Evaluating Artificial Intelligence for Legal Services: Can "Soft Law" Lead to Enforceable Standards for Effectiveness?

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Abstract—**Artificial intelligence and other technologies hold great promise for improving legal services, legal systems, and the law itself. These improvements could help expand access to legal services and justice for everyone around the world. Technology adoption in the legal industry, however, has been slowed by a lack of standards for evaluating AI effectiveness. Soft law can help fill the gap and lead to the development of required evaluations of AI effectiveness for legal-services delivery. Existing legal-services regulations could be a good vehicle for soft law. Lawyers and other legal-services professionals must comply with various obligations to clients and society, including under rules of professional conduct. Soft law can help define those obligations to include evaluating AI effectiveness and adopting AI when it serves clients and society. Effectiveness evaluations of AI for electronic discovery that have facilitated AI adoption illustrate how this might work. Corporate legal departments could require lawyers and vendors and legal aid funders could require programs to comply with AI standards. NGOs and academics could (i) develop checklists, toolkits, and other resources for clients to hold lawyers and vendors accountable, (ii) develop resources to help lawyers and vendors comply, and (iii) monitor and publicly share information about compliance.**

Index Terms—**Access to legal services; access to justice; artificial intelligence; consumer protection; data analysis; design; effectiveness; expert systems; governance; innovation management; law; legal prediction; legal-services delivery; legal technology; machine learning; measurement; performance evaluation; product development; product safety; regulation; safety; soft law; software safety; technological innovation.**

I. Introduction

Artificial intelligence is poised to transform legal services, legal systems, and the law itself. The use of AI and other technologies for legal-services delivery could generate tremendous benefits for individuals, businesses, governments, and society, expanding access to law and justice for everyone. Unfortunately, lawyers and regulators around the globe have been slow to embrace innovation and technology. One obstacle to AI adoption has been the lack of evaluation of the safety and effectiveness of AI for legal services.

"Soft law" could lead to the development and enforcement of standards for evaluating the effectiveness of AI and other technology used for legal-services delivery. Traditional "hard law" means of regulating legal services have not kept pace with advancing technology. Unfortunately, the rules of professional conduct and standards that apply to lawyers and other legal-services professionals have tended to impede competition and innovation, often with the stated purpose of protecting clients and the public. Nevertheless, existing legal-services regulations, particularly the obligations of lawyers and other legal-services professionals to their clients and society, could prove to be excellent mechanisms for the enforcement of soft law principles for AI governance.

II. What is "Soft Law"?

The explosion of AI research and use in society highlights the "pacing problem" that affects many emerging technologies. In sum, law and regulation do not keep pace with emerging technology. Because the "risks, benefits, and trajectories of AI are all highly uncertain," traditional legislative and regulatory approaches do not work well. Governments are also reluctant to enact laws and regulations that might impede innovation and harm their jurisdiction when competing with others. Additionally, AI broadly impacts many industries, products, jurisdictions, and stakeholders, in varying contexts, further complicating determinations of not only how to regulate AI, but who will be the regulator.

"Soft law" is intended to fill the AI governance gap, at least in the short term. Soft law creates substantive expectations that are not directly enforceable by governments. Soft law programs vary widely in form and format. Examples include codes of conduct, ethical statements, professional guidelines, statements of principles, certification programs, private standards, public-private partnership programs, and voluntary programs.

The benefits of soft law include that it can be rapidly adopted and revised because it resides outside of traditional government bureaucratic processes. This fosters simultaneous experimentation with multiple approaches. Additionally, soft law programs are not limited by narrow delegations of authority or restricted to specific legal jurisdictions.

The weaknesses of soft law begin with the fact that it is not enforceable in a traditional sense. Instead, soft law relies on other mechanisms to achieve desired activities and outcomes. Soft law development is problematic when it happens behind closed doors, lacking the transparency and opportunities for participation afforded by traditional governmental processes. Organizations may engage in "ethics washing" or

"greenwashing," releasing or agreeing to ethical principles but not changing their behavior. Similarly, "good actors" might comply, while "bad actors" might not. Additionally, because soft law is often expressed in vague terms, it may be difficult to measure compliance.

III. Governing AI for Legal Services: Start with Evaluating Effectiveness

Many objectionable uses of AI could be prevented if effectiveness evaluations were widely adopted and implemented during all project phases—design, development, deployment, and maintenance. Effectiveness evaluations also can help detect other problems with AI. For example, bias can be revealed by evaluating effectiveness, as illustrated by Joy Boulamwini's Gender Shades study of facial analysis technology. AI effectiveness evaluations can also expose violations of fundamental best practices, such as using training data that is not representative of the environment in which the AI will be deployed. Early effectiveness testing could head off AI projects based on junk science, such as attempts to breathe life into phrenology.

Effectiveness evaluations do not end the inquiry in all cases, of course. For example, opinions about effective facial analysis technology may change whether the proposed use is by the blind versus by governments for surveillance. Other principles should also be considered, such as fairness, accountability, and transparency. Often, although not always, risks related to these other principles are the byproduct of a core failure of effectiveness. Effectiveness testing can help rid society of AI that does not work and could be harmful. Thus, the threshold question when adopting AI for legal-services delivery ought to be evaluating safety and effectiveness.

IV. Responsible Technology Adoption for Legal Services: Increasing Access to Legal Services and Justice?

It is estimated that worldwide 5.1 billion people are deprived of justice. Of these, 4.5 billion people are excluded from social, economic, and political opportunities that the law provides; 1.5 billion people have justice problems they cannot solve; and 250 million people live in extreme conditions of injustice. These problems are not limited to developing countries. In the United States, it is estimated that more than 80% of the impoverished and more than 50% of the middle-class lack access to legal services. Even businesses lack efficient, effective solutions to their legal needs, especially as complexity grows in our interconnected, global, and increasingly digital economy.

The rapid advancement of computational technologies, including AI, presents abundant opportunities to improve legal services, legal systems, and the law itself. The COVID-19 pandemic has accelerated the adoption of technology for legal services and legal systems. As Michigan Chief Justice Bridget McCormack put it, the pandemic should cause all of us to ask: "Why is our system of justice held together with the threads of 20th century technology and 19th century processes?"[11].

Chief Justice McCormack observes that the use of technology, including online dispute resolution, can significantly improve access to justice and litigant's exercise of due process rights. For example, access to online proceedings can both decrease default rates due to failures to appear and increase meaningful participation by litigants. Thus, the acceleration of courts' adoption of online dispute resolution could serve to greatly improve justice, not erode citizen's due process rights, as some fear. Likewise, consumer-focused self-help products and applications could help individuals without them needing to consult with a lawyer, which can be cost prohibitive. But the introduction of technology in courts and for self-help by individuals and businesses is met by significant skepticism and resistance by lawyers. A frequently cited, although sometimes disingenuous concern raised by lawyers and regulators is to question the safety and effectiveness of AI and other technology tools.

At the root of this problem is the lack of evidence-based practice and empiricism in law. Law practice lacks defined standards and best practices. Individual lawyers exercise great discretion in how they accomplish tasks. Legal-services delivery is guided by norms, not rigorous evaluation. As a result, when technology is used to automate or augment tasks, the legal industry lacks frameworks for evaluating its effectiveness, including the quality of outputs and the value produced. In this environment, if regulators or a vocal group of attorneys assert that the adoption of AI could harm consumers, the legal industry lacks standards and methodologies for rigorously analyzing such claims or weighing them against other objectives.

Creating and enforcing standards for evaluating the effectiveness of AI for legal services will provide needed guidance for lawyers and other legal-services delivery professionals. AI effectiveness standards should be designed to nudge them to make responsible use of technology to better serve clients and society. Standards will also help them avoid discipline for violating rules of professional conduct and reduce their risk of liability when they follow these guidelines.

Widespread effectiveness evaluations will also benefit consumers, from individuals to corporate consumers of legal services. Legal-services regulators also want to understand how to evaluate and regulate technology, particularly tools that solve specific consumer legal problems. For example, Utah has created a "sandbox" for the evaluation of legal-services technology introduced by innovators. Recently, Utah and Arizona relaxed regulations that prohibited persons other than lawyers from investing in or owning law firms, embracing changes previously adopted in the United Kingdom, Australia, and other jurisdictions. Thus, the governance of AI used for legal services must consider not only lawyers, but also other professionals and organizations that will directly deliver legal services. Many other jurisdictions are considering similar changes. Yet many jurisdictions resist change while demanding data demonstrating the safety and effectiveness of legal services delivered by AI and other technology, or by anyone other than lawyers. Standards for effectiveness evaluations could help change the conversation in those jurisdictions as well.

Courts, administrative agencies, and other quasi-judicial organizations also need guidance to make the best use of technology. Although this article focuses on the development of standards for the implementation of effectiveness testing by private and nonprofit providers of legal services, success in

those sectors would produce benefits for the entire legal ecosystem. We could anticipate that responsible governmental organizations would hold themselves to accepted standards and methods for effectiveness testing.

V. Existing Legal-Services Regulations and Law Provide a Framework for "Soft Law" Success

The legal industry could prove to be very well suited for the success of soft law approaches. Most jurisdictions afford the legal profession the privilege of self-regulation. This helps explain the slow pace of change and makes it unlikely that lawyers would enact regulations that accelerate technology adoption, which some lawyers and professional societies (such as bar organizations in the U.S.) perceive as a threat to their livelihood. At the same time, lawyers and other legal professionals are governed by standards of professionalism, specific rules of conduct, and other duties to clients and society. Many of these standards, rules, and duties expressly or implicitly require interpretation and enforcement in the context of changes in law, legal practice, technology, and society. This presents opportunities for soft law programs to generate principles, guidelines, standards, and methods that become integrated and enforced within existing legal-services regulatory frameworks. Over time, "soft law" could be expressly incorporated into "hard law" regulations for legal-services delivery.

In the United States, the American Bar Association (ABA) publishes the Model Rules of Professional Conduct. The ABA does not have jurisdiction to regulate lawyers directly. States regulate legal services and lawyers, including by adopting the Model Rules proposed by the ABA, usually with few substantive modifications. Therefore, the ABA Model Rules provide a good overview of the current state of regulation in the states.

In this section, I review several ABA Model Rules that could be effective mechanisms for the enforcement of soft law standards for evaluating the effectiveness of AI for legal services. Each rule creates obligations for lawyers and other legal services professionals, but most either give great deference to lawyers or rely on vague standards. Soft law could fill the gap by helping establish concrete actions that would be sufficient to comply with their existing obligations.

A. Rule 1.1: Competence and Understanding the Risks and Benefits of Technology

Under Model Rule 1.1, lawyers must "provide competent representation to a client."[18]. This "requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation."[18]. In 2012, the ABA amended Comment 8 to Rule 1.1 to clarify that lawyers must be competent regarding technology:

> "To 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."[18].

As of August 2020, 38 jurisdictions had adopted this amendment.

Unfortunately, little concrete guidance has emerged from regulators or courts about what is required to be considered competent regarding AI. A commentator has said, "[i]f a lawyer uses a tool that suggests answers to legal questions, he must understand the capabilities and limitations of the tool, and the risks and benefits of those answers."[20]. ABA Resolution 112, which speaks to lawyers' use of AI, states: "Under Rule 1.1, lawyers also must have a basic understanding of how AI tools operate. While lawyers cannot be expected to know all the technical intricacies of AI systems, they are required to understand how AI technology produces results."[21].

Courts have begun to define competence when lawyers use AI for electronic document discovery in litigation. In 2009, Magistrate Judge Andrew Peck excoriated lawyers for "designing keyword searches in the dark, by the seat of the pants, without adequate (indeed, here, apparently without any) discussion with those who wrote the emails."[22]. Judge Peck advised that lawyers using keywords to retrieve electronically stored information at a minimum must, among other things, "quality control test[]" their "proposed methodology" to "assure accuracy in retrieval and elimination of 'false positives.'"[22]. In other words, lawyers must evaluate the effectiveness of the technology tools they use.

As Maura Grossman and Gordon Cormack say about electronic discovery, AI tools "require more than just knowing how to mechanically 'press buttons' to use the software." "Knowing when, how, if, and what type of tool to deploy, or what type of tools to chain together, become part of the lawyer's duty and the successful lawyer's toolbox." The legal profession is transforming "into one where attorneys will need both technical and legal skills to competently represent clients." Lawyers "can no longer uncritically rely on outside advisors or blindly accept 'black box' results." Lawyers can rely on technical experts who are not lawyers, but they cannot delegate their duties to these technical experts.[23].

B. Rules 5.1 and 5.3: Duty to Supervise (other lawyers and other professionals)

Partners and other supervising lawyers in law firms must undertake reasonable efforts to ensure that the law firm has effective measures in place to give reasonable assurance that all lawyers conform to rules of professional conduct. Partners and other supervising lawyers have similar obligations when working with other professionals they employ, retain, or associate with while providing services. The scope of the latter rule includes assistance from AI to provide services.

Commentators have said that lawyers must understand AI "well enough to ensure compliance with the lawyer's ethical duties." "This includes making sure that the work product produced by AI is accurate and complete and does not create a risk of disclosing client confidential information."[26]. Effectiveness evaluations would help satisfy these obligations.

C. Rule 1.4: Communicating with Clients about Means of Accomplishing Objectives

A lawyer must "reasonably consult with the client about the means by which the client's objectives are to be accomplished[.]"[27]. A lawyer must "explain a matter to the extent reasonably necessary to permit the client to make informed decisions regarding the representation."[27]. Thus, a lawyer should discuss with a client the risks and limitations of using an AI tool in connection with delivering legal services. Likewise, in certain circumstances, a lawyer may need to communicate to the client a decision not to use AI.

Some commentators suggest that a lawyer obtain not only approval, but also "informed consent" from the client before using AI. But this could set too high a bar. Lawyers have great discretion when choosing the means to accomplish the client's objectives. Effectiveness testing would help lawyers determine when they need client approval at all, much less informed consent. For example, lawyers surely do not need client approval to use AI-driven spell checkers or electronic research services. On the other hand, is approval needed for the use of AI for contract review as part of a corporate merger? If it could be shown that contract review tools are highly effective, client approval is less likely to be necessary. If shown to be effective, AI tools for contract review would presumably become the preferred means for contract review. Standards for effectiveness testing would help facilitate this transition.

D. Rule 1.5: Reasonable Fees

A lawyer must not charge or collect an unreasonable fee or an unreasonable amount for expenses. If a lawyer fails to use technology that would result in more efficient and higher quality legal services, a client could argue that the lawyer charged an unreasonable fee for the services in violation of Rule 1.5. Both consumers and legal-services providers would benefit from standards for the evaluation of effectiveness to help them determine when the failure to use AI or other technologies results in charging the client an unreasonable fee.

E. Rule 1.6: Confidentiality

Lawyers must consider their duty to maintain the confidentiality of client information. If client information is shared with a third party in connection with training or developing an AI tool, lawyers must take appropriate steps to safeguard the client's information. If a lawyer wishes to use client information to develop an AI tool, the lawyer should obtain the client's informed consent and should disclose if and how the AI tool may be used for other current and future clients. Complex confidentiality concerns arise in this situation, and a lawyer must ensure that the client's confidential information is not disclosed to current and future clients without first obtaining informed consent. The lawyer must understand the risks of disclosure, such as the possibility of reverse-engineering an AI tool to reveal information provided by the initial client. If the lawyer does not understand how the AI tool works and its effectiveness, it will be difficult for the lawyer to adequately discuss with the client the risks and benefits of using the AI tool.

F. Rule 2.1: Exercising Independent Professional Judgment and Providing Candid Advice

When representing a client, a lawyer must "exercise independent professional judgment" and "[provide] candid advice."[29]. The extent of a lawyer's reliance on AI could raise questions about whether the lawyer's "professional judgment" remains "independent." For example, this could arise if a lawyer incorporates AI outputs into a prediction about the likelihood of success in a dispute filed in a particular court. The lawyer's understanding of how the AI works and its effectiveness ought to go a long way to establishing that the lawyer appropriately exercised independent professional judgment in the process of giving advice.

G. Malpractice Liability

Lawyers and other legal-services professionals could also be subjected to liability for the negligent use of, or failure to use, AI when delivering legal services. To recover damages caused by a lawyer's malpractice, "a plaintiff must demonstrate that the attorney 'failed to exercise the ordinary reasonable skill and knowledge commonly possessed by a member of the legal profession.'"[36] "[A]ttorneys ordinarily must act consistently with the community standard of care."[37]. Standards for effectiveness could contribute to raising community standards of care regarding lawyers' and other legal-services professionals' use of AI.

VI. Electronic Discovery in Law: An Example of AI Adoption Fostered by Effectiveness Testing

When AI tools for the review of electronic documents were first introduced in the legal industry, lawyers expressed skepticism about the tools themselves and predicted courts would be slow to accept them. But widespread adoption of technology-assisted review" (TAR), including various AI tools, happened faster than most lawyers expected. This was due in large part to experts who conducted evaluations to demonstrate TAR's effectiveness and judges who endorsed and sometimes mandated its use. Once TAR was proven effective, clients demanded that their lawyers use it to take advantage of the cost savings.

In the U.S. and several other jurisdictions, litigants engage in a process of "discovery," which includes producing documents to adversaries. With the explosion of electronically stored information, even an ordinary business dispute can involve millions of pages of documents. Up to about 20 years ago, lawyers would assemble teams of junior lawyers to manually review paper copies of documents. Over time, lawyers began to use technology platforms to manage the review of electronic versions of documents and began to replace junior lawyers with contract lawyers. Even then, the costs were considerable, leading clients to push for cheaper means of completing document review. Before legal professionals and courts could adopt AI for electronic discovery, however, they needed to answer the question, "Does it work?"

In 2006, the US National Institute of Standards and Technology (NIST), through the Text REtrieval Conference (TREC) Legal Track initiative, began conducting studies to evaluate the effectiveness of AI for electronic discovery. Effectiveness was determined based on two commonly used information retrieval statistics: recall (the percentage of all

relevant documents retrieved by the tool) and precision (the percentage of documents retrieved that were relevant). The IEEE's Ethically Aligned Design (EAD) report cites the TREC studies as a shining example of how science can be used to advance the "truth-seeking protocols of the law."[38]. EAD lauds TREC for creating metrics to quantify effectiveness in a way that practitioners could easily understand, establishing benchmarks for applying AI to a real-world challenge, and demonstrating the importance of multidisciplinary collaboration by bringing together participants from scientific and legal backgrounds.

Additional research advanced the TREC findings, such as Grossman and Cormack's research finding that certain TAR systems outperformed human review. Their work illustrates the importance of establishing the right baseline for comparison. TAR did not need to be perfect, it simply needed to outperform manual review. Today, courts in the United States, Ireland, the United Kingdom, and Australia have approved TAR for electronic discovery, and it is generally accepted in these and other jurisdictions.

Nevertheless, evaluating the effectiveness of AI for electronic discovery cannot yet be declared a complete success. There is no consensus regarding reasonable TAR processes and results. Despite the proliferation of principles for effective TAR and the availability of toolkits for evaluating effectiveness, standard practice does not include effectiveness evaluations. In their continuing work, Grossman and Cormack show that not all TAR methods in use today are effective. They say that legal professionals must "identify reasonable tools, procedures, and validation protocols, based on the best available evidence coupled with their own investigations." Grossman and Cormack propose that "[i]n a perfect world, a recognized body would set standards for the application of TAR technology in eDiscovery and would certify particular tools and protocols for adherence to those standards." [41].

VII. Effectiveness Evaluations of AI for other Legal-Services Tasks

Evaluating the effectiveness of AI tools for legal services outside of electronic discovery presents additional challenges. Electronic discovery takes place in a closed system. A complete corpus of documents is available for training and testing the AI system. Relevance is defined, the system trained on examples from the corpus, and the outputs produced by TAR and human review evaluated against the corpus for effectiveness. Additionally, the threshold required to find TAR effective is far less than perfect because relevance is a vague concept. With human review, it has been shown that interrater agreement between two reviewers on documents labeled "relevant" will not exceed 70%. Therefore, in comparison to a "gold standard" review against which the output of an AI review is evaluated, the positive agreement in documents labeled relevant would not be expected to exceed 70%. As Grossman and Cormack say, "relevance is in the eye of the beholder." [41]

The use of AI for other legal-services tasks often involves "open systems." In those cases, the full population of possible training and testing examples is unknown and unavailable. Additionally, for many legal-services tasks effectiveness can be measured against an objective standard for correctness, at least theoretically. For example, we can evaluate whether an AI contract review tool correctly identified a contract provision as a "choice of law" clause. These factors complicate effectiveness evaluations outside of TAR for electronic discovery. This may explain why there are very few public examples of effectiveness evaluations of AI for legal-services delivery. Nevertheless, we can learn from a few prominent examples.

In February 2018, LawGeex released a study in which it found that its contract review tool outperformed lawyers when identifying clauses in five non-disclosure agreements (NDAs). LawGeex reported that its AI tool achieved a 94% "accuracy" rate, compared to 85% on average for the 20 human lawyers that they selected. It causes pause that LawGeex reported "accuracy" only, without recall, precision, and the F-measure (the harmonic mean between precision and recall). Likewise, a process of hand-picking a small number of participants would not be chosen for a serious study. LawGeex asked the lawyers to label clauses in NDAs, which is perhaps akin to the issue-spotting a lawyer does when reviewing a contract. The study asked the lawyer reviewers to ignore what they knew about specific issues and instead apply definitions of specific contract clauses. Despite these constraints, which somewhat limit the study's external validity, and the weaknesses in methodology, this study suggests a general framework that could be applied to evaluate the effectiveness of legal-services delivery tasks.

In February 2019, QuisLex conducted a study of ten AI tools that extract text from contracts. QuisLex did not identify specific tools or their results. Several tests focused on the effectiveness of the tools at identifying and extracting specific clauses from contracts. QuisLex reported recall, precision, F-measure, and accuracy for each task, and created a scale to report partially correct outputs. These AI tools, with out-of-the-box models (i.e., no customer model training), scored from 58% to 79% on recall, 84% to 99% on precision, 72% to 81% on F-measure, and 29% to 80% on accuracy. QuisLex also tested an "untrained human," who scored 65% on recall, 99% on precision, 78% on F-measure, and 79% on accuracy. Four tools were tested after custom model training, producing scores of 35% to 96% on recall, 47% to 100% on precision, 41% to 98% on F-measure, and 35% to 97% on accuracy. QuisLex said that it used "entry-level resources" for the "untrained human" reviews to create a baseline for comparison, but it does not provide much additional information about how it did this. The QuisLex study also illustrates a sound methodology that could be used to evaluate the effectiveness of AI for legal-services delivery. Additionally, the wide range of scores for these tools demonstrates the need for effectiveness evaluations.

Other notable contributions to testing the effectiveness of technology for legal services include *Substantive Legal Software Quality – A Gathering Storm,* by Marc Lauritsen and Quinten Steenhuis and *7 Questions Lawyers Should Ask Vendors About Their AI Products* by Maura Grossman and Rees Morrison. Lauritsen and Steenhuis focus on how sound software development processes, including testing, will contribute to improving the quality and accuracy of

applications that provide legal guidance. Grossman and Morrison advise, "before you license the tool, it is imperative to know what empirical support there is that the software that you are about to purchase is valid and reliable."[45]. Finally, research by Diana Koppang and Jeremy Sullivan shows significant variance in descriptive statistics obtained from different legal research platforms. Their findings illustrate the need to understand data inputs for AI tools in the process of evaluating effectiveness.

VIII. Legal Services Corporation Performance Criteria Requiring Effectiveness

The Legal Services Corporation (LSC), the largest funder of civil legal aid in the United States, has established performance criteria for ensuring that the programs it supports "provide high-quality legal assistance." The criteria are intended to satisfy the requirements of "effective" and "economical" delivery required by Section 1007(a)(3) of the Legal Services Corporation Act." LSC defines "effectiveness" as focused on the results achieved and "economical" as "trying to achieve a particular result as efficiently as possible."[47]. The LSC criteria demonstrate the importance of evaluating effectiveness. At the same time, the LSC criteria could benefit if standards for evaluating AI effectiveness were available for incorporation into its performance criteria. LSC could use those standards to accelerate innovation and technology adoption by the programs it supports.

LSC's criteria for effectiveness require that a "program conducts its direct legal representation … in an effective and high-quality fashion which comports with relevant" rules and requirements. This includes that "[t]he program utilizes systems, approaches, and techniques sufficient to ensure that the representation is carried out with maximum effectiveness."[47]. LSC identifies numerous indicators for the effectiveness of legal representation, including up-to-date technology, adequate access to experts and litigation support systems, systems for the ongoing evaluation of the effectiveness of legal work, examining both results obtained and efficiency and quality of methods used, and the effective use of available technology to assist in services delivery.

LSC's criteria cite the ABA Standards for the Provision of Civil Legal Aid, specifically Standard 2.10 on the Effective Use of Technology: "A provider should utilize technology to support efficient operations and the provision of high quality and responsive services."[48]. The comments to this standard state that "[a] provider should cultivate a commitment to innovation and should take advantage of technology that can increase the scope of services it offers to its constituents."[48]. "The provider should be aware of emerging uses of technology directly in the conduct of representation." This includes "stay[ing] informed of new developments and analyz[ing] the degree to which new strategies for serving low income communities may be possible as a result of technological innovations."[48]. Additionally, "[t]echnology planning should include an **assessment of the effectiveness** of the provider's current technology and of new technological advances that would enhance its operation and delivery of services.[48].

IX. IEEE and ABA Principles for Legal-Services Delivery Effectiveness

Numerous "soft law" programs and proposals have emerged for the governance of AI. As of 2019, researchers had identified as many as 84 ethical statements or guidelines for AI. The IEEE and ABA have published principles for law, including for evaluating the effectiveness of legal services. These principles provide a useful foundation from which to consider mechanisms for the adoption and enforcement of standards for evaluating the effectiveness of AI for legal-services delivery.

A. IEEE Ethically Aligned Design Chapter 11

The IEEE, working with several hundred AI experts across disciplines and jurisdictions, published *Ethically Aligned Design* (EAD), a nearly 300-page report that aims to prioritize human well-being with autonomous and intelligent systems. Chapter 11 of EAD focuses on "Law," specifically the impact of AI on the practice of law and the potential benefits and risks of incorporating AI into legal systems.

EAD identifies "unclear efficacy" of AI systems used in justice systems as an impediment to the informed trust needed for the adoption of AI systems. "To formulate policies and standards of practice intended to foster informed trust," EAD suggests identifying "principles over the entire supply chain for the delivery of [AI]-enabled decisions and guidance, including design, development, procurement, deployment, operation, and validation of effectiveness, that, if adhered to, will foster trust." EAD examines how societies can increase trust in AI systems by advancing "publicly accessible standards of effectiveness, competence, accountability, and transparency."[38].

EAD acknowledges that standards in each of these four areas will not contribute equally in each circumstance. "For example, in many applications of [AI], **a well-established measure of effectiveness, obtained by proven and accepted methods, may go a considerable way to creating conditions for trust in the given application**."[38].

EAD identifies two categories of stakeholders who will be interested in effectiveness metrics: experts (researchers, designers, operators, and advanced users) and non-experts (including legal professionals, judges, litigants, communities, victims, and system advocates). I recommend the addition of a third category between these two for legal-expert users. Legal-expert users should be required to develop a functional understanding of AI systems and expected to contribute their legal expertise to ensure that AI systems are properly evaluated for effectiveness.

EAD identifies several criteria for optimal effectiveness measures:

- **Meaningful metrics** that provide an accurate and readily understood gauge of effectiveness, such as recall and precision for electronic discovery.
- **Sound methods**, such as proper sampling and statistical procedures.
- **Valid data**, vetted for bias, that is representative of the actual data to which the AI system would be applied.
- **Awareness and consensus** that the methods are not

only technically sound but also "widely understood and accepted as evidence of effectiveness."
- **Implementation** of measurement practices that are practically feasible and widely adopted by practitioners.
- **Transparency** such that measurement methods and results are "open to scrutiny by experts and the general public."[38].

EAD's recommendations include that:
- Governments fund and support the establishment of ongoing benchmarking exercises and facilitate the creation of data sets that can be used for effectiveness evaluations.
- Creators of AI systems "pursue valid measures of the effectiveness of their systems … through participation in benchmarking exercises or though conducting single-system validation exercises."
- Creators describe the procedures and results of testing (1) in language that can be understood by both experts and nonexperts and (2) openly for examination by all stakeholders.
- Researchers define meaningful effectiveness metrics while seeking input from all stakeholders.
- Governments and industry associates undertake educational efforts to inform operators of AI systems deployed in the legal system and those affected by those systems.

B. ABA Resolution 112 Regarding Ethical and Legal Issues Related to AI Use in Law Practice

In August 2019, the ABA House of Delegates adopted Resolution 112 ("Report"), in which it "urges courts and lawyers to address the emerging ethical and legal issues related to the usage of [AI] in the practice of law." The Report identifies three specific issues of AI use in law practice: "(1) bias, explainability, and transparency of automated decisions made by AI; (2) ethical and beneficial usage of AI; and (3) controls and oversight of AI and the vendors that provide AI." It says that **courts and lawyers** "**should address situations where their usage of AI may be flawed or biased**."[21].

The Report says that lawyers increasingly use AI to "improve the efficiency and accuracy of legal services offered to their clients." It calls for raising the awareness of courts and lawyers of the issues involved in using (and not using) AI. "Given that many lawyers are focused on detail and control over their matter[s], it is easy to see why 'the greater danger might very well be underutilization of, rather than overreliance upon, artificial intelligence.'"[21].

The Report called for the establishment of a working group to "define guidelines for legal and ethical AI usage, and potentially develop a model standard that could come to the ABA House of Delegates for adoption." Subsequently, the ABA Section of Science & Technology and ABA's Professional Responsibility established a working group, which prepared a report and proposed resolution ("Guidelines Proposal"). The Author was a member of this working group. Persons outside of the working group decided not to present the Guidelines Proposal to the House of Delegates, however, and the working group was asked instead to fashion it into a white paper, which has not yet happened. [21].

The Guidelines Proposal "urges courts and lawyers to adopt policies and practices for the effective, competent, transparent, and accountable use of [AI] in the practice of law and the administration of justice." It says that courts and lawyers "should … appropriately investigate the effectiveness of AI to evaluate whether it is fit for its intended purpose[.]" It calls for the testing of AI outcomes, and says that "[l]awyers should only rely on AI tools that are adequately tested to detect bias." [49].

The Guidelines Proposal also calls for transparency about the effectiveness of AI, saying that "[l]awyers and courts need to know whether AI actually works." "Lawyers and courts should require their AI operators to provide evaluations of the AI that will permit the lawyers or courts to determine if the AI is in fact effective for the given task."[49].

X. Mechanisms for Indirect Enforcement "Soft Law" to Create a Culture of Effectiveness Testing

Gary Marchant and Lucille Tournas have proposed numerous mechanisms for the indirect enforcement of soft law governance of AI. Internal measures include corporate boards, ethics committees, ethics officers, and ombudspersons. External measures include supply chains, NGO monitors, auditing and certification, trade associations, professional societies, liability insurers, grantors and funding agencies, market forces, labeling, professional journals, FTC enforcement, and liability.

For indirect enforcement, efforts focused on lawyers and other regulated legal-services professionals seem most likely to be successful, given their existing professional obligations, including under rules of professional conduct. The possibility of liability for harm caused by AI is also likely to drive compliance by lawyers, other legal-services professionals, and AI developers. Organizations that employ lawyers, other legal-services professionals, and developers would likely in turn enact internal measures to comply with soft law AI guidelines, including because they may themselves be subject to discipline (for failure to supervise employees developing AI, for example) and liability.

Below, I discuss the mechanisms that hold the greatest promise for soft law programs leading to the development of and adherence to standards for evaluating the effectiveness of AI for legal-services delivery.

A. NGO Monitors and Academic Researchers

Non-governmental organizations and others could monitor and report publicly on legal industry compliance with AI guidelines. It is unlikely that lawyers would consent to direct monitoring, given their obligations to clients, including confidentiality. Nevertheless, there are many other ways to monitor compliance, from evaluating specific AI tools to monitoring organizations' adoption of and adherence to AI guidelines.

Academic researchers could fill important roles. Examples include Joy Boulamwini's "Gender Shades" research about facial analysis technology effectiveness and bias and Grossman's and Cormack's research evaluating the effectiveness of AI for electronic discovery. In addition to

research focused on evaluating specific AI tools, academic research could contribute to developing specific guidelines and methods for evaluating AI effectiveness. Perhaps academics could do this in collaboration with professional societies and trade organizations. They could develop and market guidelines that lawyers and other professionals, by their association with lawyers, would determine themselves compelled to adhere to in light of their existing obligations under the rules of professional conduct, fiduciary duties to clients, and possible malpractice liability.

Academics and others could develop and market:

- Checklists, toolkits, and other resources to foster compliance by those subject to the guidelines;
- Checklists, toolkits, and other resources to make it easy for customers, including corporate legal departments, to require that their suppliers (including lawyers) adhere to principles and guidelines and monitor and audit compliance;
- Standardized materials for teaching lawyers, other legal-services professionals, and developers about evaluating AI effectiveness;
- Conferences and workshops on AI principles and guidelines, both to foster research and train individuals;
- Online training, including continuing legal education (CLE) for lawyers; and
- Programs to certify individuals, organizations, and specific AI tools.

Academics could also study compliance with AI principles and guidelines by vendors, law firms, legal aid organizations, and other organizations. This could begin with reviewing public-facing materials on websites and evaluating each organizations' transparency, including the availability of information that permits others to determine each organization's compliance. Follow-up requests could be made to determine what additional information the organizations would disclose. The assembled information could be made available in an open database. Transparency could help develop a market for this information, creating incentives for organizations to demonstrate compliance with AI principles.

Fostering public release of information about AI effectiveness may itself lead to improved effectiveness. For example, although there has not been a definitive finding, healthcare quality experts believe that the act of releasing information about hospital performance itself leads to improvements in quality.

B. Supply Chain

Corporate legal departments and courts could require law firms, legal technology companies, and other legal-services providers to comply with specific AI principles. Law firms and other services providers could likewise require compliance by their suppliers. Customers purchasing legal services, particularly corporate legal departments, have substantial leverage in their relationships with legal-services providers. It is already commonplace for corporate legal departments to require that their law firms and other providers comply with billing guidelines, including specific details such as who can work on matters, where data is stored, and compliance with diversity and inclusion policies.

In turn, lawyers and other service providers, given their professional obligations and customers' expectations, should clearly address compliance with AI principles in their engagement agreements with customers. By doing so, they can demonstrate their commitment to evaluating the effectiveness of AI and require that their customers cooperate and provide necessary information to permit compliance with AI principles. In addition to contributing to legal-services delivery improvements, these steps would help lawyers and other service providers define the scope of their services and reasonably limit liability exposure.

C. Grantors and Funders

Many organizations receive grants and funding from outside partners, including research institutions and legal aid organizations. Funders of legal aid projects, including the LSC, could require compliance with AI guidelines as a condition of funding. The LSC already emphasizes effectiveness in its evaluations of legal-services programs. Requiring AI effectiveness evaluations would be a natural extension of its existing performance criteria.

D. Market Forces

Market forces should also play a role in the regulation of for-profit legal-services providers. Increasing calls for the ethical use of AI will create incentives for legal-services providers to demonstrate their adherence to AI principles and guidelines.

E. Liability

Soft law guidelines could also prove to be important when determining liability for harm caused by AI systems. Compliance, or lack thereof, with AI guidelines may be used as evidence in determining whether a provider exercised reasonable care. Furthermore, when a provider is found to have breached its duty of care, compliance with voluntary soft law programs could help a provider show that it did not act intentionally or recklessly, thereby avoiding the imposition of punitive damages.

F. Liability Insurers

Liability insurers may require organizations to implement risk management systems as a condition to providing them with liability insurance. Insurers have already begun to require such systems in connection with other potentially large liabilities, such as nanotechnology and cybersecurity. Short of requiring adherence to AI guidelines, legal malpractice insurers could offer discounts in exchange for compliance.

G. Professional Societies and Trade Associations

Professional societies, such as the ABA and state bar associations, and trade associations, such as the International Legal Technology Association (ILTA), the Corporate Legal Operations Consortium (CLOC), and the Association of Corporate Counsel (ACC) could play key roles in the adoption of AI principles. Professional societies may be a good fit for the legal industry, given the nature of law's self-regulation and

oversight by the ABA and state bar associations.

The ABA could play a leading role in this space. The ABA has updated Model Rule 1.1 to include technological competence, required legal aid organizations to be aware of technology and use it effectively as provided in the Standards for Civil Legal Aid, and adopted a resolution exhorting courts and lawyers to consider AI and ethics in society and for legal-services delivery. Although the ABA's Model Rules are not binding, most states adopt the vast majority with few substantive changes. ABA resolutions and white papers are less likely to have an impact.

Even the existing Model Rules present numerous opportunities for soft law AI governance to fill gaps and define standards, as discussed above. Over time, AI principles and guidelines would be incorporated into decisions by courts and lawyer disciplinary boards. Potential disciplinary actions, including expulsion from the society and preventing members from working within the profession, would be a very effective enforcement mechanism. Eventually, principles and guidelines could be incorporated into the ABA's Model Rules of Professional Responsibility and adopted state by state, becoming "hard law." This would reflect an ideal soft law outcome, as AI principles over time develop into hard law regulations for lawyers.

On the other hand, it may be unrealistic to expect the ABA and other bar organizations to lead and act with the urgency required. Lawyers' self-governance can generate protectionism. Topics such as multi-disciplinary practice, innovation in legal-services delivery, sharing fees with other professionals, and related topics have proven to be highly charged and political. To the extent these organizations act, they must be monitored to ensure that they do not use AI principles and guidelines to protect lawyers from competition. AI principles and guidelines should facilitate, not prohibit, the development and deployment of effective AI systems by lawyers and others that increase access to law, legal services, and justice for everyone.

H. Auditing and Certification

Third-party certification bodies could create programs to certify that an organization is adhering to a particular set of soft law guidelines. Such programs could audit organizations' internal policies around AI use and ethics. Likewise, these bodies could offer certifications for individuals who pass knowledge exams, similar to the certifications offered by the International Association of Privacy Professionals. Certification bodies could also audit AI products, allowing those that pass to use a "Safe AI" label in their marketing. The certification body's independence and trustworthiness would drive industry perceptions of whether this certification and audit process was worth the investment. Existing licensure regimes, such as for lawyers and paralegals, could also incorporate AI principles and guidelines into their admissions exams and continuing education requirements.

I. Professional Journals

Professional and research journals could require compliance with AI soft law practices as a condition for publication. Journals using this type of mechanism include *Nature*, which refuses to publish articles involving stem cell or human genome editing that do not adhere to the International Society for Stem Cell Research Guidelines for Stem Cells.

XI. Conclusion

AI and other technologies hold great promise for improving legal services, legal systems, and the law itself. AI adoption and analysis of the risks and benefits of AI must be grounded in sound methods for the evaluation of effectiveness. Soft law can effectively and credibly lead to the creation and implementation of standards for evaluating AI effectiveness. Accelerating responsible adoption of AI for legal-services delivery can help expand access to legal services and justice for everyone around the world.

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