

Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law

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As in many other industries, artificial intelligence (“AI”) is poised to drastically transform the legal services landscape. “Bots,” automated expert systems, and predictive analytics are already changing the way consumers seek, and lawyers provide, legal services. Among other impacts, AI has the potential to increase access to justice in the self-help, individual, and corporate law firm markets by lowering costs and expanding services to untapped markets. A prominent question in early literature on AI in law is whether these services constitute the unauthorized practice of law. Threshold questions of whether and by whom such services should be regulated are important, but will likely not be answered (or even answerable) until AI’s impact on the profession is more cognizable. In the meantime, there is currently no comprehensive guidance for attorneys on how AI should be developed, adopted, and used in ways that conform to a lawyer’s ethical obligations. Without such guidance, law firms and third-party services risk designing and adopting AI-driven tools that fail to provide effective client-centered services, inhibit wide-spread access to justice, and undermine lawyers’ ethical obligations to current and former clients, including the obligations to practice competently, maintain confidentiality, effectively supervise third parties, communicate with clients, and exercise independent judgment and render candid advice. This Article initiates this critical dialogue by exploring the types of AI being implemented in the profession, and identifying characteristics of these emerging services that will present ethical tensions and challenges. It rigorously examines existing guidance from the ABA and state bar authorities concerning new technology in practice, and identifies areas where this guidance is not sufficient to confront the unique ethical issues presented by AI. This article does not attempt to provide detailed or prescriptive guidance on these issues, but rather identifies the imminent challenges not currently being addressed in the literature on AI and legal ethics, or by bar authorities. The concluding recommendations will set the stage for and inform future scholarship and discussions concerning legal ethics, access to justice, and unauthorized practice of law in the age of AI.

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INTRODUCTION

In late 2014, an overturned parking ticket signaled a pivotal moment in a revolutionary era of legal services. In some ways, the process of overturning the ticket was familiar. The driver believed the ticket was unjust, the argument was documented and placed before a decision maker, and the decision maker

determined that a fine was not warranted. But in many other ways, this was not a typical transaction of legal services. The driver did not interact with any humans, look up any laws, or fill out any forms. Instead, the driver answered a few questions asked online by a “bot” that then automatically filled out the necessary forms and filed them with the appropriate local government office, free of charge.

Over the next twenty-one months, recipients of a quarter million other parking tickets in New York and London followed suit by seeking the services of the same bot. What these drivers might not have realized is that the mastermind and coder behind the bot did not pass the bar exam, earn a J.D., or even attend a single law school class. In fact, he had only just recently graduated from high school. But most of these drivers probably did not care, because the bot worked well—really well. By mid-2016, it had successfully overturned 160,000 tickets (a 64% success rate), helping those who used the service avoid over \$4 million in fines.¹ By July 2017, the service had saved users \$9.3 million by disputing 375,000 parking tickets.²

Joshua Browder, the bot’s now 21-year-old creator, has called this service something that likely resonates with users—“the world’s first robot lawyer.”³ But in many ways, the service is unlike a robot and unlike a lawyer. DoNotPay.co.uk, the website where users interact with the bot, does not have arms, a voice, or any of the anthropomorphic features typically associated with “robots.” Moreover, people do not typically turn to lawyers to address legal needs as minor as parking tickets. However, as DoNotPay expanded to cities like Seattle, the service began to take on more lawyer-like tasks, including using a driver’s answers to questions to draft a letter to a city’s parking enforcement office to challenge a ticket.⁴ In July 2017, DoNotPay expanded its service to all fifty states.⁵ If the early demand and success of DoNotPay is any indication, parking tickets are just the beginning of artificial intelligence’s (“AI’s”) transformation of legal “self-help” services, and, indeed, the legal services industry as a whole.

Individual consumers of legal services are not the only ones engaging with AI. Rather, lawyers and law firms are too, and in big ways. ROSS Intelligence⁶ (“ROSS”) has marketed itself as “the world’s first artificially intelligent

1. Samuel Gibbs, *Chatbot Lawyer Overturns 160,000 Parking Tickets in London and New York*, GUARDIAN (June 28, 2016), <https://www.theguardian.com/technology/2016/jun/28/chatbot-ai-lawyer-donotpay-parking-tickets-london-new-york>.

2. John Mannes, *DoNotPay Launches 1,000 New Bots to Help You with Your Legal Problems*, TECHCRUNCH (July 12, 2017), <https://techcrunch.com/2017/07/12/donotpay-launches-1000-new-bots-to-help-you-with-your-legal-problems/>.

3. Gibbs, *supra* note 1.

4. Arezou Rezvani, *‘Robot Lawyer’ Makes the Case Against Parking Tickets*, NPR (Jan. 16, 2017, 3:24 PM), <http://www.npr.org/2017/01/16/510096767/robot-lawyer-makes-the-case-against-parking-tickets>.

5. Shannon Liao, *‘World’s First Robot Lawyer’ Now Available in All 50 States*, VERGE (July 12, 2017, 2:44 PM), <https://www.theverge.com/2017/7/12/15960080/chatbot-ai-legal-donotpay-us-uk>.

6. ROSS INTELLIGENCE, <http://www.rossintelligence.com/> (last visited Nov. 21, 2018).

attorney,” and in May 2016, BakerHostetler “hired” the service.⁷ ROSS answers natural language questions asked by subscribing attorneys, “reads” over one million pages per second that it accesses from its partnering legal publisher,⁸ and provides answers along with specific text from laws, cases, and secondary sources.⁹ Unlike existing legal “data providers,” ROSS’s co-creator describes its service as providing “insight” into the law that is “jurisdictionally aware,” and able to provide updates as the law and its interpretation change.¹⁰ ROSS uses IBM’s Watson technology—the same technology that defeated humans on *Jeopardy!*¹¹—in a way that uses semantics that match not only keywords, but similar concepts.¹² Other large firms are jumping on board quickly.¹³ In addition to changing the way lawyers perform legal research, AI is poised in the near term to drastically transform the nature and efficiency of document review, e-discovery, and the way lawyers predict the outcomes of their decisions and cases.¹⁴

But overturning parking tickets, improving lawyer efficiency, and reducing costs for law firm clients is just the beginning of AI’s potential in the legal profession. If implemented responsibly, AI could expand access to legal services to parts of society that have historically been shut out. For example, in 2016, DoNotPay expanded its service from contesting parking tickets to combating homelessness by helping recently evicted people apply for emergency housing.¹⁵ In addition, in March 2017, it began exploring the possibility of helping refugees seek asylum and file immigration applications in the United States and Canada.¹⁶ Similarly, in an effort to “democratize the law,” ROSS strives to make its technology “easily accessible to all legal service providers and educators,”¹⁷ as

7. Karen Turner, *Meet ‘Ross,’ the Newly Hired Legal Robot*, WASH. POST (May 16, 2016), <https://www.washingtonpost.com/news/innovations/wp/2016/05/16/meet-ross-the-newly-hired-legal-robot/>.

8. TED Institute, *The World’s First AI Legal Assistant* | Andrew Arruda | TED Institute, YOUTUBE (Dec. 21, 2016), <https://www.youtube.com/watch?v=wwbr0fombFs>.

9. Vanderbilt University, *Andrew Arruda: Artificial Intelligence and the Law Conference at Vanderbilt Law School*, YOUTUBE (May 6, 2016), https://www.youtube.com/watch?v=LF08X5_T3Oc.

10. *Id.*

11. John Markoff, *Computer Wins on ‘Jeopardy!’: Trivial, It’s Not*, N.Y. TIMES (Feb. 16, 2011), <http://www.nytimes.com/2011/02/17/science/17jeopardy-watson.html?pagewanted=all>.

12. John O. McGinnis & Russell G. Pearce, *The Great Disruption: How Machine Intelligence Will Transform the Role of Lawyers in the Delivery of Legal Services*, 82 FORDHAM L. REV. 3041, 3049 (2014).

13. See ROSS INTELLIGENCE, *supra* note 6 (listing K&L Gates, Latham & Watkins, Salazar Jackson, von Briesen & Roper, Bryan Cave, Womble Carlyle, and Dickinson Wright as law firms using ROSS).

14. See *infra* Subpart II.C.

15. Elena Cresci, *Creator of Chatbot That Beat 160,000 Parking Fines Now Tackling Homelessness*, GUARDIAN (Aug. 11, 2016), <https://www.theguardian.com/technology/2016/aug/11/chatbot-lawyer-beat-parking-fines-helping-homeless-do-not-pay>.

16. Elena Cresci, *Chatbot That Overturned 160,000 Parking Fines Now Helping Refugees Claim Asylum*, GUARDIAN (Mar. 6, 2017), <https://www.theguardian.com/technology/2017/mar/06/chatbot-donotpay-refugees-claim-asylum-legal-aid>.

17. ROSS INTELLIGENCE, *How to Leverage Legal Technology and Bridge the Justice Gap: ROSS Intelligence’s Mission to Democratize the Law*, <https://rossintelligence.com/leverage-legal-technology-bridge-justice-gap/> (last visited Nov. 21, 2018) (“Arruda expressed our pledge to give ROSS away for free to all lawyers on the front lines to best help them do their jobs. . . . [W]e are committed to partnering with . . . bar

well as nonprofits like Upsolve,¹⁸ which provides free bankruptcy assistance to low-income New Yorkers.

As these examples demonstrate, there is great demand for AI in the law. AI is likely to be integrated into the profession at unprecedented rates, if not out of a sense of duty to close the justice gap, then out of a sense of competitive and economic necessity.¹⁹ Even so, there is a growing consensus that the future of legal services is not likely one in which AI fully replaces human lawyers.²⁰ To date, however, most attention has been paid to the corporate law firm setting, and there is less certainty what effect AI will have on the market for individual legal services.²¹

In any event, as illustrated by DoNotPay, lawyers, AI services, and third parties will likely all be involved at some point during a large majority of cases. Leading up to an expansion of service in 2017, the creator of DoNotPay relied heavily on actual lawyers.²² He also consulted extensively with lawyers in the United States, United Kingdom, and Canada in his effort to try to make the service effective in helping refugees initiate immigration and asylum applications.²³ At least one human lawyer has suggested that, once applications are submitted, immigration attorneys will embrace the opportunity to step in and pick up where the bots left off,²⁴ perhaps themselves utilizing a ROSS-like AI service in the near future. Because the future of legal services is one involving a complex ecosystem of lawyers, artificially intelligent systems, third-party service providers, and other non-lawyers, the legal profession must take a

associations . . . justice commissions, the courts, pro bono and public interest groups, legal service organizations, and law schools . . .”).

18. See UPSOLVE, <http://upsolve.org/> (last visited Nov. 21, 2017) (“Our mission is to help low-income Americans in financial distress get a fresh start through Chapter 7 bankruptcy at no cost.”); see also Joe Borstein, *Can Technology Automate Your Rights? Upsolve Thinks So*, ABOVE THE L. (Sept. 28, 2016, 3:58 PM), <https://abovethelaw.com/2016/09/can-technology-automate-your-rights-upsolve-thinks-so/> (discussing Upsolve and ROSS’s partnership).

19. Julie Sobowale, *Beyond Imagination*, 102 A.B.A. J. 47, 52 (2016) (“Law firms are feeling the pressure from clients, particularly in-house counsel, to lower costs. And artificial intelligence is born out of necessity.”); see also *infra* note 99 and accompanying text.

20. See, e.g., Dana Remus & Frank Levy, *Can Robots Be Lawyers?: Computers, Lawyers, and the Practice of Law*, 30 GEO. J. LEGAL ETHICS 501, 501 (2017) (“[A]utomation has a measurable impact on the demand for lawyers’ time, but one that is less significant than popular accounts suggest.”).

21. Tanina Rostain, *Robots Versus Lawyers: A User-Centered Approach*, 30 GEO. J. LEGAL ETHICS 559, 574 (2017) (“In the individual legal services sphere, [unlike the corporate market] [], legal technologies are a response to unmet legal needs and regulatory barriers to developing other forms of access to the legal system. What effect these technologies will have on the individual market for legal services is unknown.”).

22. See Liao, *supra* note 5 (describing how Browder recruited “volunteer and part-time lawyers to help him with the legal aspect of the tool”).

23. See Cresci, *supra* note 16 (explaining that Browder worked with lawyers in each country, and quoting him as saying “I wanted to make sure I got it right because it’s such a complicated issue. I kept showing it to lawyers throughout the process and I’d go back and tweak it”).

24. *Id.* (quoting immigration lawyer Sophie Alcorn as saying, “It will be easier for applicants to submit their applications and it will empower legal aid organisations [sic] to assist a larger numbers of clients”).

comprehensive approach to ensuring that AI is integrated responsibly, morally, and ethically into all forms of legal services.

Moreover, AI's transformation of the legal profession will not be without practical and ethical challenges. On the legal self-help front, courts, state legislatures, and bar associations in the near term will have to decide whether increasingly sophisticated services such as DoNotPay constitute the unauthorized practice of law. Some have argued that such prohibitions would not only represent ill-advised and short-sighted policy, but would also be immoral and unethical in light of the current access-to-justice crisis and likely concurrent uninhibited proliferation of AI in large law firms, which serve mostly corporate clients. In addition, a robust market for artificially intelligent legal self-help services will increasingly involve more human lawyers who have their own ethical obligations, making legal ethics oversight a critical forum for confronting AI's challenges. The extent of such oversight, and how it is structured, are important questions, but ones that might not be settled before AI is implemented in the profession to an even greater degree. Accordingly, urgent guidance is needed regarding emerging forms of "soft AI" in law practice, and possible forms of "strong AI" in the future.²⁵ This paper offers a starting point for this guidance by identifying the topics on which guidance is needed.

Part I examines the role of technology broadly, and AI specifically, in improving access to justice, including the importance of facilitating the development of a robust legal self-help market, while also recognizing AI's limits in these efforts. Part II identifies in more detail the various kinds of AI that are affecting the practice of law. In part, this section examines AI's impact on the demand for legal services and need for human lawyers, and the specific characteristics of deployed and developing forms of AI in law practice, including those associated with document review, e-discovery, legal research, and outcome prediction.

Part III of the Article examines how the legal profession should confront these challenges, recognizing past ethical guidance concerning other less transformative technologies, and focusing on the specific implications with regard to lawyers' obligations concerning competence; confidentiality; supervising third parties; communicating with clients; exercising independent judgment and rendering candid advice; and obligations regarding former clients. Subpart III.B. stresses the urgent need for guidance concerning the design, adoption, and use of AI, especially during critical design stages. It also examines the need for, and stakeholders' willingness to issue, proactive, humanistic guidance. The Article concludes by summarizing the areas that should be the subject of initial guidance from within the profession. Without such guidance, law firms and third-party services risk designing and adopting AI-driven tools that fail to provide effective client-centered services, inhibit wide-spread access

25. See *infra* Subpart II.A.

to justice, and undermine lawyers' ethical obligations to current and former clients. The concluding recommendations will set the stage for future discussions concerning legal ethics, access to justice, and unauthorized practice of law in the age of AI.

I. THE ROLE OF ARTIFICIAL INTELLIGENCE IN IMPROVING ACCESS TO JUSTICE

The United States is in the midst of an access to justice crisis. Too many people lack access to the legal services they need, usually because they cannot afford them. The Brennan Center for Justice reports that “[e]ighty percent of low income people have trouble obtaining legal representation or otherwise accessing the civil court system to protect their property, family, and livelihood.”²⁶ The Legal Services Corporation (“LSC”) defines the “justice gap” as “the difference between the unmet need for civil legal services and the resources available to meet that need,” and has determined that technology can be a powerful tool in narrowing it.²⁷ While AI alone cannot close the gap, previous transformative technologies have been credited with making some significant strides.²⁸

The most transformative technology to date in the legal services industry, as in most industries, has been the Internet, which has, among other things, helped link low-income clients to free legal services.²⁹ In addition, many legal services and resources are now available online. For example, the advent of “online courts” has improved access to court systems,³⁰ and “collaborative technology” has proven especially helpful in alternative dispute resolution forums.³¹ Various forms of automation in online dispute resolution processes have also demonstrated an ability to improve access to justice.³² Indeed,

26. BRENNAN CTR. FOR JUST. AT N.Y.U. SCH. OF LAW, CLOSING THE JUSTICE GAP <https://www.brennancenter.org/issues/closing-justice-gap> (last visited Nov. 21, 2017).

27. LEGAL SERVS. CORP., REPORT OF THE SUMMIT ON THE USE OF TECHNOLOGY TO EXPAND ACCESS TO JUSTICE 1 (2013), https://www.lsc.gov/sites/default/files/LSC_Tech%20Summit%20Report_2013.pdf.

28. Melissa A. Moss, *Can Technology Bridge the Justice Gap?*, 90 FLA. B.J. 83, 86 (2016) (“While it is apparent technology alone cannot bridge the justice gap, it is also apparent the justice gap cannot be bridged without embracing technology.”).

29. See Raymond H. Brescia et al., *Embracing Disruption: How Technological Change in the Delivery of Legal Services Can Improve Access to Justice*, 78 ALB. L. REV. 553, 597 (2015) (exploring how Pro Bono Net developed web-based tools to increase access to pro bono services for the poor and unrepresented).

30. See Mark A. Cohen, *Online Courts: Using Technology to Promote Access to Justice*, LEGAL MOSAIC (Aug. 15, 2016), <http://legalmosaic.com/2016/08/15/online-courts-using-technology-to-promote-access-to-justice/> (online courts “provide the population inexpensive, fast, and easy access to justice for a range of civil disputes”).

31. See Michael J. Wolf, *Collaborative Technology Improves Access to Justice*, 15 N.Y.U. J. LEGIS. & PUB. POL’Y 759, 762 (2012) (“[T]hese powerful yet accessible tools can *dramatically* improve access to civil justice in America both in traditional court cases and alternative dispute resolution (ADR) forums.”).

32. See Anjanette H. Raymond & Scott J. Shackelford, *Technology, Ethics, and Access to Justice: Should an Algorithm Be Deciding Your Case?*, 35 MICH. J. INT’L L. 485, 491 (2014) (noting that online dispute resolution systems have increased access to justice).

DoNotPay's automated intelligence is yet another example of a service accessed via the Internet.

Online solutions to closing the justice gap have their limits, including existing barriers to Internet access for large portions of the population.³³ However, to the extent that technology has been successfully leveraged in the past to improve access in the legal services industry, AI will be an even more impactful force than previous tools, and has the potential to magnify and transform benefits of existing technologies. Some of these benefits are being brought to life through innovation in programs and clinics at law schools throughout the country.³⁴ One important component of this progress will be fostering the development of AI in the legal self-help market, while still confronting the ethical challenges AI presents.

A. THE IMPORTANCE OF FOSTERING THE DEVELOPMENT OF A ROBUST LEGAL SELF-HELP MARKET

One major barrier to individuals accessing the legal services they need is prohibitively high costs.³⁵ Legal self-help, including the various iterations of DoNotPay, is one way that people have historically avoided these high costs, by simply not hiring a lawyer and instead opting to "do-it-yourself." Of course, these services have been around far longer than DoNotPay, dating back to before the Internet and even before widely available consumer software. The evolution of legal publisher Nolo is representative of the way that some within the industry have adjusted their business model to recognize and meet this massive demand.³⁶ Founded in 1971, Nolo began by publishing do-it-yourself law books, before eventually offering affordable software that helped users fill out common legal forms without the assistance of an attorney.³⁷ Other services have since emerged as online start-ups. The popular and controversial service LegalZoom can, among other things, generate a draft will based on input regarding assets and intentions for estate disposal.³⁸ As DoNotPay has demonstrated, AI is poised to

33. See *infra* Subpart I.B.

34. See, e.g., *Georgetown's Iron Tech Lawyer Competition 2018*, GEO. L. INST. FOR TECH. L. & POL'Y, <http://www.georgetowntech.org/irontechlawyer/> (last visited Nov. 21, 2018); see also Ronald W. Staudt & Andrew P. Medeiros, *Access to Justice and Technology Clinics: A 4% Solution*, 88 CHI.-KENT L. REV. 695, 698 (2013) (proposing that law schools offer an Access to Justice Technology Clinic and discussing the program's success at Chicago-Kent College of Law).

35. See Michael Zuckerman, *Is There Such a Thing as an Affordable Lawyer?*, ATLANTIC (May 30, 2014), <https://www.theatlantic.com/business/archive/2014/05/is-there-such-a-thing-as-an-affordable-lawyer/371746/> (discussing the failure of the legal market to provide affordable services).

36. See Kelly Phillips Erb, *Are We Ready for Robot Lawyers?*, 38 PA. LAW. 54, 55 (May/June 2016) (explaining that Nolo.com "has proven that some clients are looking for solutions to legal problems without the need to hire a lawyer and pay fees").

37. See NOLO, www.nolo.com (last visited Nov. 21, 2018) (listing do-it-yourself books and products).

38. McGinnis & Pearce, *supra* note 12, at 3050. Indeed, "[t]rust and estate planning is already ripe for this kind of mechanization because this area of law has relatively few kinds of forms and unique factual situations that arise for the large majority of people." *Id.*

make major inroads in the legal self-help industry as services become increasingly advanced, while requiring less of users.

There is no shortage of important legal issues that will need to be confronted as AI expands the availability and effectiveness of legal self-help services, including what the appropriate liability standard is for these services when something goes wrong.³⁹ Legal self-help, especially when offered online, also blurs state lines when trying to determine what jurisdiction's practice rules should apply.⁴⁰ Perhaps the most widely publicized issue, though, is whether these services constitute the unauthorized practice of law ("UPL").⁴¹ This Article does not attempt to answer line-drawing UPL questions concerning AI. Rather, this Article argues in part that there are fundamental ethical issues that must be articulated in order to not only more fully inform the UPL debate, but also to guide the development, adoption, and use of AI by consumers and firms that are not waiting for answers to the UPL questions. Even so, it is important to acknowledge the UPL debate when framing ethical issues.

Approaches to dealing with the challenges presented by emerging technology-fueled self-help services currently vary widely. Some state bars have aggressively tried to prohibit certain legal self-help services, including LegalZoom,⁴² a move that some commentators have discouraged. Caroline E. Brown, for example, has responded to prohibitions by arguing that lawyers should support legal self-help "because providing access to affordable legal services works to close the justice gap without significantly threatening the legal profession," and believes accordingly that "unauthorized practice of law regulations should be amended to include an exception to the definition of

39. See generally Benjamin H. Barton, *Some Early Thoughts on Liability Standards for Online Providers of Legal Services*, 44 HOFSTRA L. REV. 283 (2015).

40. See Thomas E. Spahn, *Artificial Intelligence: Ethics Issues*, TSZJ10 ALI-CLE 1 (2018) (discussing how states have begun to de-emphasize lawyers' "physical presence" and acknowledge that lawyers can practice "virtually" and permanently in a state where they are not licensed); see also Jordan Bigda, Note, *The Legal Profession: From Humans to Robots*, 18 J. HIGH TECH. L. 396, 425 (2018) (arguing that new law regarding the jurisdictional limitations surrounding artificially intelligent lawyers should mimic the rules of paralegals); Julee C. Fischer, Note, *Policing the Self-Help Legal Market: Consumer Protection or Protection of the Legal Cartel?*, 34 IND. L. REV. 121, 127–28 (2000) (noting that technological advancements in lawyering "knocks down the barriers between persons, states and even countries").

41. See, e.g., Spahn, *supra* note 40 ("Artificial Intelligence represents the latest and perhaps the most advanced step in a continuum of non-human processes for providing what could be seen as legal advice."); William J. Connell, *Artificial Intelligence in the Legal Profession—What You Might Want to Know*, 66 R.I. B.J. 5, 43 (2018) ("If computer programs are writing briefs, or at least creating preliminary drafts, is that the practice of law? Will programs that incorporate artificial intelligence need to be licensed by the Bar Association and the Supreme Court?"); Bigda, *supra* note 40, at 423 ("If lawyers begin outsourcing work to robots and artificially intelligent programs, will this lead to ethical issues of the unauthorized practice of law?").

42. See, e.g., Rachel M. Zahorsky, *Alabama Bar Group Files Suit to Ban LegalZoom*, A.B.A. J. (July 15, 2011, 8:48 PM), http://www.abajournal.com/news/article/alabama_lawyer_group_files_suit_to_ban_legalzoom/; *LegalZoom Targeted in Legal Software Ban in Missouri*, SOCAL TECH (Aug. 1, 2011), http://www.socaltech.com/legalzoom_targeted_in_legal_software_ban_in_missouri/s-0037234.html; Bill Draper, *Missouri Lawyers Challenge LegalZoom's Service*, CBS ST. LOUIS (Aug. 1, 2011), <https://www.insurancejournal.com/news/midwest/2011/08/01/208821.htm>.

‘practice of law’” that explicitly permits such services.⁴³ Others commentators have taken a more middle-of-the-road approach by acknowledging that restrictive regulations might be out of date, but still advocating for some form of oversight.⁴⁴ Most recently, in 2017, Dana Remus and Frank Levy argued that, “[t]o make informed regulatory decisions, lawyers generally and bar committees in particular will have to become more informed and more skilled with new legal technologies,” and that “[b]oth groups will . . . need to struggle with the bounds of the ‘practice of law’ and with the increasingly mixed nature of legal expertise and other forms of expertise.”⁴⁵

The questions of whether and by whom AI-driven services should be regulated are important, but will likely not be answered (or even answerable) until AI’s impact on and within the profession is more cognizable. Although some states continue to fight emerging self-help services on UPL grounds, the current prevalence of such services suggests that states will not be able to completely suppress the availability of AI-driven services.⁴⁶ It is hard to overlook, however, that the legal profession’s advocacy for crippling restrictions on legal self-help solutions could potentially stunt the development of the larger AI revolution in law in ways that would ultimately favor large firms over the public interest. Such predictions have led some commenters, such as Cody Blades, to offer defenses of services like LegalZoom which could also apply to emerging AI services:

The legal community has spoken repeatedly throughout history about a duty that each attorney has to provide services to those that cannot otherwise afford them. Although this ideal has not been met by the legal community, LegalZoom provides an alternative that is working. To block access to legal services because of something as amorphous as “practice of law” statutes is to effectively deny access to legal services to those whom the legal community has neglected: a miscarriage of justice and a failure of the profession’s ethical obligations.⁴⁷

The UPL debate is just one example of why AI must be comprehensively addressed within the legal profession. At the very least, the profession should not rush to prohibit self-help services utilizing AI if large law firms simultaneously remain permitted to incorporate AI services into their delivery

43. Caroline E. Brown, Note, *LegalZoom: Closing the Justice Gap or Unauthorized Practice of Law?*, 17 N.C. J.L. & TECH. 219, 222–23 (2016).

44. See, e.g., Mathew Rotenberg, Note, *Stifled Justice: The Unauthorized Practice of Law and Internet Legal Resources*, 97 MINN. L. REV. 709, 712 (2012) (offering “solutions to anachronistic and inconsistent unauthorized practice of law statutes” while also recognizing that some regulation of internet legal providers is needed).

45. Remus & Levy, *supra* note 20, at 555–56.

46. See Spahn, *supra* note 40 (“As th[e] technological evolution has demonstrated, lawyers often fight rearguard actions in attempts to prohibit laymen from using books, software, etc.—contending that such non-human aids constitute the illegal unauthorized practice of law by their creators. But lawyers ultimately lose each fight. It would be safe to presume that the same outcome will occur with artificial intelligence.”).

47. Cody Blades, *Crying over Spilt Milk: Why the Legal Community Is Ethically Obligated to Ensure LegalZoom’s Survival in the Legal Services Marketplace*, 38 HAMLINE L. REV. 31, 55 (2015).

models. Such inequity in access to AI's potential could serve to increase the justice gap, rather than narrow it.

However, as this Article will demonstrate, the questions of whether to adopt certain AI services and how to properly use them are difficult (and perhaps counterintuitive at times). For example, the co-creator of ROSS has suggested that there is an ethical obligation to use AI in practice because it lowers prices for clients.⁴⁸ Others have suggested that, even if such an obligation does not yet exist, future advances and benefits might make it irresponsible to refrain from using AI.⁴⁹ Regardless of whether such an obligation is ever widely adopted, the increased availability of AI-driven legal services will force all lawyers to consider the extent to which they are obligated to exercise, among other things, competence and zealotry in understanding and adopting AI services or tools that improve objective efficiency in practice, despite parallel vulnerabilities associated with the use of these technologies that implicate other obligations, such as the duty to protect client confidentiality.⁵⁰

Moreover, even if legal self-help is permitted to continue to advance in some form, the underlying AI that drives it, and the similar services utilized by lawyers themselves, have their limits when it comes to closing the justice gap.

B. THE LIMITS OF ARTIFICIAL INTELLIGENCE IN IMPROVING ACCESS TO JUSTICE

For the potential benefits of AI to come to fruition in the legal field, both lawyers and those seeking legal services will require access to AI services and associated technologies. For many, such access has been historically elusive. At a fundamental level, if someone lacks even basic Internet access, that person cannot utilize online legal self-help services such as DoNotPay. Similarly, if a small public interest law firm or public defender's office lacks the funds necessary to contract for emerging third-party AI services, the benefits of those

48. Andrew Arruda, *An Ethical Obligation to Use Artificial Intelligence? An Examination of the Use of Artificial Intelligence in Law and the Model Rules of Professional Responsibility*, 40 AM. J. TRIAL ADVOC. 443, 455–57 (2017).

49. See, e.g., Roy D. Simon, *Artificial Intelligence, Real Ethics*, N.Y. ST. B. ASS'N J., http://www.nysba.org/Journal/2018/Apr/Artificial_Intelligence,_Real_Ethics/ (last visited Nov. 21, 2018) (“Do you have a duty to alert your clients to the option of using AI products that may save substantial fees or arrive at quicker or more accurate results? Right now the answer to that question is unclear—but before long, practicing law without using AI will be like practicing law with an Underwood manual typewriter, and you will have to tell your clients that there is a better, cheaper, faster way.”); Turner, *supra* note 7 (quoting Ryan Calo as saying “Eventually, I bet *not* using these systems will come to be viewed as antiquated and even irresponsible, like writing a brief on a typewriter.”); see also Tejas G. Patel, Note, *Document Automation Software: Solving the Dichotomy Between Meeting Attorneys’ Financial Needs and Ethical Obligations*, 19 SUFFOLK J. TRIAL & APP. ADVOC. 361, 393 (2014) (“[T]he current ethical rules continue to allow lawyers to be inefficient and charge what they believe is a reasonable fee, but in reality is unreasonable when considering how much lower their fees can be if they use a new system of billing using automation software.”).

50. See *infra* Subparts III.A.1, III.A.2.

services will remain elusive to those lawyers and their clients. This lack of access could prove to be a serious impediment to improving access to justice with AI.

Clients and their lawyers have not always had sufficient access to other forms of technology that have otherwise had significant impact on the delivery of legal services. Many individuals, especially those who are indigent, lack access to the Internet and other technological resources necessary to make full use of other emerging and potentially transformative technological resources.⁵¹ Some communities, especially in rural areas, still lack basic Internet access.⁵² Even in more urban areas, where Internet access is more widely available, it has been reported that communities of color experience lower connection speeds than those provided to wealthier communities served by the same provider—a term known as “redlining.”⁵³ Many poor Americans rely on their cell phones as their sole means of accessing the Internet,⁵⁴ subjecting them to inferior and limiting interfaces when accessing services only available online. And in many instances, those that do have access to more robust technology, nevertheless lack the experience necessary to make effective use of it.⁵⁵

Allowing technology, including AI, the opportunity to help close the justice gap necessarily requires efforts to mitigate these inequalities.⁵⁶ Although there have been federal initiatives that recognize the need for, and are aimed at improving, Internet access for low income Americans,⁵⁷ these programs have experienced significant opposition and cutbacks from the federal government

51. See Eric J. Magnuson & Nicole S. Frank, *The High Cost of Efficiency: Courthouse Tech and Access to Justice*, 22 PROF. LAW. 16, 17 (2014) (“For all the benefits that the justice system stands to gain from technology, however, there are unanticipated consequences that affect the most vulnerable of society. Indigent people have fewer resources, including access to technology.”).

52. Darrell M. West & Jack Karsten, *Rural and Urban America Divided by Broadband Access*, BROOKINGS (July 18, 2016), <https://www.brookings.edu/blog/techtank/2016/07/18/rural-and-urban-america-divided-by-broadband-access/>.

53. See Jon Brodtkin, *AT&T’s Slow 1.5Mbps Internet in Poor Neighborhoods Sparks Complaint to FCC*, ARS TECHNICA (Aug. 24, 2017, 10:20 AM), <https://arstechnica.com/information-technology/2017/08/atts-slow-1-5mbps-internet-in-poor-neighborhoods-sparks-complaint-to-fcc/> (discussing the formal complaint which alleges that lower-income AT&T subscribers receive slower Internet than their higher-income counterparts); see also Formal Complaint of Joanne Elkins, Hattie Lanfair & Rachelle Lee at 7, Joanne Elkins et al. v. AT&T Corp., No. EB-17-223 (FCC Aug. 24, 2017).

54. See generally Radhika Marya, *Cellphones Are Now Essentials for the Poor*, USA TODAY (Sept. 14, 2013, 9:14 AM), <https://www.usatoday.com/story/money/personalfinance/2013/09/14/cellphones-for-poor-people/2805735/>.

55. See Courtney Gilmore, *The Impact of Technological Illiteracy*, RICH. J.L. & TECH. BLOG (Jan. 21, 2018), <http://jolt.richmond.edu/2018/01/21/the-impact-of-technological-illiteracy/> (noting that “access to the web does not render a person, in this case a school aged students [sic], as having computer literacy”).

56. See Magnuson & Frank, *supra* note 51, at 18 (“[A]pproached with an eye toward mitigating this inequity, technology can help close the justice gap.”).

57. See, e.g., *Lifeline Support for Affordable Communications*, FED. COMM. COMMISSION, <https://www.fcc.gov/consumers/guides/lifeline-support-affordable-communications> (last visited Nov. 21, 2018).

following the 2016 presidential election.⁵⁸ This could harm the development and deployment of AI in the legal field because some consumers will not have the means to access AI services. Accordingly, there must be increased efforts from within the legal community to improve consumers' technology access and literacy as the profession continues to rely on such technology, and especially as it continues to integrate, and rely on, AI. As explained below, effective and responsible use of AI by lawyers will require clients to comprehend AI to some extent,⁵⁹ and they will only be able to understand AI if they have access to, and understand, the associated technology.

Consumers are not the only players who lack access. Access to technology has also been a historical barrier for some lawyers, and especially public interest lawyers with fewer resources than large firms. Some lawyers find themselves at a disadvantage if they are unable to afford emerging services and tools,⁶⁰ or are unable to adjust their service and business models to incorporate a new technology. Even the financial and time costs associated with testing a new service to see if it is useful, are costs too great for small legal offices to bear. On the other hand, large law firms typically have more resources to invest,⁶¹ and more flexibility to experiment with and adjust to the changing technological landscape.⁶²

If large law firms are the only consumers, or the only *paying* consumers, of AI legal services, then these barriers could result in design bias that favors the needs of the types of clients that hire the services of large law firms. Inequalities that marginalize or remove certain lawyers from the AI market could place certain parts of the profession at a competitive disadvantage, to the detriment of

58. See, e.g., Issie Lapowsky, *Millions Need the Broadband Program the FCC Just Put on Hold*, WIRED (Feb. 14, 2017, 9:30 AM), <https://www.wired.com/2017/02/millions-need-broadband-program-fcc-just-put-hold/>.

59. See *infra* Subpart III.A.1.

60. Connell, *supra* note 41, at 41 ("The costs of these programs may be expensive, so this may result in even more pressure being placed upon smaller firms or the solo practitioner who may not have the resources to purchase these programs. Lawyers who do not have access to these services will be competing with those who do.").

61. Sean Semmler & Zeeve Rose, Note, *Artificial Intelligence: Application Today and Implications Tomorrow*, 16 DUKE L. & TECH. REV. 85, 90 (2017) ("[There is a] possibility that big firms, with their resources and profit margins, are well situated to gain access to this disruptive technology at an earlier stage than smaller firms. Subscriptions to legal A.I. applications may be expensive (early on), and if big firms can buy this technology, become familiar with it now, and use it to attract new clients while retaining their old clientele, then by the time smaller firms get access to the same technology, it may be too late.").

62. Kurt M. Saunders & Linda Levine, *Better, Faster, Cheaper—Later: What Happens When Technologies Are Suppressed*, 11 MICH. TELECOMM. & TECH. L. REV. 23, 43–44 (2004) ("[S]mall firms may be adequate for handling minor innovations, but other innovations may be so large that only a large firm can mass the needed funds, equipment, talent, and sustained effort. Also, the risk may be so high that only secure dominant firms can take the chance. . . . [I]nnovation is often speeded when several firms race to invent or innovate first. The resulting gain in competitive speed may offset any economies of scale in innovation that might exist." (alteration in original) (quoting WILLIAM G. SHEPHERD, *THE ECONOMICS OF INDUSTRIAL ORGANIZATION* 145 (3d ed. 1990))).

large parts of society.⁶³ Such inequality prevents technology from fulfilling its potential role as “the great equalizer.”⁶⁴ If technology is able to fill this role, then, in theory, this would ultimately benefit clients that are members of historically disadvantaged groups. However, the transformative role of technology has its limits, many of which stem from systematic inequality.⁶⁵ As this article explains, there is reason to believe that AI will be adopted at much quicker rates than other technology, by those that have the means to do so—namely large firms with significant financial resources—meaning that inequalities could be magnified quickly if the profession does not address access soon.

The challenges resulting from a possible design bias favoring paying clients of AI services is compounded by inevitable underlying and often unconscious biases of the designers of AI,⁶⁶ as well as underlying bias in the data that are fed into AI’s algorithms⁶⁷ and the resulting disparate impact that manifests in legal systems.⁶⁸ All of these challenges warrant urgent and comprehensive attention with an eye toward the potential risks and benefits of AI, as well as guidance concerning lawyers’ ethical obligations.

However, in many significant ways, AI will be different from other technologies that have been the subject of guidance from within the profession to date. To fully understand why AI will be different, and to appreciate the significance and implications of these differences, a closer look at AI and the way it has manifested, and will manifest, itself within the legal profession, is necessary.

63. See Semmler & Rose, *supra* note 61, at 90 (“Legal tech companies that wish to create more universal access to legal technology should be careful to ensure that their technology is not used to entrench larger firms in positions of power (even more than they already are).”).

64. Dimitri Kanevsky, *Technology Change as the Great Equalizer*, WHITE HOUSE (May 7, 2012, 12:55 PM), <https://obamawhitehouse.archives.gov/blog/2012/05/07/technology-change-great-equalizer>.

65. See Adrienne LaFrance, *Technology, the Faux Equalizer*, ATLANTIC (Mar. 31, 2016), <https://www.theatlantic.com/technology/archive/2016/03/half-full-tech/476025/> (“Silicon Valley’s sunny outlook on technology and opportunity ignores systematic inequalities,” like the fact that not everyone has Internet access, and so technology alone cannot be the “equalizing force.”).

66. See, e.g., Kate Crawford, Opinion, *Artificial Intelligence’s White Guy Problem*, N.Y. TIMES (June 25, 2016), https://www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html?_r=0 (“Like all technologies before it, artificial intelligence will reflect the values of its creators.”); Peter Rejcek, *The Struggle to Make AI Less Biased than Its Creators*, SINGULARITYHUB (Jan. 31, 2017), <https://singularityhub.com/2017/01/31/the-struggle-to-make-ai-less-biased-than-its-creators/>.

67. Jamie J. Baker, *Beyond the Information Age: The Duty of Technology Competence in the Algorithmic Society*, 69 S.C. L. REV. 557, 558, 569 (2018) (“[T]here are problems with blindly relying on algorithms because they lack transparency in generating results. With this lack of transparency, lawyers must be extra vigilant in ethically relying on these results in the face of machine learning bias or other. . . . [D]ata-drive decision-support systems can perpetuate injustice, because they can be biased either in their design, or by picking up human biases” (quoting Iyad Rahawn, *Society-in-the-Loop: Programming Social Contract*, 20 ETHICS INFO. TECH. 5, 6 (2018))).

68. See generally Solon Barocas & Andrew D. Selbst, *Big Data’s Disparate Impact*, 104 CALIF. L. REV. 671 (2016) (discussing the harm that can result from relying on algorithmic techniques).

II. THE RISE OF ARTIFICIAL INTELLIGENCE IN LAW AND THE IMMEDIATE AND INEVITABLE CHALLENGES

A. SOFT AI, STRONG AI, AND “DATAFICATION”

AI has been defined as “the ability of machines to execute tasks and solve problems in ways normally attributed to humans.”⁶⁹ At a fundamental level, there are two kinds of AI. The first has been called “soft AI.”⁷⁰ Like early examples of groundbreaking uses of “big data,”⁷¹ soft AI is purely focused on mimicking human intelligence and attempts to produce outcomes that to a high degree match those that would have been produced by humans acting alone.⁷² Soft AI does this without any attempt to replicate the underlying processes by which humans actually reach those outcomes.⁷³ Many of the emerging instances of AI in law are examples of this soft AI, including AI tools that aid with document review, e-discovery, legal research, and outcome prediction.⁷⁴

One major challenge posed by soft AI is its primary, if not exclusive, use of what Daniel Katz describes as “observational data.” Katz explains that, “[u]sing large segments of observational data, today’s soft AI is built upon modeling what people actually do, thereby allowing a machine to probabilistically emulate their behavior under analogous conditions.”⁷⁵ This is problematic when trying to emulate the behavior of lawyers because legal strategy often involves considering factors that are not currently observable by machines because certain associated data are never, or at least less often, “datafied.”

“Datafication,” a term coined by Viktor Mayer-Schönberger and Kenneth Cukier, refers to the act of transforming something into “a quantified format so it can be tabulated and analyzed.”⁷⁶ Many pieces of client information are not currently datafied, and for good reason. For instance, a legal brief will not reference certain pieces of embarrassing or sensitive client information that for any number of reasons a lawyer and the client may have determined should be

69. *What’s Next for Artificial Intelligence*, WALL ST. J., <http://www.wsj.com/articles/whats-next-for-artificial-intelligence-1465827619> (last updated June 14, 2016, 1:14 AM) (quoting Yann LeCun, then director of artificial-intelligence research at Facebook).

70. Irving Wladawsky-Berger, *‘Soft’ Artificial Intelligence is Suddenly Everywhere*, WALL ST. J. (Jan. 16, 2015, 12:49 PM), <https://blogs.wsj.com/cio/2015/01/16/soft-artificial-intelligence-is-suddenly-everywhere/>.

71. See generally VIKTOR MAYER-SCHONBERGER & KENNETH CUKIER, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK* (2013) (surveying big data’s growing effect on business, government, science and medicine, privacy, and the way we think).

72. Wladawsky-Berger, *supra* note 70.

73. Daniel Martin Katz, *Quantitative Legal Prediction—or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry*, 62 EMORY L.J. 909, 918 (2013) (“Today’s AI is ‘soft AI’ because it attempts to mimic human intelligence in outcomes, but not in its underlying processes.”).

74. See *infra* Subpart II.C.

75. Katz, *supra* note 73, at 918–19 (citing Steven Levy, *The AI Revolution Is On*, WIRED (Dec. 27, 2010, 12:00 PM), http://www.wired.com/magazine/2010/12/ff_ai_essay_airevolution/).

76. MAYER-SCHONBERGER & CUKIER, *supra* note 71, at 76–78.

excluded from formal or informal documentation during the case. For example, a sexual assault survivor might not want a certain electronic communication to be a part of a case because it could open an opportunity for defense counsel to distort that communication through the perpetuation of a rape myth.⁷⁷ The fact that this information never makes its way into an internal or external database does not mean that the underlying facts are not important to the case. In fact, it is quite the opposite; sensitive information often affects, if not drives, the overall legal strategy employed in a case. However, if this information is never formalized, it is not “observable” to soft AI assistance that might be able to otherwise make valuable use of it. This paradox inevitably leads to tensions between a lawyer’s different ethical obligations.

Communication between lawyers and their clients, including discussion of sensitive facts or secrets, is a critical component of effective and ethical lawyering. The duty to discuss with a client the means by which the client’s objectives are to be achieved necessarily involves discussing and dealing with sensitive facts when crafting legal strategy.⁷⁸ As AI development progresses to include tools that can help develop legal strategy (for example one based on past outcomes),⁷⁹ a lawyer who adopts a service that fails to account for, or fails to make appropriate use of, such information, risks unethically marginalizing or even ignoring the client’s objectives during key decision-making phases of the representation.⁸⁰ However, a lawyer who *does* utilize an AI tool that not only incorporates, but also deeply analyzes, such sensitive information faces unique confidentiality concerns beyond those currently associated with more prevalent technology.⁸¹ At the same time, a lawyer who ignores such potentially helpful, efficient services risks failing to competently and zealously represent their client at an affordable price.⁸² This Article argues that these tensions make it imperative that ethical obligations are rigorously scrutinized in light of any given system’s proposed service, and that lawyers, firms, bar associations, and legal

77. See generally Drew Simshaw, *Title IX in the Technological Age—Challenging Rape Culture and Myths Through Fairer Use of Electronic Communications*, 6 TENN. J. RACE, GENDER & SOC. JUST. 275 (2017) (advocating for the use of electronic communications to enable Title IX enforcement and subsequent criminal rape trials).

78. See MODEL RULES OF PROF’L CONDUCT r. 1.4 (AM. BAR ASS’N 2016) (governing attorney-client communications, and requiring lawyers to “promptly” communicate and consult their clients).

79. Daniel Ben-Ari et al., “*Danger, Will Robinson?*” *Artificial Intelligence in the Practice of Law: An Analysis and Proof of Concept Experiment*, 23 RICH. J.L. & TECH. 2, 35 (2017) (“Computers could do the work of a lawyer—examining a case, analyzing the issues it raises, conducting legal research, and even deciding on a strategy.”).

80. See *infra* Subpart III.A.1.

81. See *infra* Subpart III.A.2.

82. See *infra* Part III; see also Turner, *supra* note 7 (quoting Ryan Calo as saying “Eventually, I bet not using these systems will come to be viewed as antiquated and even irresponsible, like writing a brief on a typewriter.”).

ethics oversight bodies immediately initiate a dialogue regarding these services, including developing formal or informal guidance.⁸³

The second kind of AI, “strong AI,” or “hard AI,” looks beyond mere outcomes based on inputs, and actually attempts to mimic real human processes. AI that is this advanced is still a thing of the future. Luke Nosek explains:

[W]e remain stages away from creating an artificial general intelligence with anywhere near the capabilities of the human mind. We don’t yet understand how general, human-level AI (sometimes referred to as AGI, or strong AI) will work or what influence it will have on our lives and economy.⁸⁴

There is no doubt that there will continue to be tremendous demand for AI services that take on increasingly central components of legal research and case development. As a result, there is reason to believe that there will be some amount of pressure from both partners and clients of law firms to adopt such advanced services due to their business efficiencies compared to human labor.⁸⁵ This will raise a host of issues concerning the moral and ethical implications of such advanced services, and inevitably raises the question of whether “robot lawyers” will take human lawyers’ jobs.

B. AI’S IMPACT ON THE DEMAND FOR LEGAL SERVICES AND NEED FOR HUMAN LAWYERS

It is at this point in most legal AI discussions that some lawyers question why the profession is focusing on responsible use of AI when it should be plotting how to prevent inevitable “robot lawyers” from taking their jobs. Indeed, many, including Rickard Susskind, believe that to some degree this is what the legal services industry has in store.⁸⁶ These concerns are not limited to the legal profession. Indeed, automation has reduced the need for many forms of labor. Between 2000 and 2012, roughly a half million auto manufacturing jobs were lost, largely due to automation.⁸⁷

83. See *infra* Parts III, IV.

84. *What’s Next for Artificial Intelligence*, *supra* note 69 (quoting Luke Nosek, co-founder of PayPal and the Founders Fund).

85. See, e.g., Erb, *supra* note 36 (“Integrating robot lawyers or programs that can run repetitive tasks is cheap. Robots don’t ask for promotions, and they don’t want bonuses. . . . In the age of apps and the Internet, consumers increasingly want answers immediately. A firm that relies on computers and not on people can spit out answers almost instantaneously, and it can do so 24 hours a day. Robots don’t need breaks, they work weekends and evenings, and they don’t go on vacation.”).

86. RICHARD SUSSKIND & DANIEL SUSSKIND, *THE FUTURE OF THE PROFESSIONS: HOW TECHNOLOGY WILL TRANSFORM THE WORK OF HUMAN EXPERTS* 66–71 (2015) (describing how artificial intelligence will replace attorneys, and other professionals, by providing the same services at low-to-no cost).

87. Erb, *supra* note 36.

However, it is likely that AI will have a more profound impact on the workforce than past technological transformations. Some have predicted that 47% of jobs in the U.S. could be automated and replaced by robots controlled by computers in the next two decades.⁸⁸ Andrew Ng has elaborated:

The age of intelligent machines will see huge numbers of individuals unable to work, unable to earn, unable to pay taxes. Those workers will need to be retrained—or risk being left out in the cold. We could face labor displacement of a magnitude we haven't seen since the 1930s.⁸⁹

Depending on the number of individuals that need to be “retrained” at a given time in a given sector, there will not necessarily be a sufficient number of jobs available by the time those individuals reenter the workforce. Some believe that the legal services industry will not be immune to this trend,⁹⁰ even despite the highly specialized training that sets lawyers apart from what many consider to be more vulnerable professions.⁹¹ Regardless of whether AI's emergence can be characterized as “taking jobs,” its role will certainly remove lawyers from certain components of the current legal services model.⁹²

However, when it comes to machine learning, as opposed to just automation in general, AI cannot yet replicate human capabilities.⁹³ Even if it could, especially in the legal services industry, humans are too essential to completely remove from the lawyering process. As the deputy director of the Florida Bar Foundation, Melissa Moss, has explained, “When the technology is simply too much or the user has an emergency situation that demands immediate attention, alternatives that involve immediate human intervention have to be built into systems.”⁹⁴ In 2017, Professors Remus and Levy argued that artificial intelligence will change, but not replace, the work performed by lawyers, and concluded that the hours worked by lawyers in corporate firms will be reduced by only about 2.5% annually over the next five years.⁹⁵

In the long term, if concerns are addressed, it might be that AI is less likely to “take” lawyers' jobs, and more likely to enable them to make services available to untapped markets. For example, as previously referenced,

88. *Id.*

89. *What's Next for Artificial Intelligence*, *supra* note 69 (quoting Andrew Ng, chief scientist at Chinese Internet giant Baidu).

90. *See, e.g.*, Katz, *supra* note 73, at 963 (“[W]ith respect to the existing market for legal services, the total number of humans needed to service the current demand for legal services is simply going to decline.” (footnote omitted)).

91. *See, e.g.*, Erb, *supra* note 36 (“According to traditional wisdom, the best way to avoid being replaced by a robot was to get an education and land a job that doesn't rely on manual labor, the employment sector viewed most at risk. But as it turns out, robots can do anything. Even lawyering.”).

92. *See infra* Subpart II.B.

93. *What's Next for Artificial Intelligence*, *supra* note 69 (quoting Yann LeCun as saying “Despite these astonishing advances, we are a long way from machines that are as intelligent as humans—or even rats. So far, we've seen only 5% of what AI can do.”).

94. Moss, *supra* note 28, at 84.

95. Remus & Levy, *supra* note 20, at 536.

DoNotPay relied on lawyers when designing its self-help service to initiate immigration applications, and some anticipated that the service would increase clients for human lawyers after refugees were brought into the system.⁹⁶ Similarly, self-help services like LegalZoom, LegalShield, and Rocket Lawyer have begun to contract with lawyers or otherwise enable consumers to connect with human lawyers when needed.⁹⁷ Others have noted that as more clients are brought into the legal system, there could even be increased hiring of certain indispensable human legal service providers, if appropriate funding is part of broader investment in technology.⁹⁸ Moreover, if expanding legal services to untapped markets does not occur as the result of profession-wide efforts to fulfill a professional responsibility to improve access to justice, it will likely occur out of economic necessity.⁹⁹

However, there is a risk that not all lawyers will benefit equally from the rise of AI. As McGinnis and Pearce explain:

Machines may actually aid two kinds of lawyers in particular. First, superstars in the profession will be more identifiable and will use technology to extend their reach. Second, lawyers who can change their practice or organization to take advantage of lower cost inputs made available by machines will be able to serve an expanding market of legal services for middle-class individuals and small businesses, meeting previously unfulfilled legal needs.¹⁰⁰

So, while some access will be increased as a result of (1) “superstars” extending their reach, and (2) versatile practices adjusting their services to the middle class, less high profile and less versatile lawyers—like public defenders—will likely not be able to implement AI as quickly, if at all. At the speed at which AI is developing, this could be detrimental and put significant portions of the profession at a competitive disadvantage.¹⁰¹

96. Cresci, *supra* note 23 and accompanying text.

97. Bigda, *supra* note 40, at 407–08 (“LegalZoom is beginning to offer legal advice for clients by contracting lawyers from different states. . . . Rocket Lawyer provides an ‘On Call’ service for its monthly subscribers, which allows customers to consult with attorneys from around the country. . . . LegalShield is implementing new technology into their platform by allowing clients to work with an attorney through the client’s smartphone.” (footnotes omitted)).

98. Magnuson & Frank, *supra* note 51, at 18 (“Increased funding for the justice system ensures not only increased technological resources available to the poor, but also adequate court staffing and the availability of legal service providers such as legal aid and public defenders, who are indispensable in filling the client-service gaps that evolving court processes and burgeoning technology create.”).

99. See Katz, *supra* note 73, at 963 (“Without tapping previously untapped markets (and there is good reason to believe they can be tapped), law is an otherwise mature industry whose total labor market participation will likely never exceed its prior peak.”).

100. McGinnis & Pearce, *supra* note 12, at 3042.

101. Katherine Medianik, Note, *Artificially Intelligent Lawyers: Updating the Model Rules of Professional Conduct in Accordance with the New Technological Era*, 39 CARDOZO L. REV. 1497, 1506 (2018) (“The[] elements of implementing AI technology generate margins superior to competing firms, thereby creating a competitive advantage.”).

Ultimately, certain parts of the legal profession are likely to see some degree of integration of machine learning into everyday practice.¹⁰² If this integration engages lawyers, clients, and the public without creating massive inequality of access, it could be beneficial to all parties, and could calm fears of robots completely replacing human lawyers while also discouraging extreme reactions such as prohibiting certain forms of AI innovation that could help the public at large.

An examination of current forms of specific soft AI making their way into the profession, with an eye toward the more advanced iterations to come, will help identify some specific challenges that must be comprehensively considered to ensure responsible implementation.

C. SIGNIFICANT CHARACTERISTICS OF DEPLOYED AND DEVELOPING FORMS OF AI IN LAW PRACTICE

In many ways, soft AI is already part of the legal profession, perhaps making the biggest impact in the areas of document review, e-discovery, legal research, and, increasingly, outcome prediction.

Document review is perhaps the task most obviously suitable for basic use of soft AI-based assistance. But AI is not only changing the speed and accuracy of review during critical initial stages of a case, it is also changing the very nature of this process.¹⁰³ Whereas document review was previously tasked to young associates, AI is drastically reducing the need for human hours to be spent on this task.¹⁰⁴ If effectively implemented, AI “can aggregate data and match a finite set of outcomes to the answers to questions” or “rely on data sets to provide answers as well as products from automated letters to document review, all with a few clicks of a mouse.”¹⁰⁵ AI’s ability to transform the task of document review is indicative of its potential to impact other, more complex tasks, like e-discovery.

Electronic discovery (“e-discovery”), is another historically laborious and increasingly expensive task where soft AI is making a tremendous impact.¹⁰⁶ Historically, e-discovery has been defined as “the process by which computers

102. Katz, *supra* note 73, at 963 (“For white-collar professions such as law, medicine, or finance, the medium-term future centers on a mixture of humans and machines working together to more efficiently deliver the services than either could alone.”).

103. *Id.* at 947 (“In short, while the existing methods differ and a significant number of technical questions still remain unanswered, document review . . . as we currently know it is about to be substantially reset.”).

104. *See id.* at 944 (“In the ‘golden days’ of document review, the days prior to the proliferation of electronically stored information, law firms would execute manual review of paper documents using teams of young associates.”).

105. Erb, *supra* note 36.

106. *See* Katz, *supra* note 73, at 942–43 (“The total cost of litigation is driven by a number of factors: lawyers, expert witnesses, investigators, employee time and distraction, and to an ever-increasing extent the costs of discovery.”).

search a database for keywords that lawyers agree are marks of relevance.”¹⁰⁷ AI is altering this definition as e-discovery moves toward predictive coding practices.¹⁰⁸ AI and effective use of algorithms can now predict how relevant a particular document is, much faster and more accurately than a human acting alone.¹⁰⁹ The more accurate and less expensive e-discovery becomes, the more prevalent the practice will eventually be within the profession.¹¹⁰

However, there are two practical aspects of AI in e-discovery that could slow or even inhibit closing the access to justice gap. One is that the benefits of AI-driven e-discovery might, at least at first, only be recognized by large firms because many smaller practices lack designated e-discovery units.¹¹¹ Another is that lawyers have not themselves been involved in the technological innovation in the area of e-discovery, and, despite the fact that discovery is a highly legal process, have outsourced the task to third parties.¹¹² The reliance on third-party innovation, with no lawyer involvement during design, could lead to ethical challenges as AI continues to advance.¹¹³

Legal research, like that performed by ROSS,¹¹⁴ is in tremendously high demand, and becoming highly sophisticated very quickly. Simply put, AI can help predict which past cases will be helpful to a lawyer’s case. This is becoming an increasingly greater departure from current database searches where a tool, such as Lexis or Westlaw, returns search results that a lawyer must then read, analyze, and Shepardize or KeyCite. As McGinnis and Pearce have explained, “in the past forty years, legal computer programs have perfected only keyword searches. However, because of technological acceleration, in less time computers will be able to pick and choose for themselves the best precedent to

107. McGinnis & Pearce, *supra* note 12, at 3047 (citing Steven C. Bennett, *E-Discovery by Keyword Search*, 15 PRAC. LITIGATOR 7, 9 (2004)).

108. Katz, *supra* note 73, at 945 (“We now stand on the cusp of the next generation of e-discovery centered around ‘predictive coding’ technology” (footnote omitted)).

109. See McGinnis & Pearce, *supra* note 12, at 3047 (noting that technicians can construct algorithms that predict whether a document is relevant from a large set of documents, thereby increasing the range of documents reviewed and the speed at which they are reviewed).

110. See *id.* at 3047–48 (in fact, McGinnis & Pearce note that e-discovery is already changing the discovery practice of large commercial litigation).

111. See, e.g., Katz, *supra* note 73, at 945 (“We now stand on the cusp of the next generation of e-discovery centered around ‘predictive coding’ technology, which should reduce costs to clients and in turn increase profits to high-performing law firms and legal product companies engaged in the enterprise.” (footnotes omitted)); McGinnis & Pearce, *supra* note 12, at 3048 (describing that only “large law firms have set up e-discovery units within their firms”).

112. See McGinnis & Pearce, *supra* note 12, at 3048 (“[L]awyers will face competition from companies outside the profession that want to offer discovery services to lawyers . . . [that] are likely more innovative, specialized, and less attached to traditional ways of thinking about the issue.”); Katz, *supra* note 73, at 944 (“[L]aw firms—and their clients—have not been uniformly innovative in response to the new world of e-discovery.”); Spahn, *supra* note 40 (“Using artificial intelligence can amount to ‘outsourcing’ work to the third-party artificial intelligence vendor.”).

113. See *infra* Subpart III.A.3.

114. See Vanderbilt University, *supra* note 9 and accompanying text.

cite in a brief.”¹¹⁵ Early legal AI companies like ROSS are transforming legal research with the help of IBM’s Watson technology, which, as McGinnis and Pearce explain, signals a significant shift from the use of keywords to semantics that match not only words, but similar concepts.¹¹⁶ Not only can these new systems match relevant cases, but they can gauge their relative persuasiveness based on how frequently other cases rely on it, and can do so within the context of certain courts or judges.¹¹⁷

As helpful as this technology will be in assisting lawyers with traditional practice processes, in the near future it will also likely fundamentally transform the way lawyers approach legal research. “Machine intelligence will not only uncover precedent but will also *guide lawyers’ judgments about the use of precedent*, as most lawyers can neither comprehensively evaluate the strength of precedent [n]or recall all possible precedents to mind.”¹¹⁸

Other commentators have noted that emerging services “purport not just to review documents and do word searches, but to give advice or something that is tantamount to advice.”¹¹⁹ Of course, AI can only guide a lawyer’s judgment based on the observational, “datafied” information it has at its disposal. To get the full picture of a set of facts, issue, or case, a lawyer will either have to account for un-datafied information wholly apart from the AI’s analysis, or begin to datafy that information for the AI to utilize.

The fact that AI tools will increasingly be able to help guide lawyers’ judgment in developing a case represents a monumental shift from the impact of previous technologies, which merely aided efficiency, and makes the design and responsible use of these systems even more critical.

Outcome prediction is what much of AI’s use in law is—and will continue to be—focused on.¹²⁰ Clients and lawyers both want to know whether to pursue a particular case, and if they do, they want to know what strategy has the greatest chance of success. As Katz explains in his article on “quantitative legal prediction:”

[Much of a lawyer’s work] can be substantially aided through the use of data, metrics, and models. Whether sourcing a particular legal matter, determining the outcome of a given piece of litigation, or forecasting the long-run implications of a given contract provision, the core questions involve matters of prediction.¹²¹

115. McGinnis & Pearce, *supra* note 12, at 3046.

116. *Id.* at 3049.

117. *See id.* (noting that machine intelligence will also make judgments about the strength of precedent and will help gauge the strength of legal precedent as it is tested in subsequent case law).

118. *Id.* at 3049–50 (emphasis added).

119. Connell, *supra* note 41, at 7.

120. *See* McGinnis & Pearce, *supra* note 12, at 3045 (“[A]ll machine-driven legal services will use sophisticated algorithms both to structure data in various forms, such as legal documents, and to make predictions about future events, like case outcomes.”).

121. Katz, *supra* note 73, at 948.

Others, such as McGinnis and Pearce, have described this process as “predictive analytics,” noting that “law, with its massive amounts of data from case law, briefs, and other documents, is conducive to machine data mining that is the foundation of this new predictive science.”¹²²

However, although some aspects of legal tasks are well-suited for outcome prediction and data mining, such practices have their limits. As McGinnis and Pearce acknowledge, “[l]egal data include fact patterns, precedents, and case outcomes,”¹²³ all of which can be mined. However, in reality, lawyers consider much more information in crafting a case, much of which is never documented and therefore not available for machine analysis.¹²⁴ Moreover, even the data that are available are often biased, or subject to the biases of the algorithms designed for certain types of practice or clients, in addition to the often unconscious biases of the algorithm designers themselves.¹²⁵

Individual lawyers, firms, and AI designers cannot confront these challenges on their own. It will take a profession-wide effort—one that involves lawyers and AI designers and takes into account the public’s needs and the preferences and expectations of clients—to maximize the benefits of AI in light of these risks. Although legal ethics oversight bodies have issued guidance in the last few years regarding certain forms of emerging technology, and even amended some rules to take into account the challenges posed by such technologies, these efforts will only be of limited use if applied to the unique challenges posed by AI. The following section examines the guidance to date regarding ethical obligations in light of new technologies, and identifies areas where ethics bodies and bar authorities should immediately strive to foster dialogue and issue additional guidance specific to the unique challenges of AI.

III. CONFRONTING AI’S CHALLENGES THROUGH A RENEWED COMMITMENT TO ETHICAL OBLIGATIONS

A. CURRENT ETHICAL GUIDANCE IS INSUFFICIENT TO ADDRESS THE UNIQUE CHALLENGES POSED BY AI IN LAW PRACTICE

Technology has always caused tension when reconciling lawyers’ ethical obligations. For many reasons, law firms have historically been slow to adopt new technologies.¹²⁶ The paramount obligation to protect confidential information, among other justifications, has kept lawyers from initially adopting many forms of technology, including email and computers. These conservative

122. McGinnis & Pearce, *supra* note 12, at 3052.

123. *Id.*

124. See Katz, *supra* note 73 and accompanying text.

125. See *supra* notes 66–68 and accompanying text.

126. See Mark A. Cohen, *Lawyers and Technology: Frenemies or Collaborators?*, FORBES (Jan. 15, 2018, 5:56 AM), <https://www.forbes.com/sites/markcohen1/2018/01/15/lawyers-and-technology-frenemies-or-collaborators/#17e53ace22f1> (arguing that lawyers have a “curious ambivalence” towards technology and are often reticent to embrace it professionally).

tendencies run counter to the parallel duties of zealously and competently representing clients. There is an emerging consensus, especially within the context of cybersecurity, that lawyers cannot take an “ostrich-with-its-head-in-the-sand” approach to technology—both in terms of using and not using various forms.¹²⁷

Over time, much of the profession has embraced, at times reluctantly, various forms of technology, and in doing so, has confronted various ethical dilemmas that can result from its use. In 2012, the American Bar Association (“ABA”), after a resolution of its Commission on Ethics 20/20, amended the black letter and commentary of several key model rules in order to take into account the increased role of technology in the profession.¹²⁸ This guidance will be modestly helpful, but ultimately insufficient, to address the challenges posed by AI in law practice. Even so, understanding the substance of the rules and the reasoning behind recent amendments is critical for context when determining the appropriate course for confronting the unique challenges posed by AI, as well as ensuring its potential to improve access to justice.

1. Competence

The meaning of “competent practice” fundamentally changes when a lawyer uses AI that performs increasingly sophisticated tasks, especially when that lawyer does not understand how the underlying technology works. Lawyers are not alone when it comes to failing to comprehend what is happening in the “black box” of AI.¹²⁹ Even many developers do not fully understand the AI they are designing.¹³⁰ But unlike individuals in other professions, lawyers have an ethical obligation that should be interpreted to require them, to some degree, to

127. See, e.g., JILL D. RHODES & VINCENT I. POLLEY, *THE ABA CYBERSECURITY HANDBOOK: A RESOURCE FOR ATTORNEYS, LAW FIRMS, AND BUSINESS PROFESSIONALS* 64 (2013) (“In short, a lawyer cannot take the ‘ostrich’ approach of hiding his head in the sand and hoping that his office or firm will not suffer a data breach that compromises client information. [Instead,] lawyers must implement administrative, technical, and physical safeguards to meet their obligation to make reasonable efforts to protect client information.”).

128. See generally *ABA Commission on Ethics 20/20*, A.B.A. (Mar. 18, 2013), [https://www.americanbar.org/groups/professional_responsibility/committees_commissions/standingcommittee_on_professionalism2/resources/ethics2020homepage/?q=&fq=\(id%3A%5C%2Fcontent%2Faba-cms-dotorg%2Fen%2Fgroups%2Fprofessional_responsibility%2F*\)&wt=json&start=0](https://www.americanbar.org/groups/professional_responsibility/committees_commissions/standingcommittee_on_professionalism2/resources/ethics2020homepage/?q=&fq=(id%3A%5C%2Fcontent%2Faba-cms-dotorg%2Fen%2Fgroups%2Fprofessional_responsibility%2F*)&wt=json&start=0) (“Created by then ABA President Carolyn B. Lamm in 2009, the Commission will perform a thorough review of the ABA Model Rules of Professional Conduct and the U.S. system of lawyer regulation in the context of advances in *technology* and the global legal practice developments.” (emphasis added)).

129. Charles McLellan, *Inside the Black Box: Understanding AI Decision-Making*, ZDNET (Dec. 1, 2016), <http://www.zdnet.com/article/inside-the-black-box-understanding-ai-decision-making/> (“Artificial intelligence algorithms are increasingly influential in peoples’ lives, but their inner workings are often opaque.”).

130. Simon, *supra* note 49 (“Even many of the experts who develop these products don’t fully understand them.” (citing Cliff Kuang, *Can A.I. Be Taught to Explain Itself?*, N.Y. TIMES MAG. (Nov. 21, 2017), <https://www.nytimes.com/2017/11/21/magazine/can-ai-be-taught-to-explain-itself.html> (“As machine learning becomes more powerful, the field’s researchers increasingly find themselves unable to account for what their algorithms know—or how they know it.”))).

find out.¹³¹ There is currently no formal guidance for practicing competently in light of these emerging services.¹³²

Under the ABA's pre-2012 Model Rules, and still in some states, the competence rule language and accompanying commentary are simple. The rule merely states: "[c]ompetent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation,"¹³³ with commentary adding that, "[t]o maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice."¹³⁴ Although this might implicitly include keeping abreast of technology's benefits and risks, the ABA's 2012 resolution expressed that "it is important to make this duty explicit because technology is such an integral—and yet, at times invisible—aspect of contemporary law practice."¹³⁵ The ABA, accordingly, explicitly amended the commentary language to read that, "[t]o maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, *including the benefits and risks associated with relevant technology*."¹³⁶ This explicit addition of technology to the rule was and is significant. So too, though, is the fact that many states have chosen not to adopt this amendment¹³⁷—a sign that some states may also resist any rule changes that explicitly take into account AI, out of fear of being too prescriptive. Some commenters, on the other hand, have called for an even more prescriptive competence rule in light of AI's unique challenges.¹³⁸

Under the amended language, and arguably even the original language, the competence rule has been interpreted as saying that lawyers must understand not only the technical aspects of the technology they adopt, but also the related ethical implications. In the context of e-discovery, predictive coding, and computer assisted review, one commenter has noted that, practically speaking, "[t]his provision will require lawyers to better understand any advances in

131. See Baker, *supra* note 67, at 558 (arguing that the ethical "Duty of Technology Competence" should extend to the use of algorithms in law).

132. See *id.* ("A technology that has not yet been formally interpreted to apply to the Duty of Technology Competence is the use of algorithms in law.").

133. MODEL RULES OF PROF'L CONDUCT r. 1.1 (AM. BAR ASS'N 2002).

134. MODEL RULES OF PROF'L CONDUCT r. 1.1 cmt. 6 (AM. BAR ASS'N 2002).

135. ABA Resolution 105A, A.B.A. (Aug. 6–7, 2012), http://www.americanbar.org/content/dam/aba/directories/policy/2012_hod_annual_meeting_105a.doc [hereinafter *ABA Resolution 105A*].

136. Compare MODEL RULES OF PROF'L CONDUCT r. 1.1 cmt. 8 (AM. BAR ASS'N 2016) (emphasis added to show added language), with MODEL RULES OF PROF'L CONDUCT r. 1.1 cmt. 6 (AM. BAR ASS'N 2002) (the 2012 amendments added the "including the benefits and risks associated with relevant technology" language).

137. Robert Ambrogio, *Make That 30 States, as Another Adopts Ethical Duty of Technology Competence*, LAW SITES BLOG (Mar. 14, 2018), <https://www.lawsitesblog.com/2018/03/make-30-states-another-adopts-ethical-duty-technology-competence.html> (noting that, as of March 2018, twenty states had not adopted the ABA's amended language instituting a "technological competence" obligation); Baker, *supra* note 67, at 561–62 (noting that "thirty-one states have adopted the Duty of Technology Competence by amending the respective Duty of Competence" by citing each state's respective action).

138. See, e.g., Medianik, *supra* note 101, at 1515 ("[S]tate competency rules shadowing the Model Rules, [], remain too ambiguous to lend an adequate sense of direction for lawyers using AI technology.").

technology that genuinely relate to competent performance of the lawyer's duties to a client."¹³⁹ The most obvious of these other ethical duties is maintaining confidentiality.¹⁴⁰

As AI becomes more prevalent, lawyers might implicitly be required, as the rule has been understood, to exercise "continued vigilance and learning as technology advances, in order to comply with a lawyer's duties under ethics rules."¹⁴¹ Although this rule imposes a positive duty on lawyers to understand the technology they use, their knowledge must only be sufficient to competently *use* the technology. Guidance thus far has not required or even suggested that lawyers should be involved in the design phase of new technologies they use, for example, the way DoNotPay involved lawyers during its recent expansion.¹⁴² Rather, the rule and guidance merely imply that outside experts can help a lawyer become competent or act competently in certain circumstances.¹⁴³

Competence in an era of AI should require a lawyer to either be involved in the design of the AI systems they are using, or at the very least, to understand (with the help of an expert, if needed) certain underlying characteristics that affect the AI's bias (including that of the design, designer, and data),¹⁴⁴ its limits (including the limits of observational data and exclusion of information which has not been "datafied"),¹⁴⁵ and its confidentiality concerns.¹⁴⁶

2. Confidentiality

The emergence of AI in law practice should fundamentally change the way lawyers think about, talk about, and take measures to protect client confidentiality. This is due in large part to the new ways that client information will be generated, used, stored, and in some cases, comingled with that of other clients.

Confidentiality, especially when it comes to new technology, is at the core of a lawyer's ethical obligations.¹⁴⁷ With limited exceptions, confidentiality

139. John M. Barkett, *More on the Ethics of E-Discovery: Predictive Coding and Other Forms of Computer-Assisted Review* (2012) (unpublished manuscript), https://judicialstudies.duke.edu/sites/default/files/centers/judicialstudies/TAR_conference/Panel_5-Original_Paper.pdf.

140. See *infra* Subpart III.A.2; see also RHODES & POLLEY, *supra* note 127, at 65 ("[A] lawyer's ethical obligation of competence requires that the lawyer become and remain competent about the technology they use so as to be able to protect client confidential information.").

141. RHODES & POLLEY, *supra* note 127, at 66.

142. See *supra* notes 22–23 and accompanying text.

143. RHODES & POLLEY, *supra* note 127, at 66 ("If a lawyer is not competent to decide whether use of a particular technology (e.g., cloud storage, public Wi-Fi) allows reasonable measures to protect client confidentiality, the ethics rules require that the lawyer must get help, even if that means hiring an expert information technology consultant to advise the lawyer.").

144. See *supra* notes 66–68 and accompanying text.

145. See *supra* note 76 and accompanying text.

146. See *infra* Subpart III.A.2.

147. See David G. Ries, *Cyber Security for Attorneys: Understanding the Ethical Obligations*, L. PRAC. TODAY (Mar. 2012), http://www.americanbar.org/content/dam/aba/publications/law_practice_today/cyber-security-for-attorneys-understanding-the-ethical-obligations.authcheckdam.pdf.

rules typically provide that “[a] lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent.”¹⁴⁸ In recent years, especially in the context of cybersecurity, commenters have stressed the importance of renewed commitment to confidentiality, including in the *ABA Cybersecurity Handbook*, which explains that the “obligation to maintain confidentiality of all information concerning a client’s representation, no matter the source, is paramount.”¹⁴⁹

The language and interpretation of confidentiality rules have trended in a stricter direction in recent years. Until 2012, and as is still the case in some states, Rule 1.6’s black letter only contained a negative obligation to avoid actively revealing client information.¹⁵⁰ The commentary, on the other hand, has suggested a more positive obligation, explaining that “[a] lawyer must *act competently* to safeguard information relating to the representation of a client . . . against inadvertent or unauthorized disclosure,”¹⁵¹ and that “[w]hen transmitting a communication that includes information relating to the representation of a client, the lawyer must *take reasonable precautions* to prevent the information from coming into the hands of unintended recipients.”¹⁵² When it comes to communicating client information via email or a cloud-based service, rule commentary also notes that, absent special circumstances, no special security measures are needed if the communication method affords a “reasonable expectation of privacy,” which is determined by “the sensitivity of the information and the extent to which the privacy of the communication is protected by law or by a confidentiality agreement.”¹⁵³ One challenge with AI will be determining what a client’s and lawyer’s reasonable expectations of privacy are with such a rapidly developing technology, especially in light of the “black box” within which the intelligence often operates.¹⁵⁴ This makes a lawyer’s competent understanding, and ability to communicate that understanding,¹⁵⁵ all the more critical.

In 2012, the ABA wanted the affirmative obligations to safeguard client information to be more explicit within the confidentiality rule, expressing in its resolution that “technological change has so enhanced the importance of this duty that it should be identified in the black letter and described in more detail in [the commentary].”¹⁵⁶ Accordingly, Rule 1.6 of the ABA Model Rules, and the adopted rule in some states, now provides: “A lawyer *shall make reasonable*

148. MODEL RULES OF PROF’L CONDUCT r. 1.6(a) (AM. BAR ASS’N 2016).

149. RHODES & POLLEY, *supra* note 127, at 62.

150. *See ABA Resolution 105A*, *supra* note 135, at 4 (Model Rule 1.6(c) now imposes an affirmative obligation to maintain confidentiality).

151. MODEL RULES OF PROF’L CONDUCT r. 1.6 cmt. 18 (AM. BAR ASS’N 2016) (emphasis added).

152. MODEL RULES OF PROF’L CONDUCT r. 1.6 cmt. 19 (AM. BAR ASS’N 2016) (emphasis added).

153. *Id.*

154. *See supra* notes 129–130 and accompanying text.

155. *See supra* Subpart III.A.1; *infra* Subpart III.A.4.

156. *ABA Resolution 105A*, *supra* note 135, at 14.

efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client,”¹⁵⁷ with Comment 18 now laying out the “[f]actors to be considered in determining the reasonableness of the lawyer’s efforts,” which include:

the sensitivity of the information, the likelihood of disclosure if additional safeguards are not employed, the cost of employing additional safeguards, the difficulty of implementing the safeguards, and the extent to which the safeguards adversely affect the lawyer’s ability to represent clients (e.g., by making a device or important piece of software excessively difficult to use).¹⁵⁸

Whereas with technology like cloud computing some sensitive information can be withheld from third-party storage if the lawyer determines that it is better suited for storage on the firm’s premises or in paper form, AI relies on constant access to critical information.¹⁵⁹ Therefore, withholding certain data from AI systems could undermine the effectiveness of a service assisting with tasks that assist with case development, legal research, or argument development and drafting.

On a more fundamental level, the post-2012 rules, interpretations, and guidance are almost entirely focused on security. While important, security alone does not represent the full extent of confidentiality concerns with AI. Even under the 2012 amendments, the ethics rules have been interpreted to focus on *disclosure* of information, contemplating something like a breach of a cloud service. The emergence of AI will certainly magnify security challenges,¹⁶⁰ but it will also change the way client information is gathered, datafied, formatted, and used, such that keeping unwanted eyes off of a stored document will no longer be sufficient to ensure that a client’s confidences are protected in the ways that they would expect.

Protecting confidentiality in an era of AI must go beyond merely ensuring security and must include competently understanding how AI systems work, communicating with clients (and former clients)¹⁶¹ to understand their expectations and preferences, and ensuring that the designers and managers of AI systems, including third parties, understand the critical importance of confidentiality.

157. MODEL RULES OF PROF’L CONDUCT r. 1.6(c) (AM. BAR ASS’N 2016) (emphasis added).

158. MODEL RULES OF PROF’L CONDUCT r. 1.6 cmt. 18 (AM. BAR ASS’N 2016).

159. See Simon, *supra* note 49 (“Most AI products, such as . . . cite-checking products . . . require access to your confidential data. (A draft memo itself is confidential information, for example.) This raises a lot of questions about confidentiality.”).

160. See *id.* (“What happens to your confidential data once the AI vendor gains access to it? Who has access to it at the AI vendor? Does the AI vendor share your confidential information with other third-party vendors? If so, do you know who those third-party vendors are, and have you checked them out? Do they have a contractual duty of confidentiality? What happens to your client’s data if the AI vendor is sold, merges, retires, or goes bankrupt? If the AI vendor is subpoenaed, is the vendor contractually obligated to give you notice so that you can intervene to challenge the subpoena?”).

161. See *infra* Subpart III.A.6.

3. *Supervising Third Parties*

AI services will frequently be, or at the very least involve, third parties. Indeed, the increased role of non-lawyers could play a major role in helping to improve access to justice. As Bill Henderson has noted:

Stated bluntly, the legal profession is becoming a subset of a larger legal industry that is increasingly populated by nonlawyers, technologists, and entrepreneurs. . . . Virtually every other aspect of a legal problem can be broken down into its component parts, reengineered, streamlined, and turned into a legal input or legal product that is better, cheaper, and delivered much faster.¹⁶²

The increased risks and interconnected nature of new technologies in the practice of law have prompted some review of the obligations of lawyers to supervise both the other lawyers with which they are associated, as well as third-party non-lawyers.

Model Rules 5.1 and 5.3 require supervisory attorneys to “make reasonable efforts to ensure that the firm has in effect measures giving reasonable assurance that,” under 5.1, “all lawyers in the firm conform to the Rules of Professional Conduct,”¹⁶³ and under 5.3, that the conduct of non-lawyers employed by, retained by, or associated with the lawyer, “is compatible with the professional obligations of the lawyer.”¹⁶⁴ The ABA recognized in 2012 that third-party assistance no longer involves just people, and in 2012 changed Rule 5.3’s title from “Responsibilities Regarding Nonlawyer *Assistants*,” to “Responsibilities Regarding Nonlawyer *Assistance*,”¹⁶⁵ with commentary now referencing “cloud computing” as a specific example of such a third-party service.¹⁶⁶ Similarly, the use of the phrase “nonlawyer,” as opposed to “person,” indicates “that the rule is intended to have reach beyond human assistants, to other nonlawyers, human or not, involved in the representation of a client.”¹⁶⁷ Within this context, “Artificial intelligence products are effectively non-human nonlawyers.”¹⁶⁸

While cloud computing is a valuable example of an emerging technological service that has undergone some helpful ethical scrutiny, AI’s role in a lawyer’s

162. William D. Henderson, *A Blueprint for Change*, 40 PEPP. L. REV. 461, 462–63 (2013).

163. MODEL RULES OF PROF’L CONDUCT r. 5.1 (AM. BAR ASS’N 2016).

164. MODEL RULES OF PROF’L CONDUCT r. 5.3(a)–(b) (AM. BAR ASS’N 2016).

165. Compare MODEL RULES OF PROF’L CONDUCT r. 5.3 (AM. BAR ASS’N 2002) (emphasis added), with MODEL RULES OF PROF’L CONDUCT r. 5.3 (AM. BAR ASS’N 2016) (emphasis added).

166. See MODEL RULES OF PROF’L CONDUCT r. 5.3 cmt. 3 (AM. BAR ASS’N 2016) (allowing a lawyer to use “an Internet-based service to store client information,” but when using such services outside the firm, “a lawyer must make reasonable efforts to ensure that the services are provided in a manner that is compatible with the lawyer’s professional obligations”).

167. David L. Gordon & Rebecca L. Ambrose, *The Ethics of Artificial Intelligence*, JACKSON LEWIS (May 11, 2017), https://www.jacksonlewis.com/sites/default/files/docs/Final_The%20Ethics%20of%20Artificial%20Intelligence_Gordon%20and%20Ambrose.pdf; see also Medianik, *supra* note 101, at 1522 (“[I]n representations involving AI technology, lawyers too have a responsibility to adequately supervise ROSS’s work since it carries out consequential tasks for client representation. If, however, lawyers blindly rely on ROSS’s outputs, they should be disciplined . . . because they would be breaching their fundamental obligations to their clients for failing to properly supervise a nonlawyer assistant.” (footnote omitted)).

168. Simon, *supra* note 49.

practice, including its ability to guide a lawyer's judgment, requires additional and urgent guidance. Even so, existing guidance regarding cloud computing is a useful starting point for understanding the context within which these important discussions must take place.

The *ABA Cybersecurity Handbook* defines cloud computing as "any system whereby a lawyer stores digital information on servers or systems that are not under the close control of the lawyer or the lawyer's firm."¹⁶⁹ This will undoubtedly encompass third-party AI services, including ROSS. State ethics boards' guidance on cloud computing is representative of the profession's general approach to striving for ethical use of new technology, which involves a baseline competence of how the technology works and a vetting of vendors for things like security in order to maintain confidentiality of client information.¹⁷⁰ Professor Simon suggests that under these rules, at the very least, lawyers implementing AI must "(1) hire an expert to vet the AI product; (2) learn what the AI product can (and can't) do; and (3) double-check the output of the AI product."¹⁷¹

However, a baseline technical understanding of AI, and ensuring that it is not malfunctioning, will not necessarily ensure that lawyers consider the myriad social, ethical, and moral issues that AI raises in the practice of law.¹⁷² In addition, although security is important, it will not be the only thing a lawyer needs to consider in evaluating whether an AI service will appropriately maintain client confidentiality. Moreover, current guidance does not raise critical ethical issues related to the duty to communicate with clients, the duties to exercise independent judgment and render candid advice, and lawyers' ongoing obligations to former clients, all of which are explained in greater detail below.

4. *Communicating with Clients*

Despite the enthusiasm of some attorneys when it comes to emerging AI, communicating with clients about AI in law practice is difficult,¹⁷³ especially considering how little most lawyers actually know about such services. The transformative role that AI will play in legal representation makes the communication between the lawyer and the client all the more essential to ensuring a productive, ethical representation.

169. RHODES & POLLEY, *supra* note 127, at 77.

170. *See id.* at 78 ("[State ethics opinions] make clear that a lawyer must have a basic understanding of the technical aspects of cloud computing, and should conduct a due diligence evaluation of the provider to ensure that they have adequate security measures.").

171. Simon, *supra* note 49.

172. *See infra* Subpart III.A.5.

173. *See* Marc Lauritsen, *Marketing Real Lawyers in the Age of AI*, L. PRAC., Jan./Feb. 2017, at 51 ("It's increasingly a no-brainer to use intelligent tools in law practice. Not so clear is how to talk about them with clients and prospective clients.").

Model Rule 1.4, which was unchanged in 2012, requires appropriate communication with clients “about the means by which the client’s objectives are to be accomplished.”¹⁷⁴ This has been interpreted to encompass communicating the ways in which a law practice utilizes technology, and even notifying clients when their information has been compromised.¹⁷⁵

Because AI in law—if it is to be used in a way that considers all of a client’s needs—will require gathering, datafying, formatting, and using especially sensitive client information in new ways, this communication with clients will be of paramount importance. Not only will lawyers need to discuss with clients the potential risks to their information, but also the fundamental nature of AI as a means of assisting with the representation—one that either has severe limitations (because many client needs are not datafied, and therefore not considered by the machine intelligence), or which makes very complex use—with third parties—of especially sensitive new data, not previously datafied. Because it is not yet clear what clients will prefer if faced with this choice, it is all the more important that lawyers are explicitly responsible for considering these realities before adopting a service, and for being able to competently discuss such implications with their clients.

It is important to note that, in the same way that certain ethical dilemmas should not be fatal to some forms of legal self-help,¹⁷⁶ mere tension between ethical obligations as a result of AI should not preclude a lawyer or firm from implementing a potentially transformative and beneficial AI service. What is critical is that such decisions weigh client needs and preferences in determining how to proceed in light of the ethical tensions, and are made in consultations between the lawyer and client in which both parties are adequately informed about the specific nature of the AI involved in their case.

AI guidance should extend this principle as it has been articulated with regard to security in the commentary to most confidentiality rules, which states that, “[a] client may require the lawyer to implement special security measures not required by this Rule or may give informed consent to forgo security measures that would otherwise be required by this Rule.”¹⁷⁷ It is difficult to anticipate with confidence how clients will respond to an AI driven ecosystem. Will the risks, limits, complexities, and unknowns of AI be such that clients prefer their lawyers to forego its use in some or all of their legal matters? Or, will the increased efficiency and potential quality of service lead to a client’s ringing endorsement of such services? Lawyers will not know unless they ask.

174. MODEL RULES OF PROF’L CONDUCT r. 1.4(a)(2) (AM. BAR ASS’N 2016) (note that alterations to the comments were made).

175. See Ries, *supra* note 147 (expressing that Model Rule 1.4, Communications, requires keeping clients informed of any compromises of their confidential information). Of course, practically speaking, it is very difficult for lawyers to know when client information has been compromised. See generally Eli Wald, *Legal Ethics’ Next Frontier: Lawyers and Cybersecurity*, 19 CHAP. L. REV. 501 (2016).

176. See *supra* Subpart I.A.

177. MODEL RULES OF PROF’L CONDUCT r. 1.6 cmt. 18 (AM. BAR ASS’N 2016).

Especially in these critical years ahead, ethics guidance should specifically stress an obligation to foster these communications.

5. *Independent Judgment and Candid Advice*

As previously stressed, one of the major limitations of AI is its inability to take into account information beyond the observational data that it has at its disposal. Many pieces of information, including sensitive or embarrassing information concerning the client, the instinctual knowledge of the lawyer, and relevant non-legal factors that the AI might not have access to, are not currently or cannot be datafied. Guidance must stress that, consistent with the preferences of a client, this information, which drives a lawyer's professional judgment, must not be marginalized if AI is adopted.¹⁷⁸

This guidance should stress a lawyer's obligation under Model Rule 2.1, which was also unchanged in the ABA's Model Rules in 2012. The rule explains that, "[i]n representing a client, a lawyer shall exercise independent professional judgment and render candid advice," and that this might involve referring "not only to law but to other considerations such as moral, economic, social and political factors, that may be relevant to the client's situation."¹⁷⁹ This means, among other things, that lawyers must consider and address clients' non-legal needs, as well as their legal ones.

On a more abstract level, as lawyers become increasingly reliant on intelligent systems, it draws into question the extent to which their professional judgment is "independent."¹⁸⁰ This is especially true if they do not fully understand and were not involved with the design of the system, and therefore cannot make independent judgments based on the AI's output. Although early adopters of ROSS report that users have double checked the service's results by comparing them with other legal research platforms, it has also been reported that users are beginning to rely on ROSS's results without any crosschecks.¹⁸¹ "Given the lack of transparency and other issues with blindly relying on

178. See Catherine Nunez, *Artificial Intelligence and Legal Ethics: Whether AI Lawyers Can Make Ethical Decisions*, 20 TUL. J. TECH. & INTELL. PROP. 189, 204 (2017) ("It is clear that ROSS has been exceedingly useful in the legal research department. . . . However, an attorney's role is not merely research. Attorneys must utilize their research skills in conjunction with their individual professional and moral judgment. Answers to questions requiring either of the two require a certain human quality of which ROSS is yet equipped.").

179. MODEL RULES OF PROF'L CONDUCT r. 2.1 (AM. BAR ASS'N 2016).

180. Medianik, *supra* note 101, at 1517 ("In terms of implementing the work of an AI lawyer to a case, when a lawyer relies solely on ROSS's outputs, independent professional judgment—as required by Model Rule 2.1—vanishes because reliance on such outputs turns into dependence on the judgments of a technological apparatus.").

181. See *id.* at 1511 (noting that lawyers rely primarily on the searches performed by ROSS and interpret the results, but do not go back and "quality check" to ensure the search was accurate) (citing E-mail from William Caraher, Chief Info. Officer & Dir. of Operations, von Briesen & Roper, to Katherine Medianik, Student, Benjamin N. Cardozo Sch. of Law (Sept. 8, 2016, 11:57 AM)); see also Baker, *supra* note 67, at 558 ("[T]he research habits of this generation show an apt to rely on algorithms to generate results with little evaluation of those results.").

algorithms, lawyers may be at a loss as to how to competently use this ubiquitous technology.”¹⁸²

Moreover, although AI will be very good at tracking and analyzing documented legal inputs and producing potentially helpful outcomes based on past observations, the effect of moral, social, and political factors will be difficult to analyze, or even account for or program into the system in the first place. Indeed, as Remus and Levey observe:

[R]educing legal advising to legal prediction could threaten to impede the law’s development. Predictability and stability are of course critical rule-of-law values, but so too is democratic participation in lawmaking. A core way in which citizens participate is through their lawyers, who translate their interests into persuasive and sometimes novel arguments as to how the law should apply to their clients’ circumstances. Lawyers can do so because our legal system is about reasons as well as outcomes—reasons, asserted by lawyers and memorialized in judicial opinions, which provide a continual opportunity through which to debate and potentially change the law. If lawyering is replaced by computer prediction, we will shift to a system that is more about outcomes than reasons—and outcomes that are inescapably “informed by the world as it was in the past, or, at best, as it currently is.”¹⁸³

Of course, over time, lawyers might experiment with ways in which AI might be able to take more of these factors into account, especially if law firms or third-party AI service providers begin tracking how such information has been handled—and to what success—in the past. This gives rise to the final obligation that should be urgently stressed in guidance regarding the adoption and use of AI—a lawyer’s obligations to former clients.

6. *Obligations to Former Clients*

ABA Model Rule 1.9(c), which has been adopted by most states, provides that duties such as confidentiality extend to the data of former clients.¹⁸⁴ AI will be powerful—indeed exponentially powerful—because it leverages information from many different cases from which new inputs can identify analogous points to create helpful outcomes, whether in the form of a suggested case to read or a suggested format of an argument or overall legal strategy based on past favorable outcomes. Whereas in days past lawyers might have shredded or deleted client information at some point, there is no longer an incentive—and in fact there is actually a disincentive—to dispose of any client information today. Because AI performs better with the more data it has access to,¹⁸⁵ client information could remain not only in existence, but remain in use, indefinitely.

182. Baker, *supra* note 67, at 572 (footnote omitted).

183. Remus & Levey, *supra* note 20, at 548–49 (footnote omitted).

184. MODEL RULES OF PROF’L CONDUCT r. 1.9(c) (AM. BAR ASS’N 2016).

185. Enrique Dans, *From Data to Artificial Intelligence*, MEDIUM (Feb. 5, 2017), <https://medium.com/enrique-dans/from-data-to-artificial-intelligence-491bdd92400> (“Data is the gasoline that powers artificial intelligence. Data allows us to develop the best algorithms, and above all, to improve them over time so that they produce better results and adapt to changing conditions. . . . The biggest mistake that can be

Ethics rules are designed, in part, to ensure that clients feel they can be candid with their attorneys throughout the course of a representation. The idea that an increasing amount of sensitive information will not only be collected, but also used, in perpetuity, could threaten this coveted comfort and trust that fosters critical openness. Many things must happen to preserve the trust between clients and attorneys in the age of AI, including making sure that this information is secure. But if clients are going to trust their attorneys, they are also going to have to trust AI as a tool, highlighting again the need for competence, communication, and the rest of the obligations that have been outlined.

It is time for lawyers to confront these challenges, wrestle with the ethical tensions, and through their ethics oversight bodies and bar associations issue guidance that will help the profession responsibly and ethically integrate AI into practice in a way that will improve the effectiveness of lawyers across the industry and will increase access to justice.

B. NEEDED GUIDANCE CONCERNING THE DESIGN, ADOPTION, AND USE OF AI IN LAW PRACTICE

The best place to begin to address these challenges is in forums that issue guidance through formal or informal ethics opinions. Some commentators advocate for amendments to the ABA Model Rules, or their commentary, that take into account the unique challenges posed by AI.¹⁸⁶ Indeed, if AI continues to progress in the profession without guidance, more prescriptive oversight might be necessary to respond to the possible negative consequences articulated in this Article. However, in the near term, one of the advantages of guidance over rule amendments is that guidance can be issued more quickly than actual changes to the black letter or commentary of ethics rules or, in more extreme case, changes to the law.¹⁸⁷

made in artificial intelligence is to try to judge an algorithm by its results the moment we get it, without taking into account the progress that can be made by using more and better data.”).

186. See, e.g., Bigda, *supra* note 40, at 412 (“Due to the increased use of artificial technology [sic] within the legal community, new laws and rules of professional conduct must be written to regulate the use of artificial intelligence in replacing lawyers.”); Medianik, *supra* note 101, at 1502 (advocating for, among other things, “the addition of several comments that incorporate AI technology and account for technological advancement”).

187. Some AI legislation currently being discussed in academic literature would likely affect emerging legal AI services. For example, the proposed Artificial Intelligence Development Act “would create a federal agency tasked with certifying the safety of AI systems,” and “would create a liability system under which the designers, manufacturers, and sellers of agency-certified AI programs would be subject to limited tort liability, while uncertified programs that are offered for commercial sale or use would be subject to strict joint and several liability.” Medianik, *supra* note 101, at 1508–09 (quoting Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*, 29 HARV. J.L. & TECH. 353, 393 (2016)). Services like ROSS would likely be subject to such oversight. *Id.* at 1508.

1. *The Need for Urgency*

AI is likely to be adopted at a much faster,¹⁸⁸ but perhaps less uniform, rate than previous technologies that spurred calls for ethical guidance in the legal profession. Part of this is due to what has been described as AI's "exponential growth [that] confounds our intuition and expectations."¹⁸⁹ Katz explains the converging role of "the synergy of Moore's Law, Big Data, and the AI Revolution" in the legal profession by noting that "[w]ith each doubling of processor speed, halving of data storage costs, and major advances in machine learning, the possibility frontier is opening up and doing so at a drastically nonlinear rate."¹⁹⁰

This rate of development sets AI apart from other technologies adopted by the legal profession in the past,¹⁹¹ and makes design, proactive consideration of challenges, and ethical guidance all the more critical. It is likely that lawyers will have less time to confront ethical implications of AI than they have had with other technologies, because legal markets simply will not wait.¹⁹² Moreover, because of the potential ability of AI to help close the access to justice gap, the profession and indeed society cannot afford to wait years for amendments to rules or changes to law.¹⁹³

2. *Guidance Is Needed During Critical Design Stages of Early AI*

The coming years will be critical ones for the design of increasingly advanced AI that will continue to make its way into the legal profession. While many challenges presented by AI will depend on responsible use of these systems by lawyers, another critical front is ensuring that, as much as possible, the ethical values that guide lawyers are designed into the AI systems themselves. There are both practical and theoretical conceptions of how to go about designing values into AI, and all involve lawyers first understanding what those values are, specifically in light of AI's challenges. Oxford philosopher and AI expert Nick Bostrom stated:

188. See Katz, *supra* note 73, at 949 ("Whether the questions surround the financing of lawsuits or engaging in . . . predictions . . . it does not matter what you think ought to happen; it only matters what the relevant market will embrace. The market will (or already has) embraced this sort of technology and there is likely much more coming down the pipeline.").

189. ERIK BRYNJOLFSSON & ANDREW MCAFEE, RACE AGAINST THE MACHINE: HOW THE DIGITAL REVOLUTION IS ACCELERATING INNOVATION, DRIVING PRODUCTIVITY, AND IRREVERSIBLY TRANSFORMING EMPLOYMENT AND THE ECONOMY 19 (2011).

190. Katz, *supra* note 73, at 922.

191. See McGinnis & Pearce, *supra* note 12, at 3041 ("[C]ontinuous technological acceleration in computational power is the difference between previous technological improvements in legal services and those driven by machine intelligence.").

192. See Katz, *supra* note 73, at 949 (discussing the speed of adoption of AI technology in the legal community).

193. Some states are still considering, but have not yet adopted, the ABA's amendments to its Model Rules that take into account new technologies, which it adopted in 2012. See *supra* note 137.

We would want the AI we build to ultimately share our values, so that it can work as an extension of our will. It does not look promising to write down a long list of everything we care about. It looks more promising to leverage the AI's own intelligence to learn about our values and what our preferences are.¹⁹⁴

Unlike many sectors, the legal profession has in fact already “writ[ten] down a long list of everything we care about,” in the form of its rules of professional conduct. In order to incorporate these values into AI as much as possible, lawyers must first maximize their understanding of these values within the specific context of AI. In addition, because it might someday be possible for AI to determine and automatically implement human values within systems,¹⁹⁵ lawyers must ensure that they have thought about and are living these values every day. All of these fronts will be aided by guidance from robust discussion, debate, and guidance.

3. *The Need for Proactive, but Not Prescriptive, Guidance*

The most important component of guidance from ethics bodies concerning the design, adoption, and use of AI, is that it be proactive. Some scholars have acknowledged that AI, and particularly its predictive functions, will require some form of pre-deployment “validations.” Daniel Katz, in his article titled *Quantitative Legal Prediction—or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry*, cautions that, “As the field moves forward into greater use of prediction models, it is critical for [] validation efforts to be undertaken and demanded prior to their actual deployment in any real world application.”¹⁹⁶ Ethical guidance is the first step to ensuring that lawyers know what needs to be validated before undertaking these efforts.

State ethics oversight bodies are not averse to issuing such guidance when a transformative technology comes along. Again, the legal profession's treatment of cloud computing is a useful starting point in charting a possible path forward for confronting the challenges present by AI. The ABA provides an online guide to “Cloud Ethics Opinions Around the U.S.”¹⁹⁷ and *The ABA Cybersecurity Handbook* contains an appendix of “Ethics Opinions on Lawyer Confidentiality Obligations Concerning Cloud Computing.”¹⁹⁸

194. *What's Next for Artificial Intelligence*, *supra* note 69 (quoting Nick Bostrom, founding director of the Future of Humanity Institute at Oxford University).

195. Steven Kotler, *The Uncanniest Valley: What Happens When Robots Know Us Better than We Know Ourselves?*, FORBES (July 20, 2014, 1:22 PM), <https://www.forbes.com/sites/stevenkotler/2014/07/20/the-uncanniest-valley-what-happens-when-robots-know-us-better-than-we-know-ourselves/#1e070bd66d1d>.

196. Katz, *supra* note 73, at 942.

197. *Cloud Ethics Opinions Around the U.S.*, A.B.A., https://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html (last visited Nov. 21, 2018).

198. RHODES & POLLEY, *supra* note 127, at 245.

Many state ethics opinions regarding cloud computing merely accept that the use of cloud services is ethical as long as lawyers competently select an appropriate vendor, preserve confidentiality, safeguard client property, provide reasonable supervision of cloud vendors, and communicate with the client as appropriate (in other words, it is ethical if it is ethical).¹⁹⁹ However, others have mandated that lawyers take significant steps that require substantial research and consideration before adopting services that might, for example, make client confidential information vulnerable to exposure. For example, Iowa requires lawyers to “[d]etermine the degree of protection the vendor provides to its clients’ data” before adopting a service, New Jersey requires lawyers to “[m]ake sure that vendors are using available technology to guard against foreseeable infiltration attempts,” and North Carolina requires lawyers to “[e]valuate the vendor’s security and backup strategy.”²⁰⁰ As one commentator has acknowledged in light of these various requirements, “It is probably safe to say that this subject matter does not form part of the curriculum at law schools.”²⁰¹ Nevertheless, under these jurisdictions’ guidance, the burden on lawyers to learn about the intricacies of the technology they are adopting and to consider the resulting ethical implications is outweighed by the unique challenges posed by the technology, and the importance of the legal ethics principles that the jurisdiction believes should not be undermined by the adoption of certain forms of technology. Guidance regarding the outlined challenges of AI is even more imperative.

Some guidance exists regarding how to design technology more broadly in a way that improves access to justice. For instance, Katherine Alteneder and Linda Rexer, in their article *Consumer Centric Design: The Key to 100% Access*, advocate for closing access gaps with “a consumer-centric approach in which consumers can be efficiently and effectively directed to the type and level of help they need” by maximizing “self-help services,” “building connections with providers,” employing methods of “simplification,” and “minding the digital divide.”²⁰² They argue that this “can maximize many emerging developments such as non-lawyer practice, enhanced unbundled legal services, Alternative Dispute Resolution (“ADR”) and online dispute resolution (“ODR”), remote legal services, and other innovations that give promise to a robust and integrated justice system.”²⁰³ This model provides a valuable starting point for improving the design of many legal technology services. However, AI’s unique challenges,

199. See, e.g., Ohio State Bar Ass’n, Informal Advisory Op. 2013-03 (July 25, 2013), <https://www.ohiobar.org/ForPublic/LegalTools/Documents/OSBAInfAdvOp2013-03.pdf>.

200. Drew T. Simshaw, *Legal Ethics and Data Security: Our Individual and Collective Obligation to Protect Client Data*, 38 AM. J. TRIAL ADVOC. 549, 565 (2015) (alterations in original).

201. Adam Cohen, *Lawyers Between a Rock (Social Media) and a Hard Place (The Cloud)*, INSIDE COUNSEL (Apr. 16, 2014), Proquest, Doc. No. 1516417190.

202. Katherine Alteneder & Linda Rexer, *Consumer Centric Design: The Key to 100% Access*, 16 J.L. SOC’Y 5, 7 (2014).

203. *Id.*

outlined in this Article, will require additional design guidance that focuses not only on connecting consumers with providers, but also on the inevitable challenges that will persist throughout all phases of the representation.

In issuing guidance regarding the design, adoption, and use of AI in an era where the role of humans lawyers will to some degree be marginalized, it will be essential to elevate the “humanistic” nature of lawyering, especially in legal education.²⁰⁴ Indeed, the proposed ethical guidance in this paper will not solve the larger moral questions or fundamental limitations of AI in the law. For instance, there are certain things that machines, no matter how well designed, will not be able to do as well as humans, such as create emotional bonds with clients that lead to better legal representation.²⁰⁵ However, in light of the immediate needs surrounding current rapid development and implementation, and especially in light of AI’s potential to help increase access to justice, issuing guidance concerning emerging AI services will enable the profession to address these larger issues as the sophistication of lawyers and clients regarding AI continues to grow.

CONCLUSION

Overturning parking tickets, improving lawyer efficiency, and reducing costs for law firm clients is just the beginning of AI’s potential in the legal profession. AI has the ability to expand access to legal services to parts of society that have historically been shut out. The demand for AI in the law is great, and the potential benefits are undeniable.

However, AI’s transformation of the legal profession will not be without challenges. Because the future of legal services is one in which lawyers, AI services, and third parties likely will all be involved at some point in a large majority of cases, the legal profession must take a comprehensive approach to ensuring that AI is integrated responsibly and ethically into all forms of legal services. For the reasons outlined in this Article, part of this approach must entail restraint from imposing or advocating for arguably self-serving restrictions on emerging legal self-help solutions. Such restraints could stunt the development of the larger AI revolution in law in a way that would ultimately favor large firms over other legal services and the broader public interest.

With an eye toward the broad challenges facing the profession, legal communities should urgently initiate robust dialogue and issue guidance concerning the ethical challenges stemming from the emergence of AI systems

204. See Kevin P. Lee, *The Citizen Lawyer in the Coming Era: Technology Is Changing the Practice of Law, but Legal Education Must Remain Committed to Humanistic Learning*, 40 OHIO NORTHERN U. L. REV. 1, 30–36 (2013) (defending humanistic education as necessary for the formation of citizen lawyers who are the artisans of democratic citizenship).

205. See, e.g., McGinnis & Pearce, *supra* note 12, at 3042 (“[C]ounselors who must persuade unwilling clients to do what is in their self-interest will . . . continue to have a role [in legal services], since machines will be unable to create the necessary emotional bonds with clients.”).

in law. The appended list provides a starting point for this dialogue and eventual guidance. It summarizes the new challenges concerning existing obligations, as outlined in this Article, and identifies new tensions between certain obligations, which must be confronted proactively.

It is time for lawyers to confront these challenges, wrestle with the ethical tensions, and issue guidance that will help the profession responsibly, morally, and ethically integrate AI into practice. With a more fully informed appreciation of the unique nature of AI and the associated ethical challenges, the profession can more thoughtfully confront questions concerning the unauthorized practice of law as AI's effect on the profession becomes more cognizable. There may be certain areas of the law (for example capital criminal cases or sensitive deportation cases) where the profession ultimately decides that AI is not an appropriate tool. In addition, there may be certain tasks (such as actual brief writing) that are not suitable for automation or AI, or which make lawyers less effective in their representation. This Article offers a framework for evaluating these questions in light of lawyers' ethical obligations. Lawyers, clients, third parties, and decision makers must all rise to these challenges if the AI revolution is to continue in a way that will improve the effectiveness of lawyers across all parts of the industry and ultimately increase access to justice.

APPENDIX

Competence—What it means to practice competently fundamentally changes when a lawyer uses AI that performs increasingly sophisticated tasks, especially if the lawyer lacks a full appreciation for how the underlying technology works. Competence in the era of AI should require a lawyer to either be involved in the design of the AI systems they are using, or at the very least, to understand—with the help of an expert, if needed—certain underlying characteristics that affect (1) the AI's bias, including conscious bias manifested in the design, unconscious bias of the designer, and bias of the underlying data; (2) AI's limits, including the limits of observational data and limits resulting from the exclusion of information which has not been datafied; and (3) AI's confidentiality concerns.

Confidentiality—The emergence of AI in law practice must fundamentally change the way lawyers think about, talk about, and protect client confidentiality in light of the new ways that client information will be generated, used, stored, and in some cases, comingled with that of other clients. The emergence of AI in law practice magnifies security challenges associated with other less sophisticated technologies. Further, because of the changes to the way client information is gathered, datafied, formatted, and used, keeping unwanted eyes off of passively stored documents will no longer be sufficient to ensure that clients' confidences are protected in the ways that they would expect. This recognizes inevitable tension between existing ethical obligations. AI relies on access to critical, sometimes sensitive information, and withholding certain data from the system's analysis could undermine the effectiveness of a service assisting with tasks that involve case development, legal research, or argument development. Protecting confidentiality in the era of AI must go beyond merely ensuring security and must include (1) competently understanding how AI systems work; (2) communicating with clients and former clients to understand their expectations and preferences; and (3) ensuring that the designers and managers of AI systems, including third parties, understand the critical importance of confidentiality in this new ecosystem.

Supervising Third Parties—AI services will frequently be, or at the very least involve, third parties. AI's role in a lawyer's practice, including its ability to guide a lawyer's judgment based on past outcomes, requires additional diligence beyond that which has been advised in prior guidance concerning other technologies. A baseline technical understanding of AI is not sufficient to ensure that lawyers consider the myriad social, ethical, and moral issues that AI raises in the practice of law. Although security is important, it is not the only thing a lawyer needs to consider in evaluating whether an AI service will effectively maintain client confidentiality, among other obligations. The increased role of third parties also heightens the importance of (1) the duty to communicate with clients, (2) the duties to exercise independent judgment and render candid advice, and (3) lawyers' ongoing obligations to former clients.

Communicating with Clients—AI will play a transformative role in how a lawyer handles a client's case, which makes the communication between the lawyer and the client all the more essential to ensuring an effective, ethical representation. If AI is to be used in a way that accounts for all of a client's needs, it will require gathering, datafying, formatting, and using especially sensitive client information in new ways. Therefore, communication with clients is of paramount importance. Lawyers must discuss with clients the potential risks to their information, as well as the fundamental nature of AI as a means of assisting with the representation—one that either has severe limitations (because many of a client's needs are not datafied, and therefore not accounted for by the machine intelligence), or which makes very complex use—with third parties—of especially sensitive new data, not previously datafied. However, mere tension between these ethical obligations should not alone preclude a lawyer or firm from responsibly implementing a potentially transformative and beneficial AI service, just so long as such decisions weigh client needs and preferences in light of these ethical tensions, and are made in consultations between the lawyer and client in which both parties are sufficiently informed about the nature of the AI they are dealing with.

Independent Judgment & Candid Advice—One of the major limits of AI is its inability to take into account information beyond the observable data that it has at its disposal. Many pieces of information, including sensitive or embarrassing information concerning the client, the instinctual knowledge of the lawyer, and relevant non-legal factors that the AI might not have access to, might not be datafied. Consistent with the preferences of a client, this information that drives a lawyer's professional judgment must not be marginalized if AI is adopted.

Obligations to Former Clients—AI's power is derived in part from its ability to leverage information from many different data points, from which new inputs can identify analogous points to create helpful outcomes. In law practice, these data points touch many cases, authorities, and clients, and will yield everything from a suggested case to read, to a suggested format of an argument or overall legal strategy based on past favorable outcomes. Unlike days past when lawyers might have shredded or deleted client information at some point, there is a disincentive to dispose of any client information today, meaning client information could remain not only in existence, but remain in use, indefinitely. In order to preserve the trust between clients and lawyers in the age of AI, lawyers must make sure that this information is secured and that their clients trust AI as a tool in their cases, reinforcing the need for competence, communication, and other obligations that have been outlined in this guidance.
