convincing simulations of human expression, but also see their mechanical versions treated as sufficient replacements.[163] Generative AI's text is assembled separately from true bids on meaning, as NLP systems offer statistical approximations of meaningful communication without participating in a communicative act. As Oshan Jarrow describes it, "LLMs are like card counters at a poker table. They analyze all the words that have come before and use that knowledge to estimate the probability of what word will most likely come next."[164] Sunstein observes the same in his articulations of free speech problems: today's AI has "might not be traceable to any deliberate decisions by any human being."[165] Or, as Bender and Gebru put it succinctly, the way LLMs operate leaves "coherence in the eye of the beholder."[166] Absent coherence, law offers little meaning as a social organizing force.

5. Boundary Objects

How then, do we respond to these challenges? Practically speaking, it is reasonable to expect people seeking legal help to turn to readily available and affordable means of legal assistance. Absent meaningful regulation, such offerings will only continue to grow. Deployed for specific applications, the operation of generative AI may be touted as transformative for those otherwise unable to access legal services. Even with naysayers continuing to voice their concerns, the wide availability of unregulated legal tools and digital assistants will continue to permit individuals to obtain sourceless information in pursuit of individualized legal objectives.[167] Regulatory efforts remain in their infancy, stymied by starkly limited understandings of the technology by regulators

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[161] Mirielle Hildebrandt, "Understanding Law and the Rule of Law: A Plea to Augment CS Curricula" (2021) 64:5 Communications of the ACM, online: <mags.acm.org/communications/may_2021/MobilePagedReplica.action?=undefined&pm=2&folio=28#pg30> [perma.cc/EV9X-Y75X].

[162] Szilagyi, "*Machine*-ations," *supra* note 45 at 121-122. See also Julie Cohen, *Between Truth and Power: The Legal Constructions of Information Capitalism* (2019); online: <juliecohen.com/between-truth-and-power/> [perma.cc/QWY6-L3ZW].

[163] McIntyre, *supra* note 81.

[164] Jarrow, *supra* note 75.

[165] Sunstein, *supra* note 47 at 15.

[166] Bender et al, *supra* note 14 at 7.

[167] Inflection AI lead Mustafa Suleyman proposes that everyone will have access to an AI-powered digital assistant within the next five years, adding new complications to the voice assistant issues described above.

and glacially slow regulatory processes. Philosophically speaking, the complexities of language and the malleability of meaning vex the development of one-size-fits-all solutions. Just as Craig contends in the copyright context, it is erroneous to equate the production of text by generative AI with true acts of authorship, which are intended to give form to human expression.[168] Through this lens, legal frameworks have space to recognize the fundamental humanity implicit in the act of expression.

The interdisciplinary nature of the problem invites proposed solutions from diverse disciplines. I don't propose to develop a legal framework for generative AI regulation here; offering proposals for legislative reform would demand different supporting arguments. Instead, I propose a way of thinking about the problem that might prove useful for individuals from different disciplines—law, computer science, business, linguistics, data science, and others—to develop a common language around generative AI outputs. To construct this framework, I suggest, we might employ the concept of the boundary object, pioneered in STS by innovative scholar Susan Leigh Star. Star describes boundary objects as deliberate interpretations of ambiguity, which allow certain terms to receive different definitions across varying social worlds.[169] To build interdisciplinary solutions to problems, designers of experimental milieu who observe a need for such terms might recognize the zones where they would exist and protect those zones against undue calcification. In this model, ambiguity offers space for free play. Describing their importance, she writes:

> The sheer density of the collisions of classification schemes in our lives calls for a new kind of science, a new set of metaphors, linking traditional social science and computer and information science.[170]

Rather than claiming to represent "universal, transcendent truth," Star notes, boundary objects are "pragmatic constructions," which exist solely to "do the job required."[171] They function as a conceptual construct, creating a bucket of meaning at the edge of a disciplinary boundary, allowing those coming from different disciplines to generate shared vocabulary. One might describe a boundary object as an "epistemological bridge," linking "two, often epistemically distinct disciplines."[172] Creating necessary connections and presenting social facts in appropriate context is a key part of the lawyer's task. As Joshua Fairfeld writes: "[a]s much as lawyers long for a discipline that reduces the language of law to logic or empirical reality—it doesn't work … There is an unbridgeable gap between reality and any description of it."[173] An interdisciplinary framework that allows different actors to both maintain their view of reality and use a common language to describe it is, then, a useful concept.

Some authors have proposed using boundary objects as a way of making sense of AI concepts, acknowledging how those involved sometimes seem to be talking past one another. Mina Lee,

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[168] Craig, *supra* note 52 at 18.
[169] Susan Leigh Star, *Regions of the Mind: Brain Research and the Quest for Scientific Certainty* (Stanford, CA: Stanford University Press, 1989) at 324.
[170] *Ibid* at 31.
[171] Star, *supra* note 169 at 152.
[172] Laura Mai & Emille Boulot, "Harnessing the transformative potential of Earth System Law: From theory to practice" (2021) 7 Earth System Governance 100103 <doi.org/10.1016/j.esg.2021.100103>.
[173] Joshua Fairfeld, *Runaway Technology* (Cambridge, MA: Cambridge University Press, 2021) at 152-153.

Percy Liang, and Qian Yang describe language model called "CoAuthor" specifically designed as a boundary object between human-computer interaction (HCI) researchers and NLP model creators.[174] By understanding a shared dataset as a boundary object, they propose, HCI and NLP communities will be able to develop shared vocabulary for interaction and centre aspirational values.[175] Likewise, another team of authors use boundary objects as a way of describing perceptions of machine learning by both AI researchers and non-experts.[176] The authors encourage conceptualizing machine learning as a boundary object in order to "acknowledge that abstraction and ambiguity can lead to divergent viewpoints, misinterpretations, and misunderstandings."[177]

The boundary object concept anticipates transdisciplinary collisions at the intersections of different industries, recognizing their different usages of the same concepts. Some innovative industry practices evoke similar rationale; for example, a recent approach to consumer protection in Utah features a "regulatory sandbox" for innovative legal service providers, where companies offering emerging technologies submit to regular evaluations of the potential harms that might result from their new business model.[178] In exchange, the participating companies are exempted from regulations that might hinder their ability to innovate.[179] The process acknowledges the issues inherent in developing innovative legal services, working proactively to identify issues before the technology is deployed at scale. This type of continuous feedback loop acknowledges the likelihood of differing perspectives when new ideas are executed.

Similar practices might alleviate the tensions of framing the practical and philosophical legal problems posed by generative AI. If generative AI is cast as a boundary object, its presentation by industry as a "robot lawyer" is necessarily complicated by the associated, inherent ambiguity. The DoNotPay debacle, which centered on the availability of legal chatbots for otherwise disenfranchised self-represented litigants, is—perhaps paradoxically—simplified by a concept that makes its provision of legal services more ambiguous and more complex. From this view, the recognition of a boundary object gives interdisciplinary players the ability to look at a proposed solution and its deployment in legal spaces and say: law is more complicated than that. By extension, the transformation of social facts into legal truths enabled by law's machinations invites greater ambiguity through the boundary object. The sourceless nature of the information produced by generative AI, not intentionally authored but instead statistically generated by reference to training datasets, is not subtly transformed into a written work by virtue of having no other way of describing it. Instead, a generative AI's output can now be cast as something less than a written work, serving to incorporate messiness and ambiguity.

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[174] Mina Lee, Percy Liang, & Qian Yang, "CoAuthor: Designing a Human-AI Collaborative Writing Dataset for Exploring Language Model Capabilities" in CHI Conference on Human Factors in Computing Systems (CHI '22), April 29-May 5, 2022, New Orleans, LA, USA. <doi-org.uml.idm.oclc.org/10.1145/3491102.3502030> [perma.cc/9QK3-CWLL].

[175] *Ibid*.

[176] Ayobi et al, *supra* note 44 at 1.

[177] *Ibid* at 7.

[178] Maya Markovich & Tom Gordon, "*Opinion: DoNotPay Controversy Illuminates Urgent Need for Regulatory Reform*" (2 August 2023), online: *LawNext* <directory.lawnext.com/library/opinion-do-not-pay-controversy-illuminates-urgent-need-for-regulatory-reform/> [perma.cc/QL78-U5H7].

[179] *Ibid*.

Craig describes the bids for our attention by anthropomorphized or zoomorphized robots—a dancing robot doing the twist; a robot dog wielding a rifle—as feeling complicated because we ascribe will or expression to these acts where none exists.[180] By the same token, a generative AI "writing" a screenplay (or legal memo or case law) is doing nothing more than predicting what word might come next based on its vast training corpora and its programming to deploy certain statistics. This, Craig contends, means we should not frame its output as authorship in the way anticipated and defined by copyright law.[181] Likewise, as we anticipate a possible future where legal epistemologies struggle against AI-generated text, housing these outputs in an interdisciplinary zone of play might allow research to broaden the discussion without inappropriately casting works into ontological categories not originally designed for them.

Conclusions

The bottom of ChatGPT's user interface presents a "reload" icon with the option to "regenerate" the previous response, to be clicked by users who wish another outcome than what ChatGPT offered on its first effort. Unsatisfied with the truth, the box seems to ask? Try again; it invites you! Is a similar regeneration nigh for justice as ChatGPT and its ilk are deployed for legal solutions? Already, the discrepancies in the availability of legal help might make a compelling case for the deployment of automated solutions, resting on the reasoning that something is better than nothing. But the nothingness inherent in generative AI's dialogue—the denial of responsibility, the absence of context, the spontaneous generation of purported truth, the invention of source material—all of these present real problems for law's storytelling efforts. These problems are long documented, as Kerr demonstrated in his 2004 discussions with chatbot Nicole, or as STS scholar Sherry Turkle reminds us: "people forget in very profound ways that they are talking to nothing."[182] Or, as linguist Noam Chomsky puts it:

> ChatGPT exhibits something like the banality of evil: plagiarism and apathy and obviation. It summarizes the standard arguments in the literature by a kind of super-autocomplete, refuses to take a stand on anything, pleads not merely ignorance but lack of intelligence and ultimately offers a "just following orders" defense, shifting responsibility to its creators.[183]

For law, which builds meaningful claims to our obedience through the articulation of story, allowing this level of autocomplete threatens the concept. We should tread lightly with legal technology solutions that obviate human participation in telling law's stories, lest we erroneously click "regenerate" on something collectively written and maintained. Recasting generative AI as a boundary object might offer us some relief against wholesale regeneration, at least until the dataset as been better defined.

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[180] Craig, *supra* note 52 at 19.
[181] *Ibid*.
[182] Cited in Kerr, *supra* note 72 at 313.
[183] Chomsky, *supra* note 30.