Machine Lawyering and Artificial Attorneys: Conflicts in Legal Ethics with Complex Computer Algorithms

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Introduction

The role of the lawyer, like that of other professionals, has developed immensely over time. Technological innovation in law may not have had the same impact that it has had in other fields. For example, computer science was effectively a discipline of theoretical mathematics before the first modern computers were created.[1] However, legal technology is now a rapidly expanding area of interest as more and more computer software becomes incorporated into the everyday practice of law.[2] The ingenuity of persons has and inevitably will continue to enable these technologies to pervade the legal profession.[3] The newest innovations are in the uses of machine learning ("ML") and artificial intelligence ("AI") (collectively, "ML/AI").[4]

The lack of technical training has caused many lawyers to misunderstand how these programs work.[5] Without a proper understanding of the underlying principles, lawyers cannot appropriately incorporate these technologies into their practices.[6] Given scattered opinions[7] that barely grasp the surface of what technology can and will be able to accomplish, there is a need for uniform and cohesive treatment of ML/AI usage.[8] Existing scholarship has noted several of these issues but

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1. *See* Allen Tucker & Geneva G. Belford, *Computer Science: Development of Computer Science*, Encyclopedia Britannica (Sep. 1, 2020), https://www.britannica.com/science/computer-science#ref21943 [https://perma.cc/2X59-QM3N].

2. *See* David Lat, *The Ethics of Artificial Intelligence*, ABOVE THE LAW, https://abovethelaw.com/law2020/the-ethical-implications-of-artificial-intelligence/?rf=1, [https://perma.cc/CVX6-RUK8] (last visited Feb. 20, 2021, 3:41 PM).

3. *See id.*

4. *See id.*

5. *See* Dana Remus & Frank Levy, *Can Robots Be Lawyers? Computers, Lawyers, and the Practice of Law*, 30 Geo. J. Legal Ethics 501 (2017).

6. *See* Lat, *supra* note 2.

7. *See, e.g.*, W. Preston Battle IV, Nicole De. Berkowitz & George T. Lewis III, *Artificial Intelligence: State of the Industry and Ethical Issues*, 54-MAR Tenn. B.J. 24, 28 (2018); N.C. State Bar Ethics Committee, 2007 Formal Ethics Op. 12 (Apr. 25, 2008), https://www.ncbar.gov/for-lawyers/ethics/adopted-opinions/2007-formal-ethics-opinion-12/ [https://perma.cc/CT7J-XWFC] [hereinafter N.C. Ethics Opinion].

8. *See* ABA House of Delegates, 2019 Resolution 112 (Aug. 13, 2019).

has not gone far enough in seeing the consequences and has yet to develop dynamic solutions that will be able to adapt to these technologies.[9] Just as technology has evolved, commentators seem to focus on targeted individual issues like current developments in electronic discovery[10] or employment ramifications.[11] This Note will look at some of these individual conclusions and put them together as they compose the lawyer's entire work.

This Note will proceed in three primary parts. Part I will discuss what it means to engage in the "practice of law" through the lens of a now prominent Second Circuit case, *Lola v. Skadden*.[12] It will explore the differences between current computer algorithms and person functions to highlight the implications of the Second Circuit's ruling and how courts and professional organizations might more carefully approach the integration of rapidly developing legal technologies. Part II will examine the previous analysis in the context of the American Bar Association's ("ABA") *Model Rules of Professional Conduct* ("*Model Rules*"). This part will emphasize how current ethical standards and commentators' interpretations thereof lead to unclear, impractical, and conflicting results. Part III will incorporate some of the previous issues to explore what a path forward might look like. Specifically, there is a need for national regulation, as unlike legal standards, technology does not change across jurisdictions. This part will tie back to the underwhelming role courts have played and how other frameworks appropriately tailored to the unique issues with ML/AI might better address the ethical issues considered.

I. DEFINING THE PRACTICE OF LAW: SEPARATING PERSON FROM MACHINE

This part will cover three fundamental sections that will help lay a foundation for the later discussion, which more specifically addresses a lawyer's obligations and how they can be met. The first section provides technical background on ML/AI and how current software is incorporating them into legal practice. The second section examines the *Lola* case's ruling on what constitutes the practice of law and how other legal entities have addressed the issue. The third section applies the previously developed legal standard to current algorithms to determine whether they might merit regulation the same way a person practicing law does.

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9. *See, e.g.*, Nicholas Barry, Note, *Man Versus Machine Review: The Showdown Between Hordes of Discovery Lawyers and A Computer-Utilizing Predictive-Coding Technology*, 15 VAND. J. ENT. & TECH 343 (2013) (arguing that predictive coding is the solution to rising discovery costs); 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, 1527-28 (2018) (proposing a model rule comment that lawyers must cross check all results generated by AI).

10. *See, e.g.*, Barry, *supra* note 9.

11. *See, e.g.*, Remus & Levy, *supra* note 5.

12. Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 Fed. Appx. 37 (2d Cir. 2015).

A. TECHNICAL BACKGROUND

ML can be defined as "[t]he use and development of computer systems that are able to learn and adapt without following explicit instructions, by using algorithms and statistical models to analyze and draw inferences from patterns in data."[13] ML is essentially the usage of statistical models and algorithms that refine their output as they receive more data as inputs.[14] AI encompasses more than ML by replicating more complex tasks that cannot necessarily be accomplished through pure statistical inference.[15] A nice working definition of AI is "[t]he theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages."[16] While this definition may be somewhat abstract and hard to apply in practice, the force of it is that a computer can mimic person-like actions.[17]

While ML and AI are technically distinct categories, commentators do not seem to meaningfully distinguish between them when considering software that employs these algorithms to perform tasks previously accomplished manually.[18] The following sections will approach this distinction by considering the complexity of various existing algorithms in light of current ethics standards. However, for further purposes of considering ethical implications, it is sufficient to combine these categories into a single group of ML/AI algorithms as compared to persons performing the same task.

Despite the highly technical nature of these concepts, the major tools that lawyers use on a daily basis, such as Westlaw,[19] Lexis,[20] and Bloomberg Law,[21] all employ ML/AI in some form or another. These companies are increasingly offering services like brief checking and drafting legal documents that rely principally

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13. *Machine Learning*, OXFORD, https://www.lexico.com/en/definition/machine_learning [https://perma.cc/W46W-U67N] (last visited Jan. 10, 2021, 4:18 PM).

14. *See* William L. Hosch, *Machine Learning*, ENCYCLOPEDIA BRITANNICA (Jun. 02, 2020), https://www.britannica.com/technology/machine-learning [https://perma.cc/36LS-3JXY].

15. *See* B.J. Copeland, *Artificial Intelligence*, ENCYCLOPEDIA BRITANNICA (Aug. 11, 2020), https://www.britannica.com/technology/artificial-intelligence [https://perma.cc/UTW4-ZJW9].

16. *Artificial Intelligence*, OXFORD, https://www.lexico.com/en/definition/artificial_intelligence [https://perma.cc/VC36-3L59] (last visited Jan. 10, 2021, 4:22 PM).

17. *See* Copeland, *supra* note 15.

18. Professor Roy Simon, the Chair and Chief Reporter for New York State's Bar Committee on Standards of Professional Conduct, even goes to the extreme of assuming a "bionic legal intern" for his ethics analysis of AI. *See* Roy D. Simon, *Artificial Intelligence, Real Ethics*, 90-APR N.Y. ST. B.J. 34, 34 (2018).

19. *See Looking for the Right AI for Legal Research?*, THOMSON REUTERS, https://legal.thomsonreuters.com/en/insights/articles/best-ai-for-legal-research [https://perma.cc/XAR5-MXNU] (last visited Jan. 10, 2021, 4:30 PM).

20. *See The Power of Artificial Intelligence in Legal Research*, LEXISNEXIS (OCT. 9, 2020), https://www.lexisnexis.com/community/lexis-legal-advantage/b/product-spotlight/posts/the-power-of-artificial-intelligence-in-legal-research [https://perma.cc/CAB3-KB3T].

21. *See The Future of Legal Tech is Here*, BLOOMBERG LAW, https://pro.bloomberglaw.com/ai-analytics/ [https://perma.cc/F5J4-HN7A] (last visited Jan. 10, 2021, 4:33 PM).

on computer algorithms.[22] Predictive coding—also known as technology-assisted review ("TAR") or computer assisted-review ("CAR")—is another commonly used process, which entails the application of software to extract electronically stored information from documents, primarily during the discovery phase of litigation.[23] Additionally, researchers are starting to develop statistical models for predicting case outcomes, which they might argue are more accurate than an individual person's judgment that could be unduly affected by her own biases.[24] As soon as one's case gets assigned a mathematically determined percentage of winning—or an expected payout if the object is to settle a dispute—a person-attorney's judgment might come into serious question.[25]

B. LOLA V. SKADDEN AND THE INDEPENDENT LEGAL JUDGMENT STANDARD

In *Lola v. Skadden*, the Second Circuit held that a contract lawyer performing document review for a law firm who exercises no "independent legal judgment"[26] is not *per se* engaging in the "practice of law."[27] The plaintiff was a lawyer who contracted with a staffing corporation that staffed law firms and legal departments of corporations with lawyers and paralegals on a contract basis.[28] He lived in North Carolina, but was only licensed to practice in California.[29] The plaintiff's work entailed document review for Skadden's multi-district litigation that was underway in the district court in the Northern District of Ohio, a district in which plaintiff was also not licensed.[30] His job was to manually scan documents for certain search terms, sorting them into preset groups, and color in black boxes over particular information to redact it—a procedure that was dictated by Skadden and the staffing firm.[31] All the contract work was carefully supervised by Skadden lawyers, and the contractors were compensated at a rate of $25 per hour regardless of the number of hours they worked.[32]

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22. *See, e.g.*, *Experience Brief Analysis on Lexis+™*, LEXISNEXIS, https://www.lexisnexis.com/en-us/products/lexis-plus/data-driven-insights.page [https://perma.cc/42P2-CHXW] (last visited Jan. 10, 2021, 4:38 PM).

23. *See, e.g.*, *How to Make the e-Discovery Process More Efficient with Predictive Coding*, THOMSON REUTERS, https://legal.thomsonreuters.com/en/insights/articles/how-predictive-coding-makes-e-discovery-more-efficient [https://perma.cc/7DUC-TJRE] (last visited Jan. 10, 2021, 4:39 PM).

24. *See, e.g.*, Andrew D. Martin, Kevin M Quinn, Theodore W. Ruger & Pauline T. Kim, *Competing Approaches to Predicting Supreme Court Decision Making*, Symposium Forecasting U.S. Supreme Court Decisions, 2 PERSPECTIVES ON POLITICS 761, 765 (2004).

25. *See, e.g.*, Ajay Agrawal, Joshua S. Gans & Avi Goldfarb, *Exploring the Impact of Artificial Intelligence: Prediction versus Judgment*, TECH POLICY INSTITUTE, February 2018, at 12-14, https://techpolicyinstitute.org/wp-content/uploads/2018/02/Gans-et-al-prediction-vs-judgment.pdf [https://perma.cc/2SVS-G9SG].

26. Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 Fed. Appx. 37, 43 (2d Cir. 2015).

27. *Id.* at 44.

28. *Id.* at 39-40.

29. *Id.*

30. *Id.*

31. *Id.* at 40

32. *Id.*

In the putative action, the plaintiff alleged that he and others did not receive 1.5 times compensation for work in excess of forty hours a week as required by the Fair Labor Standards Act ("FLSA").[33] Defendants countered that plaintiff fit under a statutory exception for persons employed in a "professional capacity," as he was a licensed lawyer practicing law.[34] The court first noted that the authority defining the practice of law and other relevant laws—e.g., statutes licensing persons to practice law—regulating lawyers are mainly issues of state law.[35] Barring a specific need to create a standardized federal rule, assessing the FLSA claim should thus turn on state law.[36] Since the plaintiff lived and worked in North Carolina, it had the most concern in resolving the claim.[37]

The court ruled that, while document review could constitute the practice of law, it is not *per se* the practice of law, as the district court had concluded.[38] The court based its ruling on a formal opinion issued by the North Carolina State Bar Ethics Committee that discussed the permissibility of employing foreign assistants for certain support tasks.[39] In North Carolina, for one to be engaging in the practice of law, she must "exercise . . . at least a modicum of independent legal judgment."[40] The court found that, taking the facts as true, the complaint could be read such that the plaintiff was working under such stringent constraints that plaintiff made no independent legal judgments.[41] Therefore, he could be found not to be engaging in the practice of law and dismissal of his complaint was inappropriate.[42]

Lola was the first judicial decision to rule on and comprehensively assess the discrepancies in capabilities between person and computer to define what constitutes the practice of law.[43] Other decisions approaching this issue have come before *Lola*.[44] However, they still use similar language, such as "legal judgment," and the issue is only addressed in passing.[45] *Lola* represents the first and primary judicial opinion with a fairly extensive discussion of this computer-person distinction and it and its progeny are commonly cited by other courts facing the same issue.[46] Although *Lola* is light on precedential value—the appellate court

33. *Id.* (citing 29 U.S.C. § 207(a)(1)).
34. *Id.* (citing 29 U.S.C. § 213(a)(1)).
35. *Id.* at 41.
36. *Id.*
37. *Id.* at 42-43.
38. *Id.* at 44.
39. *See* N.C. Ethics Opinion, *supra* note 7.
40. *Lola*, 620 Fed. Appx. at 44.
41. *Id.* at 45.
42. *Id.*
43. Michael Simon, Alvin F. Lindsay, Loly Sosa & Paige Comparato, *Lola v. Skadden and the Automation of the Legal Profession*, 20 YALE J. L. & TECH. 234 (2018).
44. *See, e.g.*, Oberc v. BP PLC, 2013 WL 6007211 (S.D. Tex. Nov. 13, 2013) (holding, in part, that a document review attorney was exempt under FLSA because "he used legal judgment").
45. *See id.*
46. *See* Simon et al., *supra* note 43, at 246.

declined to impose a national standard, and thus entailed a federal court interpreting state law—most commentators and courts point to this line of reasoning as representative of how courts approach the issue, at least up to this point.[47] Technical aspects of the law aside, *Lola* remains the most important case in the area, and its requirement of "independent legal judgment" for one to be practicing law, which has also been found to be the standard in other states, serves as a good benchmark for academic commentary.[48]

C. ALGORITHMIC EXERCISE OF JUDGMENT

Despite primarily being an issue of labor law in a Federal Appendix case, *Lola* becomes critical in assessing how courts might deal with claims regarding the unauthorized practice of law ("UPL"). Hidden at the end of the opinion is what might otherwise seemingly be an offhand quote that opens a Pandora's box of possibilities for legal applications of ML/AI. The court noted that "[t]he parties themselves agreed at oral argument that an individual who, in the course of reviewing discovery documents, undertakes tasks that could otherwise be performed entirely by a machine cannot be said to engage in the practice of law."[49] This acknowledgement demands the question of how far the court's logic would extend in light of today's sophisticated software. The flip side of this question regarding whether a person is exercising independent legal judgment is at what point would a computer be exercising the same independent legal judgment as a person.

The court focused on whether an activity requires independent legal judgment in answering this alternative question.[50] A Turing test theoretically distinguishes between a person and a robot.[51] Although, as *Lola* demonstrates, there needs to be a test for when a person's action is no longer in the category of work reserved for lawyers. As a threshold matter, a robot that passes the Turing test will not necessarily have all its work classified as practicing law, just as even a person who is a licensed lawyer working on legal matters may not be considered practicing law in performing all that work.[52] However, this proposition does not necessarily foreclose the possibility that a computer algorithm short of a person-like machine

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47. *See id.* at 246-47.

48. *See* Henig v. Quinn Emanuel Urquhart & Sullivan, LLP, 151 F. Supp. 3d 460, 468 (2015) (finding a similar standard for engaging in the practice of law, as a matter of New York state law); *id.* at 245.

49. Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 Fed. Appx. 37, 45 (2d Cir. 2015).

50. *See id.* at 43.

51. *See* Graham Oppy & David Dowe, *The Turing Test*, THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Winter 2020 Edition) (Aug. 18, 2020), https://plato.stanford.edu/entries/turing-test/ [https://perma.cc/PF9H-FPAL]

> ("Suppose that we have a person, a machine, and an interrogator. The interrogator is in a room separated from the other person and the machine. The object of the game is for the interrogator to determine which of the other two is the person, and which is the machine. . .. The object of the machine is to try to cause the interrogator to mistakenly conclude that the machine is the other person; the object of the other person is to try to help the interrogator to correctly identify the machine.").

52. *See Lola,* 620 Fed. Appx. at 45.

could meet a jurisdiction's standard for engaging in the practice of law. Additionally, the line of what constitutes the practice of law appears to be relatively thin, even within a particular jurisdiction.[53]

More realistically, some high-level algorithm might be on the border of this distinction. For example, start by considering a simple decision tree algorithm.[54] The algorithm takes a set of data and partitions it based on a certain statistic of those data.[55] For example, cases might be sorted based on the number of days to resolution. Initially, the algorithm might distinguish between cases that took more or less than 180 days. Those cases that took less than 180 days would then be divided into cases that took more or less than 100 days. Among those that took more than 100 days, they would be partitioned based on whether they took more than or less than 150 days. Among those that took less than 100 days, they would be partitioned based on whether they took more or less than 35 days.[56] A visualization is shown below in Fig. 1.

In applying the algorithm, one would first apply these threshold numbers to a

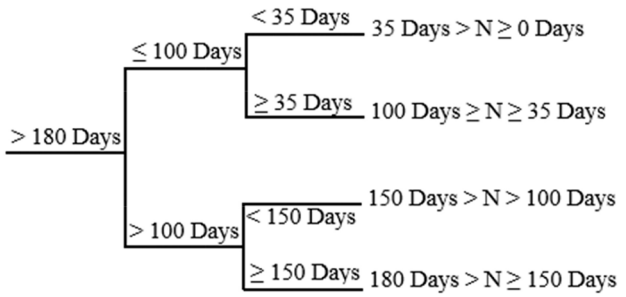

FIGURE 1

test set of data, known as a training set.[57] From there, one can set each decision threshold to make the cases within the resulting end groups homogenous, while making each group different from the others such that it represents a distinct group.[58] This type of algorithm is likely not exercising judgment, because it is merely executing a set of predetermined steps or decisions. Additionally, any work done is that of solving mathematical equations to optimize the threshold

53. *Compare id.* (finding that a contract attorney performing document review did not engage in the practice of law under North Carolina state law), *with Henig*, 151 F. Supp. 3d at 468 (acknowledging, based on *Lola*, that New York state law required a similar standard, but concluding that the contract attorney performing document review *did* engage in the practice of law).

54. *See* Breiman, L., Friedman, J.H., Olshen, R.A. & Stone, C.J., *Classification and Regression Trees*, Wadsworth (1984); *see also* Martin Krzywinski & Naomi Altman, *Classification and regression trees*, 14 NAT METHODS 757, 757-58 (2017) (walking through a representative example to explain the model).

55. *See* Krzywinski & Altman, *supra* note 54, at 757.

56. It is important to note that these numbers are purely example. No data have been collected on any particular area of law to suggest that these numbers are representative of any court's experience.

57. Krzywinski & Altman *supra* note 54.

58. *Id.*

numbers to generate end groups with the described characteristics. All the work is computational at its most complex, and any higher-level work, such as choosing the characteristic on which to partition, still must be performed by a person.[59]

Other mathematically intensive algorithms, like Bayesian models, may come closer as they operate under constantly updating conditions.[60] The idea behind Bayesian models is that one starts with a hypothesis (a prior) and some initial evidence.[61] More evidence is added to refine the hypothesis, which results in a posterior.[62] Evidence is continually added until the hypothesis is sufficiently refined based on all available evidence.[63] The mathematical formula for this process is presented below.[64]

$$P(A \mid B) = \frac{P(B \mid A) * P(A)}{P(B)}$$

This concept is, in fact, broader than the process described—it actually represents an entirely separate branch of statistics aptly known as Bayesian statistics, as opposed to classical (or frequentist) statistics—so it can apply beyond partitioning data based on one characteristic.[65] However, Bayesian models still just entail computers solving several, albeit complex, mathematical equations in a rapid manner.[66] Any adaptations operate in a linear (not necessarily in the mathematical sense of the word) manner, meaning it takes a specified set of data and improves a prediction based on usage of more of that type of data.[67] Many commonly employed ML algorithms are likely to follow into this category of complexity. The defining feature being that there is no judgment involved as to how the algorithm should change, as the underlying equations will always remain the same.

On the other hand, a neural network, which is loosely based on the way an actual person's brain functions, is given a rule (i.e., a function by which to assess decisions) and develops from there by firing signals (numbers) between artificial

59. *Id.*

60. *See, e.g.*, *Bayesian Analysis*, ENCYCLOPEDIA BRITANNICA (Feb. 01, 2016), https://www.britannica.com/science/Bayesian-analysis [https://perma.cc/Y5ZC-GMB8] (explaining the Bayesian approach to statistics that underlies the models based on Bayes' Theorem); *Bayesian Approach*, ENCYCLOPEDIA OF MATHEMATICS (Feb. 10, 2020), https://encyclopediaofmath.org/wiki/Bayesian_approach [https://perma.cc/D46Z-PRS6] (providing a more mathematically intensive explanation).

61. *Bayesian Analysis*, *supra* note 60.

62. *Id.*

63. *Id.*

64. P(A | B), the probability of A given B, represents the posterior. P(B | A), the probability of B given A, represents the prior. P(A), the probability of A, represents the likelihood. P(B) represents the evidence. *Id.*

65. *See id.*

66. *See id.*

67. *Id.*

neurons out of which an end result arises.[68] This type of model is no longer a pre-coded set of decisions.[69] An initial input is given—the same way a person would need a stimulus on which to pass judgment—and the model works, often "teaching" itself, from there.[70] Such a model now might come close to meeting the standard of exercising judgment. The person who developed the model no longer knows the underlying equation or algorithm that has evolved.[71] The person only knows what inputs she provided to set up the algorithm.[72]

II. HOW INTEGRATION OF LEGAL TECHNOLOGIES AFFECTS THE DUTIES OF A LAWYER UNDER THE ABA MODEL RULES

This part will, in three sections, address several aspects of the interaction between the need for integration of more advanced legal technologies and the need to comply with a lawyer's fundamental obligations. The first section lays out the specific aspects of ML/AI software that could be ethically problematic. The second section takes the opposite side and questions whether not using ML/AI creates ethical issues. The third section explores the conflicts between the previous two propositions in various contexts of practice.

A. PRACTICAL ISSUES OF USING THIRD-PARTY SOFTWARE TO PROVIDE COMPETENT REPRESENTATION

Model Rule 1.1 states that "[a] lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation."[73] In practice, this rule means that if a lawyer is using a third-party software package, she would be obligated to understand how it works or at least understand its output and limitations.[74] For example, when performing legal research on case law, a lawyer need not understand or even know the search algorithms that Westlaw and Lexis use.[75] She understands that the output is judicial opinions that she is trained to read, interpret, and manipulate.[76] Further, she understands that, if she performs

68. *See, e.g.*, School of Computer, Data & Information Sciences, *A Basic Introduction to Neural Networks*, THE UNIVERSITY OF WISCONSIN, http://pages.cs.wisc.edu/~bolo/shipyard/neural/local.html [https://perma.cc/Y3C2-MPSS] (last visited Jan. 10, 2021, 4:59 PM) (explaining the fundamentals of the neural network model).

69. *Id.*

70. *See id.*

71. *See id.*

72. *Id.*

73. MODEL RULES OF PROF'L CONDUCT R. 1.1 (2018) [hereinafter MODEL RULES].

74. *See* Simon, *supra* note 18, at 35-36.

75. *See, e.g.*, *How to Retrieve and Search for Cases*, THOMSON REUTERS, http://answers.legalprof.thomsonreuters.com/case-law-research?utm_campaign=Website&utm_medium=direct-url&chl=van&cid=9015245&sfdccampaignid=7014O000000vY9hQAE&utm_source=direct-url&utm_content=9015245_Westlaw-Classic-Onboarding [https://perma.cc/4Q8L-URHN] (last visited Feb. 23, 2021, 9:32 PM) (providing a tutorial on case law research).

76. *See How to Retrieve and Search for Cases*, *supra* note 75.

one search query, that may not necessarily yield all the relevant cases.[77] Therefore, although the platform might employ ML/AI, its application is limited,[78] and the lawyer is well-trained in how to use and interpret the results. Further, the result is understandable by any person who is familiar with internet searches because a Westlaw search is functionally no different from a Google search on interesting dinner recipes. Thus, even a client without substantive legal or technical knowledge is informed regarding the means by which her lawyer is operating.[79]

On the other hand, consider a more complex algorithm used to predict outcomes—this algorithm could even be limited to gauging the success of a particular motion. If such technology were implemented, the client would not have a benchmark to which she can compare the technology for her own understanding. Software to perform predictive coding would have a similar effect where the lawyer and client do not understand the specific processes the program uses to extract information.[80] However, this software is more similar to case research with Westlaw or Lexis. As long as the lawyer can vouch for the relative accuracy—considering that a person performing the same task will still have a nonzero error rate—she can take the information, whether it be communications or financial documents, and incorporate it into her legal strategy. Without the predictive software, a lawyer still might give her client a percentage probability of success. However, the client can understand that this is a person-lawyer making a judgment call. Whether she puts excessive credibility into that professional's judgment is an inherently unavoidable question of psychology that is present in the system.

If a computer generates a percentage probability, such as the percentage chance that a party will win the case, two issues arise. The first issue is whether the client will put excessive weight into the computation's result, because it was mathematically generated and thus presumably avoids person error.[81] The second issue is whether there is knowledge of how the algorithm works.[82] The first issue, while psychologically complex, is more straightforward to see. Person judgment can be inherently problematic.[83] With the second issue, there are several aspects to assess. One could explain which factors the algorithm considers, how they are weighted, and the process of evaluation. More importantly, perhaps, one knows

77. *See How to Retrieve and Search for Cases*, *supra* note 75.

78. *See Looking for the Right AI for Legal Research?*, *supra* note 19; *The Power of Artificial Intelligence in Legal Research*, *supra* note 20.

79. It is important to note that this element of client understanding may not explicitly be a part of the lawyer's duty of competence. After all, a client often does not understand the substantive legal arguments her lawyer is making to other legal entities. However, it is nonetheless illustrative of how current technologies might differ from those that more heavily incorporate ML/AI.

80. *See* Barry, *supra* note 9, at 354-55.

81. *See* Agrawal et al., *supra* note 25.

82. *See* Simon, *supra* note 18, at 35-36.

83. *See* Agrawal et al., *supra* note 25.

what sorts of errors the algorithm is prone to. For example, researchers are often concerned with false positives (Type II Error), as those errors would tend to invalidate the effect they are trying to demonstrate.[84] Alternatively, where researchers intend to show that an effect is not present, they would be particularly concerned with false negatives (Type I Error).[85] Additionally, beyond the technical errors, commentators across fields have noted that ML/AI algorithms disproportionately impact racial and other minorities.[86] Comment 8 to Model Rule 1.1 notes 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, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject."[87] A lawyer no longer relying on her judgment, but on that of a computer, now might have to be aware of these numerous issues both technical and social in the developing fields of ML/AI. This obligation would also create a practical issue as legal technology companies would have to convey this designation without necessary divulging any code that is not open source, trade secret, or protected by intellectual property. Not only would a lawyer be obligated to know about the algorithm being used, but she would be obligated to inform her client of its ramifications. This reality presents the question of at what level she needs to understand the algorithm. Further, if it is a person-like algorithm, there is the issue of how one explains something that develops on its own like a person.

B. WHETHER COMPETENT REPRESENTATION DOES OR WILL INVOLVE ML/AI

Many commentators point out that, in general, the solution to these issues discussed in the previous subsection seems to be for lawyers to provide proper supervision over legal technologies.[88] However, as Remus and Levy point out in another article from this journal, "[a]t least for now, however, few lawyers are sufficiently knowledgeable to oversee new legal technologies in a meaningful way."[89] Further, given the rate of technological improvement, it may no longer be enough to say that lawyers can use AI to augment their practices while retaining a person-like element. Although building on some of the same sources as

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84. *See, e.g.*, Jae H. Kim, *Tackling False Positives in Business Research: A Statistical Toolbox with Applications*, 33 J. OF ECON. SURVEYS 3 (2018) (addressing the issue in various fields).

85. *See, e.g.*, Miguel A Vadillo, Emmanouil Konstantinidis & David R Shanks, *Underpowered Samples, False Negatives, and Unconscious Learning*, 23 PSYCHONOMIC BULLETIN & REV. 1 (2016) (addressing the issue in the context of psychological research).

86. *See, e.g.*, *Technology Can't Fix This*, 2 NAT MACH INTELL 363, 363 (2020) (explaining how AI can propagate discrimination, such as facial recognition systems being trained on data sets that lack diversity across various person characteristics).

87. MODEL RULES R. 1.1 cmt. 8.

88. *See, e.g.*, Simon, *supra* note 18, at 35; Nicole Yamane, Note, *Artificial Intelligence in the Legal Field and the Indispensable Human Element Legal Ethics Demands*, 33 GEO. J. LEGAL ETHICS 877, 889 (2020).

89. Remus & Levy, *supra* note 5, at 543.

current scholarship, this Note questions many of these current notions. To evaluate this idea more concretely, consider a hypothetical put forward by Professor Roy Simon.[90] He presents the question of whether *not* using Westlaw or Lexis would constitute excessive billing under the *Model Rules*.[91] Model Rule 1.5(a) relevantly states that "[a] lawyer shall not make an agreement for, charge, or collect an unreasonable fee or an unreasonable amount for expenses."[92] Surely the error rate is greater and the research process slower for one sifting through by hand the U.S. Code, which takes up the entire perimeter of a library floor—assuming that the library even has access to the most recent slip and session laws at the time the lawyer is performing the research.[93] Further, as previously discussed, these queries are not functionally different from any untrained person performing a Google search. The North Carolina Bar's Ethics Committee's opinion cited in *Lola*, relevantly, stated that "[t]he limitations on the type of legal services that can be outsourced, in conjunction with the selection and supervisory requirements associated with the use of foreign assistants, insures that the client is competently represented."[94]

Commentators do acknowledge this underlying logic but note that there is no area where AI-based software is the standard of care.[95] For example, Yamane concludes that "[l]awyers may not use AI programs to replace their work without violating their duty to provide competent representation in Rule 1.1."[96] However, that phrasing cannot be correct on its face for at least two reasons. First, Westlaw and Lexis both make use of ML/AI in several functions they provide, with this pervasiveness growing rapidly.[97] Westlaw and Lexis characterize cases into an index, the result of which appears as the headnotes of a case.[98] This step more easily connects case results to user searches.[99] While Lexis has employed persons to develop these headnotes, Westlaw has employed an ML algorithm.[100] The work Lexis had performed manually is performed by an ML algorithm in

90. *See* Simon, *supra* note 18, at 37.

91. *Id.*

92. MODEL RULES R. 1.5(a).

93. *Cf.* Simon, *supra* note 18, at 37.

94. N.C. Ethics Opinion, *supra* note 7.

95. *See, e.g.*, Remus & Levy, *supra* note 5, at 549 (recognizing the role of person-lawyers, even where AI is employed).

96. Yamane, *supra* note 88, at 889.

97. *See Looking for the Right AI for Legal Research?*, *supra* note 19; *The Power of Artificial Intelligence in Legal Research*, *supra* note 20.

98. *See* Susan Nevelow Mart, *The Relevance of Results Generated by Human Indexing and Computer Algorithms: A Study of West's Headnotes and Key Numbers and LexisNexis's Headnotes and Topics*, 102 L. LIBR. J. 221, 223-24 (2010) (note that, because these platforms are continually updating their processes, this procedure can change. This study, while relatively older, is a good representative example of how this distinction has manifested, at least in recent history).

99. *Id.*

100. *Id.*

Westlaw,[101] which counters the notion that lawyers may not replace their manual processes with ML/AI. Second, not making use of such software, at least for legal research purposes, seems irresponsible at best. There is no conceivable legal or business reason for one to perform legal research entirely without using computers. And, in fact, Professor Simon does conclude that this situation would violate Rule 1.5(a)'s prohibition on charging excessive fees and expenses.[102] Now, the simplicity of this example might make it trivial. Any employee at any type of business who goes to the local library to research a question, instead of performing a Google search or using the appropriate database, while perhaps admirable, is certainly incompetent in performing her duties as an employee. However, this example is illustrative of the fact that ML/AI is already present in legal work and that, for at least one fundamental legal task, there is a clear obligation to use it.

From here, it is not too difficult to see how other legal tasks could quickly be subsumed by ML/AI. Consider document review, which Remus and Levy found to be the type of legal work most susceptible to penetration by ML/AI of the categories they analyzed.[103] In 2012, a federal court expressly approved of the use of predictive coding software in discovery and found that it did not interfere with the proper performance of a party's discovery obligations under Rule 26 of the Federal Rules of Civil Procedure.[104,105] The district judge rejected plaintiff's challenge to the use of predictive coding software of which the magistrate judge had previously approved.[106] The order noted that, "even if all parties here were willing to entertain the notion of manually reviewing the documents, such review is prone to human error and marred with inconsistencies from the various attorneys' determination of whether a document is responsive."[107] In so acknowledging this seemingly simple fact the judge made a powerful statement by endorsing the use of more sophisticated computer algorithms to replace work previously performed manually.

It is true that for now, and likely the near future, a person will still be necessary to set up the software—e.g., choose the appropriate model, format the documents so they can be inputted into the model, and interpret the model's results—however, the bulk of the work is now accomplished by the software.[108] While predictive coding may not technically be the standard of care right now,[109] that is not to say that it should *not* be liberally incorporated into a lawyer's practice. Further, many of these hurdles can be overcome, or at least greatly mitigated, with some

101. *Id.*
102. *See* Simon, *supra* note 18, at 37.
103. *See* Remus & Levy, *supra* note 5, at 515.
104. Fed. R. Civ. P. 26.
105. *See* Moore v. Publicis Groupe SA, No. 11 Civ. 1279(ALC)(AJP), 2012 WL 1446534 (S.D.N.Y. Apr. 26, 2012).
106. *Id.* at 3.
107. *Id.*
108. *See* Remus & Levy, *supra* note 5, at 516-17.
109. *Cf.* Simon, *supra* note 18, at 37.

strategic planning. A smaller firm may not be able to afford predictive coding software initially. Although, for the cases where predictive coding would be especially effective (i.e., those with large numbers of documents), the firm could outsource document review for that particular case. As demonstrated with the Westlaw and Lexis example, eventually even solo practitioners will require the equivalent of online case research software for other tasks like document review.

C. CONFLICTING DUTIES OF A LAWYER GIVEN THE ADVENT OF SOPHISTICATED COMPUTER ALGORITHMS

The past section noted how there might be a duty developing to embrace ML/AI technology to, *inter alia*, provide competent representation or avoid charging excessive fees. The first section noted how significant supervision of these technologies is impractical for most lawyers given their lack of technical training. These propositions lie in direct opposition, especially given the rapid rate at which research and development is occurring. The varying results of the previously discussed scholarship and cases demonstrate this conundrum. Many commentators seem to conclude that the reasonable solution is that lawyers can use ML/AI to augment their practices while retaining a person-like element.[110]

Consider the discussions and examples from the previous section from a different approach. Without deciding whether software could, ethically and/or practically, entirely replace a person-lawyer, there still could be a duty to employ it. This scenario would follow the argument laid out before. A lawyer must read through a document, and she could do it herself, but software could also read through the same document and extract the relevant information, while making fewer errors (e.g., missing fewer relevant terms). The rest of the work, whether it be structuring a deal or preparing to litigate a case, is performed by the attorney herself. Now, imagine that the lawyer must read through the same document, but she is not certain the software will *always* extract the relevant information, while making fewer errors. Perhaps sometimes the software makes far more mistakes than the person and sometimes it operates as it would in the first scenario. Here, the attorney needs to figure out what these mistakes are and how she might correct them, or if the quality is so far-off standard, she might just repeat the task herself. The more the latter becomes true, the more the software becomes superfluous, perhaps even to the point of wasting time and money. These two examples put the lawyer in the ambiguous position of not knowing what to do with the software, and then she is again stuck with the issues discussed in the first section.

After reading the past two scenarios, an observant reader might object that there is a third possibility that has been overlooked. For example, it could be the case that persons tend to make a specific type of mistake, such as paying less attention to footnotes, when combing through documents. Although, in actuality,

110. *See, e.g.*, Simon, *supra* note 18, at 35; Yamane, *supra* note 88, at 889.

the footnotes might include just as relevant information for discovery purposes, even if they are not intended to be as important to the substance of the document itself. On the other hand, an algorithm might treat the footnotes as textual input just the same as the body of the document. In a different situation, a person might more easily determine a term's relevance that relies on its context or its modifiers (e.g., double negatives could be hard for an algorithm to interpret). Conversely, an algorithm might struggle to understand the meaning of these linguistic quirks. Therefore, in this scenario, a lawyer would actually best hedge document review efforts by having a person identify terms likely to be relevant based on context in addition to running the predictive coding software. A person-lawyer is still overseeing the document review and performing part of the work, but the time she must put into the task has now been greatly reduced by the addition of the algorithm checking her work, so to speak, instead of another attorney billing a client to repeat the task. Now what is a lawyer to do? Sometimes she should trust the software, sometimes she should ignore it, and sometimes she should use it on top of her work. She either must know something about the software in advance or run it in every instance to figure out whether it will provide useful results or not (meaning whether she might be obligated to use its superior results or obligated to completely ignore it), knowing that it might not a significant portion of the time.

While the use of ML/AI to supplement a lawyer's practice might be a practical compromise, or even a superior hedge, in many cases, it sure seems as though that supplementation is quickly turning into replacement.[111] It does not seem fair to say that a program that performs all of document review is just "augmenting" one's practice, even if a person must perform the initial setup. As mentioned, a lawyer would not be deemed incompetent for not understanding every new feature Westlaw or Lexis adds. The question, thus, becomes how much more advancement is necessary to reach the scenario described in the previous subsection where the complete use of ML/AI in document review is ethically required and whether there are other areas of legal practice that are at this point.

To provide more concrete guidance, Medianik suggests that the ABA update the *Model Rules* to include an instruction that lawyers "cannot blindly rely on such [AI] technology."[112] Medianik's proposal includes the addition of a comment to Model Rule 2.1 that states:

> When using artificially intelligent technology, it is the lawyer's responsibility as advisor to cross-check the results with other traditional platforms before taking action based upon those results or offering advice to a client in accordance with said results. In exercising independent professional judgment,

111. *See*, *e.g.*, Lat, *supra* note 2 (noting that, as compared to past decades, "today there is widespread acceptance that predictive coding in general, and specific programs or platforms in particular, are sufficiently reliable to be used").

112. Medianik, *supra* note 9, at 1527.

> lawyers must confirm that AI results are on point and error-free before adopting those results as their own. AI technology shall be used as an assisting tool to the human lawyer, not as an autonomous agent.[113]

While the proposed comment advances a quite reasonable approach, there are several potential difficulties in its execution. Consider the following scenario, which entails a lawyer who employs AI to perform a function (e.g., drafting a brief). The lawyer now needs to perform several tasks of her own after the algorithm drafts the brief.[114] These tasks are described concretely for example, but they might not end up being as clear in a lawyer's actual practice. She must perform her overall legal due diligence and make sure she is providing sound legal guidance and properly explaining any legal jargon, just as she would if she or an associate were performing the work herself.[115] Then, she must worry about whether the algorithm has suffered from any technical errors.[116] The algorithm might consistently cite irrelevant cases in addition to all the relevant cases, in which case, a proofreading of the brief would correct any issues.[117] However, if the algorithm misses relevant cases, the lawyer's job becomes much more complicated. She must figure out what types of cases are being missed, whether this represents some sort of systematic bias, and subsequently how the model might be operating.[118] The lawyer must now figure out how much additional work she needs to perform, or if she is not doing the complete due diligence, how to explain the software's results to the client.[119] The lawyer's role has become greatly expanded and she is moving from discussing legal concepts with which she is comfortable to technical concepts with which she is unfamiliar.

To be certain, it does seem possible to have a legal question with a completely clear answer. For example, there might be a constitutional provision, statute, or regulation whose plain text unambiguously provides the answer.[120] However, as the footnoted example suggests, most of these types of questions are likely to be trivial and may not even require a lawyer's services. Most likely, a client will come to a lawyer with a legal question that requires the lawyer to synthesize, or rely on previous synthesis, the existing legal precedent (statutes, case law, etc.) to provide an answer, which often might be probabilistic in nature.

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113. *Id.* at 1527-28.

114. I.e., she must remain compliant with the rules of professional conduct for the state in which she practices, or the *Model Rules* in these hypothetical instances.

115. *See* MODEL RULES R. 1.1 (duty of competence); MODEL RULES R. 1.3 (duty of diligence).

116. *Id.*

117. I.e., producing false positives. *See* Kim, *supra* note 85.

118. I.e., producing false negatives. *See* Vadillo et al., *supra* note 84.

119. *See* MODEL RULES R. 1.1 (duty of competence); MODEL RULES R. 1.3 (duty of diligence).

120. *E.g.*, If one inquires how old she must be to serve as president, she could easily search for the answer online and find it in Article II of the Constitution. *See* U.S. CONST art. II, § 1.

III. A PATH FORWARD

There needs to be a uniform national standard that clarifies *Lola*'s implications for ML/AI, as the court had explicitly declined to implement such broad guidance.[121] It would be exasperating to be stuck with multiple possible interpretations of the same matter across courts, as law firms could potentially be forced to discriminately use software even for advising a single client. Consider the court's phrasing at the end of its analysis:

> A fair reading of the complaint in the light most favorable to Lola is that he provided services that a machine could have provided. The parties themselves agreed at oral argument that an individual who, in the course of reviewing discovery documents, undertakes tasks that could otherwise be performed entirely by a machine cannot be said to engage in the practice of law.[122]

The first part of this Note has suggested a particular reading of the case that the court understood "machine" to imply a lower-level function, akin to that of a "scrivener's exception."[123] However, another interpretation might be that what a machine can do is actually the line over which work no longer constitutes the practice of law.[124] This alternative reading cannot be the right guidance, because then there might be person-like robots running around providing legal services free of regulation, which would have clear negative implications for clients. Regardless, the possibility of multiple interpretations combined with multiple standards across multiple courts further demonstrates the maddening convolution thereof. The ABA would be a natural entity to propagate these uniform national standards, but it certainly should not be the only one tackling the problem. A start could be an ABA committee or working group to conduct an extensive review, with lawyers, legal scholars, computer scientists, and other interested persons consulting.

In the absence of extensive findings, this Note offers a few thoughts on structuring the guidance that would ultimately be developed. Rules must be more specific than cross checking results or verifying the reliability of the manufacturer.[125] Even a lawyer well-educated in the technical fields might still succumb to the problems stemming from technical complications outlined in the last section. One suggestion might be imposition of a regulatory framework. For example, looking to the method by which the FDA approves drugs through the clinical trial

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121. Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 Fed. Appx. 37, 44 (2d Cir. 2015).

122. *Lola*, 620 Fed. Appx. at 45.

123. *Id.* at 44 (citation omitted) (internal quotations omitted). The court also cites in support of its decision that, "[t]he ethics opinion strongly suggests that inherent in the definition of 'practice of law' in North Carolina is the exercise of at least a modicum of independent legal judgment." *Id.*

124. *See* Simon et al., *supra* note 43, at 248 ("*Lola* suggests that the complexity of those technological advancements is now eroding carefully erected protections sheltering the legal profession from disruption.").

125. *But see* Simon, *supra* note 18, at 34-36; Medianik, *supra* note 9, at 1527-28.

process could be instructive.[126] Legal technology providers could be required to undergo various tests to address specific concerns. Examples might be bias testing to avoid racial and other forms of discrimination and statistical bias testing to recognize any systematic accuracy issues. The software that results might not need to be perfect in all situations, but if there are imperfections, the software should at least come with disclosures that it is known to have these certain biases.[127] Further, as the software applies precisely to a lawyer's practice, there might be similar post-market review metrics to continue to ensure that the software is functioning as it should.[128]

CONCLUSION

This Note has highlighted many of the existing ethical issues with current or not too far-off legal technologies.[129] Part I even suggested that some currently existing powerful algorithms might not even constitute the practice of law, as it is formally defined.[130] Combine this reality with the fact that software is starting to outpace persons in many common tasks.[131] Do these facts suggest that there could be robots running around providing legal services free of ethical regulation? Likely not. While individual steps of the process might be performed automatically without falling under the practice of law, to combine them in a coherent manner that is necessary to meaningfully advise or represent a client almost certainly runs afoul of the *Lola* standard.[132] Hence, this Note's examples present further reason there needs to be clearer guidance on the usage of ML/AI.

126. *See generally* Applications for FDA Approval to Market a New Drug, 21 C.F.R. § 314.1 *et seq*. (2021), WL 21 CFR § 314.1 *et seq*.

127. *Cf. id.* § 314.50(c) (detailing various disclosures required in a New Drug Application submitted to the FDA, including the benefits and risks of taking the drug).

128. *Cf. id.* §§ 314.80-314.81 (describing situations in which post-market reporting to the FDA is necessary).

129. *See supra* Part II.

130. *See supra* Part I.

131. *See* Barry, *supra* note 9, at 343-44.

132. Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 Fed. Appx. 37, 44 (2d Cir. 2015).