

By: Vanessa D'Ambrosio

For: Professor J. Bailey

Date: August 23rd, 2023

## **RE: Literature Review Memo: Artificial Intelligence in Law**

### **INTRODUCTION**

A request was made by Professor J. Bailey to conduct a literature review on the role of artificial intelligence (AI) in the legal profession. This literature review aims to explore the complex intricacies between AI and the legal landscape, as well as the ethical issues raised.

### **SUMMARY**

#### **PART 1: Introduction and Overview of AI and Large Language Models**

- ChatGPT's development is a significant AI milestone, demonstrating the potential of generative AI to create original content for the public's use.<sup>1</sup>
- Large Language Models (LLMs), a form of AI, stand out for their ability to analyze huge amounts of data to predict conclusions and generate new information. LLMs process diverse datasets like articles, books, and internet resources to provide human-like responses.<sup>2</sup>

#### ***AI and the Legal Profession***

- Chris Laut identifies 5 key areas of AI integration into the legal profession: contract management, e-Discovery, legal research, compliance review, and administrative analytics.<sup>3</sup>

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<sup>1</sup> Andrew Perlman, *The Implications of ChatGPT for Legal Services and Society*, (December 2022), Suffolk University Law School, online: SSRN: <https://ssrn.com/abstract=4294197>

<sup>2</sup> Laura Viselli, "Artificial Intelligence and Access to Justice: A New Frontier for Law Librarians" (2021) 46:2 Can L Libr Rev 17.

<sup>3</sup> *Ibid.*

- With the advancement and popularity of new generative AI technologies, AI and Legal tech investment grew significantly from \$233 million in 2017 to over \$1 billion in 2018.<sup>4</sup>
- ChatGPT's release led to new AI usage in law, enabling generation of legal documents and promising enhanced service efficiency. Over 50 companies offer legal-focused AI programs for research, analysis, contract review, and document creation.<sup>5</sup>
- In contract review, one study showed that AI outperformed human lawyers in speed and accuracy. AI achieved 94% accuracy in risk spotting within 26 seconds, compared to 85% accuracy in 92 minutes by human lawyers.<sup>6</sup>
- ROSS Intelligence, an AI attorney, excels at generating search results from natural language queries. ROSS Intelligence's user-friendly approach contrasts with keyword-based systems like LexisNexis and Westlaw. New AI programs like ROSS Intelligence function more similarly to human lawyers, aiding legal tasks.<sup>7</sup>

### ***AI in Law School***

- Law schools are facing challenges related to the use of AI software in classrooms and exams. In the foreseeable future, the likelihood of integration of AI tools into law school curriculum is eminent.
- A study at the University of Minnesota tested ChatGPT's ability on law school exams. ChatGPT's performance was comparable to a C+ student's level.<sup>8</sup> Despite its mediocrity,

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<sup>4</sup> *Ibid.*

<sup>5</sup> Nicole Yamane, "Artificial Intelligence in the Legal Field and the Indispensable Human Element Legal Ethics Demands" (2020) 33:887 *The Georgetown Journal of Legal Ethics*.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*

<sup>8</sup> Jonathan Choi et al, *ChatGPT Goes to Law School*, (January 2023), online: *Journal of Legal Education* <<https://ssrn.com/abstract=4335905>>.

ChatGPT could still pass essential law exams. Struggling students relying on AI might not accurately demonstrate readiness to practice law.<sup>9</sup>

### ***AI in Judicial Decision-Making and Administration***

- AI's integration into legal practice is widespread and gaining traction in judicial decision-making and administration.
- Digitization of court records forms a strong database for AI-assisted legal data analysis. AI can use digitized court files and verdicts to improve artificial neural networks simulating human intelligence and can be used to generate template decisions customized by judges, potentially surpassing human analytical capabilities.<sup>10</sup>
- The Civil Resolution Tribunal (CRT) in Canada resolves disputes online, offering tailored resources and services using AI technology. CRT resolved 16,609 disputes by August 2020, with few cases requiring in-person adjudication.<sup>11</sup>
- China's Supreme People's Court (SPC) is also implementing a "smart court" system using AI and big data.<sup>12</sup>

### ***AI and Access to Justice***

- Access to justice means equitable legal system access for all individuals, a fundamental principle of the rule of law, according to the United Nations.<sup>13</sup>
- American Legal Services Corporation's 2017 study found inadequate legal help for 86% of reported civil legal problems by low-income Americans. Scarce legal resources affect

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<sup>9</sup> *Ibid.*

<sup>10</sup> Tania Sourdin, *Judges, Technology and Artificial Intelligence*, (University of Newcastle, Australia: Edward Elgar Publishing, 2021).

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*

<sup>13</sup> *Supra* note 2.

nearly 90% below the poverty line and many middle-income individuals, leading to unaddressed legal issues.<sup>14</sup>

- Legal apps can enhance legal service efficiency and reduce reliance on lawyers for basic legal needs. Apps provide legal information, advice, document creation, evidence compilation, and more. Adoption of legal apps needs careful consideration to avoid a digital divide and ensure equal access to justice.<sup>15</sup>
- AI technology holds potential to empower self-help resources and extend legal services to clients who would otherwise not be able to afford them.<sup>16</sup>

## **PART 2: Ethical Concerns with AI and the Law**

- AI tech can benefit by addressing access to justice and improving legal efficiency, however, ethical challenges tied to AI must be acknowledged and resolved.

### ***Duty of Competence and Supervision***

- The Dean of Suffolk University Law School tested ChatGPT's efficacy for legal tasks by inserting prompts into the software and evaluating its responses. Although sophisticated, ChatGPT's responses were incomplete and riddled with issues.<sup>17</sup>
- Relying solely on AI software to conduct legal research could mislead users and breach lawyers' obligation for competent representation. Lawyers' ethical duties extend to overseeing AI use just as they do for supervising subordinates and some tasks remain outside the scope of delegation to both paralegals and AI.<sup>18</sup>

### ***Judicial Decision-Making and Biases***

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<sup>14</sup> *Supra* note 10.

<sup>15</sup> Jena McGill et al, "Mobile and Web-based Legal Apps: Opportunities, Risks and Information Gaps", (2017) 15:2 Canadian Journal of Law and Technology, online: <<https://ssrn.com/abstract=2960207>>.

<sup>16</sup> *Ibid.*

<sup>17</sup> *Supra* note 1.

<sup>18</sup> *Supra* note 1.

- AI tribunals can assist in alleviating legal system backlogs, but limitations and ethical concerns arise as there is a societal expectation for human judges to make judicial decisions, even in an AI-driven era.<sup>19</sup>
- Automation biases could lead to judge over-reliance on AI-generated insights or anchoring biases.<sup>20</sup>
- Predictive AI assessing reoffending risk can be biased against marginalized groups, and can exhibit gender biases due to data sources and developer input.<sup>21</sup>

### *Privacy Concerns*

- Italy temporarily banned ChatGPT-4 due to privacy breaches, reflecting common AI risks.<sup>22</sup>
- Cyber threats like jailbreaking and prompt injection can exploit AI vulnerabilities. Legal apps lack privacy research; and legal, personal information are vulnerable to data misuse and security risk by unknown third parties.<sup>23</sup>

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<sup>19</sup> Luke Taylor, *Colombian judge says he used ChatGPT in ruling*, (February 2023), online: The Guardian <<https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling>>.

<sup>20</sup> *Supra* note 10.

<sup>21</sup> Lucas Mearian, *What are LLMs, and how are they used in AI?* (May 2023), online: ComputerWorld <<https://www.computerworld.com/article/3697649/what-are-large-language-models-and-how-are-they-used-in-generative-ai.html#:~:text=An%20LLM%20is%20a%20machine,or%20semi%2Dsupervised%20learning%20methodology>>.

<sup>22</sup> *Ibid.*

<sup>23</sup> Matt Burgess, *The Hacking of ChatGPT is Just Getting Started*, (April 2023), online: Wired <<https://www.wired.com/story/chatgpt-jailbreak-generative-ai-hacking/>>.

## Literature Review: *AI and the Law*

By: Vanessa D' Ambrosio

### **Abstract**

This literature review will delve into the impact of artificial intelligence (AI), particularly Large Language Models (LLM) on the law. This review highlights AI's transformative role in the legal profession, from contract review to drafting complex legal documents, to enhance efficiency in the field. Access to justice is another significant area in which AI is gaining traction, with AI legal apps offering potential solutions for bridging the justice gap. In addition, ethical and privacy considerations loom large, emphasizing that AI should augment and supplement human-lawyer expertise and not replace. Moreover, AI's adaptation in legal education poses both challenges and opportunities, requiring ongoing curriculum adjustments.

As the legal community navigates an AI-infused legal landscape, efforts will be required to both harness AI's potential while upholding ethical standards and foundational legal principles.

### **PART 1: Introduction and Overview of AI and Large Language Models**

The development and release of ChatGPT represents an advancement in the artificial intelligence (AI) domain. It brought to light the potential of generative AI for the wider public, showcasing its capacity to assimilate large volumes of information to craft content in response to user prompts.<sup>24</sup> Through ChatGPT, users gain the ability to generate a myriad of outputs, from sophisticated emails, reports, business plans, poems, jokes, to intricate computer code, positioning it as a tool that caters to both personal and professional needs. In the wake of

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<sup>24</sup> *Supra* note 1.

OpenAI's emergence and widespread adoption, it becomes imperative to recognize the present and impending impact of AI technology on the legal landscape.<sup>25</sup>

AI, in the context of the legal landscape, can be defined as a system that is able to follow a decision tree to form a conclusion, review datasets to derive patterns, and to generate new information.<sup>26</sup> Furthermore, a large language model (LLM) is an AI language processor that can be distinguished from other branches of AI for its ability to analyze huge quantities of data and derive patterns from them, thus predicting conclusions and generating responses.<sup>27</sup> They can process unlabeled or uncategorized text and predict the next word based on the data they've absorbed.<sup>28</sup>

LLMs function by processing massive and diverse datasets, which include articles, books, Wikipedia entries, and internet resources to generate human-like responses to natural language queries.<sup>29</sup> LLMs function with the help of AI accelerators, which allow the model to analyze huge amounts of information.<sup>30</sup> An AI accelerator is a class of specialized hardware, or computer system, that is designed to accelerate artificial intelligence and machine learning applications by creating artificial neural networks based on billions of parameters.<sup>31</sup>

### ***AI and the Legal Profession***

In 2015, Chief Justice McLachlin encouraged the legal profession to embrace the concept of change, acknowledging that certain tasks traditionally handled by lawyers can now be more

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<sup>25</sup> *Supra* note 1.

<sup>26</sup> *Supra* note 2.

<sup>27</sup> Peter Homoki & Zsolt Zödi, *Large Language Models and Their Possible Uses in Law*, (April 2023), online: ResearchGate <[https://www.researchgate.net/publication/369978506\\_Large\\_Language\\_Models\\_and\\_Their\\_Possible\\_Uses\\_in\\_Law](https://www.researchgate.net/publication/369978506_Large_Language_Models_and_Their_Possible_Uses_in_Law)>.

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

<sup>30</sup> *Supra* note 21.

<sup>31</sup> *Supra* note 21.

efficiently accomplished through technological means.<sup>32</sup> Legal researcher Chris Laut identifies five key categories that succinctly encapsulate how AI is being integrated into the legal landscape: contract and document management review, extraction and automation, e-Discovery, legal research and litigation analytics, compliance and regulatory review/monitoring, and administrative analytics and automation.<sup>33</sup> Use of AI as a legal tool is growing, with the total investments into legal technology soaring over \$1 billion in 2018, a significant leap from the \$233 million invested in 2017.<sup>34</sup>

Furthermore, within just a few months of ChatGPT's release, law firms and legal technology companies were already announcing new ways of utilizing generative AI tools and LLMs within legal practice.<sup>35</sup> By inputting prompts into legal AI software, lawyers around the world may soon be able to generate drafts of complex legal documents and incorporate their firm's substantive knowledge by a click of a button.<sup>36</sup> Currently, it is difficult to predict how these forthcoming tools will impact lawyers' employment prospects. However, it seems likely that firms will need to integrate AI tools to retain competitiveness within the legal market.<sup>37</sup> While clients will continue to require expertise, judgment, and advice from human lawyers, the need to employ AI tools for efficient service delivery is on the rise. Soon, AI tools may become so valuable and widely used that lawyers will need to utilize them to satisfy their duty of competence, since clients are unlikely to want stand-alone lawyers that disregard AI entirely.<sup>38</sup>

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<sup>32</sup> *Supra* note 15.

<sup>33</sup> *Supra* note 2.

<sup>34</sup> *Supra* note 2.

<sup>35</sup> *Supra* note 1.

<sup>36</sup> Ed Walters & Morgan Wright, "Putting Artificial Intelligence to Work in Law Firms" (2018) 23:1 AALL Spectrum 16

<sup>37</sup> Chris Morris, *A major international law firm is using an A.I. chatbot to help lawyers' draft contracts: 'It's saving time at all levels*, (February 2023), online: Fortune <<https://fortune.com/2023/02/15/a-i-chatbot-law-firm-contracts-allen-and-overly/>>.

<sup>38</sup> *Legal AI Tools: Essential for attorneys*, (January 2023), online: Thomson Reuters <<https://legal.thomsonreuters.com/blog/legal-ai-tools-essential-for-attorneys/>>.

For example, the United Kingdom's second-largest law firm, Allen & Overy LLP, has begun to utilize an artificial chatbot, named Harvey.<sup>39</sup> Harvey produces drafts of mergers and acquisition agreements as well as memos sent to clients.<sup>40</sup> Practitioners at Allen & Overy explain that any document or contract created by Harvey is fact-checked by human lawyers, and that Harvey's purpose is to create a first draft version of the required document that a lawyer can then use as a template to improve upon.<sup>41</sup>

Moreover, as of February 2018, the National Law Journal had identified over 50 companies offering AI programs tailored for the legal industry.<sup>42</sup> These programs play a pivotal role in legal research, analysis, contract review, and document creation. For example, prominent platforms such as LexisNexis and Westlaw, provide services that utilize AI technology to streamline legal and case law research. The transformative impact of AI became even more pronounced in 2018 with the introduction of ROSS Intelligence, heralded as the "world's first artificially intelligent attorney," available to users for a monthly fee of \$69 USD. Notably, ROSS Intelligence has garnered traction amongst various firms, Dentons being one among them.<sup>43</sup> Distinguishing itself from its predecessors, such as LexisNexis and Westlaw, ROSS Intelligence excels in generating search outcomes from natural language queries.<sup>44</sup> Natural language queries involve searching for information using terms or phrases spoken conversationally or entered into a search bar in a style similar to everyday language.<sup>45</sup> This function could greatly benefit users who are unable to articulate their questions using legal jargon, making this software more user friendly. Furthermore, the conventional functions of LexisNexis and Westlaw are limited to

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<sup>39</sup> *Ibid.*

<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*

<sup>42</sup> *Supra* note 5.

<sup>43</sup> *Supra* note 5.

<sup>44</sup> *Supra* note 5.

<sup>45</sup> *Supra* note 5.

generating search outcomes based on keywords or Boolean searches whereas ROSS Intelligence, can conduct searches based on simple phrases or questions, comparable to how one would conduct a Google search.<sup>46</sup>

In the contract review context, AI programs have already demonstrated the capacity to work faster and with a higher rate of accuracy than human lawyers.<sup>47</sup> In a contract review contest between experienced corporate lawyers and AI, the AI program “achieved a 94% accuracy level of spotting risks in the contracts” in 26 seconds while the lawyers on average “spent 92 minutes to achieve an 85% accuracy level.”<sup>48</sup> In summary, compared to older research platforms, newer programs with more advanced functions of AI, such as ROSS Intelligence, can perform functions more similarly to that of a human lawyer.

### ***AI in Law School***

Law schools will face multiple challenges in relation to AI software use in the classroom. Unfortunately, overcoming these challenges could prove complex as AI tools continue to grow in sophistication. This makes the likelihood of law schools integrating AI tools into their curriculum possible, much like they've taught students how to utilize electronic research tools.<sup>49</sup>

In terms of the immediate concern of law students using AI software to cheat on exams or papers, there is an interesting study conducted at the University of Minnesota that set out to gauge the capability of the AI model, ChatGPT on law school exams. The researchers inputted law school exam questions into ChatGPT along with a standard prompt, and then later integrated the ChatGPT written exam with the other student submitted exams and blindly graded them. The researchers tested ChatGPT in the courses; Constitutional Law, Federalism, Separation of

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<sup>46</sup> *Supra* note 5.

<sup>47</sup> *Supra* note 5.

<sup>48</sup> *Supra* note 5.

<sup>49</sup> *Supra* note 8.

Powers, Employee Benefits, Taxation, and Torts.<sup>50</sup> After grading ChatGPT's responses to 95 multiple choice and 12 essay questions it was determined that the AI software performed at the level of a C+ student. Although ChatGPT's scores placed them near the bottom of each of the classes, the achieved grade was high enough to pass all the courses. The biggest difference between the ChatGPT written exams and the student written exams was that ChatGPT struggled to issue spot and often superficially applied rules to facts. On the Constitutional Law and Torts Law exams, the AI model had only spotted 1 of the 5 present issues and consistently struggled to focus on the important aspects of the question. Although the AI software was producing well-written response, the answers were off-topic and inconsistent.<sup>51</sup>

Although it is evident that ChatGPT would currently make a mediocre law student, its performance was sufficient to pass numerous law school exams in core classes.<sup>52</sup> Even though ChatGPT's performance was below average, this is relative to some of the best law students in the country who will all most likely pass the bar and become practicing lawyers. This conclusion reinforces the current problem; for struggling law students who rely on ChatGPT to earn their law degree, their true abilities, knowledge, and readiness to practice law might not be adequately reflected in their GPA because of AI use.<sup>53</sup>

### ***AI in Judicial Decision-Making and Administration***

AI's integration into legal practice is not only becoming commonplace but is also gaining momentum in the realm of judicial decision-making and administration. The digitization of court records has yielded a large database capable of employing machine learning software to facilitate

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<sup>50</sup> *Supra* note 8.

<sup>51</sup> *Supra* note 8.

<sup>52</sup> *Supra* note 8.

<sup>53</sup> *Supra* note 8.

advanced legal data analysis.<sup>54</sup> The growing number of digitized court files and judicial decisions continue to make up a huge repository of information for AI technologies to analyze, progressively enhancing artificial neural networks that mimic human intelligence within legal administration.<sup>55</sup> Furthermore, AI has the capability of generating templates for use in judicial decision making, which can then be customized and modified by judges, and act as the foundation for expressing judicial verdicts.<sup>56</sup>

The Civil Resolution Tribunal (CRT) stands as Canada's pioneering online platform for resolving small claims, condominium, motor vehicle accident, and injury disputes up to \$5,000.<sup>57</sup> The CRT introduces innovative solutions when addressing legal conflicts quickly and cost-effectively. Esteemed as a progressive and technologically mature tribunal, the CRT equips parties with legal resources while offering adjudication services if disputes remain unresolved.<sup>58</sup> Remarkably, as of August 2020, the CRT had successfully resolved a total of 16,609 disputes, with only 3,020 of these cases necessitating in-person adjudication.<sup>59</sup>

AI-based tribunals are also being utilized in the Supreme People's Court (SPC) in China. The SPC has taken steps to roll out a "smart court" system across the country by incorporating a range of technologies that rely on the use of big data and AI to push cases through the system more efficiently.<sup>60</sup> However, academic scrutiny has revealed several potential risks associated with AI tribunals and administrative services, including concerns about biases, data security,

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<sup>54</sup> *Supra* note 10.

<sup>55</sup> *Supra* note 10.

<sup>56</sup> *Supra* note 10.

<sup>57</sup> *Supra* note 10.

<sup>58</sup> *Supra* note 10.

<sup>59</sup> *Supra* note 10.

<sup>60</sup> *Supra* note 10.

litigant privacy, and the potential for inconsistent outcomes, which will be touched upon later in this paper.<sup>61</sup>

### ***AI and Access to Justice***

Access to justice underlines the principle that every individual should have equitable access to the legal system.<sup>62</sup> According to the United Nations, access to justice is a basic principle of the rule of law.<sup>63</sup> Nonetheless, North America faces an access to justice crisis, with a substantial portion of the population unable to afford or acquire necessary legal services.<sup>64</sup> The American Legal Services Corporation's 2017 study revealed that "86% of the civil legal problems reported by low-income Americans in the past year received inadequate or no legal help."<sup>65</sup> This extends to nearly 90% of those living below the poverty line and a majority of middle-income Americans.<sup>66</sup> Moreover, most civil legal problems are not fully addressed due to a lack of available resources. The study also demonstrated that self-represented individuals fare less favorably than those with legal counsel, exemplifying the disadvantage experienced by those who are unable to afford legal representation.<sup>67</sup>

In this context, AI presents an avenue to alleviate the access to justice crisis among those who lack the financial means to obtain legal advice. Mobile and web-based applications (apps) stand out as a technology with the potential to enhance access to justice.<sup>68</sup> These apps not only augment the efficiency of legal service delivery but can mitigate the reliance on lawyers for meeting basic legal needs. These legal apps encompass a range of functions, including providing

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<sup>61</sup> *Supra* note 10.

<sup>62</sup> *Supra* note 8.

<sup>63</sup> *Supra* note 10.

<sup>64</sup> *Supra* note 10.

<sup>65</sup> *Supra* note 10.

<sup>66</sup> *Supra* note 10.

<sup>67</sup> *Supra* note 10.

<sup>68</sup> *Supra* note 15.

legal advice, creating documents, and compiling evidence. Additionally, AI programs can enhance a lawyers' efficiency by expediting the creation, analysis, and editing of legal documents, thereby enabling practitioners to serve more clients effectively.<sup>69</sup>

The use of legal apps in Canada caters to two primary users: lawyers and the public. A growing area for lawyer-focused apps involves the development of legal analytics tools.<sup>70</sup> For instance, Loom Analytics employs machine learning and legal analysis to categorize case law to facilitate and create statistical analysis for specific judges.<sup>71</sup> Similarly, AI is harnessed in lawyer-facing apps, such as Blue J Legal, which uses deep learning to provide answers to specific legal questions. Beagle is another legal app that uses AI to read and highlight crucial information within contracts for lawyer review.<sup>72</sup> AI technology can also aid individuals with legal questions through apps like "Ask a Lawyer: Legal Help," featuring AI chatbots specialized in legal analysis for public use.<sup>73</sup>

Meaningful adoption of legal apps requires careful consideration of socio-economic, geographic, and other barriers to technology access. Without such considerations, there is a risk of perpetuating a digital divide that further entrenches a two-tiered justice system, disadvantaging low-income individuals.<sup>74</sup> We cannot assume that everyone has sufficient access to the internet to download apps or has the knowledge and skill to navigate online resources.<sup>75</sup> In conclusion, AI technology presents a promising avenue to address legal needs by empowering self-help resources and enabling lawyers to extend their reach to clients who would otherwise lack access to justice.

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<sup>69</sup> *Supra* note 15.

<sup>70</sup> *Supra* note 15.

<sup>71</sup> *Supra* note 15.

<sup>72</sup> *Supra* note 15.

<sup>73</sup> *Supra* note 15.

<sup>74</sup> *Supra* note 15.

<sup>75</sup> *Supra* note 2.

## **PART 2: Ethical Concerns with AI and the Law**

While the employment of AI technology can bring about positive outcomes, such as helping to bridge the access to justice gap and to enhance efficiency within the legal field, it is crucial to acknowledge the ethical challenges that must be addressed and resolved.

### ***Duty of Competence and Supervision***

The efficacy of using ChatGPT for legal tasks was put to the test by Andrew Perlman, the Dean of Suffolk University Law School in Boston. Perlman entered prompts into the AI software, ChatGPT, to explore its potential utility across four facets of the legal industry: legal research, document generation, legal information, and legal analysis.<sup>76</sup> His objective was to evaluate the reliability and accuracy of ChatGPT's responses. Some prompts included phrases like "Draft a brief to the United States Supreme Court on why its decision on same-sex marriage should not be overturned" and "Explain the concept of personal jurisdiction."<sup>77</sup> Upon analyzing ChatGPT's responses and cross-referencing them with his own research, Perlman determined that the AI's responses were surprisingly sophisticated, however, were found to be incomplete and riddled with various issues.<sup>78</sup> For instance, the prompt requesting ChatGPT to describe the concept of personal jurisdiction failed to explain various aspects of the doctrine. This shortcoming could potentially mislead casual users who might lack knowledge of what to ask or how to phrase their questions effectively.<sup>79</sup> In summary, lawyers must not replace their work with AI programs' outright, as doing so would breach their obligation to offer competent and

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<sup>76</sup> *Supra* note 1.

<sup>77</sup> *Supra* note 1.

<sup>78</sup> *Supra* note 1.

<sup>79</sup> Devin Coldewey, *No ChatGPT in my court: Judge orders all AI-generated content must be declared and checked*, (May 2023), online: TechCrunch\_<<https://techcrunch.com/2023/05/30/no-chatgpt-in-my-court-judge-orders-all-ai-generated-content-must-be-declared-and-checked/>>.

accurate representation. Instead, the reliance on AI should be geared toward augmenting and enhancing legal work under proper supervision.<sup>80</sup>

In addition, the legal profession operates within a highly regulated framework. According to the regulations set forth by the Law Society of Ontario, the Code of Conduct stands as the ethical compass for legal practitioners.<sup>81</sup> However, these guidelines were written well before the advancement of AI programs, leaving uncertainty surrounding the governance of such tools.<sup>82</sup> Moreover, just as lawyers hold the ethical duty and responsibility to oversee and guide the work of their subordinates, whether paralegals or junior associates, this obligation also extends to the use of AI tools.<sup>83</sup> As well, it is crucial for lawyers to recognize that some tasks remain beyond the scope of delegation whether to other humans or to artificial intelligence.<sup>84</sup>

### ***Judicial Decision-Making and Biases***

AI tribunals and AI uses in judicial decision making may be a good tool to alleviate backlog in the legal system, however, limitations and ethical concerns have arisen exemplified by a judge's decision in Colombia, which was brought into question due to his use of Chat-GPT in coming to a judgment.<sup>85</sup> Despite grounding his verdict in legal precedents and past judgments, this incident sparked a conversation about the appropriateness of AI integration in these situations. Judge Padilla used ChatGPT to ask it the question; "Is an autistic minor exonerated from paying fees for their therapies?" The response generated by ChatGPT aligned with his own judgment, supported by prior case law.<sup>86</sup> Padilla defended AI's usage, suggesting that it could

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<sup>80</sup> *Supra* note 1.

<sup>81</sup> *Supra* note 5.

<sup>82</sup> *Supra* note 5.

<sup>83</sup> David Lat, *The Ethical Implications of Artificial Intelligence*, (2020), online: Thomson Reuters <<https://abovethelaw.com/law2020/the-ethical-implications-of-artificial-intelligence/>>.

<sup>84</sup> *Ibid.*

<sup>85</sup> *Supra* note 19.

<sup>86</sup> *Supra* note 19.

enhance efficiency in Colombia's overburdened legal system, insisting that utilizing AI as a source of legal analysis does not preclude judges from performing their judicial roles. However, legal academics flag this as problematic as ChatGPT functions by scouring all texts across the internet to generate responses which are shown to differ when asked the same question.<sup>87</sup>

Moreover, a societal expectation exists for judges to *exclusively* render judicial decisions. Margaret Beazley, a former President of the New South Wales Court of Appeal in Australia, argues that the “the commoditisation of the judicial system is not consistent with the rule of law” and that the absence of direct human contact in an online court gives the perception that “the worth of what is being undertaken is lessened.”<sup>88</sup> From this perspective, the role of human judges as guardians of justice remains extremely important, even in an era increasingly shaped by AI.<sup>89</sup> The question isn't whether AI should be used in legal practice, but rather how its usage should be regulated. AI could assist judges in generating draft judgments, subject to mandatory human oversight for discretionary or societal considerations.<sup>90</sup>

Scholars have argued that teamwork by a skilled human and a machine is often superior to what even the best equipped machine can do on its own. However, such collaborations bring forth ethical concerns, particularly the risk of automation biases.<sup>91</sup> Judges might over-rely on AI-generated insights, endorsing AI responses despite contradictory evidence they find independently.<sup>92</sup> Conversely, a judge's digression from AI recommendations might also invite scrutiny and criticism which aligns with the concern that time-constrained judges may

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<sup>87</sup> *Supra* note 19.

<sup>88</sup> *Supra* note 19.

<sup>89</sup> *Supra* note 10.

<sup>90</sup> *Supra* note 10.

<sup>91</sup> Shea Coulson, *How artificial intelligence will change administrative law: The Government of Canada's Directive on automated decision-making*, (May 2023), online: DPA Piper <<https://www.dlapiper.com/en-ca/insights/publications/2023/05/how-artificial-intelligence-will-change-administrative-law-in-canada>>.

<sup>92</sup> *Ibid.*

unquestioningly adopt AI-generated responses, giving rise to "anchoring biases".<sup>93</sup> An "anchoring bias" is a cognitive bias that enables us to rely heavily on the first piece of information we are given about a topic.<sup>94</sup>

Furthermore, since the emergence of ChatGPT and other AI models, there is a rise in legal companies, as well as the judicial system, to use predictive software to assess defendants' likelihood of reoffending, however, these databanks of criminal proceedings are located within a system that has historically marginalized certain groups of people.<sup>95</sup> Predictive AI software have also been shown to perpetuate stereotypes and incorrectly assess who is more likely to commit crimes based on race.<sup>96</sup> In addition, due to developer input, ChatGPT and other LLMs are likely to exhibit gender biases.<sup>97</sup>

### ***Privacy Concerns***

Privacy concerns associated with the use of AI are significant. A recent incident in Italy illustrates this, as the government imposed a ban on further development of ChatGPT-4 due to privacy concerns.<sup>98</sup> User conversations and payment information were breached; however, this breach is not out of the ordinary when considering public AI software.<sup>99</sup> Cybersecurity threats like jailbreaking and prompt injection attacks are tactics employed by hackers to bypass the rules of OpenAI software, like ChatGPT, to produce harmful content or illicit activities online.<sup>100</sup> Jailbreaking involves designing prompts to exploit system vulnerabilities, while prompt injection attacks quietly insert data or instructions into AI models to make the system perform tasks it was

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<sup>93</sup> *Ibid.*

<sup>94</sup> *Why we tend to rely heavily upon the first piece of information we receive*, (2023), online: The Decision Lab <<https://thdecisionlab.com/biases/anchoring-bias>>.

<sup>95</sup> *Supra* note 2.

<sup>96</sup> *Supra* note 2.

<sup>97</sup> *Supra* note 21.

<sup>98</sup> *Supra* note 21.

<sup>99</sup> *Supra* note 21.

<sup>100</sup> *Supra* note 23.

not intended for, essentially hacking the system.<sup>101</sup> These attacks not only bypass content filters but also raise concerns amongst security experts who warn that the widespread use of generative AI can lead to potential data theft and cybercriminal disruptions across the internet.<sup>102</sup>

Shifting focus to legal apps designed to enhance access to justice, there is little research on privacy and security issues within their context. However, insights can be gathered from broader research on popular health and fitness apps, apps that contain personal information. The primary concern lies in app-collected data to unauthorized access and misuse by third parties (hackers).<sup>103</sup> For example, even sophisticated app providers, like Uber, have experienced security breaches resulting in the misuse of users' personal information.<sup>104</sup> Privacy apprehensions intensify within legal apps, given their potential to collect sensitive personal and financial information. The risk of data misuse or sale is heightened, especially considering the data's sensitivity. Storage of such data is another concern, posing challenges in maintaining its security.<sup>105</sup>

## **Conclusion**

In conclusion, this literature review examines the impact of artificial intelligence's pivotal role in the legal profession. It is exemplified by its contributions ranging from contract review to generating template legal documents, promising enhancing efficiency within the legal field. The utilization of AI in addressing access to justice concerns is noteworthy, however, the ethical and privacy dimensions remain paramount. As well, educational institutes, will need to adjust curricula to ensure the use of AI technologies does not interfere with student success and

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<sup>101</sup> *Supra* note 23.

<sup>102</sup> *Supra* note 23.

<sup>103</sup> *Supra* note 15.

<sup>104</sup> *Supra* note 15.

<sup>105</sup> *Supra* note 15.

learning. Furthermore, it is crucial that the integration of AI into the legal profession is supplementing legal expertise, without replacing it altogether, to preserve the integrity and impartiality of the legal system. In summary, a delicate balance must be maintained between harnessing AI's potential in the legal landscape while simultaneously upholding ethical standards and foundational legal principles.

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