A Byte-Sized Intro to AI & Ethics

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Summary. For effective legal representation, an attorney's ethical requirement of competence extends to technology (MRPC 1.1). At least 40 states have imposed a specific ethical duty of competence in technology for licensed attorneys. How does AI fit into this ethical obligation, and how can it be used ethically by attorneys? This workshop by a computer scientist and an attorney team will introduce AI, including large language models (LLMs) and generative AI (e.g. ChatGPT, Claude, BARD) to explain in layman's terms what is happening under the hood with these new technologies. With an understanding of the tasks AI can -- and cannot -reliably perform at present, lawyers can (1) look at past advances in technology that have been successfully adopted by attorneys (e.g. electronic search assistance/archives with LexisNexis, WestLaw), can (2) consider current applications of AI and LLMs (ethical and unethical) and can (3) prepare to incorporate AI into their practice. Lawyers can leave this workshop with a basic understanding of how LLMs work, how they can avoid ethical missteps and how they can use LLMs and AI to promote efficiency and provide effective representation today and tomorrow.

- 1. Introduction
- 2. Rule 1.1
 - a. The Duty of Competence.
- 3. Comment 8 to Rule 1.1
 - a. Technology & the Duty of Competence
 - b. Adoption of Comment 8 & State Survey of Ethical Rules
- 4. Learning from the Past
 - a. Past Adoption of Technology by the Legal Profession
 - b. General Risks: Security, Confidentiality
 - c. Case Examples: Attorney Malpractice & Disciplinary Action
- 5. Looking to the Future with Generative AI
 - a. Covid "Turbocharged" the Digital Age
 - b. Technical Description of Generative AI & LLMs
 - c. Risks: Reliability, Accuracy, Confidentiality, Security
 - d. Benefits: Efficient Data Review, Document Analysis & Drafting
- 6. Case Study
 - a. Presentation of statistical analysis of four LLMs using four metrics

- b. Demo & Future Applications
- 7. Q&A

1. Introduction

Craft is the vice, not the spirit, of the profession. Trick is professional prostitution. Falsehood is professional apostasy. The strength of a lawyer is in thorough knowledge of legal truth, in thorough devotion to legal right. Truth and integrity can do more in the profession than the sublet and wiliest devices.¹

Edward G. Ryan, The 1908 Canons of Professional Ethics.

Competence, not craft, has been at the core of the legal profession for over a century. Competent representation continues to lead the Model Rules of Professional Conduct published by the American Bar Association ("ABA").

The ABA Model Rules of Professional Conduct were adopted by the ABA House of Delegates in 1983. They serve as models for the ethics rules of most jurisdictions.² The ABA has prepared a Jurisdictional Rules Comparison Chart that shows how each state has adopted or modified each section of the Rules.³

2. Rule 1.1

a. The Duty of Competence.

- "A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation."
- Rule 1.1 requires lawyers to provide competent representation. This means having the legal knowledge, skill, thoroughness,

¹ The 1908 Canons of Professional Ethics, Final Report of the Committee on Code of Professional Ethics, at 574 (quoting Edward G. Ryan). Available at

<u>https://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/190</u> <u>8_code.pdf</u> (last visited Apr. 28, 2024).

² The Model Rules of Professional Conduct superseded the 1969 <u>Model Code of Professional</u> <u>Responsibility</u>, which in turn superseded the <u>1908 Canons of Professional Ethics</u> (last amended in 1963).

³ ABA, "Jurisdictional Comparison Chart." Available here:

https://www.americanbar.org/groups/professional_responsibility/policy/rule_charts/.

and preparation reasonably necessary for competent representation.

• The current comments to Rule 1.1 indicate that competence requires a case-by-case analysis. Comments 1 and 2, for example, "nature of the matter" and "the lawyer's training and experience" and the "field;" Comment 5 emphasizes thoroughness and preparation.

3. Comment 8 to Rule 1.1

a. Technology & the Duty of Competence.

- The Rules, and comments thereto, have necessarily developed with the passing decades.
- In 2009, the ABA Commission on Ethics 20/20 was established to consider how the Rules should be updated in light of globalization and changes in technology. "The resulting amendments addressed (among other subjects) a lawyer's duty of confidentiality in a digital age, numerous issues related to the use of Internet-based client development tools, the ethics of outsourcing, the facilitation of jurisdictional mobility for both US and foreign lawyers, and the scope of the duty of confidentiality when changing firms."⁴
- In 2012, an amendment brought the term "technology" into the competence conversation (amended language in *italics*):

Maintaining Competence

"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."

Comment 8 to Rule 1.1.⁵

Robert Ambrogi

⁴ Andrew Perlman, "The Twenty-First Century Lawyer's Evolving Ethical Duty of Competence," ABA, *The Professional Lawyer* (2014) Volume 22, Number 4. Available at:

https://www.michbar.org/file/generalinfo/pdfs/futures_proflawyer.pdf.

⁵ ABA Commission on Ethics 20/20. Available at:

https://www.legalethicsforum.com/files/20120508_ethics_20_20_final_hod_introdution_and_ overview_report.pdf.

- "Although the 20/20 Commission's report alluded to "the sometimes bewildering pace of technological change," the fact is that lawyers have been using PCs since the late 1970s and the Internet for at least two decades."
- "Still, the pace of technological change has accelerated in recent years, driven by our increasingly digital culture and an unprecedented degree of digital mobility. And, even in the face of so much change, Luddites remain. Just recently, a lawyer told me that he refuses to use email in his law practice and he has no idea what a blog is. It is one thing to draw a line in the sand, but it is something else altogether to bury your head in it."⁶
- Michael Berman
 - "I ask whether without more an express "technology competency" amendment adds much. Certainly, there has been controversy over the amendment. In fact, in some states, the proposed addition has led to a "firestorm." S. Nelson and J. Simek, <u>Why Do Lawyers Resist Ethical Rules Requiring Competence with Technology? Slaw</u> (Mar. 27, 2015). There are many questions."
- To date, at least 40 states have imposed a specific ethical duty of competence in technology.⁷ Critics, however, have continued to question the value of such an opaque obligation.⁸

⁶ Bob Ambrogi, "New ABA Ethics Rule Underscores What EDD Lawyers Should Already Know: There's No Hiding from Technology," Massachusetts Bar Association, Section Review blog (Oct. 2012). Available at: <u>https://www.massbar.org/publications/section-review/section-review-article/lawyers-journal-2012-october/with-new-aba-ethics-rule-there's-no-more-hiding-from-technology</u>

[[]https://perma.cc/68ZB-RW6B]

⁷ Amanda Robert, "How can lawyers meet their ethical obligations to be competent in technology," ABA Journal, Mar. 2, 2023. Available at <u>https://www.abajournal.com/web/article/How-can-lawyers-become-more-competent-in-technology</u>.

⁸ See, e.g. Dyane O'Leary, 'Smart' Lawyering: Integrating Technology Competence into the Legal Practice Curriculum (2021). University of New Hampshire Law Review, Vol. 9, No. 2, 2021, Available at SSRN: <u>https://ssrn.com/abstract=3671632</u> or <u>http://dx.doi.org/10.2139/ssrn.3671632</u>; Platt, Ellen, Zooming into a Malpractice Suit: Updating the Model Rules of Professional Conduct in Response to Socially Distanced Lawyering (January 29, 2021). Available at

SSRN: <u>https://ssrn.com/abstract=3780249</u> or <u>http://dx.doi.org/10.2139/ssrn.3780249</u>; Lori D. Johnson, "Navigating Technology Competence in Transactional Practice," 65 Vill. L. Rev. 159, 172 (2020); Katy (Yin Yee) Ho, "Defining the Contours of an Ethical Duty of Technological Competence," 30 Georgetown J. Leg. Ethics 853, 854 (2017); Stacey Blaustein et al., Digital Direction for the Analog Attorney–Data Protection, EDiscovery, and the Ethics of Technological Competence in Today's World of Tomorrow, 22 RICH.J.L.&TECH. 10 (2016); Antigone Peyton, Kill the Dinosaurs, and Other

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b. State Survey of Ethical Rules.

- 40 jurisdictions (most recently Hawai'i) have adopted statements on technology competence in their professional rules of conduct.⁹
- 7 jurisdictions have not adopted a statement on technology competence, but they have adopted comments about it.¹⁰
- 4 jurisdictions without formal comments that have not adopted a technology component for competence.¹¹
- Even if a jurisdiction has not adopted a statement about technology competence, or a comment about it, this does not mean technology competence is not expected.
- Nevada, for example, is in the minority of jurisdictions without a statement or comment, but it's State Bar Publication titled AI & Law included articles outlining the ways in which technological competence was already covered and required by the preexisting state rules of professional conduct:
 - "Our position is that Nevada's Rules of Professional Conduct (NRPC) provide a robust ethical framework covering competence, diligence, confidentiality, and

https://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/mr pc1-1-comment-8.pdf. See also, Robert Ambrogi, "Another State Adopts Duty of Technology Competence for Lawyers, Bringing Total to 40," (Mar. 24, 2022). Available at: https://www.lawnext.com/2022/03/another-state-adopts-duty-of-technology-competence-forlawyers-bringing-total-to-40.html.

¹⁰ The ABA lists the following seven jurisdictions: Alabama, DC, Georgia, Maine, Maryland, Mississippi, Rhode Island. *Id.*

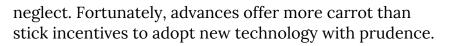
¹¹ Nevada, New Jersey (except for 8.4 and a few other Rules), Oregon, and South Dakota. Id.

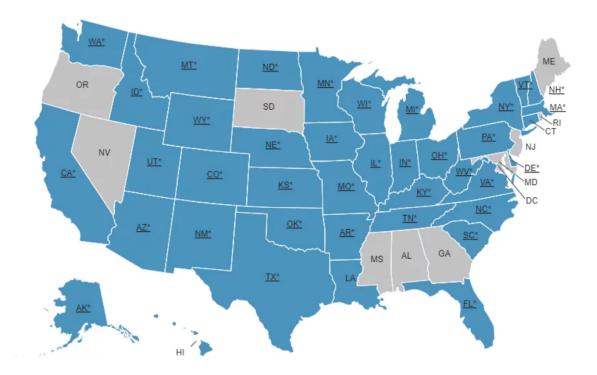
Tips for Achieving Technical Competence in Your Law Practice, 21 RICHMOND J. L.&TECH. 7, 8 (2015); Lauren Kellerhouse, Note, Comment 8 of Rule 1.1: The Implications of Technological Competence on Investigation, Discovery, and Client Security, 40 J. LEGAL PROF. 291 (2016); Robert J. Ambrogi, 38 States Have Adopted the Duty of Technology Competence, LAWSITES, https://www.lawsitesblog.com/tech-competence [https://perma.cc/ZL9F-A96V]; Anthony E. Davis, The Ethical Obligation To Be Technologically Competent, N.Y.L.J. (Jan. 8, 2016, 3:00 AM). ⁹ The ABA lists the following 39 jurisdictions in its notes on Comment 8 as having adopted a statement on technology competence: Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawai'i, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, Missouri, Montana - (See (5) of the Preamble. MT has not adopted official comments.), Nebraska, New Hampshire, New Mexico, New York, North Carolina, North Dakota (Comment [5]), Ohio, Oklahoma (Comment [6]), Pennsylvania, South Carolina (Comment [6]), Tennessee, Texas, Utah, Vermont, Virginia (Comment [6]), Washington, West Virginia, Wisconsin and Wyoming. As the ABA also notes, however, Bob Ambrogi includes Louisiana on this listing, bringing the total to 40 ("Louisiana, but see Louisiana State Bar Association Public Opinion 19-RPCC-021. Ambrogi counts Louisiana in his collection."). ABA, "Rule 1.1, Comment [8] technological competence," Last updated Apr. 4, 2023. Available at:

truthfulness that offers guidance for the responsible use of AI by lawyers. Additional rules or regulations are unnecessary." $^{\!\!\!^{12}}$

- Example rules that arguably already require technology competence:
 - o Rule 1.1
 - i. Requires legal knowledge, skill, thoroughness, and preparation reasonably necessary for competent representation.
 - o Rule 1.3
 - i. Mandates lawyers act with reasonable diligence and promptness.
 - o Rule 1.6
 - i. Requires lawyers to reasonably safeguard confidential information of clients.
 - o Rule 3.3, 3.4 and 4.1
 - i. Requires candor to the tribunal, fairness to opposing parties and counsel, and prohibit false statements of material fact or law to third persons. These rules require lawyers to submit legal filings truthful in the facts and the law. Lawyers must ensure their legal research is accurate and truthful, no matter how or who conducts that research.
 - Rule 5.3
 - Governs nonlawyer assistants. With proper supervision, nonlawyers can assist lawyers in ethically permissible ways. Lawyers with direct supervisory authority shall make reasonable efforts to ensure that the person's conduct is compatible with the professional obligations of the lawyer.
 - o FRCP Rule 11
 - i. See Mata litigation, below.
- Bottom Line: Every attorney must have some level of digital competence with respect to technologies used every day in order to comply with Rule 1.1. As discussed below, there is no luddite defense to plead excusable

¹² Tom Askeroth, Matt Granda, "Ethics & AI," Nevada Lawyer Magazine (Nov. 2023). Available at: <u>https://nvbar.org/wp-content/uploads/NevadaLawyer_Nov2023_Ethics-and-AI.pdf</u>.





By Bob Ambrogi on March 24, 2022

4. Learning from the Past

a. Technology Already Adopted by the Legal Profession

- Daily routines demonstrate the ubiquitous incorporation of technology in personal and professional lives:
 - Personal: Email, text, social media accounts, bleeds into
 - Professional: Email, websites, video conference calls, ediscovery, e-filing, cybersecurity, cloud computing, webbased investigations, advertising.
- The ABA 20/20 Commission focused on data security and confidentiality as lawyers transitioned from in-person, paper records to electronic communication and cloud-based storage. Others question whether Comment 8 simply made explicit something already implicit; the Commission noted:
 "The proposed amendment . . . does not impose any new obligations on lawyers. Rather, the amendment is intended to serve as a reminder to lawyers that they should remain aware of technology, including the benefits and risks associated with

it, as part of a lawyer's general ethical duty to remain competent."

b. General Risks: Security & Confidentiality

- Security & Confidentiality (Rule 1.1, 5.3)
 - When the Hawai'i Supreme Court adopted technology amendments to **Rule 1.1** of the state's rules of professional conduct in August 2021,¹³ it also amended Rule 5.3.
 - **Rule 5.3** addresses responsibilities regarding nonlawyer assistants. Comment 2 of this rule now states that "reasonable efforts should include careful consideration of the use of technology and office resources connected to the internet, external data sources and external vendors providing services relating to client data and the use of client data."
 - Note again, these amendments predate the AI boom of 2022.
 - Likewise, pre-2022, legal publications were also calling for updates to law school curriculum because ethics rules require attorneys to know how, whether and when to use certain technologies to deliver services.¹⁴
 - Cybersecurity requires secure networks, strong password for any information and devices connected to the internet.
 - 74% of data breaches include a human element.¹⁵
 - *Encryption* protects information in the "cloud" and on the "ground" (e.g. laptops, flash drives) to secure and protect data privacy. Off-line "private cloud" networks also require security, see **Comment [3] to Rule 5.3**.¹⁶

¹³ Rule 1.1 Comment 6 of Rule 1.1 in Hawai'i now reads: "To maintain the requisite knowledge and skill, a lawyer should engage in continuing study and education and keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology."
¹⁴ See, e.g., Dyane O'Leary, 'Smart' Lawyering: Integrating Technology Competence into the Legal

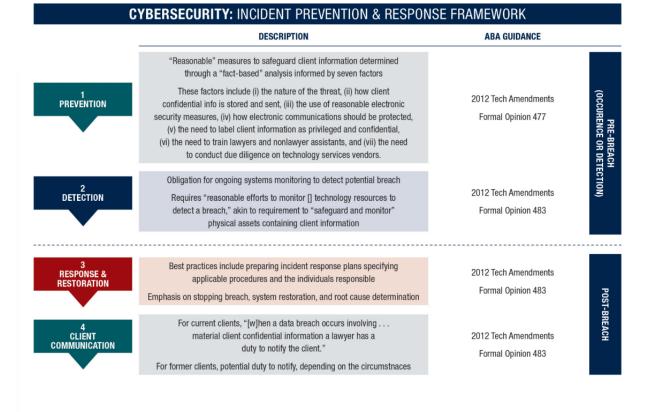
Practice Curriculum (2021). University of New Hampshire Law Review, Vol. 9, No. 2, 2021, Available at SSRN: <u>https://ssrn.com/abstract=3671632</u> or <u>http://dx.doi.org/10.2139/ssrn.3671632</u>.

¹⁵ Verizon 2023 Data Breach Investigation Report.

¹⁶ Supra, note 4 (Perlman); see also, "Cloud Ethics Opinions Around the U.S.," A.B.A.,

http://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html

- Most US State Bar Associations have published ethics opinions specific to cloud computing.¹⁷
- Multifactor Authentication restricts data access to not only password holders but those with secondary confirmation (e.g. RSA hard token or soft token).
- Training to increase awareness of phishing scams, public Wi-Fi danger, fileshare, malware, public computers, as most data breaches contain human element.
- Note that overlapping but distinct risks created by "safety" concerns, which relate to accidental human and/or technology error, and "security" concerns, which relate to *intentional* breaches from hostile actors either internal or external.



Cybersecurity: Incident Prevention & Response Framework © 2021 Lev Breydo

c. Case Examples: Attorney Malpractice and Disciplinary Action.

¹⁷ See, Handout 3 - Joshua Lenon, "**A List of All the Ethics Opinions on Cloud Computing for Lawyers**" *Clio* (Pub. Apr. 2020) (Last updated Mar. 5, 2024). Available at:a <u>https://www.clio.com/blog/cloud-computing-lawyers-ethics-opinions/</u>.

- Security & Confidentiality (Rule 1.1, 5.3)
- Email & E-filing¹⁸ Spam ate my homework ≠ Excusable Neglect
 - Drewery obo Felder v. Gautreaux, 2020 WL 5441230 (M.D. La. Sept. 10, 2020) (ruling that CM/ECF email notices being diverted to a spam folder is not "excusable neglect" under Rule 59 for failure to respond to an MSJ).
 - Inocencio v. Wal-Mart Stores Texas, LLC, 2020 WL 7646298 (S.D. Tex. Dec. 23, 2020) (finding that a "duty of diligence" extends to monitoring cases even when CM/ECF notices were not sent to the email address the attorney expected); Trevino v. City of Fort Worth, 944 F.3d 567 (5th Cir. 2019); Fernandes v. Craine, 538 F. App'x 274 (4th Cir. 2013); Onwuchekwe v. Okeke, 404 Fed. Appx. 911 (5th Cir. 2010).
 - Reed v. Marmaxx Operating Corp., 2015 WL 123951 (E.D. Tex. 2015).
 - o Rollins v. Home Depot USA, 8 F.4th 393 (5th Cir. 2021).
 - o McGuffin v. Colvin, 2017 WL 52579 (E.D.N.C. 2017).

E-discovery, ESI & Remote Depositions

- E-discovery is a necessity, especially for litigators.
- Attorneys face discipline and sanctions, for example, if they do not understand the basic principles of electronically stored information (ESI) and do not collaborate with those who do.
- Barksdale School Portraits v. Williams, 339 F.R.D. 341, 345, No. 2-cv-11391 (D. Mass., Aug. 31, 2021) (sanctioning and disqualifying an attorney because video deposition identified 50+ instances where defense counsel provided deponent with answers to questions).
- Kenneth Paul Reisman, Public Reprimand, No. 2013-21, 2013 WL 5967131 (Mass. B. Disp. Bd. Oct. 9, 2013) (spoliation of ESI by a client resulted in disciplinary action against the Massachusetts attorney who failed to take steps to prevent it).

¹⁸ Case examples drawn from Jennifer B. Groszek, "Technological Competence: Legal Malpractice Implications," Professional Legal Liability Quarterly, (Vol. 4, Number 14; 2022). Available at: <u>https://cdn.ymaws.com/www.pldf.org/resource/collection/8D039121-90EB-491C-A90C-CED2642A49FB/14.4.17.pdf</u>.

- At least 48 jurisdictions have enacted specific e-discovery and ESI rules.¹⁹
- Mishandling of e-discovery can turn a breach of the duty of competence into a breach of the duty of candor with failure to produce evidence and the duty not to suppress evidence.²⁰
- Duty to Investigate
 - Even a decade ago, attorneys have been disciplined and had their licenses suspended for failing their duty of competence where a "cursory internet search" would have provided pertinent information for a client. Iowa Supreme Court Att'y Disciplinary Bd. v. Wright, 840 N.W.2d 295, 301-04 (Iowa 2013).²¹
 - Wright involves the now classic email offer of an inheritance from Nigeria, but this case has been cited almost a dozen times in subsequent years.
 - Iowa Supreme Court Atty. Disciplinary Bd. v. Said, 953 N.W.2d 126, 146 (Iowa 2021) ("An act of malpractice, however, does not necessarily show incompetence, but may show merely a mistake

¹⁹ Handout 4 - "Current Listing of States that have Enacted E-Discovery Rules," K&L Gates. Available at: <u>https://www.ediscoverylaw.com/state-district-court-rules/</u>. It is not immediately clear from a state survey that either of Kentucky, South Dakota, West Virginia or Guam have enacted specific ediscovery rules. See, e.g., West Virginia's <u>Rule 502. Attorney-Client Privilege and Work Product;</u> <u>Limitations on Waiver</u>. See, Handout 5 - "Links to edisocvery Rules," Shook, Hardy and Bacon (Jan. 1, 2021); Every other jurisdiction has done adopted such rules. See Handout 4. New York was at the forefront, with the now amended for NY section 202.12 of the Uniform Rules for the Supreme and County Courts, for example, discusses e-discovery and ESI requirements at length. See, N.Y. UNIF. R. TRIAL CT. §202.12, as amended on Sept. 23, 2013. Available at:

http://www.nycourts.gov/rules/trialcourts/202.shtml#12. See also, Administrative Order of the Chief Administrative Judge of the Courts. Available here:

<u>https://www.nycourts.gov/LegacyPDFS/RULES/trialcourts/AO-228-13.pdf</u>. California followed shortly thereafter. State Bar of Cal. Standing Comm. on Prof'l Responsibility & Conduct, Formal Op. 11-0004 (2014).

²⁰ Id., see also, NYCLA Comm. on Prof'l Ethics, Formal Op. 745 (2013); Phila. Bar Ass'n Prof'l Guidance Comm., Formal Op. 2014-5 (2014).

²¹ Based upon Perlman's pertinent summary: An attorney from Iowa found himself entangled in a dubious scheme when his client received an enticing email from Nigeria, claiming he was in line to inherit a substantial sum of \$19 million. The catch? He needed to pay \$177,660 in taxes to the Nigerian government. Trusting the email, the lawyer, unfortunately, fell for the ruse, collecting the supposed tax amount from other clients with the promise of sharing the inheritance. Regrettably, the promised windfall turned out to be a well-known scam, leaving the lawyer's clients out of pocket. The attorney faced disciplinary action for exposing his clients to such deception, with particular criticism directed at his failure to conduct even a basic online search that would have revealed the scam's true nature.

that falls below the standard of care expected of a practicing attorney.") (emphasis added).

- Ethical obligations arise with the requirement to use reasonable efforts and internet-based investigations.²²
- For example, with juror investigations to investigate social media platforms;²³ ethical problems arise, however, with "friending" jurors.²⁴ See Rules 4.1, 4,2 and 4.3.
- Thus, when it comes to the use of technology, be it social media or AI, the seeming quandary for attorneys (you may be dinged if you do and dinged if you do not) is not new.

5. Looking to the Future (it ain't what it used to be)

a. Covid "Turbocharged" the Digital Transition

- Even before the entrance of AI, Covid "turbocharged"²⁵ the adoption of remote work and cemented the digital age for the legal profession:
 - **The Courts:** Judge David R. Jones of the bankruptcy court for the Southern District of Texas told the *Wall Street Journal*: "We'll all be on videoconference and I'll have a shirt and tie on and my pajama bottoms, but you won't see those."²⁶
 - Law Firms: Oct. 2020 McKinsey Report: "Digital adoption has taken a quantum leap" due to the pandemic, with companies transitioning to remote work "40 times more quickly than [executives] thought possible."²⁷

²² Johnson v. McCullough, 306 S.W.3d 551, 558-59 (Mo. 2010) (requiring "reasonable efforts" with internet investigation to discover potential jurors' litigation history to preserve possible objections for empanelment.)

²³ Griffin v. Maryland, 995 A.2d 791, 801 (Md. Ct. Spec. App. 2010) (quoting with affirmation Sharon Nelson et al., The Legal Implications of Social Networking, 22 REGENT U. L. REV. 1, 13 (2009-2010), which stated it is a "matter of professional competence" for attorneys to investigate social media websites), rev'd on other grounds, *Griffin v. State*, 419 Md. 343 (Md. 2011).

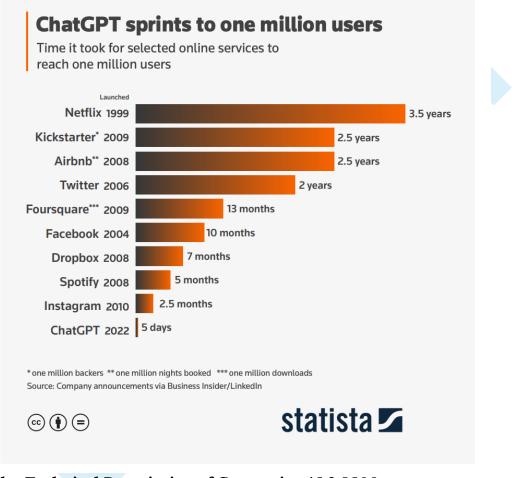
²⁴ ABA Comm. on Ethics & Prof'l Responsibility, Formal Op. 466 (2014).

²⁵ Mark Cohen, "COVID-19 Will Turbocharge Legal Industry Transformation," Forbes (Mar. 24, 2020). Available at: <u>https://www.forbes.com/sites/markcohen1/2020/03/24/covid-19-will-turbocharge-legal-industry-transformation/#62d2c0771195</u>.

²⁶ Jonathan Randles & Becky Yerak, Shirt, Tie and Pajama Bottoms: Bankruptcy Judges Adjust to Social Distancing, WALL ST. J. (Mar. 20, 2020). Available at: <u>https://www.wsj.com/articles/shirt-tie-and-pajama-bottoms-bankruptcy-judges-adjust-to-social-distancing-11584732397</u>.

²⁷ McKinsey & Co., COVID-19: *Implications for Law Firms* (May 4, 2020). Available at: <u>https://www.mckinsey.com/industries/financial-services/our-insights/covid-19-implications-for-law-firms</u>.

- Some risks associated with AI technology are fairly novel, others are similar to current technology.
 - Continuing Risks: Confidentiality, data security, reliability, user error.
 - Newer Risks: Accuracy with "generative" creation and with data/document analysis.
 - $\circ~$ "Smart" lawyering was a term in the legal lexicon before AI's 2022 splash.^{28}



b. Technical Description of Generative AI & LLMs

- Today's AI is not yesterday's Watson on Jeopardy!
- It is literally *transformative*, ChatGPT (generative pre-trained transformer).
- Large language models (LLMs) are sophistical natural language processors.

²⁸ Drew Simshaw, Toward National Regulation of Legal Technology: A Path Forward for Access to Justice (October 1, 2023). Fordham Law Review, Vol. 92, No. 1, 2023, Available at SSRN: <u>https://ssrn.com/abstract=4565341</u>; *supra*, notes 8, 14 (O'Leary).

- Working Definitions, what do mean when we refer to:
 - Algorithms?
 - Artificial Intelligence (AI)?
 - Generative AI (GAI)?
 - Large Language Models (LLMs)?
 - Natural Language Processing (NLP)?
- \circ How does it all work?
- Through the data-training process, the LLM algorithm ingests and analyzes the text, gradually assimilating knowledge about linguistic structures, word relationships, and contextual patterns used in forming sentences. While it doesn't comprehend the text in a human-like manner, the algorithm discerns recurrent patterns, like sentence composition and word associations.
- By capturing these patterns, the algorithm develops probabilistic models of word sequencing. Subsequently, when presented with prompts or queries by human users, the LLM leverages its learned knowledge to generate responses.
- For example, if prompted with the question "What's the tallest mountain in the world?", based on its training, the LLM recognizes that "Mount Everest" frequently follows such inquiries, thus crafting an appropriate response: "The tallest mountain in the world is Mount Everest." While the response mimics natural language and can appear "human," it is the result of the calculation of many (many) "vectors" that prompt the LLM to produce (generate) in rapid succession the most probabilistic response(s).
 - An LLM is a form of AI that undergoes training on vast amounts of text data to develop the calculations to "predict" probabilities enabling it to produce text that appears humanlike using natural language processing.
 - This corpus could be sourced from various sources such as the internet or curated datasets tailored for specific objectives.
 - An LLM is thus pre-"trained" on data sets that are massive and a user is unlikely if not unable to know the full content of that data.
 - The *quality* of the data as well as the subsequent *algorithms* and final *fine-tuning* all impact the accuracy of "answers" provided and the end-user experience.
 - "Safety" features can produce significant bias and even lead to patently false "answers" to questions.

c. Newer Risks: Bias & Hallucinations

- Two significant challenges to widespread use of generative AI include **bias** and **hallucinations**.
 - A Reflective Pause on Reflective Flaws
- Bias in AI is not a new phenomenon and has been previously identified as a problem created by the quality of the data used to "train" the AI or algorithm. Previously, for example, troubling disparities emerged when algorithms were used to identify individuals based on sex and/or race.²⁹
- Hallucinations are relatively new due to the generative aspect of these LLMs. Each of ChatGPT, Bing, and Bard produce fabricated data that appears authentic and is presented to the user as though the data were verified fact.³⁰
- A paper published by MIT looked at three factors that contribute to these problems inherent to generative AI:³¹

1. **Training Data is only as good as its source material:** Generative AI models are only as good as the data on which they are trained. Accordingly, these LLMs mimic patterns in their training data.³²

2. Advanced Autocomplete is still incomplete: Generative AI predicts the next word, phrase or sequence based on mathematical analysis (observed patterns reduced to equations to predict probabilities). Generative AI produces probabilistically plausible content. By the nature of its design, the aim is to produce text that looks good; the algorithm has no means to confirm that it is *good*. Text and content may be all the more harmful in that it looks and sounds possible, but in reality, it is partially inaccurate or wholly untrue.³³

²⁹ Joy Adowaa Buolamwini, "Gender shades: Intersectional phenotypic and demographic evaluation of face datasets and gender classifiers," DSpace@MIT (2017). Available at: <u>https://dspace.mit.edu/handle/1721.1/114068</u>.

³⁰ Karim Lakhani, Generative AI Working Group, "How can we counteract generative AI's hallucinations?" Digital, Data, and Design Institute at Harvard. Available

at: <u>https://d3.harvard.edu/how-can-we-counteract-generative-ais-hallucinations</u>.

³¹ MIT Management, STS Teaching & Learning Technologies, "When AI Gets It Wrong: Addressing AI Hallucinations and Bias." Available at: <u>https://mitsloanedtech.mit.edu/ai/basics/addressing-ai-hallucinations-and-bias/</u>.

³² Karen Weise and Cade Metz, "When A.I. chatbots hallucinate." The New York Times (May 1, 2023). Available at: <u>https://www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html</u>.

³³ Matt O'Brien, "Chatbots sometimes make things up. Is AI's hallucination problem fixable?" AP News (Aug. 1, 2023). Available at. <u>https://apnews.com/article/artificial-intelligence-hallucination-chatbots-chatgpt-falsehoods-ac4672c5b06e6f91050aa46ee731bcf4</u>.

3. **No commonsense check or reality check:** Generative AI cannot give does not give its text a "sense check" or a secondary "fact check." If an LLM were trained exclusively a 100% factually sound data, the generative nature means it can create new combinations of text that produce inaccurate content by combining patterns in unexpected ways with untrue results.³⁴

- Recent Examples:
 - "Hello History" app allowed users to "chat" with historical figures, including Jesus and members of the Beatles (no reporting on which of the two was bigger).³⁵ The AI also offered conversations with architects of the holocaust, including Heinrich Himmler (chief of Nazi Germany's SS) and Joseph Goebbels, (high-ranking Nazi) both of whom denied responsibility for well-documented war crimes.
 - "Father Justin" was a short-lived Catholic Answers AI chatbot that claimed to be an ordained priest. He was "laicized" after allegedly offering to hear confessions and provide sacramental absolution to more than one user.³⁶



³⁴ Karen Weise and Cade Metz, "When A.I. chatbots hallucinate." *The New York Times* (May 1, 2023). Available at: <u>https://www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html</u>.

³⁵ David Ingram, "A chatbot that lets you talk with Jesus and Hitler is the latest controversy in the AI gold rush" NBC, (Jan. 20, 2023). Available at: <u>https://www.nbcnews.com/tech/tech-news/chatgpt-gpt-chat-bot-ai-hitler-historical-figures-open-rcna66531</u>.

³⁶ Joe Grabowski, "We need some real perspective on evangelization and AI," *Catholic World Report* (May 3, 2024). Available at: <u>https://www.catholicworldreport.com/2024/05/03/we-need-some-real-perspective-on-ai-and-evangelization/</u>.

Kelley Mimnaugh Draft Outline May 2024



Source: Billboard for AI priest Father Justin on social media. / Credit: Catholic Answers / Screenshot³⁷

- The ethical questions raised by an AI priest parallel in some ways the questions raised by an AI attorney.³⁸
- [Demo slides from Dr. Kelley]
- [LLMs readily available to consumers include Bard, ChatGPT, Clyde, Llama, and can be combined with free speech recognition processing through Whisper, etc]
- Reducing User Risk with Gen AI, from Karim Lakhani:³⁹
 1. Request sources or evidence.

³⁸ While not raised in initial negative reactions to Father Justin, there are also legal concerns about chatbots posing as humans. In 2018, California passed a first of its kind law, "The B.O.T. ("Bolstering Online Transparency") Ac. <u>SB 1001</u>. It is described as follows: "As of July 1, [2019,] it is unlawful for a person or entity to use a bot to communicate or interact online with a person in California in order to incentivize a sale or transaction of goods or services or to influence a vote in an election without disclosing that the communication is via a bot. The law defines a "bot" as "an automated online account where all or substantially all of the actions or posts of that account are not the result of a person." The required disclosure must be clear, conspicuous, and reasonably designed to inform persons with whom the bot communicates or interacts that it is a bot." Gail J. Kamal, "California's BOT Disclosure Law, SB 1001, Now In Effect," *National Law Review* (July 15, 2019). Available at: <u>https://natlawreview.com/article/california-s-bot-disclosure-law-sb-1001-now-effect</u>. This potential government censorship, in turn, raised free speech concerns. See, Matthew Hines, "I Smell a Bot: California's S.B. 1001, Free Speech, and the Future of Bot Regulation," 57 Hous. L. Rev. 405 (2019). Available at: <u>https://houstonlawreview.org/article/11569-i-smell-a-</u>.

I am not aware that the numbering of this Senate Bill was intentional but numbering it "1001" is a good bit.

³⁹ See Handout 6, an excerpt from Karim Lakhani, Generative AI Working Group, "How can we counteract generative AI's hallucinations?" Digital, Data, and Design Institute at Harvard. Available at: <u>https://d3.harvard.edu/how-can-we-counteract-generative-ais-hallucinations</u>.

³⁷ Matt McDonald, "Catholic Answers pulls plug on AI priest 'Father Justin,' *Catholic World Report* (Apr. 29, 2024). Available at: <u>https://www.catholicworldreport.com/2024/04/29/catholic-answers-pulls-plug-on-ai-priest-father-justin/</u>.

- 2. Use multiple prompts or iterative refinement.
- 3. Ask for explanations or reasoning.
- 4. Double-check information independently.
- 5. Address biases by increasing multiple perspectives.
- Starter Steps to Use AI⁴⁰
 - Start Small, Scale Slowly. Find the proper AI tool(s) for your practice – e.g. document review for e-discovery or initial contract analysis.
 - 2. Evaluate Ethical Compliance. Determine how to ensure continued client confidentially and data security. Is your system off-line? If gen AI is used, is training set bias an issue?
 - 2. Start with Better Developed Approaches: E-discovery.
 - 3. Trust but verify. Develop systems to check accuracy while maintaining efficiency.
 - 4. Stay informed. Subscribe to a reliable source for legal tech news. Your practice does not need to be leading the charge, but you also do not want to be bringing up the rear.
- The most popular LLMs like ChatGPT from OpenAI are already household names. The reality is that bespoke, AI assistants like Tony Stark's Jarvis have arrived, making Siri look like an assistant better suited to an episode of the Flintstones.

d. Continuing Risks: Confidentiality & Security

- **ChatGPT Example**: Chat history breaches, privacy compromises, high level of unknown unknowns.
 - March 2023: Data breaches revealing user payment information and some users' chat history leads to a temporary shutdown of the platform on March 20.⁴¹
 - April 6, 2023: Samsung worker inadvertently reveals trade secrets while using ChatGPT, exposing top secret data while checking source code.⁴²

⁴⁰ Adapted from Oliver Silvas, "How to Take a Cautious Approach to Embracing Generative AI," *casepoint blog.* Available at: <u>https://www.casepoint.com/blog/cautious-approach-embracing-generative-ai/</u>.

⁴¹ Cecily Mauran, "The ChatGPT bug exposed more private data than previously thought, OpenAI confirms: An uneasy reminder that nothing on the internet is completely private," *Mashable* (Mar. 24, 2023). Available at: <u>https://mashable.com/article/openai-chatgpt-bug-exposed-user-data-privacy-breach</u>. An estimated 1.2% of paid users had their payment information exposed.

⁴² Cecily Mauran, "Whoops, Samsung workers accidentally leaked trade secrets via ChatGPT," (Apr. 6, 2023). Available at: <u>https://mashable.com/article/samsung-chatgpt-leak-details</u>.

- April 2023: Johann Rehberger, a security researcher, reported to OpenAI a technique to exfiltrate data from ChatGPT.⁴³
- November 2023: Rehberger reveals further information on the creation of malicious GPTs that use the exfiltration flaw to extract data from sensitive data from users.
- o [Video: Thief GPT, Malware]
- December 2023: A "bug" in ChatGPT mean that user's chat histories became accessible to others.⁴⁴
 - "ChatGPT is leaking private conversations that include login credentials and other personal details of unrelated users, screenshots submitted by an Ars [Technica] reader on Monday indicated."⁴⁵
- January 2024: ChatGPT leaves "User shocked to find chats naming unpublished research papers, and other private data." While the chat leaking theory may have been untrue, data confidentiality concerns remain.⁴⁶
- May 2024: OpenAI announces *new* feature to toggle-off feature to control whether your chat history is saved and offers a pseudo-incognito mode. Originally, OpenAI did not allow users to opt out of sharing data with the model.⁴⁷
- Zoom Example: Default use of user data to train AI
 - Have you *carefully* looked at the settings on your Zoom account?
 - A 2023 change in the terms of service meant that the default settings enable Zoom train its A.I. using some customer data. over the weekend after users noticed a

⁴³ Bill Toulas, "OpenAI rolls out imperfect fi for ChatGPT data leak flaw," BleepingComputer, (Dec. 21, 2023). Available at: <u>https://www.bleepingcomputer.com/news/security/openai-rolls-out-imperfect-fix-for-chatgpt-data-leak-flaw/</u>.

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⁴⁵ Dan Goodin, "OpenAI says mysterious chat histories resulted from account takeover," Ars Technica (Jan. 30, 2023). Available at: <u>https://arstechnica.com/security/2024/01/ars-reader-reports-chatgpt-is-sending-him-conversations-from-unrelated-ai-users/</u>.

 ⁴⁶ Id. "OpenAI's explanation likely means the original suspicion of ChatGPT leaking chat histories to unrelated users is wrong. It does, however, underscore the site provides no mechanism for users such as Whiteside to protect their accounts using 2FA or track details such as IP location of current and recent logins. These protections have been standard on most major platforms for years."
 ⁴⁷ Cecily Mauran, "ChatGPT now saves chat history even if you've opted out of sharing training data Plus a creepy new Memory feature," *Mashable* (May 1, 2024). Available at: https://mashable.com/article/openai-chatgpt-saves-chat-history-opted-out-sharing-training-data.

change in its terms of service. Under the new agreement in August 2023, Zoom claimed a default right to use data and content generated while customers used its product to train its AI models.⁴⁸

- Non-trivial backlash to this change led Zoom to emphasize the ways in which users could opt-out of the default use of user data to train AIs, and it later revised the controversial Section 10:
 - "Updates to Section 10 to clarify Zoom's data usage practices, narrow the scope of Zoom's licenses and clarify that Zoom does not use audio, video or chat Customer Content to train its artificial intelligence models."⁴⁹
- If these data security changes are news to you, it is a good reminder to adjust your security monitoring systems and compliance practices to regularly screen new technologies as well as those already in place.
- Off-line options via free, OpenSource models.
 - [Demo from Dr. Kelley on fully offline free LLMs]

e. Case Examples: Kruse v. Karlen, Mata v. Avianca

- At least 14 cases have received publicity for citing false, hallucinated case law before the court.⁵⁰
- o In February 2024: Kruse v. Karlen⁵¹
 - Pro se litigant was fined \$10,000 for the frivolous appeal, in which the Eleventh Circuit cited numerous errors, but the *overwhelming* use of AI-hallucinated "case law" was particularly egregious in the eyes of the Court:

⁴⁸ Hayden Field, "Zoom can now train its A.I. using some customer data, according to updated terms," CNBC (Aug. 7, 2023). Available at: <u>https://www.cnbc.com/2023/08/07/zoom-ai-tools-trained-using-some-customer-data.html</u>.

⁴⁹ Zoom, "How Zoom's terms of service and practices apply to AI features," (Published Aug. 7, 2023) (Last Updated Feb. 7, 2024). Available at: <u>https://www.zoom.com/en/blog/zooms-term-service-ai/</u>. See also, Thomas Kika "Zoom AI Training: How to Turn Off New Permissions" Newsweek (Published Aug. 7, 2023) (Updated Sept. 27, 2023). Available at: <u>https://www.newsweek.com/zoom-ai-training-turn-off-permissions-1818050</u>.

⁵⁰ Eugene Volokh, "14th Case I've Seen In Which AI-Hallucinated Citations Appeared," The Volokh Conspiracy, Reason (Feb. 14, 2024). Available at: <u>https://reason.com/volokh/2024/02/14/14th-court-case-ive-seen-in-which-ai-hallucinated-citations-appeared/</u>.

⁵¹ Kruse v. Karlen, No. ED111172, 2024 Mo. App. LEXIS 62 (Ct. App. Feb. 13, 2024).

"Particularly concerning to this Court is that Appellant submitted an Appellate Brief in which the overwhelming majority of the citations are not only inaccurate but entirely fictitious. **Only two out of the twenty-four case citations in Appellant's Brief are genuine. The two genuine citations are presented in a section entitled Summary of Argument without pincites and do not stand for what Appellant purports.** A contextual example of Appellant's reliance on fictitious authority includes:

For instance, in *Smith v.* ABC *Corporation*, 321 S.W.3d 123 (Mo. App. 2010), the Court of Appeals held that it had the duty to review the grant of judgment as a matter of law de novo, stating that "the appellate court should not be bound by the trial court's determination and must reach its own conclusion based on the record."

Neither the case nor the specific quote it purports to contain exist in reality. As depicted in the chart below, Appellant also offers citations that have potentially real case names – presumably the product of algorithmic serendipity – but do not stand for the propositions asserted by Appellant, such as *State ex rel. Johnson v. Clark*, 288 Mo. 659, 232 S.W. 1031, 1035 (Mo banc. 1921), *overruled by Younge v. State Bd. of Reg. for Healing Arts*, 451 S.W.2d 346 (Mo. 1969), which Appellant claims discusses the standard of review for the grant of judgment as a matter of law but in fact reviews a state administrative board's decision suspending a physician's license. Similarly, the case name "Brown v. Smith" involves two common names and can be found twice in Missouri precedent, but neither case relates to what Appellant purports.

We have itemized each of the twenty-two inaccurate case citations below in order of their appearance [see Handout 8 with the 5-page chart listing the hallucinated case citations]." Id. at *7-10.

"To protect the integrity of the justice system, courts around the country have been considering and/or enacting local rules specifically geared towards prohibiting or disclosing the use of generative A.I. in court filings." *Id.* at *13.

"We urge all parties practicing before this court, barred and self-represented alike, to be cognizant that we are aware of the issue and will not permit fraud on this court in violation of our rules," the Court said. Id. at *14.

○ 2023: Mata v. Avianca⁵²

- The plaintiff's counsel responded to a motion to dismiss, prompting the defendants to file a reply stating they couldn't locate some of the decisions referenced by the plaintiff. In response, the court instructed the plaintiff's lawyers to provide an affidavit along with copies of those decisions.
- The lawyers complied, submitting an affidavit accompanied by what seemed to be copies or excerpts of the decisions.

⁵² Mata v. Avianca, Inc., 22-cv-1461 (June 22, 2023).

- Counsel informed the Court that the attached decisions might not be inclusive and contained what was made available by online database... but the "online database" was not identified.⁵³
- Counsel was sanctioned, but not for using AI. The Sanctions Order opens by stating that "technological advancements are commonplace and there is nothing inherently improper about using a reliable artificial intelligence tool for assistance."
- Rule 11 sanctions came because counsel acted in bad faith, advocating for fabricated cases even after opposing counsel informed them that the citations were non-existent.

f. Benefits: Efficient Data Review, Document Analysis & Drafting.

- Efficiency
 - 2017 study by Clio, a legal technology company, looked at attorney efficiency:⁵⁴
 - The average lawyer working eight hours a day produces only 2.3 hours of billable legal work.
 - The remaining six hours were spent on administrative tasks such as "[o]ffice administration, generating and sending bills, configuring technology, and collections."
- Current Legal Applications
 - o LLMs, decision trees, generative AI
 - E-discovery (locate and process ESI)
 - Contract review (flag outliers; non-standard terms)

⁵³ The decisions cited in the opposition and attached to the affidavit were fabricated by ChatGPT. After the lawyer was ordered to submit the affidavit, he returned to ChatGPT and asked it to provide the text of the decisions. At some point, the lawyer also asked ChatGPT, "is [this case] a real case," and "are the other cases you provided fake." Judge Castel's description of the fake Eleventh Circuit ruling hallucinated by the AI LLM: "The "Varghese" decision shows stylistic and reasoning flaws that do not generally appear in decisions issued by United States Courts of Appeals. Its legal analysis is gibberish. It references a claim for the wrongful death of George Scaria Varghese brought by Susan Varghese. (Id.) It then describes the claims of a plaintiff named Anish Varghese who, due to airline overbooking, was denied boarding on a flight from Bangkok to New York that had a layover in Guangzhou, China. (Id.) The summary of the case's procedural history is difficult to follow and borders on nonsensical, including an abrupt mention of arbitration and a reference to plaintiff's decision to file for Chapter 7 bankruptcy as a tactical response to the district court's dismissal of his complaint. (Id.) Without explanation, "Varghese" later references the plaintiff's Chapter 13 bankruptcy proceeding. (Id.) The "Varghese" defendant is also said to have filed for bankruptcy protection in China, also triggering a stay of proceedings. (Id.) Quotation marks are often unpaired. The "Varghese" decision abruptly ends without a conclusion."

⁵⁴ Lori D. Johnson, "Navigating Technology Competence in Transactional Practice," 65 Vill. L. Rev. 159, 172 (2020) (citing CLIO, Legal Trends Report, 10–11 (2017)).

- Administration (scheduling, finance reports)
- Document creation (pleadings, contracts)
- Legal research (efficient searching)
- Adoption by major law firms suggests otherwise. Firms like Latham & Watkins, Baker McKenzie, DLA Piper, Clifford Chance, Allen & Overy, and Norton Rose Fulbright have revealed plans, or are already integrating, AI tools into their practices.
- The ABA's House of Delegates unanimously adopted Resolution 604 at the 2023 Midyear Meeting in February "urging human oversight, accountability and transparency in AI."⁵⁵
- Apr. 29, 2024: The National Institute on Standards and Technology ("NIST") released a draft publication based on the AI Risk Management Framework (AI RMF) to help manage the risk of Generative AI.⁵⁶
- In August 2023, the ABA announced the creation of a new ABA <u>Task Force on Law and Artificial Intelligence</u> (AI).⁵⁷
 - "AI and ML systems and capabilities will transform virtually every industry sector, including legal practice, and reallocate the tasks performed by humans and machines."

6. Case Study

- a. Presentation of Statistical Analysis of Four LLMs using Four Metrics
- b. Demo & Future Applications
- c. Review Handout 9 Legal AI Starter Toolkit
 - Identify specific needs for which AI can offer specific assistance.
 - Consider appropriate safeguards for continuing and new risks.

⁵⁵ ABA, H.D. Resol. 604, Feb. 6, 2023. Available at:

https://www.americanbar.org/content/dam/aba/administrative/news/2023/mym-res/604.pdf. ⁵⁶ NIST AI 600-1, "Artificial Intelligence Risk Management Framework: Generative Artificial Intelligence Profile" (April 2024). Available at: https://airc.nist.gov/docs/NIST.AI.600-1.GenAI-Profile.ipd.pdf. President Biden issued the Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence ("AI EO") in October 2023, which launched a series of rulemakings, studies, and convenings on AI across the executive branch.

⁵⁷ ABA, "ABA forms task force to study impact of artificial intelligence on the legal profession" (Aug. 28, 2023). Available at: <u>https://www.americanbar.org/news/abanews/aba-news-</u>

<u>archives/2023/08/aba-task-force-impact-of-ai/</u>. The stated purpose of the committee is to explore the following: risks (bias, cybersecurity, privacy, and uses of AI such as spreading disinformation and undermining intellectual property protections) and how to mitigate them; emergent issues with generative AI; utilization of AI to increase access to justice; AI governance (the role of laws and regulations, industry standards, and best practices); AI in legal education.

- \circ $\,$ Maximize benefits to legal practice, efficiency and efficacy.
- Access regular legal technical updates for ongoing ethics compliance.
- 7. Q&A