



Technology and the Future Practice of Law 2025 Report

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INTRODUCTION

The Virginia State Bar's Special Committee on Technology and the Future Practice of Law aims to educate and advise the bar and the public in areas where law and technology intersect. As part of this mission, the Committee publishes Future of Law Practice Reports every three years, informing lawyers and the public about the technology and emerging trends that are impacting the legal profession.

Soon after the Committee's 2022 Report was published, artificial intelligence (AI) stormed its way into our lives. ChatGPT was released in November 2022, and since then, AI tools and applications have proliferated. Not surprisingly, AI has worked its way into the legal profession. Much of this Report addresses the proliferation of AI, how lawyers can (and should) incorporate it into their practice in an ethical way, and how AI can be expected to impact the practice of law.

Although the advent of AI is the biggest technological change since the 2022 report, AI is not the only technology that lawyers should be focusing on. This Report also addresses other technologies that lawyers may want to adopt in their practices, as well as how lawyers can use technology to improve communications with their clients. The Report also examines cybersecurity, which is always important for lawyers practicing in this digital age, and cloud computing, which any lawyer who uses software applications should know about.

In addition to these specific technologies, this Report addresses how technology and technological policies adopted by courts affect access to justice for litigants. The sections and subsections about these topics advocate for greater adoption of technology in courts, especially those in rural and underserved areas, and for more practical cell phone policies in courthouses. The Report additionally reviews recent laws the General Assembly has passed that address technology, as well as the evolving case law on computer crimes, both of which affect lawyers and their clients.

Following the Committee's dual mission of addressing both technology and the future practice of law, this Report also addresses the future of law generally. In examining the future practice of law, this Report looks at the changing makeup of the legal profession, including the demographics of lawyers generally and the impact that the retirement of the Baby Boomer generation will have on the legal profession in Virginia. It also examines the current state of alternative legal service providers, which continues to be a growing trend for the provision of legal services.

Finally, this Report offers technology tips from the Committee's members, as well as predictions on what the future of practicing law might look like in Virginia.

We hope that this Report offers something to spark your curiosity and benefit your legal practice.

1. The Age of AI

1.1 Trust, but Verif-AI: A Judicious Approach to Incorporating AI in Virginia's Legal Profession

The Power of Artificial Intelligence

Although AI is by no means a new concept (after all, it is just math and software), its presence and influence have become nearly inescapable in recent years. AI-driven technologies have already transformed countless industries through automation, content generation, data collection, personalized algorithms, and predictive analytics.

The rise to prominence of closed-source generative AI tools like OpenAI's ChatGPT has exposed people across the globe to the power (and pitfalls) of this revolutionary technology. Its prominence has also led to the emergence of numerous competing generative AI programs like Google's Gemini, Microsoft's Copilot, and Elon Musk's Grok.

The explosion of generative AI comes as no surprise. A 2023 global survey by McKinsey & Company found that 33 percent of respondents said their organizations were already using generative AI regularly in at least one business function.¹ Moreover, a 2023 workplace survey from The Conference Board found that 56 percent of workers were using generative AI on the job, with nearly one in ten using the technology daily.² The numbers have since increased. In early 2024, 72 percent of respondents to a McKinsey & Company survey indicated that their organization uses AI in at least one business function.³ Later in 2024, the percentage increased to 78 percent.⁴ Meanwhile, individual use of AI within organizations is prevalent, but not as high as organizational use. A recent study by Pew Research found that 63 percent of American workers say they do not use AI in the workplace.⁵

Use of AI within the legal field is not increasing as rapidly as in other organizational areas, but it is still steadily increasing. Within the legal field, a new study by the ABA shows that in 2024, 31 percent of respondents reported that they use generative AI at work, and 21 percent of law firms reported adoption of generative AI.⁶ Comparatively, in 2023, only 27 percent of respondents indicated personal use of generative AI at work, and 24 percent of law firms reported adoption of generative AI.⁷

The legal profession is no exception to the opportunities and challenges presented by generative AI. AI-powered analysis tools like Clearbrief help legal professionals enhance the quality and efficiency of their legal writing by extracting relevant facts from source documents, spotting mistakes, and generating tables of contents and exhibits. Legal research platforms like vLex Fastcase use generative AI to answer legal questions, generate drafts, summarize cases, and even provide subscribers with their own self-styled *AI Assistant*.

In many ways, AI's advanced capabilities have made our personal and professional lives easier, resulting in increased efficiency and productivity. And as AI's capabilities continue to develop and improve at a seemingly exponential rate, AI's prevalence in our everyday lives remains on track to become so ubiquitous that we may just forget it is even there at all.

But when faced with this new technological frontier, many legal professionals may be left wondering: Can generative AI do all that? Is it too good to be true? And, most importantly, can I *trust* it?

Artificial Intelligence in Virginia

From its cutting-edge cybersecurity companies to its world-renowned academic research institutions, Virginia is taking meaningful steps to harness the power of generative AI.

In September 2023, Governor Glenn Youngkin issued Executive Directive Number Five to establish standards for the use of AI technologies in state government.⁸ The Executive Directive's four areas of focus include a review of the legal requirements under Virginia law for the use of AI technologies, identification of policy standards necessary for state agencies to effectively use AI, identification of appropriate IT safeguards that are needed to alleviate security and privacy risks, and a determination of the appropriate path to train students to compete using this technology while protecting against misuse in the classroom.⁹

Consistent with that Executive Directive, Governor Youngkin then issued Executive Order Number Thirty in January 2024.¹⁰ The Executive Order establishes guiding principles for the use of AI at all education levels, and sets the technological requirements for the use of AI within government agencies and the approval process for AI initiatives.¹¹ The Executive Order also called for the development of standards for the use of AI by law enforcement agencies and personnel.¹²

Continuing this AI-driven trend, in February 2024, as part of its statewide strategic plan, the State Council of Higher Education for Virginia awarded sizable grants to several public universities.¹³ The grants are intended to boost integration of AI into classrooms and build AI curricular pathways between secondary and postsecondary education.¹⁴

State policymakers and governmental agencies have recognized the emerging opportunities presented by AI technologies while also being proactive to ensure their safe and ethical use. But where does Virginia's judicial branch fit into this equation?

Artificial Intelligence and the Judiciary

In his 2023 Year-End Report on the Federal Judiciary, Chief Justice John G. Roberts, Jr. of the U.S. Supreme Court directly addressed the emergence of AI in the legal profession. Chief Justice Roberts wrote, "As 2023 draws to a close with breathless predictions about the future of Artificial Intelligence, some may wonder whether judges are about to become obsolete. I am sure we are not, but equally confident that technological changes will continue to transform our work."¹⁵

Chief Justice Roberts went on to recognize the ability of AI applications to assist in the just, speedy, and inexpensive resolution of cases (as directed by Rule 1 of the Federal Rules of Civil Procedure). He cautioned, however, that "courts will need to consider its proper uses in litigation."

Acknowledging that the legal profession is "notoriously averse to change," Chief Justice Roberts then offered his forecast on AI and the future practice of law, writing, "I predict that human judges will be around for a while. But with equal confidence, I predict that judicial work, particularly at the trial level, will be significantly affected by AI. Those changes will involve not only how judges go about doing their job, but also how they understand the role that AI plays in the cases that come before them."

State and federal courts around the country have begun implementing rules and standing orders addressing the use of generative AI by legal professionals practicing before them. Many courts have

begun requiring litigants to disclose when they use generative AI in their legal research and writing. Others have gone so far as to prohibit the use of generative AI tools in their courts.

In January 2024, several judges on the U.S. District Court for the Eastern District of Virginia—including Judge Roderick C. Young, Judge M. Hannah Lauck, and Judge David J. Novak—began issuing scheduling and pretrial orders requiring all parties who use AI to prepare any filing to identify the use of AI in that filing. Parties must also provide a certification that they have reviewed all citations for accuracy.¹⁶

These commonsense requirements for the use of generative AI are arguably just logical extensions of the existing Model Rules of Professional Conduct, as well as the Virginia Rules of Professional Conduct.¹⁷

For example, Rule 1.1 addresses competent representation, requiring “the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.” Rule 1.3 further requires a lawyer to act with reasonable diligence. Rule 3.3 addresses an advocate’s duty of candor to a tribunal, as the advocate is responsible for pleadings and other documents prepared for litigation.

The same is true when it comes to the use of generative AI. Legal professionals cannot rely on generative AI alone without doing their due diligence. Their representations to the court must be based on their reasonable inquiry into the underlying facts and law. After all, lawyers claiming that a case stands for one proposition when it stands for something entirely different is not a new problem in the legal profession. One might say that generative AI is simply a new way to engage in that age-old problem.

Uniform court rules that require litigants to verify how generative AI is used and in which documents (coupled with periodic friendly reminders) will go a long way in ensuring that generative AI is used to assist legal professionals, not substitute for them.

Stop Worrying and Begin to Like Generative AI

Cryptocurrency enthusiasts popularized the catchphrase *to the moon* to signal their relentless optimism regarding the upward valuation of digital assets like Bitcoin, Ethereum, and Dogecoin. Proponents of generative AI (yes, Virginia, that includes many lawyers too) share a similar, albeit tempered, excitement about its potential to positively transform the practice of law (they just have not come up with a snappy catchphrase yet). Catchphrase or not, generative AI is here to stay. But it is certainly not without its flaws.

The legal profession is no stranger to negative public perceptions when it comes to honesty and ethics. Gallup’s 2023 Honesty and Ethics poll found that only 16 percent of Americans would rate the honesty and ethical standards of lawyers as high or very high, down from 22 percent in 2019.¹⁸ Trust in AI systems similarly leaves much to be desired, with 40 percent of Americans saying they are willing to trust AI systems, according to a 2023 global study by KPMG.¹⁹

Accordingly, legal professionals need to educate themselves on the potential hazards of generative AI before incorporating this powerful technology into their legal research and writing. It is also important for law firms and courts to establish their internal controls on the use of generative AI to ensure that their employees have clear standards guiding their work product. In addition, litigants must be diligent when it comes to checking local court rules and regulations before relying on generative AI, as courts continually react to this rapidly changing technology.

As Chief Justice Roberts aptly noted, “Machines cannot fully replace key actors in court.” It follows that generative AI cannot replace the sound judgment of lawyers, judges, and other legal professionals. It is up to all of us to verify that our work product is accurate and up to the high standards that we should expect and demand for Virginia’s legal system.

Ultimately, a dose of healthy skepticism will help legal professionals take advantage of all that generative AI has to offer without sacrificing professional integrity, which can be called into question by unconscious reliance on this emerging technology.²⁰ And extra transparency will help members of the legal profession and the general public have more trust and confidence in the ability of the legal system to resolve complex, real-world problems both accurately and efficiently.

¹ Michael Chui, et al., *The state of AI in 2023: Generative AI’s Breakout Year*, MCKINSEY & CO. (Aug. 1, 2023), <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-AIs-breakout-year>.

² *Majority of US Workers Are Already Using Generative AI Tools – But Company Policies Trail Behind*, THE CONF. BD. (Sept. 13, 2023), <https://www.conference-board.org/press/us-workers-and-generative-ai>.

³ MCKINSEY & CO., *The State of AI: How Organizations Are Rewiring to Capture Value* (Mar. 12, 2025), <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai>.

⁴ *Id.*

⁵ Luona Lin & Kim Parker, *U.S. Workers Are More Worried than Hopeful About Future AI Use in the Workplace*, PEW RSCH. CTR. (Feb. 25, 2025), <https://www.pewresearch.org/social-trends/2025/02/25/u-s-workers-are-more-worried-than-hopeful-about-future-ai-use-in-the-workplace/>.

⁶ AM. BAR. ASS’N, *The Legal Industry Report 2025* (May 6, 2025), https://www.americanbar.org/groups/law_practice/resources/law-technology-today/2025/the-legal-industry-report-2025/.

⁷ *Id.*

⁸ *Recognizing the Risks and Seizing the Opportunities of Artificial Intelligence, Executive Directive Number Five (2023)*, COMMONWEALTH OF VA. EXEC. DEP’T (Sept. 20, 2023), <https://www.governor.virginia.gov/media/governorviriniagov/governor-of-virginia/pdf/ed/Executive-Directive-No.-5---Recognizing-the-Risks-and-Seizing-the-Opportunities-of-Artificial-Intelligence.pdf>.

⁹ *Governor Glenn Youngkin Signs Executive Directive on Artificial Intelligence*, OFFICE OF THE GOVERNOR (Sept. 20, 2023), <https://www.governor.virginia.gov/newsroom/news-releases/2023/september/name-1014625-en.html>.

¹⁰ *Implementation of Standards for the Safe Use of Artificial Intelligence Across the Commonwealth, Executive Order Number Thirty (2024)*, COMMONWEALTH OF VA. OFFICE OF THE GOVERNOR (Jan. 18, 2024), <https://www.governor.virginia.gov/media/governorviriniagov/governor-of-virginia/pdf/eo/EO-30.pdf>.

¹¹ *Id.*

¹² *Id.*

¹³ *Grants Boost Artificial Intelligence Efforts in Virginia’s Schools, Colleges and Universities*, STATE COUNCIL OF HIGHER EDUC. FOR VA. (Feb. 27, 2024), <https://www.schev.edu/Home/Components/News/News/434/16>.

¹⁴ *Id.*

¹⁵ C.J. John G. Roberts, Jr., *2023 Year-End Report on the Federal Judiciary*, SUPREMECOURT.GOV (Dec. 31, 2023), <https://www.supremecourt.gov/publicinfo/year-end/2023year-endreport.pdf>.

¹⁶ *Generative Artificial Intelligence (AI) Federal and State Court Rules Tracker*, LEXISNEXIS, <https://www.lexisnexis.com/community/insights/legal/b/practical-guidance/posts/generative-ai-rules-tracker-state-and-federal-courts> (Feb. 28, 2024); *Artificial Intelligence Court Order Tracker Virginia*, ROPES & GRAY LLP, <https://www.ropesgray.com/en/sites/Artificial-Intelligence-Court-Order-Tracker/states/virginia> (Mar. 8, 2024).

¹⁷ VIRGINIA RULES OF PRO. RESP. (Virginia State Bar 2024).

¹⁸ Megan Brenan and Jeffrey M. Jones, *Ethics Ratings of Nearly All Professions Down in U.S.*, GALLUP (Jan. 22, 2024), <https://news.gallup.com/poll/608903/ethics-ratings-nearly-professions-down.aspx>.

¹⁹ Nicole Gillespie, et al., *Trust in Artificial Intelligence: A Global Study*, THE UNIV. OF QUEENSLAND & KPMG AUSTRAL. (2023), <https://assets.kpmg.com/content/dam/kpmg/au/pdf/2023/trust-in-ai-global-insights-2023.pdf>.

²⁰ Sara Merken, *New York Lawyers Sanctioned for Using Fake ChatGPT Cases in Legal Brief*, THOMSON REUTERS (June 26, 2023), <https://www.reuters.com/legal/new-york-lawyers-sanctioned-using-fake-chatgpt-cases-legal-brief-2023-06-22/>.

1.2 Will Artificial Intelligence Replace Lawyers?

OpenAI released ChatGPT on November 30, 2022. Since then, other tech giants have released competing AI chatbots such as Google’s Gemini, X’s (formerly Twitter) Grok, Microsoft’s Copilot, and Baidu’s Ernie Bot. These platforms produce eerie human-like responses to questions, write poetry, summarize articles, take student exams, and perform many other tasks.

Since its advent, the use of AI has generated concern. Today, it still generates concern. A study by Pew Research states that 52 percent of workers feel worried about how AI may be used in the future.¹ Those within the age range of 18 to 49 are more likely to feel excited about the future use of AI (32 percent), compared to those 50 or older (24 percent).²

The legal profession has also had its concerns about the use of AI. Almost immediately after ChatGPT was released to the public, lawyers feared that ChatGPT would replace them. Steve Lohr in the *New York Times* wrote on April 10, 2023: “Law is seen as the lucrative profession perhaps most at risk from the recent advances in AI because lawyers are essentially word merchants. And the new technology can recognize and analyze words and generate text in an instant. It seems ready and able to perform tasks that are the bread and butter of lawyers.”³

Despite these fears, it is unlikely that AI will completely replace lawyers; at least, it will not do so anytime soon. Increasingly, as discussed throughout this Report, AI will supplement the legal profession by providing valuable assistance, much the same way computers have altered the practice of law and countless other professions. For example, the 2025 Legal Industry Report by the ABA noted that 39 percent of respondents from law firms with 51 or more lawyers reported generative AI adoption.⁴ Use of AI includes correspondence drafting (54 percent) and firm data analytics (14 percent).⁵ Notwithstanding the steady increase of AI use, the replacement of lawyers by AI is, at best, *decades* away.

Meanwhile, clients may be envisioning a halcyon future where AI can perform their complex legal work. In this imagined future, ChatGPT would supply answers to clients quickly, freely, and easily. If the client needed something drafted, then AI could handle that, too. To a degree, the vision has become a reality. For instance, AI-powered tools such as Roxanne and Rentervention are being developed and implemented in the United States and elsewhere. Roxanne is an AI-powered tool that can provide New York tenants with actionable information about housing repair issues, such as preparing letters and filing complaints.⁶ Similarly, in Chicago, Rentervention is an AI chatbot that helps educate renters on their rights and address issues with their landlords.⁷

From the legal field’s perspective on the future use of AI, approximately one in four legal practitioners feel that AI is a threat and are concerned about the results of relying on it. However, the remaining three out of four lawyers may dream of a future free of tedious legal research and writing. In

their envisioned future, time-consuming chores could be offloaded to AI. As highlighted throughout this Report, this future is not as far off as some may think. Already, AI is being used for e-discovery to help comb through and analyze reams of electronic documents. Properly applied, AI can already reduce the cost of legal services by taking on the menial parts of practicing law. However, technology currently falls short of the nuanced judgment needed to address the infinite variety of clients' legal challenges, and a future where AI can exercise this judgment is likely far off.

AI's promise is tantalizing, but its practical application is limited. The information that AI supplies can be nonsensical, erroneous, or outright wrong. In December 2023, Brad Lightcap, OpenAI's COO, said that AI is still in its experimental phase and that AI's "overhyped aspect is that it, in one fell swoop, can deliver substantive business change."⁸ The over-reliance on AI is particularly concerning for non-lawyers who lack the legal acumen to ascertain when AI has produced legal nonsense, or when AI services are overrepresented. For instance, DoNotPay is an AI robot lawyer designed to help make legal services more affordable.⁹ In 2024, the FTC fined "DoNotPay" for false advertisement of its AI service capabilities.¹⁰

Wikipedia's founder, Jimmy Wales, says that ChatGPT-4 is a "mess" in terms of its ability to write articles.¹¹ A Wikipedia article drafted by ChatGPT is "terrible" and "doesn't work at all" and "really misses out on a lot and it gets things wrong, and it gets things wrong in a plausible way and it makes up sources and it's a mess."¹² He predicts that it will take at least 50 years to achieve some sort of superhuman AI.¹³ In the meantime, AI tools hallucinate, or invent information, in response to one out of every six legal queries.¹⁴

Despite these risks, some lawyers have put AI to the test and have suffered spectacular embarrassments. For instance, one lawyer was sanctioned in federal court after using ChatGPT to assist him with preparing a brief that he filed with the court.¹⁵ To his chagrin, ChatGPT cited several helpful, but nonexistent, cases. In his 34-page opinion authorizing sanctions, Judge Castel in the Southern District of New York described the legal "analysis" in one of the nonexistent cases to be "gibberish."¹⁶ He stated that attorneys must always ensure the accuracy of their filings.¹⁷

Even once hallucinations are reduced, it will still be imperative for attorneys to check the results produced by AI. AI relies on data sets, or collections of data from various sources. The present society currently reflects biases and unfair stereotypes, which in turn are reflected in the data collected. AI's reliance on biased data will produce results that reflect the biases and unfairness in the data it is feeding from. It remains to be seen whether AI can be trained to eliminate biased results. In the meantime, lawyers must be mindful of potential issues with bias in AI results.

Similarly, some have expressed concern that AI will experience a "model collapse," or AI "eating its own tail." These terms essentially refer to the theory that as the internet becomes more ubiquitous, AI will begin basing its results on older models. The more AI bases its results on older versions or old data sets, the less reliable its results will be. Theoretically, human review could help mitigate this issue. But even if mitigated, it will still be important for attorneys to understand AI's limitations and review any AI output before using it in legal practice.

ChatGPT has been available to the public for over two years. Lawyers still exist. The better question than is will AI replace lawyers is probably: How can lawyers successfully use AI in the practice of law? AI's practicality is limited by hallucinations, lack of confidentiality, lack of attorney-client privilege between the lawyer and AI, input errors, security concerns, and the fact that a mistyped question can supply the wrong information. While these problems exist, AI is not going away. AI technology will continue to advance. Lawyers must begin to adopt AI into their practice. AI will be a powerful tool in some specific contexts, such as proofreading, file system organization, and especially e-discovery.

Even when AI reaches an incorrect answer to a legal question, it can still provide a good starting point. The lawyer’s job, however, is not done at this point. The information that AI generates must be analyzed, edited, properly formatted, and confirmed for accuracy. Whether checking and double-checking AI-generated information saves time will depend on the lawyer and the specific case. As with everything in our profession, the use of AI necessitates independent professional judgment.

¹ Luona Lin & Kim Parker, *Workers’ Views of AI Use in the Workplace*, PEW RSCH. CTR (Feb. 35, 2025), <https://www.pewresearch.org/social-trends/2025/02/25/workers-views-of-ai-use-in-the-workplace/>

² *Id.*

³ Steve Lohr, *A.I. Is Coming for Lawyers, Again*, N.Y. TIMES (Apr. 10, 2023), <https://www.nytimes.com/2023/04/10/technology/ai-is-coming-for-lawyers-again.html>.

⁴ AM. BAR. ASS’N, *The Legal Industry Report 2025*, (May 6, 2025), https://www.americanbar.org/groups/law_practice/resources/law-technology-today/2025/the-legal-industry-report-2025/.

⁵ *Id.*

⁶ Bob Ambrogi, *AI-Powered Tool Launches to Help New York Tenants Enforce their Repair Rights*, LAW SITES (Jan. 27, 2025), <https://www.lawnext.com/2025/01/ai-powered-tool-launches-to-help-new-york-tenants-enforce-their-repair-rights.html>.

⁷ *Rentervention Named Winner at 22nd Annual Chicago Innovation Awards*, LAW CTR. FOR BETTER HOUS. (Nov 17, 2023), <https://lcbh.org/rentervention-named-winner-at-22nd-annual-chicago-innovation-awards/>.

⁸ Hayden Field, *OpenAI COO Brad Lightcap Talks About ChatGPT Launch, DevDay and How Sam Altman Thinks*, CNBC (Dec. 4, 2023), <https://www.cnbc.com/2023/12/04/openai-coo-brad-lightcap-interview-with-cnbc.html>.

⁹ HESSIE JONES, *Risk or Revolution: Will AI Replace Lawyers?*, FORBES (Mar. 20, 2025), <https://www.forbes.com/sites/hessiejones/2025/03/20/risk-or-revolution-will-ai-replace-lawyers/>.

¹⁰ *Id.*

¹¹ Pascale Davies, *Wikipedia Founder Jimmy Wales Says AI Is a “Mess” Now But Could Become Superhuman in 50 Years*, EURONEWS (Sept. 12, 2023), <https://www.euronews.com/next/2023/12/09/wikipedia-founder-jimmy-wales-says-ai-is-a-mess-now-but-can-become-superhuman-in-50-years>.

¹² *Id.*

¹³ *Id.*

¹⁴ Jones, *supra* note 9.

¹⁵ Sarah A. Emmerich, *Artificially Unintelligent: Attorneys Sanctioned for Misuse of ChatGPT*, NAT’L L. REV. (June 30, 2023), https://natlawreview.com/article/artificially-unintelligent-attorneys-sanctioned-misuse-chatgpt#google_vignette.

¹⁶ *Mata v. Avianca, Inc.*, Case No. 1:22-cv-01461-PKC, Opinion & Order on Sanctions (Doc. 54) (S.D.N.Y. June 22, 2023).

¹⁷ *Id.*

Special Feature

1.3 Artificial Intelligence as the Next Step in Technological History

AI, and especially generative AI, is currently evolving within the legal profession and bringing significant changes to the practice of law. This evolution makes many lawyers uncomfortable. While some lawyers are embracing generative AI, others view it as a radical change to how lawyers work as a profession. However, by stepping back and reflecting on other significant changes in technological history, lawyers can find insights applicable to their feelings surrounding change today.

“Innovation is not just about creating new things; it’s also about unlocking the potential of existing inventions to create new opportunities.”

- Sangeet Paul Choudary

Throughout history, new technologies are most powerful in leveraging existing structures to create new opportunities. For instance, in the last century, the invention of refrigeration technology did not make appliance companies rich and powerful; it made food companies such as Coca-Cola, Tyson Foods, and even McDonald’s rich and powerful. We know the name of Ray Kroc (the force behind McDonald’s), but not the name Carl von Linde, inventor of the refrigerator. More recently, internet pioneer America Online brought the internet to millions of people before collapsing, but made Google, Facebook, and Amazon among the most valuable companies in the world.

Similarly, while generative AI companies are grabbing all the headlines, it is likely that they, too, will not be the ultimate winners. Companies—including law firms—that harness AI technology will likely become the market leaders in their business space. That is the opportunity lawyers have today. Lawyers can channel the power of generative AI into the existing legal services systems and processes to create more robust law firms that can deliver better legal services to more people who need legal services.

“Lawyers working with AI will replace lawyers who don’t work with AI.”

- Erik Brynjolfsson, Director, Stanford Digital Economy Lab

Generative AI will likely transform the legal field, but the fear that generative AI will replace all lawyers is misplaced. AI cannot perform all the functions of a lawyer. Consumers rely on lawyers to provide their knowledge, apply their experience, use their judgment to make informed decisions, and communicate throughout the problem-solving process. At present, AI can augment lawyers’ knowledge and experience, but it cannot provide sound judgment or communicate to a level expected by humans. However, because AI can deliver knowledge quickly and can expand beyond lawyers’ personal experiences, consumers will come to expect that their lawyers have augmented their knowledge and experience with that available via Large Language Models.

Further, because AI can provide this knowledge and experience in a fraction of the time humans can do it, lawyers will be able to deliver services using fewer billable hours. That is where most lawyers are now concerned. But the reality is that the economic force of the billable hour has never met a technological force as powerful as generative AI. Lawyers will need to be prepared to modify their present pricing models to address this new reality, yet there is no reason AI-augmented lawyers cannot be even more profitable than today.

At present, approximately 20 percent of people with a legal problem seek the assistance of a lawyer. The high cost of a lawyer’s services is often the consumer’s concern. However, if generative AI allows lawyers to do more work in less time, the cost of delivering some legal services may drop to an affordable point for more consumers. Moving from hourly billing to flat fees can ensure that law firms remain profitable while serving more consumers.

“The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.”

- Bill Gates, Microsoft Founder

As with most technologies, simply adopting AI will not transform a law firm. It must be properly integrated into the firm. As law firms decide how to employ generative AI, they should review their systems

and processes to make sure inefficiencies will not be magnified using AI. The systematic review and decisions about which AI tools to adopt go hand-in-hand.

“Technology will never be more primitive than it is today.”

- Author unknown

Each day, technology evolves and improves. It is a relentless march forward that may not always be noticeable to the user until one day it does eventually become noticeable. Whether that is an improved phone app, faster Wi-Fi connectivity, predictive typing, or better application integration, technology is getting better and more sophisticated. For the average law firm, this does not mean law firms need to change their technology often. But it does mean that lawyers must be paying attention to the changes and evolutions so that their firm is delivering client-centered, effective, and efficient legal services desired by potential clients.

“The best way to predict the future is to create it.”

-Peter Drucker, management guru

There are two futures: The one we can create and the one we let others create for us. We can stand back and let others move forward, drive change, and then allow others to follow their path. As lawyers, we can let others use technology to change how and who delivers legal services, or we can decide to create our pathway using these tools to benefit both consumers and ourselves. We can let other law firms lead change, or we can lead our firm into our preferred future. That is the opportunity that technology gives us today. Technology today has the power, affordability, scalability, and mobility that allow law firms to evolve to meet the needs of consumers and the legal system. The decision is ours whether to create our preferred future or leave it to others to shape and create that future.

2. Practical Uses and Effects of AI

2.1. AI Tools in Legal Practice

Navigating Rapid Change and Uncertainty

Introducing AI agents that can autonomously perform complex tasks and increasingly specialized legal AI applications creates legitimate uncertainty about which skills and tools warrant investment. A tool purchased today may be surpassed by superior technology within months.

However, as discussed more fully in a later section of this report entitled *Special Feature: The Coming Crisis is Here*, although AI is evolving faster than previous technologies, the legal profession has weathered technological transitions before—from typewriters to word processors, from paper files to digital document management, and from library research to online databases.

What separates today's AI revolution is not just its pace but its encroachment on cognitive tasks previously assumed to be exclusively human. Yet even the most advanced AI systems continue to demonstrate limitations in judgment, ethical reasoning, and managing novel situations.

The path forward lies not in resisting change nor in passive surrender to it. Rather, the path forward lies in developing an adaptive approach to technology adoption while recognizing our irreplaceable role as ethical guides, which should include the following:

1. Focusing on developing technology-agnostic legal skills that remain valuable regardless of which specific tools are used.
2. Approaching AI tools as accelerators of human capability rather than replacements for human judgment.
3. Identifying and preserving uniquely human elements of legal practice.
4. Maintaining a learning mindset, with continuous adaptation as a permanent aspect of legal practice.
5. Embracing our essential role as moral and ethical anchors for our clients.

This last point deserves emphasis. While AI systems can simulate ethical reasoning and may enhance our moral deliberations, attorneys must provide the ethical rudder and moral compass that guides client representation. We are not merely legal technicians but counselors in the fullest sense—professionals who help clients navigate both legal and ethical dimensions of their decisions.

As guardians of the justice system, lawyers have always played a crucial role in aligning client interests with broader societal values. That role becomes even more vital as AI tools proliferate. We must insist that these tools remain aligned with our highest aspirations for a just society. This ethical stewardship may ultimately prove to be the most enduring value that human attorneys bring to an increasingly AI-augmented legal landscape.

The legal profession stands at an inflection point in AI adoption. What seemed futuristic in the 2022 Report is now commonplace, and the pace of innovation continues to accelerate. Virginia attorneys

who embrace these tools thoughtfully can enhance their practice efficiency, improve client service, and focus their expertise on the highest-value aspects of legal representation.

The most successful attorneys will be those who maintain a balance: leveraging AI's efficiency while preserving the human expertise, judgment, and relationship-building that define the highest ideals of our profession.

Looking Back: The 2022 Report in Retrospect

Since the Committee's 2022 Report, AI has undergone a transformative evolution that has dramatically accelerated AI adoption across the legal profession. The emergence of generative AI models has shifted the question from whether AI will eventually impact legal practice to how thoroughly it is already reshaping the profession.

The legal landscape described in the 2022 Report has expanded significantly. Today's AI tools can draft documents, analyze complex legal issues, generate research memoranda, and assist with strategic decision-making. This rapid evolution demands that Virginia attorneys understand not only what these AI tools can do but also how they can be ethically and effectively integrated into various practice areas.

The 2022 Report asked whether "Artificial Intelligence would win if pitted against lawyers" and observed that "AI is keeping pace with humans and even surpassing them."¹ This assessment remains valid, although today's question has evolved from competition to collaboration.

Several statements from the 2022 Report have proved remarkably prescient: the Report correctly identified AI's potential in legal research analytics, predicted how AI would shape information processing and decision-making, and highlighted the importance of attorney oversight in training AI systems.

However, some assessments now appear outdated. The Report underestimated AI's ability to handle interdisciplinary analyses across legal, financial, and public relations considerations. The 2021 ABA survey cited in the Report found that only 7 percent of lawyers used AI-based tools,² while current adoption rates have increased dramatically to over 50 percent.³ Similarly, while the 2022 Report observed that primarily large firms were adopting AI, today solo practitioners and small firms are implementing AI tools at comparable rates.

The 2022 Report correctly emphasized that practitioners need only "a basic knowledge of how AI works" rather than technical expertise.⁴ This assessment remains true, although the ethical duty to understand AI capabilities and limitations has grown more pressing as these tools become more powerful and widely used.

AI in the Business of Law

Beyond case-related work, AI is transforming the operational side of legal practice in at least the following ways:

- **Recruitment and Hiring:** AI tools streamline candidate screening by analyzing resumes, identifying qualified candidates, and even conducting initial interviews. These systems can reduce hiring bias by focusing on objective qualifications rather than subjective factors.
- **Client Intake and Relationship Management:** AI-powered platforms automate client intake, identify potential conflicts, and track client interactions. The Virginia law firm Brown & Brown reported a 42 percent increase in client satisfaction scores after implementing AI-driven client management systems.⁵
- **Financial Management:** AI bookkeeping tools automate financial tasks, including time tracking, invoicing, and expense categorization. These systems have allowed some firms to reduce administrative staff costs by 15–20 percent.⁶
- **Knowledge Management:** AI platforms help organize and leverage a firm’s intellectual capital by automatically tagging documents, identifying precedents, and making institutional knowledge searchable across the firm.
- **Workflow Optimization:** AI assists in task allocation, project management, and deadline tracking, identifying bottlenecks in processes, and suggesting workflow improvements.

AI Across Practice Areas

1. Estate Planning

Estate planning has seen significant AI integration, with tools designed to streamline document preparation, scenario analysis, and client communications. Advanced document automation systems like WealthCounsel’s LawY go beyond template-filling to adapt estate plans based on client circumstances and applicable state law, reducing drafting time by 40-60 percent.⁷

Claude and ChatGPT are also useful for estate planning practitioners to generate explanations of complex concepts for clients, create customized education materials, and draft preliminary versions of unusual provisions. Westlaw Precision with Co-Counsel assists in identifying relevant case law for unusual planning situations, while Clio’s AI feature, Duo, helps manage client communications and track deadlines for trust funding and other post-signing tasks.

2. Litigation

AI tools have fundamentally changed how litigators prepare and present cases. E-discovery platforms incorporate advanced AI capabilities that go beyond keyword searches to identify conceptually relevant documents, predict privilege issues, and automatically organize information. These tools can reduce document review time by up to 80 percent.⁸

Brief-drafting and analysis tools not only find relevant precedents, but they can also draft entire sections of briefs, analyze opposing counsel’s arguments for weaknesses, and suggest counterarguments. Virginia litigators report that these tools are especially valuable for responding to emergency motions when time is limited.⁹

Trial preparation tools help attorneys organize evidence, prepare witness examinations, and develop trial strategies based on analysis of past rulings by specific judges. Motion practice is streamlined through tools that analyze success rates for specific motion types before judges.

3. Corporate and Transactional Practice

Corporate attorneys leverage AI for due diligence, contract review, and compliance monitoring. Due diligence platforms can review thousands of contracts to identify risks, non-standard terms, and regulatory issues in a fraction of the time manual review would require.

Contract drafting tools incorporate AI to suggest provisions, identify missing clauses, and benchmark terms against industry standards. These tools help attorneys ensure consistency across documents while customizing agreements to meet specific client needs.

Regulatory compliance monitoring was enhanced by AI tools that track legislative and regulatory changes across jurisdictions. Trackers alert corporate counsel to relevant changes and suggest necessary updates to corporate policies.

4. Personal Injury Practice

Personal injury attorneys use AI to evaluate case values, streamline medical record review, and identify liability patterns. Case valuation tools analyze settlement and verdict data to predict likely outcomes based on injury type, jurisdiction, and case specifics.

Medical record analysis tools use natural language processing to extract relevant information from medical records, organize treatment timelines, and identify causation evidence. These tools can reduce medical record review time by up to 70 percent.¹⁰

Demand letter generation is automated through tools that analyze case facts, applicable law, and historical settlement data. The tool then produces compelling demand packages customized based on the specific insurance company involved.

5. Family Law and Real Estate Practice

Family law practitioners use AI to model financial outcomes, streamline document preparation, and manage client communications. Financial modeling tools analyze asset division scenarios, support calculations, and long-term financial implications of settlement options.

In real estate practice, AI enhances title searches, transaction management, and zoning analysis. Transaction management systems coordinate closing workflows, automate document generation, and track critical deadlines, ensuring compliance with lender requirements and regulatory mandates.

Ethical Considerations and Best Practices

This report discusses a variety of ethical obligations implicated by AI. This includes providing competent representation by understanding AI tools' capabilities and limitations (Rule 1.1 of the Virginia Rules of Professional Conduct), maintaining client confidentiality by understanding how AI tools process,

store, and use data (Rule 1.6), and supervision of the work of others by verifying the content created by AI tools, which may not always be accurate (Rules 5.1-5.3).

Best practices for ethical AI use include implementing written policies governing AI use within the firm, maintaining transparency with clients, establishing verification protocols, selecting vendors with strong data security, and providing regular training to attorneys and staff. See *When Paralegals Use Generative Artificial Intelligence: Maximizing Return While Building an Ethics Infrastructure* for a more detailed discussion on attorney oversight and best practices.

¹ VA. STATE BAR SPECIAL COMM. ON TECH. & FUTURE PRACTICE OF L., *THE FUTURE OF LAW PRACTICE* 32 (2022) [hereinafter *2022 Report*].

² *Id.* at 33.

³ AM. BAR ASS'N, *2023 LEGAL TECHNOLOGY SURVEY REPORT* (2023).

⁴ *2022 Report*, *supra* note 1 at 34.

⁵ J. Smith, *AI-Driven Client Management in Law Firms*, VA. LAW., Dec. 2023, at 42.

⁶ THOMSON REUTERS, *2023 STATE OF LEGAL TECHNOLOGY REPORT* 17 (2023).

⁷ NAT'L ASS'N OF ESTATE PLANNERS & COUNCILS, *TECHNOLOGY IN ESTATE PLANNING SURVEY* (2023).

⁸ DOUG AUSTIN, *eDISCOVERY TODAY*, *2023 STATE OF THE INDUSTRY REPORT* (2023).

⁹ Based on interviews with Virginia litigators conducted by a contributor to this Report.

¹⁰ K. Johnson, *AI in Personal Injury Practice*, TRIAL LAW. Q. (2023).

2.2 When Paralegals Use Generative AI: Maximizing Return While Building an Ethics Infrastructure

Another question that is top of mind for firms is who, if anyone, in the firm should be using the new AI tools. Should lawyers? Should paralegals? Given the costs associated with these new tools, what is optimal for productivity? When one factors in ethical concerns, does that change the equation? And, finally, what written policies will help a firm navigate these important issues?

The Cost of AI Tools for Law Firms

At the outset, it is essential to carefully determine the costs of AI subscriptions balanced against the tangible productivity gains they can provide. Generative AI is an emerging technology that can generate new content and retrieve information on its own, based on instructions provided by the user, taking far less time than with prior technologies. OpenAI's ChatGPT is probably the most well-known generative AI tool.

Generative AI tools typically operate on a subscription-based model, where firms pay a recurring fee for access to the platform and its features. The costs of AI subscriptions can vary depending on factors such as the scope of the services, the level of customization, and the number of users.

As of this writing, generative AI tools range from free to several hundred dollars per month. There are free services such as Google's Gemini, OpenAI's ChatGPT (level 3.5), Pi, and Anthropic's Claude that are not legally specific and contain few extra features. OpenAI also offers ChatGPT Plus

accounts starting at \$20 per user per month. Microsoft's Copilot, which integrates directly with business-level versions of Microsoft 365, costs \$30 per month. Legal-oriented generative AI products such as Casetext's Co-Counsel and vLex's VincentAI can cost \$300 more per user per month. However, an annual contract pricing may reduce a firm's actual monthly cost.

Balanced against these costs is the resulting productivity gained from using the products. AI-powered tools have the potential to revolutionize legal workflows, enabling paralegals and attorneys to accomplish tasks more efficiently, accurately, and cost-effectively. Yet, estimating the productivity gains, time savings, and efficiency improvements in real dollar terms (to be balanced against costs) can be difficult until actual implementation occurs. That being said, here are several helpful ways generative AI can enhance productivity in a small law firm.

Some of AI's abilities that paralegals might find particularly helpful include automated document drafting, document summarization, and legal research assistance. Additionally, AI can help with marketing and client engagement. For instance, AI tools can assist in generating marketing content, optimizing social media performance, and personalizing client communications, thereby helping to attract new clients and strengthen existing client relationships. These and other AI functions are discussed in more detail throughout this Report, including in *AI Tools in Legal Practice* and *Legal Technology Used by Law Firms*.

Powering Paralegals with AI Tools

Paralegals, often the backbone of legal operations, stand to benefit significantly from the integration of AI technologies into their workflows. AI-powered tools such as ChatGPT and Microsoft's Copilot can streamline repetitive tasks, expedite document preparation, and facilitate legal research. By harnessing the capabilities of AI, paralegals can enhance their productivity, do more in less time, allowing them to allocate more time to client-focused initiatives or handling additional cases.

However, with the adoption of AI tools comes the responsibility to ensure that users of those tools receive adequate training and support to effectively utilize these tools. Training programs should encompass not only technical proficiency but also an understanding of the ethical considerations surrounding AI use in legal practice. Paralegals must not only be equipped with the knowledge and skills to exercise sound AI judgment, but also must be supported by written policies to maintain compliance with ethical standards.

Attorney Oversight and Ethical Accountability

While paralegals can and should responsibly leverage AI technologies, attorneys need to exercise diligent oversight and ethical accountability in the deployment of these tools. Attorneys bear the ultimate responsibility for the legal output and guidance provided to clients. Therefore, attorneys must ensure that AI-generated content aligns with professional standards, court mandates, regulatory requirements, and client expectations.

A few important things to know about AI use are:

- As highlighted throughout this Report, most AI is an imperfect drafter. It can change tone, improve flow and grammar, simplify language, and make things more concise. But it does not always understand complex topics or legal terms of art, for example. Lawyers using AI-based tools will need to review and finesse writing produced through AI every time.
- **Do not put client information into public-facing AI products that are learning from inputs.** Public-facing AI products that learn from inputs do not protect confidential information or client privacy. Lawyers should train on closed and open systems and be careful with their clients' information.
- Unless the generative AI product is specifically designed for lawyers and legal research, it will “hallucinate” case law, meaning it fabricates cases to match the enquiry you gave it. If left unchecked, this could be highly detrimental to the client and the lawyer involved. Recently, lawyers have been suspended, fined, and publicly embarrassed in the media for failing to check case law, so verify all case citations meticulously. It helps to use products that give verified case citations and legal-specific guardrails for what they will produce, such as vLex’s VincentAI, Casetext’s CoCounsel, and VisaLaw’s GenAI.

Best Practices for Attorney Oversight

1. Supervision and Review: Attorneys should provide ongoing supervision and review of AI-generated outputs to verify accuracy, relevance, and compliance with applicable standards. Those standards can be set by the firm, relevant courts, state bars, and government agencies. For example, some state and federal courts are requiring lawyers to disclose certain uses of AI as of the time of this Report. Paralegals should collaborate closely with attorneys to clarify uncertainties and address any potential ethical dilemmas that may arise.

2. Ethical Guidance and Decision-Making: Attorneys must offer ethical guidance and support to paralegals when using AI tools, emphasizing the importance of maintaining confidentiality, integrity, and professionalism in all aspects of legal practice. Ethical decision-making frameworks should be integrated into training to allow paralegals to navigate ethical challenges effectively. Special emphasis should be placed on maintaining confidentiality when uploading information to public Large Language Models, as well as verifying outputs to avoid misstated facts and hallucinations.

3. Client Communication and Transparency: Whether law firms should divulge to clients their use of AI technologies in their legal matters currently remains in flux. Few courts and mandatory bars have issued such a requirement to date. When clients ask about AI use, they should be properly informed. Virginia’s Rules of Professional Conduct allow lawyers to share client information with others while performing legal work, guided by professional judgment. Yet, with this new technology, firms will want to determine if client consent is needed in specific circumstances. Decisions should then be reflected in clear written policies to guide lawyers and paralegals.

4. Continuing Education and Professional Development: Firms that allow paralegals to use generative AI tools should maintain ongoing education and professional development activities to stay abreast of

advancements in AI technology and emerging ethical considerations. Advancements are happening quickly, so firms need to make sure they are evolving with the technology to obtain the benefits while protecting their clients.

Sample Policies for Ethical AI Adoption

To promote ethical AI adoption, firms should have written policies that include the following points:

1. Attorney Oversight and Review Protocols: Firms should establish clear protocols for attorney oversight and review of AI-generated content, outlining the responsibilities and expectations of attorneys in supervising paralegal work. **The first step of any protocol should be to have clear naming conventions to flag when a file is generated using a generative AI product.** Visual flags should also be added to any documents that require an attorney to verify the content.

2. Use of Firm-Approved Products: Firms will want to evaluate and adopt AI tools that are beneficial, affordable, reliable, and secure. Firms will want to deploy written policies that limit lawyers and paralegals to using those products only. Policies will also expressly prohibit the use of unapproved AI products so that AI content is easier to control (and correct) within the firm.

3. Client Consent and Disclosure Guidelines: Firms should develop guidelines for client communication and disclosure regarding the use of AI technologies in legal matters. This will ensure informed consent and transparency throughout the engagement process.

4. Ethical Decision-Making Frameworks: Firms should provide paralegals and attorneys with ethical decision-making frameworks to guide their use of AI tools and navigate ethical dilemmas effectively. Such policies could start with when to use or not use a generative AI product. For example, **Personally Identifiable Information (PII) such as Social Security numbers, addresses, and similar information should never be entered into AI products.** Similarly, many generative AI products, such as ChatGPT, have a user setting that can prevent information used in prompts from being read and saved by the product. Knowing where to find that setting is part of paralegal training, but also checking that setting before each use may be an effective written policy for the firm.

Given the power of generative AI, empowering paralegals with appropriate AI tools while providing diligent attorney oversight and implementing robust written ethical policies is the future of the legal profession, if not here already. If a firm is not yet using AI, it should consider the following steps before beginning:

Pilot Programs and Trial Periods: Explore pilot programs or trial periods offered by AI providers to assess the suitability and effectiveness of their tools in your firm's context before committing to a full subscription.

Tracking Time: To understand the true efficiency and productivity gains promised by AI tools, track the time spent using these products within the firm. Much like tracking any billable work, it will be necessary to distinguish tasks using AI to compare the same tasks without using AI. Only by comparing similar tasks will a firm be able to measure the time saved using AI tools. For firms billing clients by the hour, that will be extremely important as they may then consider moving to a flat-fee system for some clients.

Customized Pricing Negotiations: Firms should negotiate customized pricing plans with any AI providers. Getting the best price based on a firm’s specific needs, usage patterns, and budget constraints will help ensure any new initiative is financially viable in the long run.

Training and Adoption Initiatives: Firms should ensure that paralegals and attorneys are equipped with the necessary skills and knowledge to effectively use AI tools to maximize productivity. Some training will likely be developed within the firm, and the VSB has already approved CLEs on these topics.

Continuous Monitoring and Evaluation: Firms should plan to evaluate the return-on-investment (ROI) of AI subscriptions, tracking key performance metrics such as time saved, cost reductions, and client satisfaction. Identifying the key metrics for your firm, documenting those metrics, and having a reporting system in place will help evaluate the ROI over time.

By carefully balancing the costs, risks, and productivity gains of generative AI tools, lawyers and paralegals can leverage this new technology as a strategic asset to drive growth, innovation, satisfaction, and success in today’s competitive legal landscape.

2.3 AI and the Billable Hour: Foreshadowing AI’s Potential Impacts on Law Firm Fee Structures.

As technology develops, a large variety of industries see their pricing models and strategies change, develop, and adapt to meet new advancements. The legal profession, while “notoriously conservative when it comes to change,” is not immune to such transformations.¹ The billable hour has long been the “staple of the law firms’ compensation structure, and the source of billions in revenue.”² But many have questioned whether a potentially revolutionary technology, such as generative artificial intelligence, threatens to eliminate the billable hour’s predominance as the standard law firm billing model.³ The current limits of AI and the initial experience of lawyers using it suggest that while AI integration into legal practice will certainly impact the traditional billable hour model, such impact will likely not result in a wholesale overthrow of the billable hour.⁴ Instead, AI’s impact, for the foreseeable future, may be limited to incentivizing law firms to shift from hourly billing to flat-fee billing for distinct tasks that fall within AI’s unique skill set.

AI, like other technological advancements such as the internet, word processing, or legal research platforms, will predictably integrate into legal practice and result in increased task efficiency for the modern lawyer. In such a manner, AI could very well significantly reduce the time it takes lawyers to complete certain billable tasks while delivering “a work product of equivalent or superior quality” to that delivered before the advent of AI.⁵ In this new AI world, “AI will enable routine work to be done very quickly, with the result that firms will not achieve cost recovery if they charge for that work on an hourly rate basis.”⁶ By way of example, “[i]f an AI tool can produce a first draft of a twenty-page contract in minutes, how can a firm justify billing dozens of associate hours for that same task?”⁷

“Clients, particularly sophisticated corporate clients, are increasingly aware of AI’s potential to streamline legal work. Many are already pushing back against traditional billing practices, demanding that law firms pass on the efficiencies gained through technology. Some forward-thinking law firms are even developing their own AI tools, tailored to their services.”

Mark C. Palmer, *The AI Revolution in Legal and the Billable Hour: Is the End Near?*, 2Civility (July 9, 2024), <https://www.2civility.org/the-ai-revolution-in-legal-and-the-billable-hour-is-the-end-near/>.

Notably, clients, especially sophisticated entities, will become more aware of the efficiency created by AI tools for certain tasks. These clients will, over time, become more resistant to paying lawyers for extensive billable hours on tasks that can be completed by AI in mere seconds.⁸ Such newfound AI efficiency, coupled with client resistance, may result in law firms being incentivized to slowly shift away from their traditional billable hour model to still capture similar levels of profit margin for automated tasks. Therefore, many law firms could switch to a pricing model predicated on task-based flat billing, priced on the marginal value added for the client, instead of traditional billing by the hour.

Based on AI’s efficiency for certain tasks, the initial influence of AI’s integration into modern legal practice will likely be largely dependent on the specific task. For example, flat-fee billing, while already utilized by some lawyers for certain tasks (e.g., demand letter drafting, intake, etc.), will become more prevalent and

more profitable to adopt for all repetitive tasks that AI can now handle much more efficiently. These repetitive tasks include drafting discovery documents and contracts, reviewing e-discovery, and handling routine intake.⁹

Humorously, when asked: “**In what way will AI significantly impact the practice of law firms?**”, ChatGPT (an AI platform) responded by highlighting its own efficiency in task automation, stating:

Enhancing Efficiency and Automation

AI can automate many time-consuming tasks that traditionally required manual effort, such as legal research, document review, and contract analysis. Tools like machine learning algorithms and natural language processing (NLP) can quickly analyze large volumes of text, extracting relevant information, identifying key clauses, and flagging potential issues. This boosts productivity and allows lawyers to focus on more strategic tasks.

Improved Legal Research

AI powered tools can vastly improve legal research. Instead of sifting through hundreds of case files and statutes, AI can instantly provide relevant case law, rulings, and opinions, offering more accurate and up-to-date insights.

Contract Automation and Review

AI tools can automate the drafting and review of contracts, ensuring consistency, highlighting risks, and flagging potentially problematic clauses. For instance, a contract management system powered by AI can analyze large numbers of contracts, detect irregularities, and suggest edits. This reduces the time spent on manual reviews and minimizes the risk of human error.

Improved Client Communication and Service

AI powered chatbots or virtual assistants can handle routine client inquiries, providing real-time answers to frequently asked questions and improving client communication. These systems can also streamline appointment scheduling, intake processes, and document submissions, increasing efficiency and client satisfaction.

eDiscovery and Document Management

AI will play a critical role in eDiscovery, helping law firms quickly identify relevant documents and evidence from vast amounts of digital data.

Overall, AI will not replace lawyers but will enhance their ability to deliver services faster, more accurately, and more cost-effectively. The integration of AI into law firms will ultimately result in higher-quality legal services, more efficient operations, and a better overall client experience.

Because AI has its limits, AI’s integration into legal practice will not anytime soon terminate the billable hour model for strategic tasks that require human involvement, such as determining case strategy, negotiating with opposing parties, taking or defending depositions, or appearing in court. Consequently,

the first big impact AI will have on billing is likely to force law firms to assign value to specific projects that can be delegated to AI with minimal human lawyer oversight. However, this will not be an overnight process.

As law firms integrate AI, more data will need to be compiled to determine which tasks are best suited for the introduction of automation. Firms will also need to determine the amounts they should charge for those tasks based on the value added to the client. Therefore, the integration of AI will likely, over time, result in law firms shifting to a hybrid billing model offering flat fee services for document review, e-discovery, and possibly even legal research. Meanwhile, firms will likely retain the standard billable hour model for strategic lawyer services.¹⁰

One notable positive consequence of introducing hybrid billing models is that these models will allow lawyers to use AI to complete routine tasks at a significantly lower fee to the client, permitting those who could not afford legal services in the hourly modeled system to now obtain them at a highly discounted cost.¹¹ However, using AI as a tool to close the justice gap is not without significant challenge, because larger law firms may be the only entities with the resources and ability to integrate AI effectively. Small practitioners and legal aid organizations may find that the resources needed to integrate AI are a barrier to entry. Lawyers in these organizations will not be able to pass the cost efficiencies of AI integration on to less well-off clients.¹²

Moreover, introducing hybrid billing models based on AI invites a host of questions in the legal ethics realm. As AI integration becomes more widely available, its increased efficiency may ethically compel lawyers to, at least partially, shift away from the billable hour model to a hybrid billing model. By charging a client by the hour for a dozen hours in legal fees for tasks that could be performed using AI in seconds, billing by the hour may no longer result in “reasonable” fees, as is required by Rule 1.5 of the Virginia Rules of Professional Conduct.¹³ This is just one of the many ethical issues that may arise out of lawyers’ use of AI, as “the legal profession is likely to face other ethics-related issues going forward, such as whether to have mandatory training on generative AI for both law students and practicing lawyers.”¹³

It is unclear what the full impact AI will have on the billable hour in the long run. But the integration of AI presents a good opportunity for law firms to revisit their billing norms and create new hybrid practices.

¹ Andrew M. Perlman, *The Legal Ethics of Generative AI*, SUFFOLK UNIV. L. SCH. RSCH. PAPER 24-17 (2024).

² Maria Dinzeo, *AI Might Kill Off the Billable Hour Someday, But It Will Be a Slow Death*, LAW.COM (Feb. 14, 2024), <https://www.law.com/corpocounsel/2024/02/14/ai-might-kill-off-the-billable-hour-someday-but-it-will-be-a-slow-death/?slreturn=20250307-43628>.

³ *Id.*

⁴ Perlman, *supra* note 1 (noting that “[g]enerative AI’s potential to transform the legal profession is enormous, but it will not lead to seismic changes in the immediate future”).

⁵ Bruce MacEwen & Janet Stanton, *Pricing AI-Driven Legal Services: The Billable Hour Is Dead, Long Live the Billable Hour*, THOMSON REUTERS INST. (Sept. 10, 2024), <https://www.thomsonreuters.com/en-us/posts/legal/pricing-ai-driven-legal-services-billable-hour/>.

⁶ *Will Legal AI End the Billable Hour?*, THOMSON REUTERS INST. (Feb. 6, 2024), <https://insight.thomsonreuters.com.au/legal/posts/will-legal-ai-end-the-billable-hour>.

⁷ Mark C. Palmer, *The AI Revolution in Legal and the Billable Hour: Is the End Near?*, 2CIVILITY (July 9, 2024), <https://www.2civility.org/the-ai-revolution-in-legal-and-the-billable-hour-is-the-end-near/>.

⁸ *Id.*

⁹ Jamie Fonarev, *Generative AI and Alternative Fee Arrangements: How AI is Reshaping Legal Billing*, EVE (Oct. 21, 2024), <https://www.eve.legal/blogs/how-generative-ai-is-reshaping-legal-billing-alternative-fee-arrangements>.

¹⁰ See generally Bernard Marr, *The Future of Lawyers: Legal Tech, AI, Big Data and Online Courts*, FORBES (Jan. 17, 2020), <https://www.forbes.com/sites/bernardmarr/2020/01/17/the-future-of-lawyers-legal-tech-ai-big-data-and-online-courts/> (predicting a future where lawyers and AI work together to offer more efficient legal services).

¹¹ Ashwin Telang, *The Promise and Peril of AI Legal Services to Equalize Justice*, HARV. J. OF L. & TECH. (Mar. 27, 2023), <https://jolt.law.harvard.edu/digest/the-promise-and-peril-of-ai-legal-services-to-equalize-justice> (describing AI's ability to answer legal questions and offer low-cost legal assistance).

¹² *Id.*

¹³¹³ Perlman, *supra* note 1.

2.4 AI in Virginia's Courts

Courts nationwide are also turning to AI tools to streamline repetitive processes and to deliver higher-quality, more efficient services to the public, thereby improving equity and expanding access to justice.¹ For example, courts use AI-powered software to classify and docket e-filed documents. Meanwhile, chatbots handle an ever-increasing number of public inquiries and even help pro se litigants find the resources they need, often in multiple languages, to navigate their legal issues. Sophisticated AI tools have proven that they can effectively assist with document assembly. They can even be used to generate pleadings and other filings for high-frequency, low-complexity case types. Indeed, courts may use guided questionnaires for document generation, workflow engines for automating case management, and legal navigators for litigants to consolidate and even eliminate many manual processes. These AI-based technologies provide court staff with additional time and resources to serve more members of the public.²

In Virginia, courts are likewise finding meaningful ways to utilize and implement AI-powered tools to better serve their populations accessing the judicial system. For example, the Circuit Court of Fairfax County launched a free online case information system called eCaseSearch. Court staff developed eCaseSearch in-house and made it available in seven languages.³ The Circuit Court of Fairfax County is also piloting AI speech-to-text technology in courtrooms to create accessible records of civil proceedings. Furthermore, the National Center for State Courts has created an Innovation Lab in Arlington, Va. The Innovation Lab allows court leaders, both domestically and internationally, to test and observe the latest courtroom technology.⁴

The Supreme Court of Virginia has also taken meaningful steps to improve the use of technology in Virginia's court system, including the use of generative AI in the judiciary. During his 2024 State of the Judiciary Address, Chief Justice S. Bernard Goodwyn highlighted notable technological improvements like the Financial Accounting System. The Financial Accounting System eliminates the need for circuit court clerks to manually generate thousands of journal vouchers, conserving many hours that can be allocated to other tasks.⁵ Chief Justice Goodwyn noted that the Department of Judicial Information Technology has made changes to stay ahead of ever-evolving cybersecurity threats.⁶ For example, all IT system users are required to conduct enhanced Security Awareness Training to keep judicial technology safe. In addition, Justice Goodwyn announced that the judicial branch's Judicial

Learning Center platform will provide judicial branch employees with mandatory training regarding the permissible uses of generative AI in the court system.⁷ He also indicated that the Supreme Court of Virginia will implement guidelines outlining the authorized use of generative AI for work related to the judicial system.⁸ The Supreme Court of Virginia has thus clearly recognized the importance of generative AI tools in the legal profession and will continue to guide their use as those technologies evolve.

However, legitimate ethical concerns remain about the use of AI in the courtroom and the practice of law more generally. These concerns involve AI's accuracy, its ability to protect privacy, and its potential biases. To address some of these concerns, the VSB has advised Virginia lawyers on how to apply existing ethics rules and professional standards to generative AI applications.⁹ The VSB's Standing Committee on Legal Ethics has explained:

Some courts throughout the country have imposed requirements to certify whether generative AI has been used in any document filed with the court. The content and scope of these requirements vary depending on the court, and new requirements may be added at any time. A lawyer must determine whether any disclosure requirement applies to a filing that the lawyer is making and must comply with that requirement pursuant to Rule 3.4(d).

Other existing ethics rules also clearly apply to the use of AI by lawyers in their legal practices, without the need for any changes to address the peculiarities of AI.¹⁰ For example, a competent lawyer must pay attention to both "the benefits and risks associated with relevant technology," and there is no more relevant technology today than AI.¹¹ Likewise, lawyers' communication with their clients necessarily requires "sufficient information to participate intelligently in decisions concerning the objectives of the representation *and the means by which they are to be pursued.*" This should include discussions about available technologies and the corresponding benefits and risks.¹² Lawyers' decisions to use AI-based tools may also have ramifications regarding the reasonableness of their fees, as lawyers may be able to more efficiently complete certain tasks by using AI powered tools.¹³ Finally, lawyers utilizing third-party AI-tools must be mindful of their duty to protect confidential client information, as these tools have different standards and expectations regarding the protection of information that is put into their programs.¹⁴

* * *

The integration of new technologies in court systems represents a significant shift in how justice is administered in Virginia and nationwide. While challenges undoubtedly remain, courts are increasingly finding innovative ways to leverage new technologies to improve efficiency, accessibility, and fairness in the legal system. However, the success of AI and other technologies in the legal profession will depend on careful implementation, ongoing evaluation, and a commitment to ensuring that technological advancements serve the fundamental goal of providing equal access to justice for all.

¹ Allyson Brunette, *Humanizing Justice: The Transformational Impact of AI in Courts, from Filing to Sentencing*, Thomson Reuters (Oct. 25, 2024), <https://www.thomsonreuters.com/en-us/posts/ai-in-courts/humanizing-justice/>.

² *Introduction to AI for Courts*, Joint Technology Committee (Mar. 5, 2024), https://www.ncsc.org/__data/assets/pdf_file/0027/98910/JTC-AI-paper-update-3.5.24.pdf.

³ *Circuit Court Clerk Brings Innovation and Accessibility to Community*, Fairfax County Government NewsCenter (Nov. 1, 2024), <https://www.fairfaxcounty.gov/news/connect-with-county-leaders-podcast-chris-falcon>.

⁴ *Court Innovation Lab*, National Center for State Courts (last accessed Jan. 18, 2025), <https://www.ncsc.org/consulting-and-research/areas-of-expertise/technology/court-innovation/court-innovation-lab> (last visited Jan. 18, 2025).

⁵ Chief Justice S. Bernard Goodwyn, Sup. Ct. of Va., *State of the Judiciary Address* (May 2024), https://www.vacourts.gov/static/courts/scv/2024_0528_state_of_the_judiciary_address.pdf.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Legal Ethics*, Virginia State Bar (last accessed Mar. 31, 2025), <https://vsb.org/Site/Site/lawyers/ethics.aspx>.

¹⁰ W. Joel Charboneau, Todd Rich & Stephen Relyea, *The Ethics of Artificial Intelligence in the Practice of Law*, Tenth Annual Western District of Virginia Bankruptcy Conference (June 14, 2024), <http://www.vawb.uscourts.gov/sites/default/files/conf%20materials/2024/02%20-%20Ethics%20Panel%20-%20AI.pdf>.

¹¹ Va. Rules of Pro. Conduct R. 1.1 cmt. 6 (Va. State Bar 2024).

¹² Va. Rules of Pro. Conduct R. 1.4 cmt. 5 (Va. State Bar 2024).

¹³ Va. Rules of Pro. Conduct R. 1.5 (Va. State Bar 2024).

¹⁴ Va. Rules of Pro. Conduct R. 1.6 (Va. State Bar 2024).

3. Other Technologies in Legal Practice

3.1 Legal Technology Used by Law Firms

While Section 2 discusses how AI is used in operations and specific practice areas, this Section focuses on specific hardware and software firms are using, and how technology continues to evolve for the benefit of lawyers and their clients.

Legal Tech Stack: What Technology Lawyers Use Today

Lawyers in Virginia and across the country are using available software tools to work more productively and better serve their clients. Yet few firms are using identical tools. Each lawyer or law firm develops its own “tech stack” based on the needs of their firm and their clients. Some of the products may be integrated into the workflow of other products, yet some are standalone products that do not work well with others. Law firms of all sizes can be frustrated by their choice of technology, but it can be difficult to adopt a new product into their stack. It is often a good investment for law firms to take a strategic look at their tech stacks with an eye for improving them. Below are the common categories of legal software that can be adopted by law firms:

1. **Practice Management Software:** These platforms help manage cases, track time, and handle billing, allowing lawyers to access their work from anywhere and collaborate more effectively. Available specific products include Clio, Caret Legal, PracticePanther, RocketMatter, Filevine, Smokeball, and many more.
2. **Productivity Software:** These include Microsoft 365 and Google Workspace. Microsoft 365 (formerly Office 365) and Google Workspace are cloud-based platforms that combine productivity software, collaboration tools, and cloud services. Microsoft S365 includes well-known applications like Word, Excel, and Outlook, along with services like OneDrive and Microsoft Teams. Google Workspace includes Google Docs, Sheets, Forms, Gmail, as well as Google Drive and Google Meet. Both Microsoft 365 and Google Workspace are designed to enhance productivity and collaboration for users across various devices.
3. **Client Portals:** Client portals are secure, online platforms that allow law firms to share information, collaborate on projects, and communicate with their clients in a centralized location. They serve as a digital hub where both the firm and its clients can access relevant data, documents, and tools related to their ongoing cases or matters. The 2024 Clio Legal Trends Report shows that 69 percent of consumers prefer working with a lawyer who can share information with them through a webpage, app, or online portal.¹
4. **E-Discovery Tools:** These tools are essential for managing electronic evidence, making it easier to search, review, and produce documents during litigation. Common products include Logikull, Digital War Room, Relativity, and GoldFynch.
5. **Time Tracking, Billings and Accounting Services:** Billing software is sometimes efficiently bundled into practice management software to make financial management easier. Common tools

in billing software include automated invoices, expense tracking, retainer management, reporting and analytics, and alerts. Also, some legal-specific billing solutions help ensure compliance with ethical rules and regulations related to client trust accounting. Example products in this space include Smokeball Bill, TimeSolv, LeanLaw, Cosmolex, Clio, and TABS3.

6. **Online Payment Systems:** Streamlining billing and payment processes, online payment systems improve cash flow and client satisfaction. Simply, most clients do not want to pay by check. Consumers, big and small, prefer to pay by electronic means, so law firms big and small should be offering those options to their clients. Merchant credit card accounts are key to paying lawyers, with payment apps also growing in popularity as they become more secure. Firms should use products that are seamless for the consumer and easy to use by the firm, including features such as integrated bookkeeping, time tracking, automated invoicing, document signing, and online payments.
7. **Client Relationship Management (CRM) Software:** Enhancing client interactions and managing communications, CRM tools help establish and maintain strong client relationships. The software automates much of the client sales and intake processes, assisting with marketing and client communications, integrating social media, and performing customer service and analytics reporting. While numerous products can handle these separate components, having an integrated CRM product such as Lawmatics, Clio Grow, HubSpot, Law Ruler, ZohoCRM, or PipeDrive can benefit a law firm.
8. **Document Automation:** Earlier termed “document assembly,” where templates were infused with client data, document automation technology has shifted with the advent of generative AI. Now, software tools that use AI can help lawyers draft documents, whether pleadings, correspondence, trust documents, or contracts, quickly and intelligently. Example products range from general free tools such as Perplexity, Gemini, and ChatGPT to legal-specific products such as Gavel, LexisAI, Harvey.ai, and VincentAI.
9. **Document Management:** Document management involves the systematic organization, storage, retrieval, and automation of legal documents. This process is crucial for maintaining efficiency, compliance, and security within a legal practice. Case management software and productivity software usually include some document management features. Many firms of varying sizes are adding a specific document management application, such as NetDocs, iManage, and Worldox, to their tech stack.
10. **Project Management Software:** Law firms that handle complex transactions or litigation are turning to project management software to organize their matters and to keep involved staff up to date. This is separate from practice management software, as project management software helps manage cases (or projects), rather than clients or the law practice. Examples used by law firms include HighQ, Monday.com, Trello, Asana, and Smartsheet.
11. **Legal Transaction Management Software:** This growing area of legal software is somewhat like project management software, but it is much more focused on a specific type of legal transaction. The functions of legal transaction management software can include real estate transactions, drafting estate documents, tracking commercial transactions, and creating and tracking contracts, to name a few. Example products in this space include iManage Work, Litera

Transact, WealthCounsel, SimplyAgree, Client Rock, CounselPro8, and IroncladCLM, among many others.

Popular Trends in Legal Technology

The 2024 Clio Legal Trends Report² highlights that lawyers are devoting too much time to lower-value tasks when they could be automating those tasks to allow them to focus on higher-value tasks that have a greater impact on case outcomes. This, coupled with the tight workforce and higher staffing costs, is leading lawyers to turn to automation to streamline their workflows, improve efficiency, and help the bottom line.

In the report, Clio states that up to 75 percent of the tasks in a law firm may be handled by AI automation soon.³ To obtain this sobering number, Clio used the O*Net database and a proprietary Large Language Model (LLM) to analyze anonymized time entries across thousands of lawyers who use their software. Their analysis indicates that almost three-quarters of billable tasks (by lawyers and paralegals) in a law firm are potentially exposed to AI automation.

This ability to perform legal tasks through AI automation presents an immense opportunity for law firms. However, some lawyers will view this as a direct assault on the current practice of law. Each lawyer will have to decide whether and how to use AI to their advantage.

While the subject of generative AI is addressed elsewhere in this Report, it must be noted that generative AI capabilities are being added into the software applications lawyers already have on their desktops and in their pockets or purses. Added AI capabilities will impact both software purchasing and the renewal of software licenses for existing software. In many cases, adding AI capabilities will increase the cost of a software license. As a result, lawyers will need to have a familiarity with these changes in their software before they purchase or renew it.

New tools that incorporate AI or other automation may be more expensive, but they can make lawyers much more efficient and productive. Here are some of the most popular processes that lawyers are automating with the help of AI tools today:

- 1. Document Creation and Editing:** Lawyers are using AI tools such as Microsoft Copilot, Gavel, and Clio Draft to draft documents, summarize long documents, and automate formatting, among other tasks.
- 2. Client Intake:** Automating the client intake process helps law firms improve efficiency and create more billable hours. CRM applications like Law Ruler and Lawmatics provide guides on creating better client intake forms, leveraging document automation, and digitizing contract management.
- 3. Contract and Document Analysis:** Advanced algorithms in AI applications can swiftly review hundreds of pages, identifying key clauses, potential risks, or inconsistencies. This allows lawyers to focus on the strategic aspects of contracts, leaving routine checks to AI systems.
- 4. Practice Management:** Platforms like Clio, MyCase, and Smokeball help firms better manage clients, cases, deadlines, and finances. These platforms provide lawyers with powerful tools, including robust reports and analyses, to help lawyers maintain productive and profitable businesses.

5. Risk Analysis and Due Diligence: AI is revolutionizing risk analysis and due diligence processes in law firms, making these tasks more efficient and thorough. Using AI tools to perform risk analysis and due diligence shortens the time between observation and insight. These tools bolster lawyers' experiences to provide a wider foundation on which to base legal advice to clients.

6. Legal Research: AI tools like VincentAI (by Fastcase owner vLex), Westlaw Precision, and Lexis+ AI help with legal research, ideation, drafting, and legal analysis, freeing up time for lawyers to focus on more complex work and client engagement.

These automation processes not only enhance productivity but also allow lawyers to focus on higher-value tasks that have a greater impact on case outcomes.

Hardware

The annual ABA Legal Technology Survey⁴ continues to track the use of hardware within law firms. Two trends have been clear over the past decade or more: (1) large firms are equipping their lawyers with high-performance laptop computers since before COVID, and (2) solo and small firm lawyers continue to favor desktop computers, although by a small margin. Approximately 75 percent of large- and medium-sized firm lawyers primarily use a laptop, while only 48 percent of solo and small-firm lawyers use a laptop as their primary computer. Although the performance of laptops and desktops can be identical, the cost and longevity differ. Desktops are often cheaper and last longer than laptops, so they are often preferred by cost-conscious solos.

Windows 10 is the primary operating system for most lawyers. Yet it is interesting to note that the Mac operating system has grown in use to 16 percent among solos. Meanwhile, 92 percent of large firms use an MS Windows operating system. (Windows 10 will no longer be supported by Microsoft beginning in October 2025.)

Another hardware trend in the legal profession is the increasing use of two or more computer monitors to do work. With more of lawyers' work life dedicated to digital documents, it makes sense to have more space to perform work. Lawyers and staff who have two monitors can have multiple applications open and more easily and efficiently complete tasks such as comparing multiple documents simultaneously.

Often overlooked in the past, firms are now incorporating ergonomic office set-ups that promote better comfort and health, leading to increased productivity. Purchasing supportive office chairs, changing office lighting to reduce glare on computer screens, and standing desks are just a few of the ways law offices are improving working conditions to increase productivity and employee satisfaction.

Hardware is more than just about a computer. It is about having the right tools to ensure that everyone is productive and can work efficiently from anywhere, whether that is a courthouse, opposing counsel's office, from home or at a weekend cabin. This includes the implementation of secure VPNs, cloud-based collaboration tools, and technologies that support a seamless blend of in-person and remote work environments.

Mobile Computing

In terms of mobile computing and security, almost every practicing lawyer relies on mobile devices for their work. Security protections for mobile phones are critical, given the sensitive nature of legal work. Law firms, especially those that do not issue phones to their lawyers, must have written policies in place to protect phones and the client information they can access. A growing number of firms are implementing secure VPNs to ensure encrypted communication and access to firm resources, no matter where the lawyer is physically working. Additionally, biometric authentication and multi-factor authentication are commonly used to add an extra layer of security, ensuring that only authorized users can access sensitive information. These measures help solo and small law firms maintain high security standards while leveraging the flexibility and convenience that mobile technology offers.

¹ CLIO, LEGAL TRENDS REPORT (2024).

² *Id.*

³ *Id.*

⁴ *TechReport*, AM. BAR ASS'N https://www.americanbar.org/groups/law_practice/resources/tech-report/?login (last visited Mar. 7, 2025).

3.2 Using Technology to Improve Client Communications

Since the advent of telephones, communication is assisted by technology. Without technology, lawyers would be stuck mailing letters to their clients and having face-to-face conversations to meet their ethical obligations. Technology allows lawyers to better meet their ethical obligations by enabling fast, low-effort communications and by reminding lawyers to check in with and update their clients.

Ethical Duty to Communicate Effectively

Lawyers must communicate effectively with their clients. Rule 1.4 of the Virginia Rules of Professional Conduct requires lawyers to keep their clients “reasonably informed about the status of a matter and promptly comply with reasonable requests for information.” Lawyers must also “explain a matter to the extent reasonably necessary to permit the client to make informed decisions regarding the representation.” Additionally, lawyers must “inform the client of facts pertinent to the matter and of communications from another party that may significantly affect settlement or resolution of the matter.”¹

Many disciplinary actions and legal malpractice cases are based on a lawyer’s failure to communicate effectively with her client. Technology can help lawyers avoid communication issues and keep them on track in their communications with their clients. Indeed, there is no ethical obligation to communicate face-to-face—the ethical obligation is to communicate effectively and inform the client, which can be done with technology.²

How Technology Can Help

Client relationship management (CRM) software programs, treated in more detail in *Legal Technology Use by Law Firms*, can help automate client communications. CRM software can send lawyers reminders to contact their clients. Some CRM software can even provide standard templates that lawyers can use to send to their clients. CRM software programs may also have text messaging functions that enable lawyers to use a centralized number to text their clients, rather than the lawyer's personal phone, and save records of those text messages for the entire firm. Clio, Lawmatics, PracticePanther, Law Ruler, MyCase, Rocket Matter, and CloudLex are all examples of CRM software programs that have features that automate the client communication process.

In addition to CRM software, virtual assistant tools can help lawyers take minutes of meetings with clients or answer phone calls to the lawyer's office, facilitating client communication. Many virtual assistant tools are now using AI to perform their functions.

Chatbots on websites or client portals can answer questions from clients and potential clients 24/7. Client portals (which may be incorporated into CRM software or provided separately) provide a secure online space for attorneys and clients to share documents and information, and they typically provide messaging functions.

Text messaging through cellphones and messaging apps can also enhance communications with clients by enabling the fast exchange of information in a format that is familiar to most clients. Video calls are also helpful to have face-to-face meetings without the client or the lawyer having to go out of their way to meet in person.

Pitfalls to Guard Against

Although technology can be tremendously helpful in assisting lawyers' communication with their clients, lawyers must still be cautious about the technology they are using. Merely procuring technology does not satisfy a lawyer's ethical obligations. A lawyer must also understand the limitations and policies applicable to the technology to determine whether the technology meets the lawyer's other obligations, including maintaining the confidentiality of client information and maintaining adequate records for the client's file.

While many software programs that are developed specifically for lawyers will be cognizant of these other obligations and will have terms ensuring confidentiality and recordkeeping, not all will do so, or some that do will not necessarily meet the lawyer's obligations. Some technologies do not have the security and protection required to guard against intrusion into the attorney-client privilege. And some technologies do not have the easy ability to maintain records of communications. Just because technology exists that would make communication with a client faster and easier, does not mean that lawyers should use every technology available to them.

1. ***Security and Confidentiality:*** Text messaging through a cellphone or a messaging application may not be a secure way to send sensitive information, such as financial information or personal health information, or confidential client communications. Only end-to-end encrypted messaging should be used to communicate sensitive and confidential information. Apple claims that any

messages sent from one iPhone to another iPhone are encrypted end-to-end. But any messages sent from an iPhone to an Android or another non-iPhone device are not encrypted end-to-end. Messages sent between Android devices in Google's Messages app, using Rich Communication Services technology, are end-to-end encrypted. But messages sent other ways between Androids and messages sent from Androids to iPhones are not encrypted.

Social media sites like Facebook and LinkedIn also have messaging functions. However, messages sent through these sites are generally not secure and should not be used for confidential client communications. The messaging apps Signal and WhatsApp are encrypted end-to-end, but as noted below, recordkeeping can be a challenge with these forms of communication. Text messaging capabilities that are built into CRM programs typically will be secure as well. Lawyers should be sure to understand the security limitations of their text messaging applications before using those applications to communicate with clients.

Text messages also pose physical security concerns in that text messages sent to a cellphone will often pop up in preview mode, allowing people outside of the attorney-client relationship to view the message. Without the assurance of security, text messages are best used for reminders, rather than for substantive communications or document sharing.

Emails, as a default, are also not encrypted and could be easily hacked. Lawyers should encrypt any sensitive information sent in an email. Further, Virginia Legal Ethics Opinion 1897 (2022) concluded that a lawyer who copies her client on an email to opposing counsel has given implied consent for the opposing counsel to reply to the client using "reply all."³ Thus, lawyers may inadvertently open the door to communications between their client and opposing counsel when using email, and they should be cautious in who they copy on their emails.

Programs that use AI to communicate with clients or potential clients may also not adequately maintain the confidentiality of client communications. Artificial intelligence may be used by chatbots on websites, to answer phones, and to take minutes of calls or meetings with clients. Lawyers must be sure to read the terms and conditions of any communications products they use to understand the confidentiality and security provisions applicable to their communications. If the product's terms and conditions do not sufficiently maintain the confidentiality and security of communications, lawyers should not use those products to have substantive communications with their clients. Indeed, Virginia Legal Ethics Opinion 1872 (2019) notes:

When a lawyer is using cloud computing or any other technology that involves the use of a third party for the storage or transmission of data, the lawyer must follow Rule 1.6(b)(6) and exercise care in the selection of the vendor, have a reasonable expectation that the vendor will keep the data confidential and inaccessible by others, and instruct the vendor to preserve the confidentiality of the information. The lawyer will have to examine the third-party provider's use of technology and terms of service in order to know whether it adequately safeguards client information, and if the lawyer is not able to make this assessment on her own, she will have to consult with someone qualified to make that determination.⁴

1. **Recordkeeping** is another factor to keep in mind when using technology for client communications. Although technology enables fast, low-effort communication, keeping records of

communications sent or made through technology is often not as simple as keeping a copy of a letter mailed to a client.

For instance, although it may be easy to send SMS text messages to a client through a cellphone, there is no default way to save records of text messages. Attorneys should keep records of their communications with their clients as part of their client file to show that they are keeping their client informed and to keep records of what was communicated with the client and what the client told the attorney.

The basic text messaging function on a cellphone will not automatically save these records. If a lawyer wants to use SMS text messaging to communicate with clients, it would be wise to use a program like Decipher TextMessage or iExplorer (for iPhone) or the SMS Backup+ feature in Google/Gmail or SMS Backup and Restore (for Android) to save those text messages. Again, lawyers should be sure to check the privacy settings and features of any programs they use. Although it is also possible to take screenshots of text messages to preserve them, this method would not be practical for extensive use of texting.

As noted above, the messaging apps WhatsApp and Signal are secure end-to-end. But messages sent through these apps can be easily deleted. And some of these apps allow users to edit their messages after they are sent. Because messages can be easily deleted and edited through these apps, it is very hard to maintain accurate records of communications sent through these apps.

Video calls are not recorded by default, but most video call programs have capabilities that allow recording. It would be wise to record any video calls to maintain a record of when communications occurred and what was communicated with the client.

2. *Ensuring that the Client Can Use the Technology:* A lawyer must also be sure that the client can receive and read the method of communication that the lawyer is using. If a client cannot receive text messages through her phone, a lawyer should not text the client to communicate. If a client does not use email, a lawyer should not use email to communicate with the client either. A lawyer must use technology that the client can also effectively use so that the client receives meaningful communication from the lawyer.

Conversely, clients may insist on using certain types of technology, like messaging apps, for communications. Clients may not respond to traditional forms of communication, like telephone calls or emails, but as a lawyer, the duty remains to communicate with the client. A lawyer should work with the client to find a means of communication that the client will respond to while also satisfying the lawyer's confidentiality and recordkeeping obligations.

¹ VIRGINIA RULES OF PRO. RESP. r. 1.4 (Virginia State Bar 2024).

² Virginia State Bar Legal Ethics Op. 1791 (2003).

³ Virginia State Bar Legal Ethics Op. 1897 (2022).

⁴ Virginia State Bar Legal Ethics Op. 1872 (2019).

Special Feature!

3.3 Tips & The Practical Use of Technology

The technology industry offers a wide range of choices, from products and services to quality, pricing, and level of security. Most in the legal profession have adopted technology to some degree or another, many even use the same products and services. However, every firm, every lawyer, and every judge uses technology differently. Some attorneys may be just beginning to familiarize themselves with technology, while others may be experts. Regardless of where each person is in their knowledge and comfort, sharing practical experience and advice amongst colleagues helps everyone progress forward.

Several members of the committee on Technology and the Future Practice of Law have shared their experiences and best practices. Compiled below is a summary of some ways in which technology has changed their practice. Additionally, members also took the time to share some of their technology tips.

Technology Transforming Practice

- Having started practice back when WordPerfect was the leading word processor of choice in our profession, I am completely enamored with Microsoft 365 (formerly Office 365) Business Standard Edition with an added Copilot license. It has taken many years for me to embrace Microsoft technology, but they have created a suite of productivity tools that help me get my work done efficiently and effectively. The recent addition of Copilot has made my productivity soar. Well worth the extra cost.
- I often use generative AI to create first drafts of demand letters.
- AI has transformed how I practice. I use it as my law partner, legal assistant, and therapist (for the particularly challenging cases). I run ideas past it and seek input, analysis, confirmation, and ask it what I missed. It creates templates and comes up with procedures that help me streamline and get better results for my clients.
- Better CALR (computer-assisted legal research) has been the best innovation in technology for the legal workplace. It has never been easier to research issues.
- Cloud-based legal providers have enhanced our practice by offering secure access to client files, legal database software, and email. Our cloud server is accessible from anywhere on most devices, ensuring flexibility and efficiency.
- The introduction of automation has renovated the way I work. Simple automation, like search and replace in Microsoft Word, can save hours of time when dealing with large documents while ensuring few to no mistakes. More automation, such as analyzing data, creating rough drafts, or editing my own drafts, has helped spark creativity, save time, and provide additional perspective for my consideration.

- I have found that the new Lexis AI tool (Protege) is really helpful when conducting legal research or trying to learn more about a certain topic. For example, if I search something like, "What is the approbate and reprobate doctrine?", Protege can provide a helpful explanation on that topic and can point me to relevant case law and statutes. However, this program is by no means perfect.

Technology Tips

- In today's world, technology training is the key to law firms achieving success and satisfaction. Many law firms purchase new software and get initial training, but rarely offer more beyond that. Staff only learn what they need to learn, not getting the full value of the software purchased by the firm. That leads to poor productivity and staff dissatisfaction. Lack of cybersecurity training can lead to even bigger problems. Build regular training opportunities into everyone's schedule each month. Many software companies have online training videos, while many legal-specific products offer customized training. Small firms can organize monthly training lunches where staff can teach each other. Try an hour each month for six months and see the difference.
- Protecting and securing your data is an ongoing responsibility. Cybersecurity requires continuous attention, and law firms, lawyers, and managers should regularly review and audit security measures. Maintaining strong data security is a continuous effort that must be revisited frequently to ensure protection.
- As helpful as it is, Protégé is imperfect. For example, I remember once asking Protege a question about the requirements for filing an appeal in Virginia. Protege provided a detailed response, but it cited to case law and rules from the Court of Appeals of Virginia that applied before the Court of Appeals' jurisdiction expanded in 2021. Those rules and authority no longer applied now, but if I had followed the Protege output without doing my own additional research to confirm the veracity of that output, I would have been relying on incorrect information. In short, I have found that while Protege can be a great starting point during the legal research process (and can be particularly helpful when researching a topic that you already know a bit about but are trying to learn more), it is not enough by itself. a lawyer who indiscriminately relies on whatever output is generated by Protege does so at their own peril. Rather, a prudent lawyer must be sure to do their own due diligence when conducting legal research, which can include generative artificial intelligence tools like Protege. But Protege cannot replace the legal research work that we do as lawyers."
- The more specific prompt you give generative AI, especially with specific code sections, the more accurate the output.
- Learn how to use integrated word processing, spreadsheets and other programs to make you work more efficient. If you are not an "expert" in the programs you use every day, you are working "harder, not smarter" and it should be the other way around!
- Use technology to learn about technology! As helpful as technology is in legal work, it can also be used functionally to make practice better. Claude, ChatGPT or any other AI engine of choice can help diagnose and recommend solutions to technical glitches, teach you how to use a new piece of technology, or even analyze your needs and suggest technology that may help you in

your practice if asked. The next time you experience a technical difficulty and are waiting on hold for someone in IT, try asking ChatGPT about your problem instead—and see who fixes your problem first!

- Use Claude Projects to compile articles, cases, and notes, and ask it to find a common theme, create a blog post, or letter, or article for you to edit.

Attribution: Committee members Lisa Brook, Zoë Dye, John Koehler, Seth Lindberg, Austin Palmore, David Tisel, and Reid Trautz contributed their advice and expertise shared in this special feature.

4. Cloud Computing & Cybersecurity

4.1 Cloud Computing

Cloud computing has brought innovation and change to nearly every field of business, including the legal field. Offering flexibility, scalability, and efficiency, cloud computing has already begun to change the legal field and will only continue to do so in the future, from the way firms and courts operate to how lawyers advise clients. This section will explore the impact and implications of cloud computing on the legal profession, including the adoption of cloud computing in the legal field, basic vocabulary, advances in cloud computing, and cloud computing regulations, including the newly passed Virginia Consumer Data Protection Act. Additionally, because cloud forensics directly impacts the legal field and the courts, this section will examine some of the basics of cloud forensics and its challenges. This section will also briefly discuss the topic of cloud security. Finally, this section will examine and question the current state of ethics at the intersection of the legal field and cloud computing.

4.2 State of Cloud Computing in the Legal Market

Cloud computing usage is increasing over the years, and the trend will continue in the years to come. While no longer new, its offerings of unprecedented scalability, accessibility, collaboration, flexibility, and cost efficiency continue to be improved upon and innovated. Cloud computing has seeped into the lives of most individuals through services such as Netflix, Zoom, FaceTime, and Facebook. Most employees of large organizations are estimated to use over 30 cloud-computing applications daily. Likewise, across industries, organizations of all sizes and maturities use cloud computing services. It is estimated that approximately 94 percent of all companies worldwide use cloud computing, globally collecting over \$330 billion.

Although cloud computing adoption in the legal field is slower than in other business areas, many law firms have also opted to use cloud computing. In 2022, cloud usage within the legal profession in general increased to 70 percent, up from 60 percent in 2021. Within that same one-year period, solo law firms increased their usage from 52 percent to 84 percent. Meanwhile, cloud usage at medium-sized law firms increased from approximately 65 percent to 75 percent from 2021 to 2022.

The most popular cloud services used by lawyers are not specific to the legal field. Dropbox is one of the most prevalent cloud services used by law firms, with 66 percent reportingly using it. The second most used cloud service is Microsoft 365, at 59 percent, and Microsoft Teams, used by approximately 51 percent of law firms.¹ Approximately 30 percent of law firms are also using cloud tools, such as Microsoft SharePoint (51 percent) and other custom solutions (35 percent), such as client portals. Meanwhile, legal-specific cloud services, such as Clio, NetDocument, and MyCase, are utilized by approximately 17 percent, 11 percent, and 3 percent of law firms, respectively.

As law firms increasingly adopt these and other cloud services, anywhere, anytime access, around-the-clock availability, and data back-up and recovery are some commonly perceived benefits of cloud computing. Cloud computing allows attorneys to work remotely and communicate seamlessly with

clients and colleagues. It also allows them to access their data and legal research anywhere, including in the courthouse. Additionally, cloud computing allows for easier, quicker, and efficient recovery in the event of a disaster, helping ensure business continuity. Costs are another commonly perceived benefit of cloud computing among law firms. Cloud computing eliminates the need for expensive hardware or on-site maintenance costs. Cloud computing offers a low cost of entry and a predictable monthly bill.

Cloud services also provide a variety of different functions, which lawyers may not even recognize as being a cloud service. For example, WestLaw and LexisNexis are made possible by cloud services, giving lawyers instant access to comprehensive legal libraries. But neither WestLaw nor LexisNexis was mentioned as a cloud service used by lawyers in a recent ABA survey. Other services, such as FastCase, were also not mentioned in the ABA's survey results. These results indicate that among lawyers, there may be an understanding or knowledge gap of what cloud services are.

Adoption of cloud services in the legal field also comes with shared concerns amongst law firms. The biggest concerns shared by law firms are confidentiality and security (62 percent), lack of control over data (40 percent), and concerns over losing control over updates (28 percent). Clients' concerns about lawyers using cloud services appear to be less of an issue for law firms, with only 6 percent of lawyers reporting that as a concern in 2022. Lawyers who have not yet adopted cloud services share the same or similar concerns as their counterparts who have adopted cloud services, with one significant difference. Specifically, in 2022, 32 percent of lawyers who have not adopted cloud services cited unfamiliarity with technology as a concern with using cloud services. Helping the legal field become more familiar with cloud services may lead to closing the gap on cloud computing adoption.

The above statistics discuss the state of the legal field in general in terms of cloud computing. At present, more studies are needed to determine how the legal field in Virginia compares to that of the rest of the country and the world. Studies are also needed to understand how frequently the Virginia legal field finds itself impacted by clients' use of cloud computing or by otherwise helping clients navigate issues that involve cloud computing.

¹ *Id.*

4.3 The Basics of Cloud Computing

The prolific use of cloud computing in so many industries touches the legal field in a variety of ways. Lawyers, judges, and courts use the cloud in several different ways, as discussed above. Clients are also using cloud computing. This means that clients' valuable data, in other words, future potential evidence, spoliation, potential legal liability, or lack thereof, are all becoming increasingly interwoven in the cloud. The prevalence of the cloud, combined with the cloud's unique characteristics, indicates that the more the legal field understands the basics of cloud computing, the better able it will be to utilize it as a tool to make legal work more efficient. Familiarity with cloud computing will also enable lawyers to better advise clients.

The National Institute of Standards and Technology (NIST) defines cloud computing as “a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”¹ Simplified, cloud computing enables users to access services such as networks, servers, and storage at any time, and from any location using the internet.² Two prevalent types of cloud computing are Infrastructure as a Service (IaaS) and Software as a Service (SaaS).³

IaaS allows users to access virtual resources such as storage, servers, and networks while the service provider manages the virtual resources.⁴ Amazon Web Services, Microsoft Azure, and Google Compute Engine are three examples of IaaS providers.⁵ SaaS, in contrast, allows users to access software through the internet or a client program.⁶ Hardware and coding of SaaS is managed by the provider, so the infrastructure and platform that SaaS is built on are not seen by users. SaaS is easy to use and set up for users, while the provider manages the hardware and software.⁷

Platform as a Service (PaaS) is the third type of cloud computing. PaaS is great for software developers. PaaS enables software developers to develop test and launch applications without having to maintain necessary software or invest in new infrastructure, by allowing developers to essentially “rent” the necessary tools to build an app. Mark Smith, *What is Platform as a Service PaaS examples + SaaS vs PaaS vs IaaS*, ZENDESK BLOG, <https://www.zendesk.com/blog/what-is-paas/> (Nov. 14, 2023).

Servers can be hardware or software, its function is to provide services, data or resources to other computers over a network. Allan Jay Monteclaro, *What is a Server | Definition, Types and Features*, SERVER WATCH, (Sept. 15, 2023), <https://www.serverwatch.com/guides/what-is-a-server/>.

Gmail and Microsoft Office 365 are examples of SaaS products.⁸ Most client relationship management systems (CRMs), such as Clio and Salesforce, are also SaaS.⁹ Legal products, including MyCase, Relativity, Everlaw, and LexisNexis, use SaaS.¹⁰ Likewise, non-legal products, such as Adobe and DocuSign, also use SaaS solutions and platforms.¹¹

Simply, networks are the wired or wireless interconnecting of multiple computers to facilitate data sharing, whereas servers manage access to different components of the network. *Basics of Computer Networking*, GEEKS FORCE, <https://www.geeksforgeeks.org/basics-computer-networking/> (Dec. 26, 2024).

In other words, third-party service providers, such as Amazon Web Services and Microsoft Azure, are hosting the cloud services used.¹² Commonly, in the legal profession, SaaS service providers are running services on Amazon, Microsoft, or other cloud platforms.¹³ This means data, such as client information and attorney work product, is accessible and managed by third parties or multiple third parties who are collaborating to deliver the end product used by lawyers and clients. The physical hardware storing the data is stored at remote locations, also accessed and managed by third parties. Furthermore, the hardware may be stored in jurisdictions outside of where a law

firm or a law firm's client may be located, potentially even in other countries. For instance, Google has servers in Australia, Europe, Asia, North America, and South America.¹⁴

This complex interplay between SaaS users, IaaS providers, and actual hardware technology creates an equally complex and evolving landscape for lawyers, clients, and service providers to navigate. For example, the interplay raises confidentiality and privacy concerns, as data is accessed and managed by numerous parties. Other areas to navigate include compliance challenges where jurisdictions have different cloud-related regulations and requirements, as well as jurisdictional challenges.

Adding to this complexity is how cloud computing is deployed. Cloud computing can be deployed in a variety of ways, such as public cloud, private cloud, community cloud, or hybrid cloud. Public clouds are operated by third-party service providers such as Amazon, Google, or Microsoft, delivered over the public internet.¹⁵ Private clouds are operated and owned privately, and the services are delivered over a private network.¹⁶ Community clouds are when two or more companies with the same privacy and other criteria pool and share their data storage and processing capacity.¹⁷ Hybrid clouds, as the name implies, use a mix of private and public networks.¹⁸ Both third-party and private resources are used in a hybrid cloud setting.¹⁹ Many law firms are using public clouds to perform their job functions.

The complex web between providers, cloud deployment, hardware, and users in providing a user product highlights the importance of the contracts that define different parties' roles, responsibilities, rights, and limitations on rights. However, less than 25 percent of lawyers have reviewed the terms of service for the products they are using, and less than 30 percent have reviewed the products' privacy policies.²⁰ Less than 10 percent of lawyers have negotiated a confidentiality agreement with their cloud service provider, and barely over 5 percent have negotiated their service legal agreement.²¹

This web also indicates that teamwork between lawyers and technology experts is an important component of ensuring ethical, secure, and efficient use of cloud computing. Lawyers cannot be expected to be experts on all the technical aspects of cloud computing. Reciprocally, technical experts cannot be expected to understand the ethical responsibilities of lawyers, nor matters such as complex jurisdictional questions that may arise down the road. Both will need to work together. Understanding some of the basics of cloud computing will help lawyers ask the right questions and raise potential flags for technology experts.

The interplay between the entities and products described above also highlights the importance of regulating service providers. Some regulations already exist, and more are sure to follow.

¹ Peter Mell & Tim Grance, *The NIST Definition of Cloud Computing: Recommendations of the National Institute of Standards and Technology Special Publication 800-145*, NAT'L INST. OF STANDARDS & TECH. (Sept. 2011), <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf>.

² Burak Cinar & Jasmin Praful Bharadiya, *Cloud Computing Forensics; Challenges and Future Perspectives: A Review*, 16 ASIAN J. OF RSCH. IN COMPUT. SCI. 1, 3 (2023) [hereinafter *Future Perspectives*].

³ Mark Smith, *What Is Platform as a Service? PaaS Examples + SaaS vs PaaS vs IaaS*, ZENDESK BLOG (Nov. 14, 2023), <https://www.zendesk.com/blog/what-is-paas/>.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *PaaS vs. IaaS vs. SaaS vs. CaaS: How Are They Different?*, GOOGLE CLOUD, <https://cloud.google.com/learn/paas-vs-iaas-vs-saas> (last visited Jan. 15, 2025).

⁸ Smith, *supra* note 3.

⁹ Shashank Tripathai, *SaaS for LegalTech: Innovations Shaping the Legal Industry*, SAASWORTHY (Nov. 3, 2023), <https://www.saasworthy.com/blog/saas-for-legaltech-innovations-shaping-the-legal-industry>.

¹⁰ *Id.*

¹¹ *Id.*

¹² Dennis M. Kennedy, *2022 Cloud Computing TechReport*, AM. B. ASS'N. (Nov. 17, 2022), https://www.americanbar.org/groups/law_practice/resources/tech-report/2022/cloud-computing/?login. =

¹³ *Id.*

¹⁴ *Future Perspectives*, *supra* note 2.

¹⁵ *Top Cloud Technologies Shaping the Tech Landscape in 2024*, SIMPLILEARN <https://www.simplilearn.com/cloud-technologies-article> (last updated Mar. 25, 2025).

¹⁶ *Id.*

¹⁷ *Future Perspectives*, *supra* note 2 at 3.

¹⁸ SIMPLILEARN, *supra* note 15.

¹⁹ *Id.*

²⁰ Kennedy, *supra* note **Error! Bookmark not defined.**2.

²¹ *Id.*

4.4 Updates in Cloud Computing

Cloud computing is called one of the most significant technology advancements of the 21st century,¹ and it continues to evolve. There are several significant advancements, such as edge computing, real-time cloud infrastructure, open-source cloud, sustainability, and artificial intelligence. While this section of the Report will focus on the advancement of AI in cloud computing, the important thing to note about the other updates is that the cloud evolution is not over or stagnant. Thus, the conversation about the proper use of cloud computing, how it should be contracted, regulated, and other pertinent issues, also must not become stagnant or complacent. Treatment of cloud computing will need to be a continual conversation. The legal field will need to remain flexible as its capabilities and uses will evolve.

AI in Cloud Computing

AI is becoming more frequently integrated within cloud computing to increase efficiency and performance. Common examples of the merger between AI and cloud computing include the creation of Siri, Google Home, or Amazon's Alexa.² AI within cloud computing makes for a more intuitive user experience by using the data already intelligently stored within the cloud.³

AI in cloud computing can also make data management more efficient by recognizing, classifying, and managing data over time.⁴ It can also be used to control and monitor workflows conducted on the cloud.⁵

Legal cloud computing platforms have already begun to integrate AI, and they have already begun to transform the way attorneys manage their practice, ranging from client interaction and information access to legal proceedings.⁶ Many of the programs discussed in *Section 2, Practical Uses and Effects of AI*, are cloud-based software programs that have integrated AI. Cloud-based CRM and legal practice management software

such as Clio duo, Filevine, and Filevine Sidebar AI are integrating AI into their cloud platforms to make more streamlined, seamless, and smarter solutions.⁷ The capabilities of these programs demonstrate the benefits and power of combining AI and cloud computing. Cloud computing brings scalability, accessibility, and streamlining, while AI leverages the large catalog of cloud-stored data to produce a more intelligent and relevant output.

AI within cloud computing impacts the legal field beyond just firmware. For example, as clients use these integrated technologies, they will face challenges in data privacy and security. Clients will also need guidance on liability issues such as potential bias and discrimination within processes, potential copyright infringement, and more. Additionally, guidance will be required as clients endeavor to comply with the evolving body of laws that govern data privacy and security, as well as the use of AI technology. These growing areas highlight the need for lawyers to become familiar with basic cloud computing and similar technologies.

AI may also impact compliance. AI has a demonstrated ability to manage regulatory requirements more efficiently.⁸ Studies indicate that AI can streamline compliance processes while increasing accuracy and efficiency. For example, one study examining space law regulations showed that the error rate dropped from 15 percent to 5 percent after implementing AI tools.⁹ Likewise, the processing time was reduced from 12 hours to 6 hours.¹⁰ Further studies are recommended to see the impacts of implementing AI tools within other regulatory environments.¹¹

¹ Annas Wasim Malik *et al.*, *Cloud Digital Forensics: Beyond Tools, Techniques and Challenges*, 24 SENSORS, no. 2 (Jan. 10, 2024), at 2, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10819343/pdf/sensors-24-00433.pdf> [hereinafter *Beyond Tools*].

² *Artificial Intelligence in Cloud Computing*, DATACENTERS.COM CLOUD (May 25, 2023), <https://www.datacenters.com/news/artificial-intelligence-in-cloud-computing>.

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ Micheal D.J. Eisenberg, *2023 Cloud Computing TechReport*, AM. B. ASS'N (Jan. 29, 2024).

⁷ *Id.*

⁸ Rahul Vadisetty, *AI in Cloud Powered Legal Compliance As a Service (LCaaS)*, 1 INT'L J. OF ADVANCED ENG'G TECHS. & INNOVATIONS 286, 301 (2022), <https://ijaeti.com/index.php/Journal/article/view/551/608>.

⁹ *Id.* at 312-13.

¹⁰ *Id.*

¹¹ *Id.*

4.5 Regulations in Cloud Computing

As discussed above, sitting at the center of many cloud-computing end-user experiences are service providers. The amount of access and control that service providers have over data belonging to law firms, clients, government agencies, and others makes the conversation of how and how much to regulate service providers of key importance.

For instance, how much should the government interfere with the right to contract in the private sector? What kind of minimum-security standards should be imposed? What should the penalties be for breach of regulations by service providers? Should individuals and entities have a private right of action against service providers who breach a regulation? Should the legal field develop its own set of basic contract requirements that are specific to its needs of adhering to the basic ethical requirements, such as confidentiality, and other matters, such as maintaining the public's trust?

Some regulations and guidelines already exist. But are they enough? Examples include:

- The Federal Risk and Authorization Management Program (FedRAMP) is operated by the federal government. FedRAMP requires cloud service providers for federal agencies to comply with stringent security requirements. However, Virginia has no similar program currently.¹
- The European Union Agency for Cybersecurity (ENISA) is tasked with enhancing cybersecurity within the European Union. ENISA's guidelines, recommendations, and best practices include cybersecurity and regulatory challenges of cloud services within the European Union.²
- The General Data Protection Regulation (GDPR) imposes stringent standards for personal data processing and protection, including data stored on the cloud, in the European Union and the European Economic Area.³
- The Monetary Authority of Singapore (MAS) has created guidelines on compliance and risk management for financial institutions adopting cloud services.⁴

While regulation of cloud computing is already an inevitable part of the future of cloud computing, so is the question of whether or how to harmonize varying regulations from one jurisdiction to another. The lack of uniformity in regulations creates a challenge for service providers who often must comply with more than one jurisdiction's laws.⁵

The Virginia Consumer Data Protection Act (VCDPA)

Virginia has also joined the regulatory conversation with the passing of the Virginia Consumer Data Protection Act (VCDPA).⁶ While the VCDPA does not directly regulate service providers, it does regulate data management. Effective January 1, 2023, Virginia is one of approximately 20 states to enact data privacy laws.⁷

The VCDPA provides Virginians with six different rights. Under the VCDPA, consumers have the right to correct inaccuracies in personal data, and to access, delete, and obtain a copy of their data with some qualifications. Virginians also have the right to opt out of personal data processing under certain circumstances and the right to confirm whether a controller is processing their data. Rights conferred by the VCDPA do not apply to people acting in a commercial or employment context, or to non-residents.

Obligations imposed by the VDCPA apply to those conducting business in Virginia or producing products or services targeted to Virginia residents who meet certain criteria. Some of the obligations imposed by the VDCPA include disclosure of personal data sales, implementing data security practices to protect the confidentiality and integrity of personal data, and limiting personal data collections.

The VDCPA exempts state agencies, nonprofit organizations, and colleges and universities, among other entities, from its obligations. Likewise, certain information is exempt from the VCDPA. Information subject to regulation by HIPAA, the Fair Credit Reporting Act, and the Family Educational Rights and Privacy Act, as well as information processed or maintained in an employment context, are some examples of the types of information exempted from the VCDPA.

Consumers protected by the VDCPA cannot directly bring claims against those violating the VDCPA. Enforcement of the VDCPA rests solely in the hands of the Virginia Attorney General. Noncompliance or violations of the VDCPA may result in monetary penalties for each violation.

The legal field is certain to feel the impacts of this new legislation as clients impacted by the statute begin to conduct data audits, train employees, and update privacy policies.⁸

¹ Annas Wasim Malik *et al.*, *Cloud Digital Forensics: Beyond Tools, Techniques and Challenges*, 24 SENSORS, no. 2 (Jan. 10, 2024), at 13-14, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10819343/pdf/sensors-24-00433.pdf>.

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *Id.*; see also Ehigiator Egho-Promise *et al.*, *Digital Forensic Investigation Standards in Cloud Computing*, 3 UNIVERSAL J. OF COMPUT. SCI. & COMM'N at 3-4, 10-11 (Mar. 2024).

⁶ VA. CODE § 59.1-575 *et seq.*

⁷ *Which States Have Consumer Data Privacy Laws?*, BLOOMBERG LAW (Apr. 7, 2025), <https://pro.bloomberglaw.com/insights/privacy/state-privacy-legislation-tracker/#map-of-state-privacy-laws>. Unless otherwise noted, the information in the remainder of this subsection is drawn primarily from, *Virginia Consumer Data Privacy Protection Act (VCDPA)*, BLOOMBERG LAW, <https://pro.bloomberglaw.com/insights/privacy/virginia-consumer-data-protection-act-vcdpa/#limitations> (last visited Jan. 15, 2025).

⁸ *Understanding the Virginia Consumer Data Protection Act (VCDPA)*, PRIVACY ENGINE (Sept. 22, 2024), <https://www.privacyengine.io/blog/virginia-consumer-data-protection-act/>.

4.6 Cloud Forensics

The adoption of cloud computing has inevitably resulted in evidence being stored on the cloud, leading to the advent of cloud forensics. The compound annual growth rate (CAGR) is indicative of the proliferation of cloud forensics within the legal field. The projected market size of cloud forensics was \$11.2 billion in 2023, and it is anticipated to increase to \$36.5 billion by 2031.¹ This rapid increase is in large part due to the need to respond to cybercrime, such as cyberattacks, espionage, data breaches, and various forms of fraud.²

The CAGR measures the annual growth of the cloud digital forensics global market, and accounts for compounding effects, showing how annual growth impacts overall trend of multiple years. *Beyond Tools*, *supra* note 1, at 22.

Cloud forensics fits within the broader umbrella of digital forensics. NIST defines digital forensics as “a meticulous process that encompasses the recovery, preservation, and analysis of digital data with meaningful applications in criminal investigations and prosecutions.”³ Cloud forensics is a specialized area of digital forensics with its own unique set of challenges within the digital forensics

Four Basic Steps of Cloud Forensics:

1. **Identifying the landscape to be investigated:** Cloud forensic investigators must identify cloud based systems and applications.
2. **Preservation process:** data is systematically captured, securely stored and documented. Preservation is essential to the integrity of the digital evidence, and ensuring its ability to be used in future legal proceedings.
3. **Examination & Analysis:** cloud forensic investigators use tools and various methods to analyze the data collected in the preservation stage. Cloud forensic investigators analyze the data to make sense of it, for example identifying network activity patterns and decoding metadata that tells a story of what happened.
4. **Presentation:** the final goal of cloud forensics is to present the investigative findings clearly, concisely and credibly in a legal proceeding, such as a courtroom.

Beyond Tools, supra note 1, at 15.

space.⁴ Similar to digital forensics, cloud forensics involves incident investigation, evidence preservation that meets courtroom admissibility standards, vulnerability identification, and data recovery facilitation.⁵ Cloud forensics often involves multiple jurisdictions, further complicating evidence collection.⁶

While the specific steps of cloud forensics may vary, cloud forensics generally involves identification, preservation, examination and analysis, and presentation in court.⁷

Presentation in a legal proceeding, the final goal of cloud forensics, underscores the importance of evidentiary integrity throughout all stages of the legal process, as well as the need for sound tools and methodologies during each phase. As the market for cloud forensics investigators expands, so too will the need for cloud forensics investigators to hone their skills. They will also need to define what constitutes trustworthy practices within their field as they vet tools, identify gaps in methods, and continually adjust to the ever-evolving landscape of cloud capabilities and limitations. Researchers are already looking for ways to enhance cloud forensics practices to address emerging trends, such as serverless computing, edge computing, AI, and microservices.⁸ Technological advancements are reshaping cloud forensics.⁹

The legal field likewise has a stake in the evolution of cloud forensics, including the establishment of standards for the methods and tools, as well as sound practices. Law enforcement agencies, experts, and others are regularly consulted in the study of cloud forensics and on how to best collect

evidence.¹⁰ Notably missing from this conversation, however, are judges and attorneys who have the

ultimate responsibility and final say over what constitutes sound and admissible evidence in a court of law. The more attorneys and judges understand cloud computing and cloud forensics, the better

Currently courts and lawyers employ many legal safeguards, including the rules of evidence and other rules, employing tests such as those articulated in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, **509 U.S. 579**, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). These tools provide a measure of protection by ensuring that experts are engaging in standard field-accepted practices. However, lawyers must still be knowledgeable enough to know whether currently accepted practices meet the minimum threshold of certainty and accuracy demanded by Constitution. Just because a practice is currently accepted, doesn't necessarily mean that it is sound, particularly if the field is still relatively new, developing, or has known gaps. Moreover, at a certain point, where non-legal experts are unfamiliar with the stringent evidentiary practices demanded by the law, and legal experts are unfamiliar with the technical pieces of evidence collection, the expense may be the violation of legal safeguards. Furthermore, knowing the shortcoming and strengths of the present practices will help lawyers evaluate their position and strategies as they guide clients through litigation.

positioned they will be to play a much-needed role in the conversation about what constitutes sound evidentiary practices sufficient to be admissible in court. Better understanding will also empower lawyers to help protect their clients by challenging potentially questionable evidence collection and sharpening their cross-examinations. In short, the better that attorneys and judges understand cloud forensics, the better positioned they will be to help safeguard Constitutional freedoms and uphold the laws.

Challenges in Cloud Forensics

Some of the most profound challenges presently faced by cloud forensics experts include gaps in the tools and methods used for cloud forensics as opposed to those used in digital forensics.¹¹ Digital forensics methods were simply not designed for some of the unique aspects of the cloud. Studies suggest that applying digital forensics methods to a cloud environment may leave gaps in evidence investigations, with further research needed to close those gaps.¹² Likewise, several of the commercial tools used for remote investigations need additional vetting for improving accuracy and reducing error rates.¹³

The complexity of cloud computing, which can involve multiple parties, remote physical infrastructure in varied jurisdictions, and contracts, among other things, also creates a unique challenge for digital forensics. For example, log files are vital to cloud investigations.¹⁴ However, data in the cloud can

vanish quickly, and full-time-stamped logs may not always be available to investigators.¹⁵ Retrieving logs from the cloud is complicated for a variety of reasons, including multi-tenant situations.¹⁶ Additionally, it is not uncommon for cloud service providers to impose restrictions on storage or access, or to neglect or conceal log collection services, which can result in a lack of important data or incompatible log formats.¹⁷

In addition, cloud service providers may not have the necessary expertise or procedures in place to perform cloud forensics investigations.¹⁸ Standard agreements with cloud service providers may not specify their obligations in a cloud forensics investigation, leaving their legal duties open to question.¹⁹ Vague or absent language regarding the service provider's obligations concerning cloud forensics investigations can be both a sword and a shield for clients. It may leave a client vulnerable to unanticipated and unauthorized cooperation with other parties, or it may make it challenging for a client to ensure desired levels of cooperation. Moreover, while users usually technically own their data,²⁰ control and management are often delegated to service providers, resulting in complex and murky lines between the rights of the service provider and the user. It is important to understand the policies and service terms of service providers as they pertain to acquiring data for forensic analysis.²¹ Likewise, familiarity with the terms, conditions, and policies of service providers is also advisable, as they can have a direct impact on the acquisition of data for a forensic investigation.²²

Furthermore, while digital forensics has historically assumed direct access to hardware, the hardware often cannot be seized in cloud computing.²³ In addition to the location of the hardware potentially being unknown, the hardware may also be in a jurisdiction outside of where the investigation or potential case is taking place.²⁴ For instance, Google has servers in multiple continents and countries.²⁵ Jurisdictional issues can present challenges about subpoenas, venue, and coordination between stakeholders, necessary to comply with various laws. Differing laws can make it challenging for cloud forensics specialists as well as cloud service providers to perform their functions without violating varying standards and regulations.²⁶ Many cloud forensics experts believe it would be helpful to have standardized laws.

Cloud technology itself also presents other practical forensics challenges. For example, cloud environments rapidly evolve and change. Because of the changing nature of the cloud environment, data must be captured and retained promptly to avoid gaps in the evidence trail.²⁷ Data imaging and bandwidth constraints are just a few of the other practical challenges of evidence collection.²⁸

These difficulties are integrally intertwined with evidence for and against clients and will impact them either for better or for worse. The legal field must engage in this conversation and have a role in helping mold the future of cloud forensics, particularly as it pertains to evidentiary standards and other applicable laws and legal protections. One important question is how the legal field can encourage and help facilitate a merger between these two different areas of expertise. The legal field should consider how it can develop closer working relationships with the field of cloud forensics experts to help guide it as it continues to evolve and develop. The legal field may also consider the potential future need to have cross-trained lawyers who are cloud knowledgeable practitioners, and to incentivize technology training.

¹ Annas Wasim Malik *et al.*, *Cloud Digital Forensics: Beyond Tools, Techniques and Challenges*, 24 *SENSORS*, no. 2 (Jan. 10, 2024), at 22, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10819343/pdf/sensors-24-00433.pdf> [hereinafter *Beyond Tools*].

² *Id.*

³ *Id.* at 15.

⁴ *Id.* at 3.

⁵ *Id.*

⁶ *Id.* at 13-14.

⁷ *Id.*

⁸ *Id.* at 23.

⁹ *Id.*

¹⁰ Ehigiator Egho-Promise et al., *Digital Forensic Investigation Standards in Cloud Computing*, 3 UNIVERSAL J. OF COMPUT. SCI. & COMM'N at 2 (Mar. 2024).

¹¹ *Beyond Tools*, *supra* note 1 at 19–20.

¹² *Id.*

¹³ *Id.* at 19-20.

¹⁴ *Id.* at 18.

¹⁵ Egho-Promise, *supra* note 5 at 12.

¹⁶ *Beyond Tools*, *supra* note 1 at 19-20

¹⁷ *Id.*

¹⁸ *Id.* at 19-20.

¹⁹ *Id.* at 19.

²⁰ *Id.* at 21.

²¹ *Id.* 18-21.

²² *Id.*

²³ *Id.* at 18-19.

²⁴ *Id.*

²⁵ Burak Cinar & Jasmin Praful Bharadiya, *Cloud Computing Forensics; Challenges and Future Perspectives: A Review*, 16 ASIAN J. OF RSCH. IN COMPUT. SCI. 1, 7 (2023) .

²⁶ Egho-Promise, *supra* note 5 at 4–5, 10–11.

²⁷ *Beyond Tools*, *supra* note 1 at 15, 18.

²⁸ *Id.*

4.7 Cloud Security

Cloud Statistics¹

Security is another important aspect of cloud computing. Almost half of digital security incidents are cloud-based. Some surveys indicate that as many as 80 percent of companies have experienced at least one cloud security incident within the last year. On the other hand, some reports indicate that approximately 80 percent of organizations do not have a dedicated security team. Meanwhile, only 20 percent of organizations assess their overall cloud security in real time. This lack of focus on cloud security may be in part due to companies choosing to allocate their finite resources elsewhere. However, cloud security breaches can cost companies millions of dollars.

Lawyers also have room to improve their cloud-security stance. In a 2022 report, the ABA noted that the lack of security prioritization was a major concern in the profession. The report highlighted the “growing incidence of ransomware, other cyberattacks, threats of cyberwarfare, and the common knowledge that law firms are being targeted as weak points for the data of their clients.”²

Notwithstanding the serious need for security in the legal field, the security measures that have been taken so far are limited. For example, the 2022 ABA cloud survey showed that no more than 40 percent of respondents were taking any of the security measures listed in the survey. However, lawyers did indicate concern over confidentiality, data control and ownership, ethics, and vendor reputation, among other things. Down from 18 percent in the previous survey, 16 percent of respondents indicated that they were taking none of the security measures listed in the ABA survey. Further, only 41 percent of respondents reported that the adoption of cloud computing changed their internal security policies.

Similarly, only 27 percent indicated that they have evaluated vendor companies, even though 97 percent of respondents stated that vendor reputation was important in selecting vendor services.

Again, more studies are needed to show how Virginia compares to the rest of the country. Additional studies are also recommended to identify the gaps in the legal field's recognition of the importance of security and implementation, and to find ways to close them.

Cloud Security Concerns

A bird's-eye view of the top cloud security concerns includes data privacy, lack of cloud skills and expertise, and how to secure cloud resources.³ At the more granular level, these concerns manifest themselves in vulnerabilities such as insider risk, data storage by third parties, phishing, multi-tenant user environments, and other similar concerns discussed elsewhere throughout this Report.⁴

Of note, insider risk ranks extremely high.⁵ Insider risk is not limited to malicious employees who intentionally mean to harm a company or firm. More often the risk comes from well-intentioned employees who mistakenly misuse their digital privileges, or who inadvertently or negligently cause a breach in data security.⁶ A simple step that can be taken to help mitigate this risk is employee training and clear data access protocols and implementation—meaning only those with a real need to access certain data have access.

It is worth acknowledging that while cloud computing allows for easier data recovery, cloud computing is also reliant on the Internet.⁷ Thus, if the Internet goes down or becomes inaccessible, business may be interrupted for an indeterminable amount of time.⁸ Likewise, if the cloud provider's data is breached or lost, client data, attorney work product, and firm data may be lost or compromised.⁹ Having multiple backups can help mitigate the risk of loss, and other security measures such as encryption can help mitigate against data exposure. Attorneys should work closely with cybersecurity experts to ensure that appropriate measures are taken to mitigate these and other risks.

Vulnerabilities like insider risks are certainly not new to most companies, but risks like third-party management of data are in many ways unique to cloud computing. Regardless, security breaches are costly and often embarrassing, and such breaches may hold potential legal and ethical consequences for lawyers using the cloud, as well as for clients using the cloud. While legal experts may not be technical experts, the legal community has a vital role to play in security by ensuring that they properly prioritize cloud security in their practices and engage security experts as needed. The legal field should lead the way by incorporating security as a vital part of legal practice and by encouraging clients to do the same in their businesses.

¹ Information for the *Statistics* subsection is drawn primarily from *Cost of a Data Breach Report 2024*, IBM, <https://www.ibm.com/reports/data-breach> (last visited Jan. 15, 2025), and Dennis M. Kennedy, *2022 Cloud Computing TechReport*, AM. B. ASS'N. (Nov. 17, 2022), https://www.americanbar.org/groups/law_practice/resources/tech-report/2022/cloud-computing/?login.

² Kennedy, *supra* note **Error! Bookmark not defined.**

³ Caitlin Harris, *50 Cloud Security Stats You Should Know in 2025*, EXPERT INSIGHTS (Jan. 3, 2025), <https://expertinsights.com/insights/50-cloud-security-stats-you-should-know/>.

⁴ *Id.*

⁵ Annas Wasim Malik *et al.*, *Cloud Digital Forensics: Beyond Tools, Techniques and Challenges*, 24 SENSORS, no. 2 (Jan. 10, 2024), at 8, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10819343/pdf/sensors-24-00433.pdf> .

⁶ Anil Kumar Yadav Yanamala, *Emerging Challenges in Cloud Computing Security: A Comprehensive Review*, 4 INT'L J. OF ADVANCED ENG'G TECH. & INNOVATIONS 448, 450 (2024).

⁷ Micheal D.J. Eisenberg, *2023 Cloud Computing TechReport*, AM. B. ASS'N (Jan. 29, 2024).

⁸ *Id.*

⁹ *Id.*

4.8 General Data Security Frameworks & Cybersecurity Standards

Data security frameworks and cybersecurity standards are tools that may benefit attorneys to be aware of as they try to ensure data security. Firms may choose to implement security frameworks or cybersecurity standards as part of their cybersecurity efforts. Additionally, familiarity with security frameworks and cybersecurity standards will help lawyers ask more informed questions of vendors and help them hold vendors accountable.

Background on Security Frameworks and Cybersecurity Standards

Security frameworks establish policies and procedures for implementing and managing information.¹ A security framework can be thought of as the security plan to manage risk and reduce security gaps.²

Alongside security frameworks are cybersecurity standards. Cybersecurity standards are standards that are developed to improve the security of Information Technology (IT) infrastructures and networks.³ Cybersecurity standards can apply to products, systems, and processes, and create a reliable and consistent measurement of security, and generally incorporate best practices.⁴ Reliable cybersecurity standards are intended to be practical, keeping in mind costs and technological limitations, while still addressing user needs.⁵ Cybersecurity standards must also be verifiable so that products may be tested to see if the standards are met.⁶

Cybersecurity standards help with risk management and are often mandated by organizations or governments.⁷ But even where not mandated, these standards can be useful in deciding what security measures to implement or in assessing the state of security within an organization. Standards should generally be integrated with other security measures to ensure a robust set of security protections.⁸

IT security frameworks and cybersecurity standards can come from a host of sources, including private manufacturers and vendors,⁹ as well as governments. Some of the more prevalent IT security frameworks and cybersecurity standards include those developed by the National Institute of Standards and Technology (NIST) and the International Organization for Standardization (ISO). Another great resource for guidelines and best practices is the Cloud Security Alliance (CSA), an association that helps users and cloud service providers address security challenges.¹⁰ While many of the standards and frameworks are aimed at those implementing and managing cybersecurity measures, becoming familiar

with the vocabulary and institutions can help lawyers better know what questions to ask when selecting a security specialist for their firm.

NIST

NIST was founded in 1901 and functions under the U.S. Department of Commerce.¹¹ Over the years, NIST has evolved with the technology of the times and is now a major resource for a variety of technology-related matters, including cybersecurity standards and frameworks, risk management frameworks, and privacy frameworks.¹² Many NIST resources can be accessed at no cost on NIST's website.

The NIST cybersecurity framework 2.0 (CSF 2.0) provides guidance for cybersecurity risk management and may be applied to government agencies, as well as small or large businesses in any sector or industry and at any maturity level.¹³ CSF 2.0 is sector, country and technology neutral, which means that law firms and clients alike should be able to benefit from its guidance.¹⁴

The core of CSF 2.0 is six outcomes to be achieved and pursued concurrently. The core outcomes are govern, identify, protect, detect, respond, and recover.¹⁵ The CSF 2.0 discusses and defines in detail each of the six outcomes to be pursued.¹⁶ A suite of online resources complements the CSF 2.0 and describes how organizations can achieve the outcomes.¹⁷ The CSF 2.0 also employs the use of CSF organizational profiling as a tool to identify the organization's current or target cybersecurity profile, as well as CSF tiers to characterize the rigor of its risk governance and management practices.¹⁸

ISO

The International Organization for Standardization (ISO) was built on the idea of answering the age-old question of "what's the best way to do this?".¹⁹ The ISO has created a variety of standards across sectors and products. Some of the sectors include health and management, building and construction, environmental sustainability and IT and related technologies.²⁰ Standards are created by experts around the world who come together and agree on the "best way" of doing things.²¹ ISO's standards are considered reliable and high quality,²² and many come with certifications to prove compliance. However, most of ISO's information is not offered for free, but must be purchased.

The ISO has produced a variety of standards relevant to cybersecurity, including Information Technology – Artificial Intelligence – Guidance on Risk Management; Information Technology – Security Techniques; Information Security, Cybersecurity and Privacy Protection – Information Security Controls; and Information Security, Cybersecurity and Privacy Protection – Information Security Management Systems – Requirements (together, "Cybersecurity Requirements").²³

ISO's Cybersecurity Requirements standards are centered on the principles of confidentiality, information integrity and availability of data.²⁴ Similar to NIST's CSF 2.0 framework, the Cybersecurity Requirements standard can be applied to any organization and can be adapted to size.²⁵ Organizations can also become certified in the Cybersecurity Requirements standards to demonstrate to clients and stakeholders the organization's or firm's commitment and ability to manage information securely.²⁶

Application to Lawyers

While lawyers have a duty of confidentiality to their clients, there is no duty to implement any specific standard or framework to ensure the security and confidentiality of client information. Moreover, there are no standards or frameworks specifically tailored to law firms or those in the legal profession. While many standards and frameworks can be adapted to meet law firms' needs, regardless of size or area of practice, there is still left open the question of uniformity in standards amongst lawyers and law firms, as well as courts that utilize various technologies.

There are pros and cons to developing minimum standards or basic frameworks that must be adhered to by the legal profession. Autonomy of law firms and courts to choose security that is best for them is of prime importance. Additionally, implementing standards and frameworks can be costly, time consuming and can present many challenges throughout the course of implementation and management. However, setting the floor of minimum-security standards or basic security frameworks may help instill confidence in the public that their information will remain confidential. Minimum standards may clarify the expectations of how their sensitive, personal, sometimes incriminating information, stored on lawyers' technology, will be safeguarded.

Behind the rule of confidentiality is the notion that clients must be able to speak freely with their lawyers for lawyers to truly help their clients. The days of brick and mortar, and paper files, where information was as safe as the physical structures, are over. With a new evolving terrain of information storage, communication, and attorney work product, information is no longer as safe as the structure or individual handling it. Information is accessed in a variety of locations away from the office, accessed by third-party service providers, stored on servers often outside the city or even the country where a law firm is located, and even an attorney's work product no longer consists of mere paper. Whether the legal field can benefit from standards and frameworks specifically designed for it, and if so, how those should be defined, is a question presently faced, the answer to which will likely evolve.

¹ Paul Kirvan, *Top 12 IT Security Frameworks and Standards Explained*, TECH. TARGET NETWORK (Oct. 27, 2023), <https://www.techtarget.com/searchsecurity/tip/IT-security-frameworks-and-standards-Choosing-the-right-one>.

² *Id.*

³ Karen Scarfone, Dan Benigni & Tim Grance, *Cyber Security Standards*, NAT'L INST. OF STANDARDS & TECH., https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=152153 (last visited Jan. 15, 2023).

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ Annas Wasim Malik *et al.*, *Cloud Digital Forensics: Beyond Tools, Techniques and Challenges*, 24 *Sensors*, no. 2 Jan. 10, 2024, at 1, 14 [hereinafter *Beyond Tools*].

¹¹ *About NIST*, NAT'L INST. OF STANDARDS & TECH. (Jan. 11, 2022), <https://www.nist.gov/about-nist>.

¹² *Id.*

¹³ *The NIST Cybersecurity Framework (CSF) 2.0*, NAT'L INST. OF STANDARDS & TECH. (Feb. 26, 2024), <https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.29.pdf>.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Benefits of ISO Standards*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/benefits-of-standards.html> (last visited Jan. 15, 2025).

²⁰ *Id.*

²¹ *Standards*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/standards.html> (last visited Jan. 15, 2025).

²² *ISO: Global Standards for Trusted Goods and Services*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/home.html> (last visited Jan. 15, 2025).

²³ *IT and Related Technologies*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/sectors/it-technologies> (last visited Jan. 15, 2025).

²⁴ *ISO/IEC 27001:2022*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/standard/27001> (last visited Jan. 15, 2025).

²⁵ *Id.*

²⁶ *Id.*

4.9 Ethics in Cloud Computing

Cloud Computing

Fundamentally, lawyers have a duty of confidentiality to their clients.¹ However, the comments to the Rules of Professional Conduct make clear that it is outside the scope of the Rules whether a lawyer may or may not be required to take additional security steps to comply with certain state, federal, or other laws that may apply to them.² This makes sense given the rapid changes in technology and legal compliance. However, it is worth noting the possibility that there may be additional laws governing security steps that apply to lawyers, and lawyers should familiarize themselves and take precautions accordingly.

The Rules mandate an ethical obligation to implement “reasonable information security practices” for client data security, as well as “reasonable care” in communication and storage.³ However, what constitutes “reasonable” information security practices is not specified, though it does depend in part on the size of the firm.⁴ Likewise, “reasonable care” is also left undefined.

The Rules wisely recognize that what may constitute reasonable measures today may become outdated tomorrow.⁵ While the Rules permit utilization of technology professionals to help lawyers create a secure environment, they also state that *lawyers* should periodically review threats and technology and enhance security as needed.⁶ The results of the 2022 ABA survey suggest that more work is needed within the legal field to ensure that lawyers are reviewing threats and technology and enhancing security as needed.⁷

While Virginia’s Rules of Professional Conduct do not mandate any specific security steps, the Rules do provide suggested “reasonable methods” to help safeguard client data, including:

- (a) Periodic staff security training and evaluation programs, including precautions and procedures regarding data security;
- (b) Policies to address departing employees' future access to confidential firm data and return of electronically stored confidential data;
- (c) Procedures addressing security measures for access of third parties to stored information;
- (d) Procedures for both the backup and storage of firm data and steps to securely erase or wipe electronic data from computing devices before they are transferred, sold, or reused;
- (e) The use of strong passwords or other authentication measures to log on to their network, and the security of passwords and authentication measures; and
- (f) The use of hardware and/or software measures to prevent, detect, and respond to malicious software and activity.⁸

Other steps that lawyers may consider taking include confidentiality agreements, review of their providers' service level agreements, and data encryption.

As mentioned earlier, less than 50 percent of lawyers are implementing basic cloud security measures.⁹ This gap between what is required or suggested versus what is implemented shows that further action is needed, both to determine why the gap exists and how to close it. For example, further research may help determine whether the gap is due to the expense of security implementation, a lack of knowledge and familiarity with security practices, or something else. Similarly, research may help determine whether it would be useful to create a Virginia Bar cloud security "audit" team to help law firms identify security vulnerabilities and suggest solutions.

On a broader level, the legal field may consider whether the current Rules are sufficient to govern lawyers' obligations as they pertain to cloud services and cloud computing, or whether further guidance is recommended. For example, instead of mandating "reasonable care" or suggesting certain steps, perhaps it would be helpful to have the Rules define the parameters of when a law firm *must* engage a technology professional to implement basic security measures.

In addition, most attorneys employ SaaS cloud-based applications, relying on third parties to control and manage their clients' confidential data. Now is the time to determine whether it is necessary to develop rules specifically outlining lawyers' obligations concerning the use of third-party service providers. For instance, lawyers should consider whether there is an obligation to add special provisions to their contracts with service providers that outline both parties' responsibilities. Likewise, even if there are no direct rules about third-party service providers, adding basic terms to the Rules' suggested guidelines may help law firms.

Competency

Rule 1.1 of the Rules of Professional Conduct, the duty of competency, also briefly addresses technology in Comment 6: "Attention should be paid to the benefits and risks associated with relevant technology."¹⁰ The Rule does not mandate any specific adoption of technology, and the comment makes no

specific recommendations. This leaves each individual in the legal profession with the ability to make independent and autonomous decisions to determine the best technology adoptions and competencies specific to them.

The legal profession is adopting cloud computing alongside the rest of the world, though not quite as fast as many other industries. However, as some of the earlier quoted statistics indicate, the legal field could benefit from increased knowledge and competency in cloud computing. In addition, the legal field and, in turn, the public, would benefit from increased competency in sub-areas such as cloud forensics and cloud computing. While it may be a step too far to mandate such competency, the profession may consider whether it is also a step too far to suggest specific competencies or specific competency level minimums.

The benefits of cloud computing are clear, and they include streamlining processes, providing flexibility and scalability, and many other benefits as highlighted throughout this Report. For example, services like cloud computing enable client portals and virtual meetings. The integration of AI into cloud services allows for the automation of many basic functions, resulting in saved time and costs for clients, particularly for low-income or marginalized clients who may already be struggling to afford legal services. Thus, finding ways to expedite matters using cloud computing could be a way to make services more affordable and more accessible. Even simple things like allowing clients to upload their documents into portals can save a trip to the lawyer's office, which can often be difficult for low-income clients.

The legal profession is privileged to hold the public's trust, and with that comes the obligation to ensure equal access to justice as best it can. Given the benefits that can result from the adoption of cloud computing and integrated technologies and its potential to increase access to legal services, it is ripe to revisit the question of whether there is a minimum as to what technology should be adopted, or at least considered for adoption, and an accompanying floor of minimal competency.

However, there are some inherent security risks with cloud computing, which can result in, among other things, embarrassment, breaches in confidentiality, legal violations, and evidentiary issues. Furthermore, there is legitimate concern that the profession is becoming so reliant on cloud computing and integrated automation that work is taken for granted, and humans no longer check automated work. The subtle lull into reliance on technology becomes particularly concerning when assessing the impact on marginalized or vulnerable groups. The legal field must remain diligent to ensure that cloud computing technology does not become overly utilized and that automation becomes so prevalent that having human review, summation, attention, or other involvement does not become something only the socially or economically advantaged are likely to obtain.

Conclusion

The legal profession is increasingly adopting cloud computing, and with it, the profession is changing as it explores new ways to work. As cloud computing continues to advance and as its adoption in the legal field becomes even more widespread, the way the legal field functions, how law firms define themselves, and how cloud computing is used in the legal field will also continue to evolve. Cloud computing is even more widely adopted by the public that is served by the legal field, which also will

have an impact on the legal field as clients redefine their businesses, and with it, avenues of vulnerabilities and legal challenges.

The widespread adoption of cloud computing could bring important benefits, such as increased access to justice, increased access to information, greater efficiency, and improved collaboration. However, cloud computing also brings with it shared concerns that will need to be addressed by the legal field in the coming years. Cloud computing provides the legal profession with revolutionary possibilities. In return, it asks the legal field to be flexible and open to re-examining not only how it is presently leveraging this technology, but also what must change to appropriately regulate, securely implement, and maintain, and reliably and ethically use this incredible technology. The cloud computing revolution within the legal field has arrived, and how the legal profession leverages these benefits and faces these challenges will set the stage for the next generation of lawyers to come.

¹ VIRGINIA RULES OF PRO. RESP. r. 1.6 (Virginia State Bar 2024).

² VIRGINIA RULES OF PRO. RESP. r. 1.6 cmt.19a (Virginia State Bar 2024).

³ VIRGINIA RULES OF PRO. RESP. r. 1.6 cmt. 20 (Virginia State Bar 2024).

⁴ *Id.*

⁵ *Id.*

⁶ *Id.* (emphasis added).

⁷ Kennedy, *supra* note **Error! Bookmark not defined.**

⁸ VIRGINIA RULES OF PRO. RESP. r. 1.6 cmt. 21 (Virginia State Bar 2024).

⁹ Kennedy, *supra* note **Error! Bookmark not defined.**

¹⁰ VIRGINIA RULES OF PRO. RESP. r. 1.1 cmt. 6 (Virginia State Bar 2024).

5. Alternative Legal Service Providers

5.1 An Update on Alternative Legal Service Providers

Alternative legal service providers (ALSPs) are non-law-firm providers of legal services or support services. They provide specialized expertise in specific areas applicable to the practice of law. The growth of ALSPs has increased since the last Report. According to a 2023 Thomson Reuters report, ALSPs held a \$20.6 billion share of the legal market.

ALSPs can provide the following legal services:

- E-Discovery and document review (e.g., Relativity, Everlaw, DISCO)
- Contract review and management (e.g., Kira Systems, Lawgeex, Della)
- Due diligence and compliance (e.g., Elevate, DWF)
- Legal research (e.g., Kroll, Relativity)
- Intellectual property portfolio management (e.g., Clarivate, Anaqua)
- Litigation Support (e.g., Lexitas Legal)
- Business formation and management (e.g., Bizee)
- Administrative/secretarial support (e.g., Elevate, UnitedLex)
- Staffing services (e.g., Axiom, Elevate, UnitedLex, DWF)
- Freelance attorneys (e.g., UpWork, LAWCLERK, Hire an Esquire, Montage Legal, Priori Legal, EsquireX)

ALSPs can be structured in different ways. Independent ALSPs include both independent corporations and solo practitioners focusing on specific legal services, like document review. Large accounting and auditing firms may also provide legal support services, such as Deloitte, Ernst & Young, PricewaterhouseCoopers, and KPMG. Finally, ALSPs may be created and operated by law firms (i.e., law firm captives).

ALSPs can be beneficial for law firms and corporate legal departments that either do not have the expertise or do not want to spend their time on specialized tasks that ALSPs can perform. ALSPs typically provide legal services at lower costs than law firms and corporate legal departments, and more efficiently. As a result, it often makes financial sense for a law firm or legal department to use an ALSP rather than their personnel.

ALSPs can also adopt new technologies and master those technologies more quickly than law firms or corporate legal departments may be able to do. Indeed, with the advent and proliferation of AI, ALSPs are poised to offer an increasing range of legal services that can benefit practicing lawyers. While law firms and corporate legal departments may not easily adopt AI into their practice, ALSPs are beginning to focus their services on AI, offering AI-based services that can make many routine legal tasks much more efficient. For instance, ALSPs are using AI-driven contract analysis, legal analytics, and e-discovery. Law firms and corporate legal departments may begin turning more to these types of AI-based legal services rather than the traditional ALSP model.

ALSPs can also assist with the use of AI by providing quality control on AI's results. AI is currently limited, and ALSPs can review the results generated by AI to make sure they are accurate. AI cannot complete contract negotiations—lawyers must still do this. However, AI can help with identifying the terms to negotiate. AI also cannot determine which documents to withhold in a document production. However, AI can identify documents meeting certain criteria that lawyers can review for privilege. AI can narrow the scope of the work ALSPs may need to do, but a human touch is still necessary, and ALSPs can fill in these human gaps.

Although ALSPs can be very useful for lawyers, lawyers must still be sure to understand their limits. While ALSPs are often staffed by lawyers, the ALSPs themselves are not law firms, and many ethical duties do not apply to ALSPs. Because ALSPs typically only provide legal services for a discrete portion of a lawyer's work, they are not usually representing the lawyer's client (or even the lawyer using the ALSP). They are merely providing a service. As a result, the same ALSP could conceivably provide legal work for both sides of a lawsuit or negotiation. Lawyers considering using an ALSP may want to determine whether there could be negative consequences to the representation (or a conflict imputed to the lawyer) with an ALSP that provides work to both sides. Lawyers using ALSPs should also be sure to understand the security and confidentiality measures an ALSP has in place to ensure that any confidential client information that is shared with the ALSP is properly protected.

6. Technology & The Justice Gap

6.1 The Changing Practice of Law in Virginia: *Improving the Practice of Law and Access to Justice in Rural and Underserved Communities Through Technology*

The practice of law in Virginia is undergoing significant transformations, influenced by technological advancements and the evolving needs of the courts and the public. Amid a national shortage of lawyers, budget shortfalls, and spatial limitations, legal practitioners, courthouse administrators, legislative bodies, and the public are increasingly turning to technology as a potential solution. However, there is a marked disparity in access to and utilization of technology between urban, wealthier areas and their rural counterparts. This section explores these changes and the impacts they have on the legal landscape in Virginia.

Disparities in Broadband Access

In 2023, the Virginia General Assembly conducted a study to examine broadband access across the state.¹ The findings revealed significant portions of Southern and Southwestern Virginia suffer from a lack of broadband infrastructure.² This digital divide has profound implications for the equitable practice of law, as access to high-speed internet is crucial for leveraging modern technological tools. Despite these challenges, federal funding initiatives have made strides in building broadband systems in these regions, providing a much-needed lifeline to underserved communities.

Technological Advancements in Urban and Wealthier Counties

Wealthier and urban counties in Virginia have taken proactive steps to modernize their courtrooms and legal practices. These efforts include the digitization of legal files, enabling remote filing of documents, and allowing attorneys to view court documents from remote locations. Courthouse terminals are equipped with hardware such as screens, wireless remotes, Elmo devices, and audio and video players. These facilities have also made clean laptops available for use. Such advancements not only streamline legal processes but also enhance the overall efficiency and accessibility of legal services in these areas.

Remote Filing and Document Viewing

The implementation of remote filing and document viewing systems is one of the most significant advancements in urban and wealthier counties. These systems allow attorneys to file legal documents electronically, reducing the need for physical presence in the courthouse. Additionally, lawyers can use remote document viewing to access case files and court records from their offices or homes, enhancing their ability to prepare for cases and respond to legal matters promptly. This level of accessibility is particularly beneficial for attorneys with high caseloads or those who practice in multiple jurisdictions.

Enhanced Courtroom Technology

The integration of advanced technology in courtrooms has revolutionized the way legal proceedings are conducted. Screens, wireless remotes, Elmo devices, and audio and video players facilitate the presentation of evidence and arguments, making trials more efficient and engaging. Clean laptops provided in courthouses ensure that lawyers have the necessary tools to access digital files and present their cases effectively. However, these technological enhancements are not uniformly available across all counties, leading to disparities in the quality of legal proceedings and access to justice.

Challenges in Rural Areas

Rural courthouses, particularly those without public transportation options, face unique challenges in providing access to legal services. Poor and marginalized communities face exacerbated difficulties due to the lack of broadband access and technological infrastructure in these areas. Without reliable internet connectivity, rural residents struggle to access legal information, file documents, and communicate with their attorneys remotely.³ This digital divide creates significant barriers to justice and limits the ability of rural communities to participate fully in the legal system.⁴

Impact on Lawyers and Clients

Lawyers practicing in rural areas are also affected by the digital divide. Attorneys from neighboring counties often spend hours traveling to rural courthouses, a time-consuming and costly endeavor. The lack of technological infrastructure hampers their ability to file documents electronically, view case files remotely, and meet with clients virtually. Such barriers not only reduce the efficiency of legal services but also limit the availability of legal representation for rural residents. Bridging this gap requires concerted efforts to improve broadband access and invest in technological infrastructure in rural areas.

Federal and State Initiatives

Recognizing the need to address these disparities, federal and state governments have launched initiatives to enhance broadband access and technological infrastructure in rural areas.⁵ Federal funding is instrumental in building broadband systems in Southern and Southwestern Virginia, providing the foundation for improved connectivity.⁶ State programs and grants have also supported the modernization of rural courthouses, enabling them to adopt digital filing systems and equip courtrooms with essential technology.⁷ These initiatives are crucial for ensuring that all Virginians, regardless of their location, have access to efficient and equitable legal services.

The Path Forward

As Virginia continues to navigate the challenges of the digital divide, it is essential to prioritize investments in technological infrastructure and broadband access. Ensuring that rural courthouses and underserved communities have the necessary tools to participate fully in the legal system is a matter of justice and equity. Policymakers, legal practitioners, and community leaders must work together to address these disparities and create a more inclusive legal landscape.

Policy Recommendations

To achieve this goal, several policy recommendations can be considered:

- **Expand Broadband Access:** Increase funding for broadband infrastructure projects in rural areas to ensure reliable internet connectivity for all residents.
- **Modernize Rural Courthouses:** Invest in the technological infrastructure of rural courthouses to enable remote filing, document viewing, and virtual court proceedings.
- **Provide Training and Support:** Offer training programs and technical support for legal practitioners and courthouse staff to effectively utilize new technologies.
- **Encourage Collaboration:** Foster collaboration between urban and rural legal communities to share resources, expertise, and best practices for leveraging technology in legal services.
- **Use state resources for upfront costs associated with improving technology for rural courthouses.**

Conclusion

The practice of law in Virginia is at a crossroads, with technology offering unprecedented opportunities to enhance legal services and access to justice. However, disparities in technological infrastructure and broadband access threaten to leave rural and underserved communities behind. By investing in technological advancements and ensuring equitable access, Virginia can create a more inclusive and efficient legal system that serves all its residents. The path forward requires a collective commitment to bridging the digital divide and harnessing the power of technology for the benefit of the entire Commonwealth.

¹ JOINT LEGIS. AUDIT & REV. COMM’N, BROADBAND DEPLOYMENT IN VIRGINIA (2024) [hereinafter *JLARC*].

² *Id.*

³ J.J. Prescott, *Improving Access to Justice in State Courts with Platform Technology*, 70 VAND. L. REV. 1993, 1996-98 (2018).

⁴ *Id.*

⁵ *JLARC*, *supra* note 1.

⁶ *Id.*

⁷ *Community Facilities Direct Loan & Grant Program*, U.S. DEP’T OF AGRIC., RURAL DEV., <https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program> (last visited Apr. 7, 2025). See Alex Zoellner, *Rural Illinois County Snags \$1M Grant for Tech Upgrades*, GOV’T TECH. (Mar. 1, 2024), <https://www.govtech.com/public-safety/rural-illinois-county-snags-1m-grant-for-tech-upgrades> (noting funds were provided by the 2024 Illinois Court Technology Modernization Program to modernize a rural courthouse); Kathleen Maloney, *Funds for Technology Upgrades Awarded to Local Courts*, CT. NEWS OHIO (June 6, 2024), https://courtnewsOhio.gov/happening/2024/techGrants_060624.asp (noting Ohio Supreme Court provided funds to modernize courthouses).

* Special Feature!!*

This special feature takes a closer look at the impact of prohibiting pro-se litigants from bringing their phones into court.

6.2 Your Phone, or Your Case? The State of Personal Electronic Device Policy in Virginia Courts

Imagine you are sued for eviction after refusing to pay rent because your apartment is infested with rats. You are not an attorney, and you have not hired one. But you take pictures on your phone of the rats, and you feel ready to explain to the judge that you have the funds to pay your rent but did not do so because of the rats. You take the bus to court. At security, you are told for the first time that you may not bring your phone into the courthouse. This courthouse has no lockers to store your phone. Your options are to keep your phone and likely lose your apartment by suffering a default judgment by failing to appear, or to toss your phone in the bushes outside and hope it is still there in an hour or two. Assuming you toss the phone, you now walk into court shaken because the evidence you planned to rely on is now in the bushes with your phone.

Attorneys rely on their smartphones to communicate, to stay organized, and occasionally to share evidence such as pictures. So do self-represented litigants. But in most courthouses in Virginia, attorneys stroll through security with their phones, while self-represented litigants must store their phones in lockers, in their vehicles, or even in the bushes outside the courthouse.

A recent report by University of Richmond Law students Jackson Pope and Matthew Wright sheds light on the inconsistency and lack of transparency in courthouse rules on personal electronic devices (PEDs) in Virginia.¹ After surveying dozens of Virginia General District Courts, Pope and Wright found that “courthouses prohibiting possession of Portable Electronic Devices do not have uniform policies, and those policies are typically difficult to find.”²

Many jurisdictions, such as Richmond, Henrico, and Chesterfield, disallow PEDs inside security but provide free lockers for people to store them outside security. Norfolk and Virginia Beach charge a quarter for the luxury of phone storage.³ Rural jurisdictions are less likely to provide storage even when they disallow PEDs, although litigants at rural courthouses would usually arrive by car, providing de facto phone storage.⁴

Fairfax is the rare Virginia jurisdiction that allows PEDs in the courthouse, permits non-lawyers to use phones in common areas, and allows litigants to share evidence on their phone with permission from the judge.⁵ Some jurisdictions, such as Pulaski, disallow cell phones unless a litigant notifies the bailiff that there is information on her phone that she needs for her case. In these jurisdictions, the bailiff has discretion to allow or disallow the phone, apparently delegating the judge’s power to rule on the admissibility of evidence to the bailiff.⁶

In most jurisdictions, it is unclear before you arrive at the courthouse whether you can bring in your phone.⁷ Although some jurisdictions note their policies on their website, many do not, and some bury the lead in a distant corner of the website.⁸

In 2018, the Supreme Court of Virginia published a “Model Policy for the Use of Portable Electronic Devices in Courthouses and Courtrooms.”⁹ This recommended policy would allow PEDs in courthouses, allow phone use in common areas such as lobbies and hallways, and only allow phones in courtrooms at the presiding judge’s discretion.¹⁰ But as of this writing, seven years later, few, if any, Virginia jurisdictions have adopted the policy suggested by the state’s Supreme Court.

South Carolina’s Supreme Court took another approach and issued a blanket administrative order allowing PEDs in all state courts, with some restrictions, and with phone use in the courtroom allowed at the sitting judge’s discretion.¹¹ Pope and Wright’s interviews with a wide array of stakeholders uncovered a “general consensus” that the Virginia Supreme Court lacked the authority to issue such a mandatory policy.¹² But neither the interviewees nor the authors could find any legal authority supporting or refuting this.¹³

Adding to the confusion about roles, Pope and Wright observed through interviews that local chief judges and local sheriffs often point to each other as the decision-maker for courthouse cellphone policies.¹⁴ This exercise in finger-pointing diffuses responsibility and obfuscates the path forward. Pope and Wright’s suggested remedy is for the General Assembly to pass legislation that empowers local chief judges to set courthouse PED policies. Legislation should also require such policies to be posted on the court’s website and at the courthouse entrance.¹⁵

But if the situation needs a legislative solution, why not go further and allow cellphones in courthouses statewide? Pope and Wright found that many sheriffs oppose removing their restrictions, fearing the additional burden of monitoring and enforcing inappropriate cellphone use inside the courthouse.¹⁶ Sheriffs, judges, and the public may also have legitimate security and privacy concerns: imagine your testimony about living with rats being livestreamed on Facebook by your nosy neighbor.¹⁷

Virginia needs a new social contract for cellphone use in its courts. Bans treat adults like unruly children who do not know how to act respectfully in official spaces. Bans are prejudicial to self-represented litigants, who already face an uneven playing field against represented parties. Bans without storage create a due process dilemma: your phone or your case?

The General Assembly should codify the Supreme Court of Virginia’s Model Policy. Until then, all of us can advocate for our local jurisdictions to adopt it and communicate the policy to the public.

¹ Jackson Pope & Matthew Wright, *Calling for Consistency: Implementing a Uniform Courthouse Cell Phone Policy in Virginia* (2025), SOC. SCI. RSCH. NETWORK (forthcoming 2025) (on file with authors).

² *Id.* (manuscript at 7).

³ *Id.* (manuscript at 14).

⁴ *Id.* (manuscript at 4-5, 20).

⁵ *Id.* (manuscript at 5).

⁶ *Id.* (manuscript at 4).

⁷ *Id.* (manuscript at 12-14).

⁸ *Id.*

⁹ Letter from C.J. Donald W. Lemons, to Chief Judges of All Circuit & District Courts, Model Pol’y for the Use of Portable Electronic Devices in Courthouses & Courtrooms, Sup. Ct. of Virginia (Dec. 14, 2018).

¹⁰ *Id.*

¹¹ SUP. CT. OF S.C., ADMINISTRATIVE ORDER, RE: ELECTRONIC DEVICES IN COURTHOUSES (2024)

¹² Pope & Wright, *supra* note 1 (manuscript at 22).

¹³ *Id.*

¹⁴ *Id.* (manuscript at 8-10).

¹⁵ *Id.* (manuscript at 21-27).

¹⁶ *Id.* (manuscript at 20).

¹⁷ *Id.*

7. Laws Pertaining to Legal Technology

Just as technology is constantly updating, so are the laws about technology. It is beyond the scope of this Report to review all technology bills that have been passed in Virginia or all caselaw. Rather, this section samples some of the types of laws in effect and highlights the importance of staying abreast of legislative changes.

7.1 Legislative Technology Updates

This subsection of the Report focuses on select bills passed during the 2024 General Assembly sessions that the Governor signed. While many of them are directed at state government, schools, and the protection of students, the below are examples of laws that are of particular importance to lawyers or their clients.

Litigation

SB 157/HB 264 (identical bills)

These bills allow any legal notice (as well as local ordinances, resolutions, and advertisements) required by law to be published in a newspaper to be published in an online-only news publication instead. There are several restrictions on what kind of online publication suffices. Chiefly, these involve requirements that the publication cover local issues and employ local staff.

HB 1338

Now, notices that would otherwise have to be posted at the front door of a courthouse can instead be posted on a locality's governmental website or the court's website. The act even allows the posting to be on the website of the sheriff or the commissioner of accounts.

HB 1515

This bill would have required Commonwealth's Attorneys to provide discovery materials to defendants by electronic means. It passed both houses but was narrowly vetoed by the Governor this year. Expect it to be reintroduced in future sessions.

Crimes

HB 926 and 697

The General Assembly expanded the ambit of the crime of unlawful dissemination or sale of images of a person to include not only those images depicting someone nude or semi-nude, but also those where there is no nudity, but the image is still “obscene.” At the same time, the Senate voted down a bill that would have criminalized and created a cause of action against those who use artificial intelligence to create such images or otherwise violate any law using AI.

HB 1217

Allows a court to order the disclosure of electronic communication subscriber data to law enforcement in situations where an adult is “critically” missing. Previously, such records could only be disclosed to law enforcement involving a grand jury subpoena, a search warrant, subscriber consent, an ongoing criminal investigation, or in cases of a missing child, incapacitated person, or senior adult.

HB 1443

Makes it a class 1 misdemeanor for a defendant to contact a juror, after a jury trial, to harass, threaten, or intimidate. Not strictly technological, but noteworthy because such contact is likely to be through social media or other electronic communication.

Public Records and Public Meetings

SB 734/HB 894

These bills allow 50 percent of a public body’s meetings, rounding up, to be conducted electronically, up from 25 percent. However, now a member whose visual feed is disconnected for any reason, or whose audio feed is voluntarily disconnected, is considered absent for purposes of maintaining quorum.

SB 244/HB 816

Retroactive to March 20, 2020, these bills make legal the fully electronic public meetings conducted during the Governor-declared Covid-19 emergency. This overturns the 2023 Virginia Supreme Court case *Berry v. Board of Supervisors*.

SB 324

This caps the amount that a public body can charge for producing records at the hourly rate of the lowest-paid employee who could do the work, or \$40 per hour. It allows the public body to seek a court order allowing it to charge a higher per-hour fee.

HB 1496

This bill requires all law enforcement agencies to provide the Department of Criminal Justice Services with an annual list of all surveillance technologies procured by the agency. This includes hardware or software that collects, captures, records, retains, processes, analyzes, etc., the information or communications of a specific person, group, or place.

After November 1, when the first annual lists are due, practitioners and other interested parties should be able to find out directly from DCJS which surveillance technology each law-enforcement agency in the state employs.

Notarization

HB 1372

Allows notaries to authenticate an individual's identity by use of a "knowledge-based authentication assessment," where the notary, typically via an online service, uses public or private data sources to subject the individual to a quiz about his or her personal history. These are questions such as "At which of the following addresses have you lived?" or "Which of the following cars have you owned?"

Web Hosting and Online Personal Information

SB 540/HB 991 (identical bills)

These bills allow data centers located in Virginia to host lottery game providers from other states. The lottery games must be authorized and regulated by the other state and provided exclusively to those who are physically within that other state when wagering. The language refers to "another state or jurisdiction." "Jurisdiction" isn't defined in the statute, but its use alongside and in addition to "state" implies that other countries are contemplated.

SB 361/HB 707 (identical bills)

These amend the Consumer Data Protection Act to curtail the circumstances and time where a personal data controller may process the personal information or location of a child. A child is defined to

be younger than 13, and a personal data controller is a person who decides how and why data that is “reasonably linkable” to an identifiable person is used. SB 361 allows the personal data controller to nevertheless take the prohibited actions if it obtains parental consent.

7.2 A Review of the Evolving Case Law on Computer Crimes

The intersection of cybersecurity and the practice of law has undergone significant transformation in recent years, driven by technological advancements and legislative and judicial responses to emerging threats. The rapid rise of artificial intelligence and large language models has presented legal professionals, legislatures, and courts with the challenging task of adapting traditional legal principles to modern technological realities.

The convergence of cybersecurity and the practice of law presents both challenges and opportunities for legal professionals. Success in this ever-evolving digital landscape requires a commitment to staying up to date with the latest changes in the law, as well as the latest technological developments and emerging best practices.

The rise in computer crimes and the increasing sophistication of cyber criminals mean that legal professionals must be on high alert when it comes to safeguarding the data of their law firms and protecting their clients’ privileged materials. Indeed, legal practitioners have an ethical obligation to maintain current knowledge of changing cybersecurity requirements, implement robust security measures in their legal practices, develop competence in advising clients on cybersecurity matters, and establish clear protocols for incident response and client communication.

Computer Crimes at the Federal Level

The Federal Computer Fraud and Abuse Act of 1986 (CFAA) penalizes anyone who “intentionally accesses a computer without authorization or exceeds authorized access,” and thereby obtains computer information.¹ The CFAA differentiates between those “intentionally accessing a computer without authorization” and those “exceeding authorized access.”² The CFAA specifically defines “exceeds authorized access” as “to access a computer without authorization and . . . use such access to obtain or alter information in the computer that the accessor is not entitled so to obtain or alter.”³

In *Van Buren v. United States*, 593 U.S. 374, 141 S. Ct. 1648, 210 L.Ed.2d 26 (2021), the Supreme Court of the United States interpreted the CFAA. The Court considered whether a police sergeant violated federal law when, in contravention of department policy, he used a law enforcement license plate database to search for information on an acquaintance’s romantic interest in exchange for \$5,000.⁴ The U.S. Supreme Court held that, to violate the law, a person must access information “that a person is not entitled to obtain by using a computer that he is authorized to access.”⁵

The U.S. Supreme Court concluded that the federal statute did “not cover those who, like Van Buren, have improper motives for obtaining information that is otherwise available to them.”⁶ In so

ruling, the Court took a narrow approach to computer crimes by holding that it is not a violation of the CFAA to use a computer for impermissible purposes, so long as the user is authorized to access the computer.⁷

Computer Crimes in Virginia

The Virginia Computer Crimes Act (VCCA), Va. Code § 18.2-152.1 *et seq.*, much like the federal CFAA, prohibits a person from using a computer or computer network “without authority” to obtain property or services by false pretenses, embezzle or commit larceny, or convert the property of another.⁸ Under the VCCA, a person is “without authority” when “he knows or reasonably should know that he has no right, agreement, or permission or acts in a manner knowingly exceeding such right, agreement, or permission.”⁹

To combat computer crimes, the Office of the Virginia Attorney General has a dedicated Computer Crimes Section. This section investigates and prosecutes cybercriminals for offenses under the VCCA, as well as under the Virginia identity theft statutes and the Virginia child exploitation statutes.¹⁰ The section also engages Virginia’s citizens through its comprehensive educational programs concerning Internet safety and cybersecurity.

In *Wallace v. Commonwealth*, 79 Va. App. 455, 463 (2024) (*en banc*), the Court of Appeals of Virginia recently interpreted the VCCA. The Court considered “whether a person authorized to use a computer necessarily exceeds that authority when they use the computer to obtain money by false pretenses.”¹¹ In that case, the defendant was convicted of computer fraud, obtaining money by false pretenses, uttering forged checks, and failing to appear in court, after she deposited forged checks in an ATM owned by her bank.

Wallace appealed, arguing that the evidence was insufficient to sustain each of her convictions. A panel of the Court of Appeals, with one judge dissenting, determined that the evidence was sufficient to affirm her convictions on all charges except for four counts of computer fraud.¹² Further, it determined that the evidence was insufficient to prove that the defendant used the ATM “without authority.”¹³

Upon review *en banc*, the Court of Appeals, with three judges dissenting, determined that the evidence presented at trial failed to prove that the defendant was “without authority” when she accessed her bank account via an ATM and deposited the forged checks.¹⁴ The majority emphasized that “[b]y depositing a forged check, she used the ATM for an unlawful *purpose*, but not in an unauthorized *manner*.”¹⁵ The majority concluded that the defendant’s use was not “without authority” because she was a bank customer who “had authority to perform specific functions on the ATM,” such as depositing checks, withdrawing cash, and accessing her account.¹⁶ The dissent would have held that the defendant used the ATM, which the dissent determined to be a “computer” as defined in the VCCA, “without authority.”¹⁷ The dissent reasoned that “she knowingly acted in a manner exceeding her right or permission to use the ATM owned by BB&T” when she deposited and cashed fraudulent checks at the ATM.¹⁸

On November 21, 2024, the Supreme Court of Virginia reversed the judgment of the Court of Appeals of Virginia in *Wallace* for the reasons stated in the dissenting opinion.¹⁹ In doing so, the Court adopted a more expansive interpretation of the VCCA, whereby authorized users of a computer or

computer network could be punished under the VCAA if they use that computer or computer network for an unauthorized purpose. This interpretation somewhat contrasts with the U.S. Supreme Court’s more narrow interpretation of the federal CFAA.

Some have expressed concerns that, although the Virginia Supreme Court’s decision in *Wallace* “strengthens safeguards for many businesses, the decision risks overbroad application of the state’s computer crime laws to commonplace internet behavior and ethical hackers.” Critics reason that “good faith security research could be misinterpreted as computer trespass or other computer crimes, potentially leading to criminal and civil liability under the VCCA.”²⁰ These skeptics of the Court’s ruling contend that the decision “risks a chilling effect that deters researchers from pursuing their work, potentially allowing vulnerability to go undetected and unreported.”²¹

¹ 18 U.S.C. § 1030(a)(2).

² *Id.*

³ 18 U.S.C. § 1030(e)(6).

⁴ *Van Buren*, 593 U.S. at 374.

⁵ *Id.* at 384.

⁶ *Id.* at 378.

⁷ Harley Geiger & Tanvi Chopra, *Virginia Supreme Court Expands Computer Crime Law, Raising Legal Issues for Ethical Hackers*, CTR. FOR CYBERSECURITY POL’Y & L. BLOG (Jan. 6, 2025), <https://www.centerforcybersecuritypolicy.org>.

⁸ VA. CODE § 18.2-152.3.

⁹ VA. CODE § 18.2-152.2.

¹⁰ *Welcome to the Attorney General of Virginia’s Computer Site*, ATT’Y GEN. OF VA., <https://www.oag.state.va.us/CCSWeb2/> (last visited Apr. 28, 2025).

¹¹ *Id.* at 463.

¹² *Wallace v. Commonwealth*, 76 Va. App. 696 (2023).

¹³ *Id.*

¹⁴ *Wallace v. Commonwealth*, 79 Va. App. 455 (2024).

¹⁵ *Id.* at 471.

¹⁶ *Id.*

¹⁷ *Id.* at 476.

¹⁸ *Id.* at 478.

¹⁹ *Commonwealth v. Wallace*, 907 S.E.2d 804 (Mem) (2024).

²⁰ Geiger & Chopra, *supra* note 7.

²¹ *Id.*

8. The Future of Law

Special Feature

8.1 Predictions on the Future of Practicing Law in the Commonwealth of Virginia

The legal profession in Virginia is on the cusp of significant transformation. As we look towards the future, several key trends and predictions emerge that will shape the practice of law. These changes are driven by advancements in technology, legal needs of citizens, and the understanding that our courts and legal system need to evolve to meet the needs of citizens. This special feature explores these concepts, offering perspectives from members of the Technology and Future Practice of Law Committee on what lies ahead for the legal community in Virginia.

Technology in Legal Practice

1. **AI and Legal Assistance.** Artificial Intelligence is poised to revolutionize the legal field. AI will provide free legal answers to many self-represented litigants, potentially increasing the number of people coming to court to litigate their cases. Legal aid programs are expected to create dedicated AI-powered online tools to provide advice and counsel, which will be more effective than generic chatbots. There may be a move in some state courts to curtail the use of AI in the legal field, whether used by lawyers or consumers. However, Committee members predict that Virginia will not curtail such use but will instead regulate it through court rules and the current Rules of Professional Conduct.
2. **Generative AI and Transactional Law.** Generative AI will significantly impact lawyers practicing in corporate and transactional areas, such as drafting contracts, deeds, intellectual property documents, and wills/trusts. The efficiency AI is expected to bring will reduce the time required for these tasks, potentially challenging lawyers to meet their billable hours. On the other hand, Committee members predict that litigators will benefit from AI in legal research, drafting, and analyzing briefs, without the same concerns of replacement.
3. **Challenges with AI in Legal Practice.** Although generative AI and other technologies will be able to provide legal services in the corporate and transactional areas, Committee members predict that there will be challenges with the public consulting AI “lawyers” and receiving faulty legal information. This will require the legal profession to maintain client trust and address the broader public trust.
4. **Challenges with AI in Service Delivery.** Considering the power of generative AI, lawyers will struggle but will successfully transition their economic model. Models may evolve from solely the billable hour to a hybrid structure of flat fees and hourly billing, depending on the service or task provided. For example, lawyers would charge a flat fee for document generation for a matter, but they would charge on an hourly basis for counseling clients, negotiations, and developing case strategy. More detail on this phenomenon is discussed in the AI and the Billable Hour: Foreshadowing AI’s Potential Impacts on Law Firm Fee Structures section of this Report.
5. **Changes in Legal Education.** In response to the capabilities of AI, law school curricula will change to train students on the skills needed in firms to evolve with this technology. Law

graduates will possess more tech skills than ever before to supplement the skills of lawyers currently in law firms across the Commonwealth

6. **Digital Evidence and Blockchain.** In the next five years, the Supreme Court of Virginia will establish the nation’s first “Digital Evidence Authentication Protocol” (DEAP) in response to deepfake evidence in high-profile cases. This protocol will require all AI-generated or AI-modified content to carry a blockchain-based verification certificate, fundamentally changing how family law practitioners handle social media evidence.
7. **AI-Powered Mobile Legal Clinics.** The Commonwealth of Virginia will, over the next several years, pilot a “Rural Justice Initiative” with AI-powered mobile legal clinics serving rural communities. These clinics will combine AI document preparation with remote attorney supervision, focusing on estate planning, family law, and small business formation.
8. **Hybrid Bar Examination.** By 2029, Virginia will implement a “Hybrid Bar Examination” testing traditional legal knowledge alongside practical technology skills. This will include proficiency in AI-assisted legal research, predictive analytics, and automated document review, with mandatory AI ethics training for all newly admitted attorneys.
9. **Algorithmic Justice Transparency.** Within the next five years, the Virginia General Assembly will pass the “Algorithmic Justice Transparency Act,” requiring state courts to maintain public records of AI tool usage in judicial decision-making. This act will establish an oversight board to monitor AI use and publish reports on algorithmic bias detection and mitigation.
10. **Legal Practice Cloud Platform.** Within the next ten years, Virginia will launch a state-sponsored “Legal Practice Cloud” platform providing licensed attorneys with secure access to standardized AI tools, document automation systems, and practice management software. This platform will level the technological playing field between large and small firms and facilitate secure client communication and document sharing.

Regulatory Changes Impacting Practice

1. **Non-Lawyer Legal Work.** There will be more legal work for non-lawyers, both human and artificial. More states will adopt rules allowing non-lawyers to practice law to assist those in need of legal help who cannot afford a lawyer. This will address the immense need for legal help in eviction cases, divorce matters, and other matters. Other states will follow Arizona in allowing limited non-lawyer ownership of law firms, providing a regulatory platform for those firms to service clients in federal legal matters from across state lines. State bar associations and state supreme courts will be under pressure to reexamine their own regulatory rules to allow alternative legal workers, considering these changes.
2. **Public Defender's Office.** The creation of a statewide Public Defender's Office will address the shortage of attorneys on criminal court-appointed lists. Each circuit will have an office with a staff equivalent to the Commonwealth's Attorneys' Offices, with regional pay adjustments.
3. **Civil/GAL Court Appointed Lists.** An office within the Family Court will be established to provide counsel and guardians ad litem in civil cases involving indigent parties. Costs will be

assessed to non-indigent parties, with regional pay adjustments for appointed counsel and guardians ad litem.

Government Changes Impacting Practice:

Committee members predict that the growing ability of governmental entities to use AI in regulatory compliance efforts will lead to increases in legal work. It will also lead to an increase in regulatory compliance management for those firms that position themselves in this growing area of law.

Conclusion

The future of practicing law in the Commonwealth of Virginia is marked by significant advancements in technology and potential changes in the court system to address the needs of legal consumers. These changes could significantly improve the efficiency and accessibility of legal services, benefiting both legal professionals and the public. As the Commonwealth embraces these innovations, it is crucial to maintain a balance between technological advancements and the core values of the legal profession, ensuring justice and fairness for all.

Attribution: Committee members Lisa Brook, Zoë Dye, John Koehler, Seth Lindberg, Austin Palmore, David Tisel, and Reid Trautz contributed their perspectives to one or more of the predictions shared in this special feature. The predictions are based on their professional experience and knowledge, and not necessarily shared by the Virginia State Bar or the Supreme Court of Virginia.

9. The Future of Virginia's Lawyers

9.1 The Changing Faces of the Legal Profession

The demographics of the legal profession have changed over the last several decades. Change in demographics can also be anticipated to impact the way lawyers practice. The changes will also impact the skills expected of lawyers.

According to the U.S. Bureau of Labor Statistics, employment of lawyers is projected to grow by 5 percent between 2023 and 2033, from an estimated 859,000 lawyers nationwide in 2023 to a projected total of 903,300 lawyers nationwide in 2033.¹ The projected growth is about as fast as the average for all occupations. The U.S. Bureau of Labor Statistics projects approximately 35,600 openings for lawyers nationwide each year, on average, over the next eight years.² Many of these openings are expected to come from lawyers changing occupations or exiting the labor force, such as retirement. As of May 2023, there were about 17,040 lawyers across Virginia, with the highest concentrations found in Northern Virginia, Richmond, and Hampton Roads areas.³

The American Bar Association's 2024 National Lawyer Population Survey revealed that there are more than 1.3 million lawyers in the United States.⁴ Virginia has 24,120 resident lawyers, or 2.77 lawyers per 1,000 residents.⁵ The number of lawyers nationwide has grown by more than 41,000 from 2014 to 2024, an increase of 3.2 percent.⁶ However, the number of active lawyers nationwide has dipped slightly in recent years, from 1.352 million in 2019 to 1.322 million in 2024.⁷ Moreover, the growth of the legal profession has slowed in the 21st century compared to the previous century.⁸

Although the precise number of lawyers may vary, there are significant demographic changes in the legal profession. These trends are expected to continue and even accelerate in the years to come. According to the 2024 ABA Survey, the percentage of lawyers who are women has grown from 36 percent in 2014 to 41 percent in 2024.⁹ Indeed, U.S. law schools award more juris doctor degrees to women than men every year, while older lawyers, predominantly men, are retiring.¹⁰ Women have outnumbered men in law schools since 2016.¹¹ In 2023, 56 percent of all students in ABA-accredited law schools were female.¹² For the first time, women now even outnumber men as law firm associates, with 50.3 percent of all law firm associates in 2023 being female.¹³

The percentage of lawyers of color is also growing, having nearly doubled in the past decade from 12 percent in 2014 to 23 percent in 2024.¹⁴ According to the National Association for Law Placement Report on Diversity in U.S. Law Firms (NALP Report), the percentage of law firm partners who are lawyers of color rose to 12.73 percent in 2024.¹⁵ That is double the number in 2009, and is significantly more than the 2.14 percent in 1991.¹⁶ The percentage is even higher for associates, with 31.46 percent of all associates being lawyers of color in 2023, up from 19.53 percent in 2010.¹⁷

The same is true for LGBTQ lawyers at American law firms. The NALP Report found that as of 2024, 5.13 percent of all lawyers in law firms describe themselves as LGBTQ, up from 4.53 percent in 2023.¹⁸ Among law firm associates, 7.75 percent reported that they are LGBTQ in 2024, more than double the number reported in 2018.¹⁹ The percentage is even higher among law firm summer associates, with 12.92 percent describing themselves as LGBTQ in 2024.²⁰

The median age of lawyers, on the other hand, has mostly held steady in the past decade, with the median age of lawyers being 44 years old in 2003. In 2023, the median age was 46 years old.²¹ In contrast,

the median age for all U.S. workers in 2023 was 42 years old.²² The legal profession already skews older than most occupations in the U.S., as there are very few lawyers younger than 25 years old, and there are many lawyers who work past the age of 65 years old.²³ Nearly 14 percent of all lawyers are 65 or older, compared to about 7 percent of all U.S. workers who are 65 or older.²⁴ The typical lawyer was younger several decade ago compared to today, with the median age for all U.S. lawyers being 39 years old in 1980.²⁵

As Baby Boomers, the generation born between 1946 and 1964, reach and surpass the typical retirement age of 65 years old, an increasingly diverse demographic of young lawyers will begin to take the place of these experienced lawyers. The legal profession is set to experience dual pressures from the delayed retirements of Baby Boomers and an influx of Millennials, the generation born between 1981 and 1996, and Zoomers, the generation born between 1997 and 2012. This merging will create a multi-generational workplace of lawyers with distinct approaches to legal practice.

While seasoned lawyers may look askance at modern technologies, this new generation of lawyers has spent their lives largely absorbed in the technological age, from smartphones and applications to remote learning and ChatGPT. As such, young lawyers will need to possess the research, writing, and critical thinking skills expected of all competent lawyers. Additionally, they will be expected to be experts in artificial intelligence and other modern technologies that emerge in the coming years. Furthermore, the successful young lawyer will need to have the soft skills necessary to communicate these modern technologies and methodologies to both their clients and the other legal professionals with whom they work. All of this will require a commitment to continuous learning and flexibility in approaching legal challenges.

In short, the legal profession continues to undergo significant transformations, shaped by technological advances, changing client expectations, and evolving societal needs. This shift is not only reflected in who is becoming a lawyer today, but also in the skills required for success in this complex field. While the ultimate impact of these modern technologies remains unknown, the profession has certainly and irrevocably changed.

For additional discussion on changes in the legal field, see *Special Feature, The Coming Crisis is Here: Delivery of Legal Services in the Wake of the Baby Boomer Retirement Wave*.

Special Feature

9.2 The Coming Crisis is Here: Delivery of Legal Services in the Wake of the Baby Boom Retirement Wave

In 1946, Europe from the Atlantic to the Urals remained subject to post-World War II austerity measures, and rebuilding of the civic, commercial, and industrial infrastructure had hardly begun. Asian, African, and Latin American nations were engulfed in the last stages of anti-colonial revolutions and were beginning a new era defined by the capitalist-communist struggle for political dominance.²⁶

The United States was emerging from the Second World War with its civic, commercial, industrial infrastructure, and economy fully intact. On the global stage, the U.S. had advanced from an isolationist state that had disdained membership in the League of Nations, to the undisputed sole economic—and, for a time, military —superpower.²⁷

Thus began the great American Baby Boom: the demographic cohort born between 1946 and 1964. Baby Boomers came of age in a time of increasing affluence and widespread government subsidies in postwar housing and education. They grew up genuinely expecting the world to improve with time. Those with higher standards of living and educational levels were often the most demanding of betterment and the most likely to receive its benefits.²⁸

“Leaving the active workforce” does not necessarily equate to full retirement. Many who leave full-time employment remain employed part-time or return to the labor market in some capacity to maintain their standard of living or simply to “stay connected,” thus they technically remain in the labor force, but not in the careers or occupations which they previously worked. Honey Wyatt, *One In 10 Returned to Work After Retirement*, HR Mag., July 19, 2024.

By the time the first Boomers were entering young adulthood, the Civil Rights Movement was nearing its zenith. Women’s Liberation was beginning to come to the fore, and the nascent stirrings of the modern LGBT equality movement were present in the Stonewall Riots of 1969. The generation also experienced significant moments of technological achievement, including the virtual elimination of polio and other childhood diseases, the moon landings, and the advent of the information age.²⁹

For many, including journalist and satirist P.J. O’Rourke, the formative years of the generation were mostly influenced by the tragic, or at least emotional, events of the 1960s and ‘70s. According to O’Rourke, “You’re not a baby boomer if you don’t have a visceral recollection of a Kennedy and a King assassination, a Beatles breakup, a U.S. defeat in Vietnam, and a Watergate.”³⁰

From the mid-1970s, the Boomer generation came to dominate the American economic, political, and social scene. Boomers were not surpassed as the leading generation by size until 2020. Even then, they were not surpassed by the “baby busters” of Generation X, but by the Millennial Generation born after 1980.³¹ This past year, the last of the Boomers turned 60, while the leading edge of the generation will turn 80 next year. By 2028, even the Gen Xers will outnumber the Boomers as the actuarial tables take their toll.³²

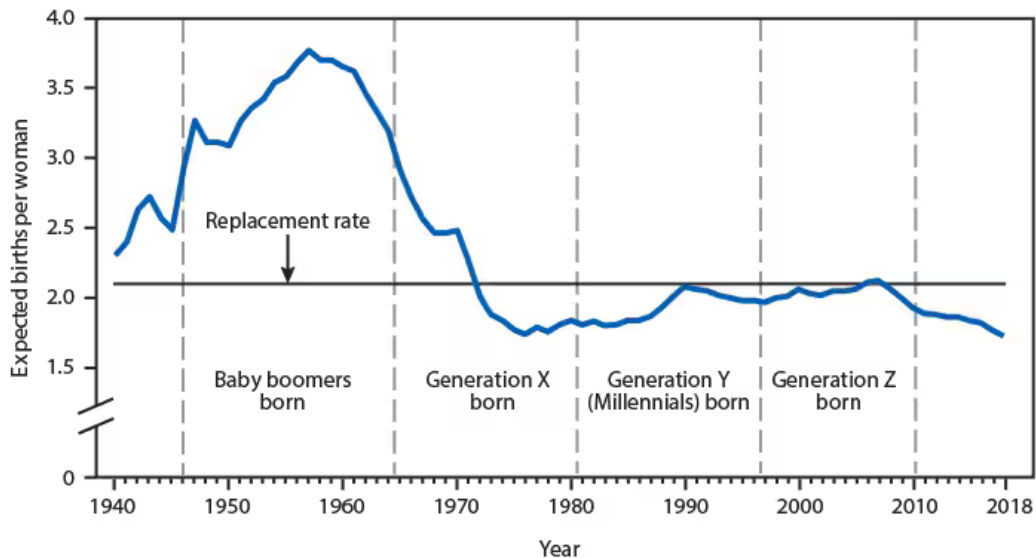


Figure 1: U.S. Birthrate 1940 to 2018, National Vital Statistics System, Center for Disease Control

As early as the presidency of Jimmy Carter (1977–1981), sociologists and demographers began to sound the alarm that Boomers would have a significant impact on American society and the economy in the 21st century as they began to retire in droves. In 1983, these concerns were brought into the public sphere with the first recognition that the Social Security “trust fund” was facing insolvency. The insolvency threat came despite theoretically growing at an extraordinary rate as the last of the Boomers entered the workforce. This crisis resulted from the unequal growth of benefits then being paid to retirees in consequence of the inflationary trends caused by the expansion of the workforce.³³

The resulting changes to Social Security, principally the staggered increase in “full retirement age” and raising of the income cap for the SSI payroll tax, resulted in a long-term surplus in the “lock box.” It also fueled a massive increase in the federal budget, which was funded by “borrowing” from the trust fund.³⁴

Of lesser note to the public at that time was the increasing concern expressed by labor and fiscal specialists about the impact of the eventual retirement of the Boomer cohort on the economy.³⁵ Predictions of a “silver tsunami” impacting the U.S. labor market and, consequently, the U.S. economy, were first discussed as early as the 1980s.

In the early 1990s, the eldest of the Boomers passed from their entry-level jobs into the peak employment years of age 45 to 54. This led to pressure on the U.S. labor market to fill the vacancies at the lower end of the spectrum. This pressure was relieved by a steady increase in the workforce participation rate resulting from three concurrent factors: (1) growth in the role of women as a permanent part of the labor force, (2) the increasing pressure for those already employed to work overtime or take second jobs due to wage stagnation, and (3) the influx of migrants, both documented and undocumented, into the workforce.³⁶

The public perception that the Social Security Trust fund is maintained separately from the general revenue has long been known to be a fallacy perpetuated, whether deliberately or ignorantly, by politicians who have consistently assured the electorate that their future benefits are safely squirreled away in the supposed “lockbox.” Until the 1983 reform of the Social Security System, the debt owed to the trust fund from government borrowing was not even represented by anything more substantial than a figure in an accounting ledger. Subsequently, the Treasury was required to issue “nonrecourse bonds” to represent the debt. Romina Boccia, *The Social Security Trust Fund Myth*, The Cato Inst. (November 13, 2024), <https://www.cato.org/>

Using the Google® Ngram function, we find that the term “age wave” was first used with respect to the aging of the Boomer generation starting around 1980 and was the predominant term used by sociologists through the next two decades; in the early 2000s, “silver tsunami” and similar terms became predominant as concerns about the impact of Boomer retirement went mainstream.

Impact on the Legal Profession of Boomers and Subsequent Generations

The *Doonesbury* comic strip for October 17, 1991, features, then, husband and wife Mike Doonesbury and J.J. Caucus sitting at a table with mugs of coffee. J.J. says, “Let’s face it, Mike. You’re not making it in advertising. I’m not making it in art! We’re nowhere!” Mike responds, “So what are we going to do? What **can** we do?” Together they say, “Law School.” Both shriek, with J.J. then pleading, “Hold me, **hold** me!” Mike responds, “My God... what’s happened to us?”

Ironically, J.J. was first introduced to the strip as the daughter of Joanie Caucus, the liberated former housewife who attended law school, campaigned for social change, and became chief of staff for Congresswoman Lacey Davenport.

The first Boomers would have reached the “typical” age for entering law school in 1968. It is therefore not surprising that, as shown in the chart below, 1968 marked the first year of a steady increase in law school admissions. Previously, law school admissions had held steady at about 22,000 per year through the post-war years. Admissions rose to a peak of over 40,000 in the mid-1980s.

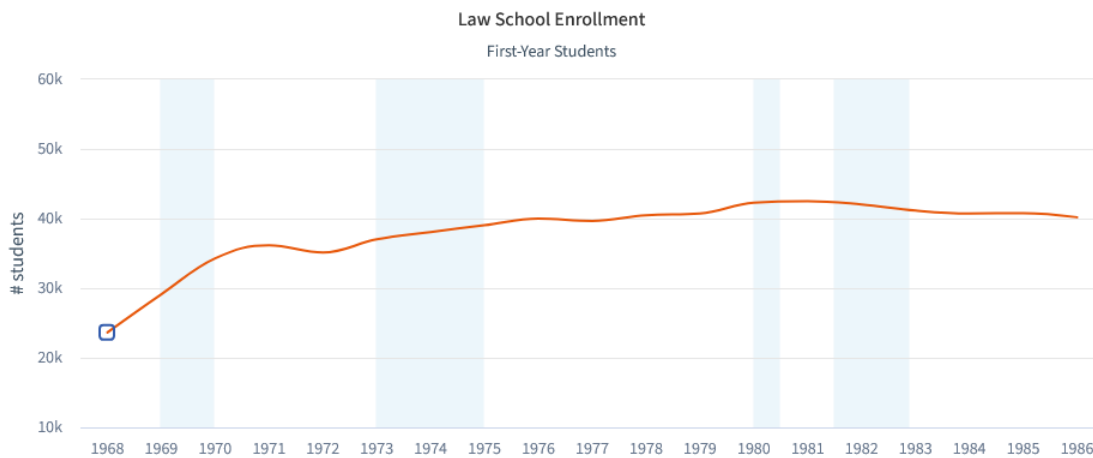


Figure 2: Law School Enrollment 1968-1986, National Bureau of Economic Research

Law school enrollment did not decline as the baby-busting Generation X (1965–1980) began to enter their post-college years in the late 1980s, as shown in the chart below. What propelled this continued robust enrollment was the changing demographics of the entering law school classes. “Non-traditional” law students, including mid-life career changers, not only kept the trend steady but fueled a further rise when the first Millennials (1981–1996) began enrolling in the early 2000s. First-year law school enrollment peaked in 2010 at over 50,000.

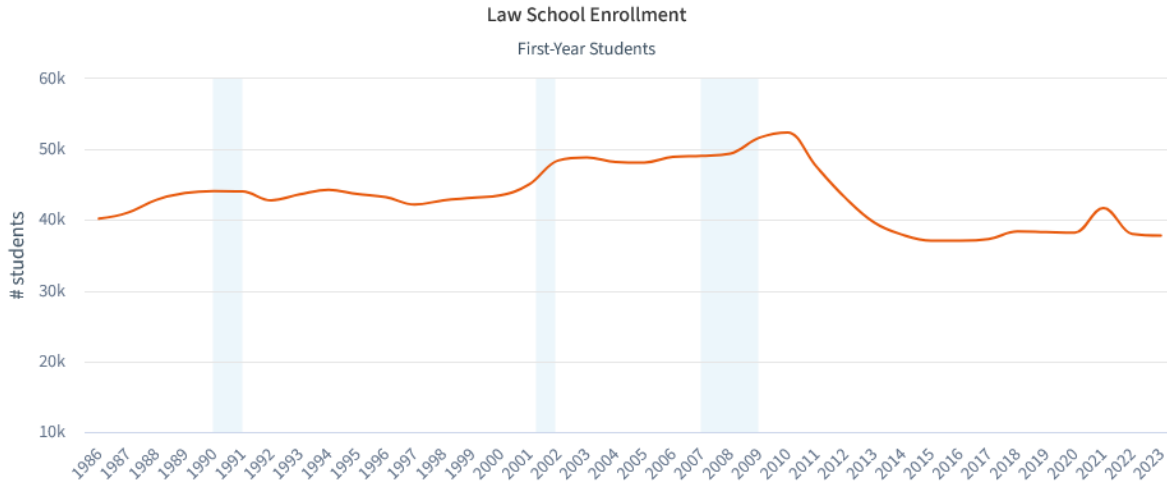


Figure 3: Law School Enrollment 1986-2023, National Bureau of Economic Research

As shown in the chart above, since 2010, there has been a steady decline in law school enrollment. The first-year entry number fell below 40,000 for the first time in almost four decades in 2013. It has remained around this level, apart from a statistical blip following the COVID pandemic. This statistic would be worrying by itself for future accessibility to legal services. However, during the same period, the need for legal services has dramatically increased. The need is projected to continue to increase at a projected rate of at least 2.5 percent a year through the end of the decade, as shown in the chart below.³⁷

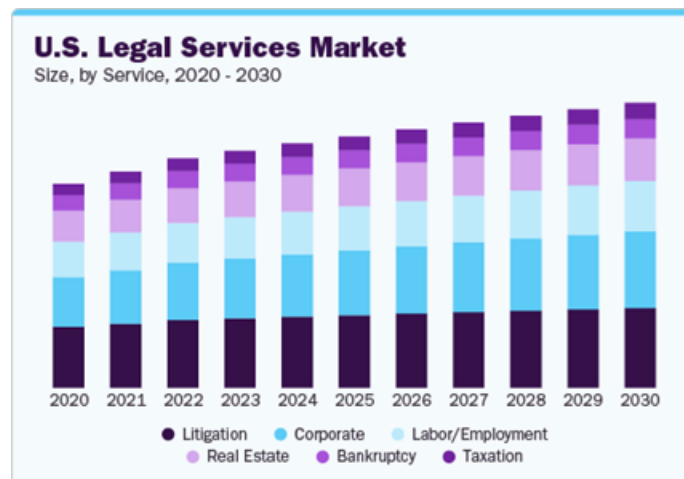


Figure 4: U.S. Legal Services Market 2020-2030, Grand View Research

The number of licensed attorneys in the U.S. peaked in 2019 at 1,352,030.³⁸ The COVID-19 pandemic saw a dramatic rise in the departure of attorneys from the profession. Those who had been contemplating retirement saw the opportunity for an easier, if not necessarily graceful, exit. As a result, despite the entry of approximately 120,000 new attorneys into the profession in the post-pandemic years, the profession has seen a net decline of 30,000 attorneys.³⁹

The Graying of the American Bar

In 2014, it was predicted that nationwide, 400,000 attorneys would retire over the next decade.⁴⁰ This number proved to be fairly accurate, and the outflow of retiring attorneys has been nearly matched by

incoming bar passers. However, in 2023, the number of attorneys aged 65 and over was at an all-time high of 178,000 (13.7 percent of the bar), nearly double that of other professions and more than double that in comparison to the total workforce.⁴¹

According to the U.S. Bureau of Labor Statistics, over the next decade, there will be around 35,600 openings for attorneys each year.⁴² Mostly, the openings will be created by attorneys exiting the profession by retirement, death, or burnout.⁴³ The incoming classes of bar passers is expected to meet only about two-thirds of that need. The result will be increased competition among employers and clients for new and lateral hires from a shrinking pool of candidates.

The median age of American attorneys in 1980 was 39.⁴⁴ Today, it is above 46, meaning that more than half of all attorneys in the nation are within 20 years of the “traditional” retirement age of 65.⁴⁵

The Bureau of Labor Statistics continues to use 65 as the presumed retirement date. However, the current age to claim an unreduced Social Security retirement benefit is 67 for anyone born after 1960.⁴⁶ The decision to focus on age 65 is primarily due to the perception that 65 remains the “target date” for retirement among the general population. Approximately 94 percent of workers leave the active workforce by that age. While the perception is that most attorneys remain in practice beyond 65, statistically 88 percent of attorneys are retired by that age.⁴⁷

The disconnect arises from the tendency of “street lawyers,” who are more visible to the public, to delay retirement. Among firms employing 50 or more attorneys, 40 percent have mandatory retirement at or before 65. Similarly, 86 percent require partners to retire by age seventy. Even at firms without mandatory retirement, it is common for partners over the age of 55 to retire or move to a non-equity status. Roughly 59 percent of firms have attorneys who have done so in the last year.⁴⁸

“Leaving the active workforce” does not necessarily equate to full retirement. Many who leave full-time employment remain employed part-time or return to the labor market in some capacity to maintain their standard of living or simply to “stay connected,” thus they technically remain in the labor force, but not in the careers or occupations which they previously worked. Honey Wyatt, *One In 10 Returned to Work After Retirement*, HR Mag., July 19, 2024.

The Virginia State Bar Takes Note of the Graying of its Membership⁴⁹

This number of available attorneys is deceptive with the respect to meeting the public's need for legal services as the definition of "full-time practice of law" includes government, corporate, and NGO attorneys who do not directly interact with the public or appear before courts or other tribunals as advocates.

Of the 54,348 members of the Virginia State Bar, less than 60 percent are licensed to be engaged in the active practice of law. Nearly 20,000 members are on associate and retired status. While 32,489 attorneys remain active or "plenary" members, it is estimated that since 2019, the number of attorneys engaged in the full-time practice of law is closer to 28,000. The remainder of attorneys work in other sectors of the economy, maintaining active status in retirement, or working as attorneys but in a limited capacity.

Virginia attorneys aged 55 and over are automatically members of the Senior Lawyers Conference (SLC). Over 25,000 Virginia attorneys, 45 percent of the licensed bar, are currently designated as SLC members. As might be expected, judicial membership in the SLC is even higher. Of Virginia judges, 65 percent are 55 or older.

In contrast to the SLC, the Young Lawyers Conference (YLC) has just 7,000 members, 12.7 percent of the licensed bar. The YLC draws its membership from those attorneys who are under the age of 36 or who were admitted to the Virginia state bar for less than three years. The YLC includes a considerable number of attorneys who will "age

out" of the conference after three years. More than a few attorneys are concurrently members of the YLC and SLC.

It is projected that 88 percent of the active SLC members will retire in the next decade. Of the 16,000 attorneys in their "prime years" between membership in the YLC and SLC, half will "age in" to the SLC during that time. Perhaps 25 percent of those aging into the SLC will retire or take associate membership or emeritus status by 2035.

The mandatory retirement age for Virginia state judges is seventy-three, with early retirement to available to most at fifty-five. Va. Code § 51.1-305.

Data from the Virginia Board of Bar Examiners shows a decline that corresponds to the

Admissions without examination do not add significantly to the active bar providing services to the public.

decline that corresponds to the drop in admissions and graduations starting in 2011. The decline was exacerbated by the COVID-19 pandemic. Only 545 new attorneys were admitted by examination in 2024. Successful applications for admission by examination have not yet fully recovered since the start of the decline. Even if the admission of new attorneys by examination or waiver remains steady during the next decade, the number of Virginia attorneys licensed for the active practice of law will decline by 4,000 to 6,000, if not more.

Year	Taking	Passing
2024	758	545
2023	627	507
2022	727	520
2021	780	556
2020	810	624
2019	910	650

Figure 6: Virginia Bar Exam Results

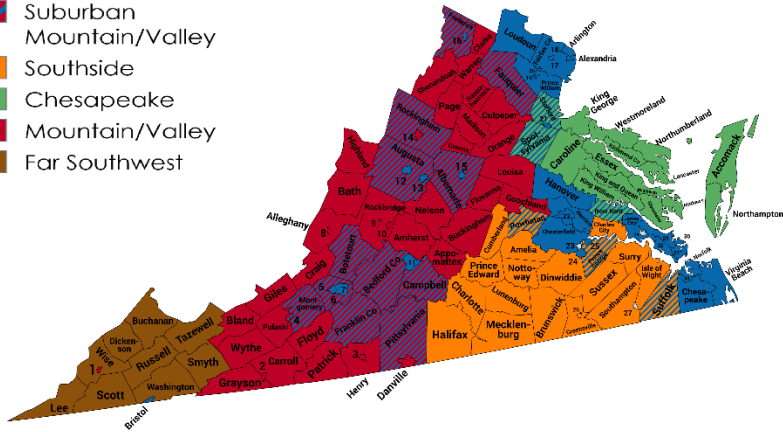
The Impact of a Shrinking Bar on the Availability of Legal Services

The *Virginia Lawyer* first took note of the aging attorney population in the Commonwealth in a 2019 article.⁵⁰ It addressed the risk perspective that accompanies the aging attorney.⁵¹ More recently, the State Bar has begun to focus on the impact that an aging and shrinking pool of attorneys will have on the delivery of legal services, especially to vulnerable populations. “Legal deserts,” regions with a shortage of attorneys and limited access to legal services, is a reality in many parts of the Commonwealth for many years now. However, the COVID retirement wave and increasing departure from the practice by Boomers have intensified the challenge of providing legal services in much of the Commonwealth.⁵²

Virginia is often described as being two states within one border, represented by a heavily populated crescent. Roughly 50 miles in width, centered on the Interstate 95 corridor from Northern Virginia to Richmond, represents the first half. It stretches east along Interstate 64 to the Hampton Roads in a narrower band with a large bloom at the southeastern end. The “other Virginia” is the rural regions that bracket the urban crescent to the east, west, and south.

Virginia Regions

- Urban
- Suburban Southside
- Suburban Chesapeake
- Suburban Mountain/Valley
- Southside
- Chesapeake
- Mountain/Valley
- Far Southwest



- | | | |
|----------------|--------------------|---------------------|
| 1 Norton | 12 Staunton | 23 Colonial Heights |
| 2 Galax | 13 Waynesboro | 24 Petersburg |
| 3 Martinsville | 14 Harrisonburg | 25 Hopewell |
| 4 Radford | 15 Charlottesville | 26 Emporia |
| 5 Roanoke Co | 16 Winchester | 27 Franklin |
| 6 Salem | 17 Fairfax | 28 Williamsburg |
| 7 Roanoke | 18 Falls Church | 29 York |
| 8 Covington | 19 Manassas | 30 Poquoson |
| 9 Lexington | 20 Manassas Park | 31 Hampton |
| 10 Buena Vista | 21 Fredericksburg | 32 Newport News |
| 11 Lynchburg | 22 Richmond | 33 Portsmouth |

Figure 7: Virginia's Urban, Suburban, and Rural Regions

When considering access to legal services, the picture becomes more complicated. The rural areas may be further divided into Southside, Chesapeake, Mountain/Valley, and the Far Southwest. Some sections within these regions have suburban and even urban characteristics.

Circuit	Urban	Southside Suburban	Chesapeake Suburban	Mountain/Valley Suburban	Southside Rural	Chesapeake Rural	Mountain/Valley Rural	Far Southwest Rural	Circuit Total
1	251,959								251,959
2	455,385					44,965			500,350
3	96,700								96,700
4	237,770								237,770
5		99,179			65,850				165,029
6	22,657	43,295			49,090				115,042
7	183,504								183,504
8	136,387								136,387
9	179,827		24,808			89,381			294,016
10					152,004				152,004
11	33,466	31,365			57,423				122,254
12	399,898								399,898
13	226,967								226,967
14	336,074								336,074
15	140,076		308,252			121,017			569,345
16	51,278			115,495			198,966		365,739
17	255,849								255,849
18	158,128								158,128
19	1,163,758								1,163,758
20	431,006			73,536			7,394		92,363
21							79,149		79,149
22	42,348			113,521					155,869
23	124,558			96,605					221,163
24	80,127			150,711			31,139		261,977
25	48,310			111,268			68,325		227,903
26	84,117			179,020			145,701		408,838
27				118,896			150,558		269,454
28	16,803							82,748	99,551
29								97,953	97,953
30								82,161	82,161
31	550,228								550,228
Total	5,707,180	173,839	333,060	959,052	324,367	255,363	681,232	262,862	8,277,382

Figure 8: Urban, Suburban, and Rural Population by Circuit

The Virginia State Bar membership statistics for regions can be determined only by reference to circuits, rather than specific localities. There are no data on the active/retired/other status of attorneys in those regions readily available. Nonetheless, it is still possible to make some educated observations about current and future access to legal services from these numbers and the anticipated decline in actively practicing attorneys. As the chart in *Figure 8* shows, 12 Virginia circuits are fully urbanized. And all but six of Virginia’s circuits possess some urban characteristics, while only four can be characterized as wholly rural.

Even so, the presence of an urban or suburban characteristic in one part of a circuit does not translate to the availability of legal services being readily available to the rural areas. This is especially true in circuits that, due to geography and topology, are challenging for many residents to travel to the county seat of their locality. Those in an urban county or city would have to travel many miles over the mountains. Those in Accomack County must travel through neighboring Northampton and across the Chesapeake Bay Bridge-Tunnel. A better understanding of the imbalance in access to legal services can be gained by looking at the per capita ratio of the general population to attorneys.

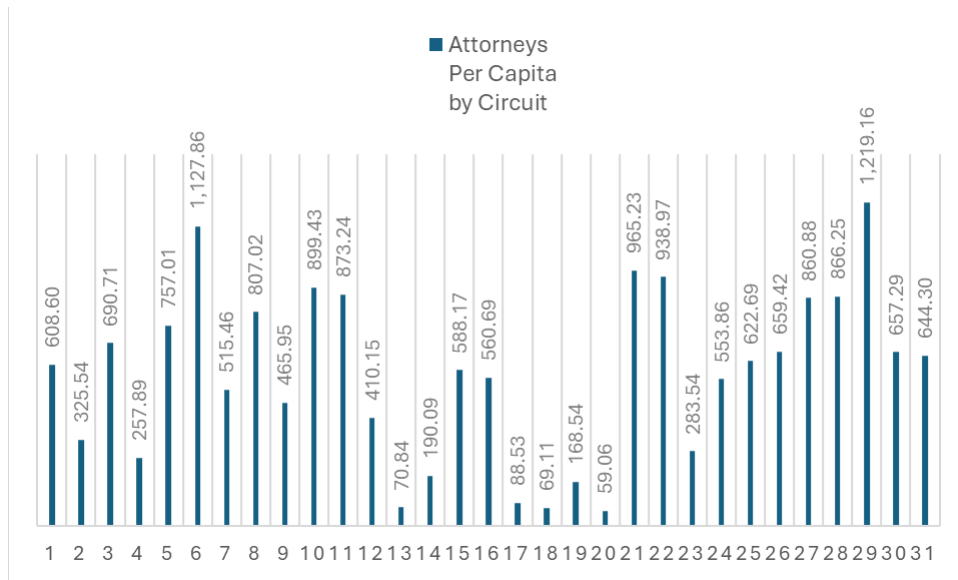


Figure 9: Attorneys Per Capita by Circuit

As might be expected, challenges with access to legal services are most acute in rural areas with the smallest populations. The 21st Circuit consists of Patrick and Henry Counties and the City of Martinsville. The circuit has only 82 members of the Bar with addresses of record in those localities. This translates to an attorney per capita ratio of 965 residents to each attorney. The 29th Circuit—Dickenson, Russell, and Tazewell Counties—has the least favorable ratio at 1,219 residents per attorney.

Living in an urban or suburban area does not guarantee access to legal services. Urban “food deserts”⁵³ and “medical deserts”⁵⁴ are well attested to. Similarly, there is ample evidence that access to legal services can be difficult to obtain even in the most robust urban centers where legal aid programs are heavily burdened and private attorneys are available only at prohibitive market rates.⁵⁵

Another factor contributing to the lack of access to legal services for residents of the Commonwealth is an unexpected statistic. Over one-third of Virginia State Bar Members, 19,751 attorneys, are officially listed as residing in the “33rd Circuit.” The 33rd Circuit is the placeholder given in VSB records to attorneys whose official address is outside the Commonwealth. This includes a sizable number of Virginia residents who live and/or work in Washington, D.C., residents of bordering states who have Virginia licenses for convenience but principally practice in their home state, and a fair number of retired attorneys residing in sunnier climes. Approximately 2,000 active VSB members live in other areas of the U.S. or abroad. Most of these attorneys are either employed in government or corporate work, which makes contributing to legal access for the public impractical, even if they were geographically situated to do so.

Immediate and Long-Term Strategies to Address the Challenges of a Smaller Bar

Predictions of a labor crisis arising from the Boomer generation exiting the workforce were already being realized before the COVID-19 pandemic intensified the rush to the great egress. As the coming crisis is already here and will only intensify, the legal profession is faced with addressing the immediate challenges and preparing for the even greater ones to come.

The Virginia State Bar has already implemented new policies to increase access to legal services for those who qualify for legal aid. The Transition Into Emeritus Status (TIES) aids attorneys who are ready to leave the active practice of law but wish to continue providing legal services in a *pro bono* capacity.

TIES is intended to ease the transition for attorneys seeking to retire while continuing to serve their community. To be eligible, an attorney:

- Must be willing to limit their practice exclusively to *pro bono* service.
- Must be an active, associate, judicial, disabled, or retired member of the bar in good standing and not the subject of discipline by the Virginia bar or any court within the past 15 years.
- Must have practiced law for 10 years or more.
- Should have been actively practicing for five of the seven years immediately preceding their application.
- Must certify their affiliation with a Qualified Legal Services Provider.
- Must certify whether they are covered by malpractice insurance; “tail coverage” will not cover the attorney for emeritus work, but coverage through the affiliated QLSP may be available.

P.T. Barnum posted a banner in his New York City museum directing patrons to “the Great Egress” to entice them not to linger in the main exhibition hall. A.H. Saxon, *P.T. Barnum and the American Museum*, 13 The Wilson Q. (1989). Sadly, the fire that destroyed the museum in 1865 also consumed the storied banner. Helen Thompson, *150 Years Ago, a Fire in P.T. Barnum’s Museum Boiled Two Whales Alive*, *Smithsonian Mag.*, July 20, 2015.

Emeritus status was approved in 2017. However, it is not utilized as an alternative to full retirement to the extent it was intended. Presently, there are fewer than 40 Virginia State Bar members with emeritus status. Changes to emeritus status approved by VSB Council in March 2025 may increase those numbers, assuming adoption by the Supreme Court of Virginia, as they decrease the length of practice required from 20 years to 10 years and streamline certain other requirements; estimates are that the rule changes would increase the population of emeritus members by at least 71 percent.

Beginning in 2022, a new category of admission without examination was introduced in Virginia. The Virginia Legal Aid Counsel certificate allows attorneys licensed in other jurisdictions to practice law in Virginia for a Legal Aid Employer.⁵⁶ The impact of this program has yet to be analyzed. It could be viewed as a cynical attempt to permit legal aid employers in Virginia to poach attorneys from other states that can ill-afford to lose them.

The declining number of attorneys in private practice is placing significant pressure on those who offer their services to the public, as they are facing higher demand for more varied work. This pressure to provide services in areas where attorneys may not focus their practice, and to take on more cases than they are used to, has the potential to overburden attorneys. Attorneys facing these strains may voluntarily leave the profession due to stress, or worse, they may involuntarily depart because of ethical lapses.⁵⁷ The loss of

attorneys to burnout will only increase the strain on those who carry on the practice. The Virginia State Bar's wellness initiative seeks to address mental, emotional, and physical well-being before the strain leads to departure from the profession.⁵⁸

An emerging set of tools to help attorneys work “smarter, not harder” in the form of advanced artificial intelligence applications for legal research, document preparation and review, and law office administration can also help fill the gap of lower supply and great demand for legal services. Although many attorneys are hesitant to embrace AI, or even hostile to doing so, AI is already a significant contributor to attorney efficiency. It is sometimes forgotten that “spellchecker” and Computer-Assisted Legal Research are early examples of AI—and will play an increasingly significant role in the practice of law in the future.⁵⁹

Longer-term solutions for meeting the legal needs of Virginians will require significant policy adjustments. In 2017, after several years of study, the American Bar Association issued findings and 12 proposals for addressing the need to meet the growth in demand for legal services. The proposals came against the backdrop of a declining community of professionals to meet that need. The report was widely praised for its thoroughness in identifying the challenges. However, the 12 recommendations were characteristic of any final report of a committee, long on aspirations but frustratingly short on concrete initiatives that the Virginia Bar, or any other state's bar, could implement.⁶⁰

It is important to realize that the need for access to legal services is not just about legal aid to poor and marginalized communities. The needs of the community at large for “run-of-the-mill” legal services, including wills, deeds, contracts, domestic agreements, and all manner of civil litigation, will continue to increase. Many areas of the law will be especially impacted by the aging of the general population.

The proper use of paraprofessionals will be increasingly important to the future practice of law. In several states, paraprofessionals are already permitted to take on tasks that once were the exclusive province of attorneys. Proposals for expanding this practice are in debate in many jurisdictions.⁶¹ It is therefore essential that paraprofessional training programs be standardized and subject to oversight.⁶² A paraprofessional licensing program adopted in conjunction with the bar may be beneficial. Yet, we know from regulatory changes in other states that this effort alone will not close the gap. Further, the use of paraprofessionals to fill legal gaps presents a host of ethical and practical concerns that have yet to be addressed.

Another approach to addressing legal needs is the use of court-sponsored mediation, arbitration, and ombudsmen programs. The use of mediators and arbitrators has long been promoted as a solution for accelerated resolution of civil disputes. In many cases, however, the cost of private alternative dispute resolution services makes this approach impractical for litigants.

North Carolina is among the states that have adopted requirements for mandatory, court-sponsored arbitration in many civil suits.⁶³ The program is especially successful in resolving civil claims of the type heard in Virginia's General District Courts.

Ombudsman programs can be used to provide legal information and limited legal advice to *pro se* litigants. The federal courts have implemented programs to aid unrepresented parties, which have provided the added benefit of reducing the burden of court staff in dealing with litigant-prepared filings.⁶⁴ Virginia has already adopted an ombudsman program for the Workers' Compensation Commission.⁶⁵ Many state courts have adopted ombudsman programs in their civil courts, and the success of these programs argues strongly for their adoption in Virginia courts.⁶⁶

The engagement of future attorneys in pro bono work can instill an early commitment to and support for that work.⁶⁷ Of course, Virginia law schools already engage students through clinics, but the scope of these clinics is often limited by the practicalities of geography. Use of virtual practice tools could expand the reach of law students able and willing to provide pro bono services.

Virtual practice tools can also aid attorneys in expanding the reach of their practice. While remote legal practice can present challenges for both client service and ethical considerations, these challenges can be overcome with careful planning and attention to detail.⁶⁸ A more controversial application of “cyber practice” is the proposal being considered in some jurisdictions to allow attorneys licensed in another state to provide legal services of a limited nature, such as drafting contracts, wills, and deeds. While this may seem an invitation for ethical snares, it is argued that having a trained attorney assist in such matters is preferable to web-based systems that offer “one-size-fits-all” interactive forms.

More controversial still is the proposal to allow cross-border practice by attorneys licensed in other jurisdictions. While this may seem a far-fetched solution, Virginia has already embraced the use of interstate compacts to allow for cross-board provision of health services.⁶⁹

However, attorneys must be held to the same rigorous ethics standard, whether in cyber or physical practice. Rules must be carefully drafted so that there does not become a differentiated standard of ethics or quality of legal services for those in cyber practice. Because cyber practices may be more accessible, the risk is that those who cannot presently access the justice system will be among those most likely to receive a differentiated level of service or ethical behavior. Uniform standards of quality and ethics are essential.

Conclusion

If You Fail to Prepare, You Are Preparing to Fail.

Rev. H.K. Williams, *The Biblical World* (1919)

The decrease in Virginia bar members will create a crisis arising from the imbalance between the need for legal services and the inability of the bar to provide them. If we had the leisure to prepare for this coming crisis, we might see Reverend Williams’ advice as worth heeding.

But the truth is that the crisis is already upon us and has been for some time. Each day for the next decade, on average, the Virginia State Bar will see its membership decrease by three members, possibly more. We must begin to immediately address the consequences of the “inevitable math,” a phrase that has long characterized the eventual inability of the government to fund the entitlement programs meant to provide a safety net to the Boomer population in retirement. The same inevitability applies to the shrinking pool of practicing attorneys attempting to sustain the increasing demand for legal services in the Commonwealth.

¹ *Occupational Outlook Handbook*, U.S. BUREAU OF LAB. STATS., <https://www.bls.gov/ooh/legal/lawyers.htm> (Aug. 29, 2024).

² *Id.*

The quote, “if you fail to prepare, you are preparing to fail” is so frequently attributed to Benjamin Franklin, and more specifically to *Poor Richard’s Almanack*, that the internet is awash with articles and memes so stating. Though the saying, or something similar, was certainly in use prior to Williams having put in print, nothing like it appears in Franklin’s oeuvre. Eric Eckert, *Baylor Expert Affirms, Debunks Founding Father’s Famous—and Infamous—Sayings*, Baylor Univ. Blog (July 1, 2015), <https://news.web.baylor.edu/news/story/2015/misquotes-and-memes-did-ben-franklin-really-say>.

³ *Occupational Employment and Wage Statistics Query System Area Virginia, Period 2024*, U.S. BUREAU OF LAB. STATS. (Apr. 10, 2025), <https://data.bls.gov/oes/#/area/5100000>; *Occupational Employment and Wage Statistics Query System Area Washington-Arlington-Alexandria, DC-VA-MD-WV*, U.S. BUREAU OF LAB. STATS. (Apr. 28, 2025), <https://data.bls.gov/oes/#/area/0047900> (48,170 lawyers in the Northern Virginia area, including DC, Maryland, and West Virginia); *Occupational Employment and Wage Statistics Query System Area: Richmond*, U.S. BUREAU OF LAB. STATS. (Apr. 28, 2025), <https://data.bls.gov/oes/#/area/0040060> (3,710 lawyers in Richmond); *Occupational Employment and Wage Statistics Query System Area: Virginia Beach-Chesapeake-Norfolk, VA-NC*, U.S. BUREAU OF LAB. STATS. (Apr. 10, 2025), [https://](https://data.bls.gov/oes/#/area/0047260)

data.bls.gov/oes/#/area/0047260 (2,600 lawyers in the Hampton Roads area).

⁴ *Profile of the Legal Profession 2024 Demographics*, AM. BAR ASS'N, <https://www.americanbar.org/news/profile-legal-profession/demographics/> (last visited Jan. 15, 2025) [hereinafter *ABA Demographics*].

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ NAT'L ASS'N FOR L. PLACEMENT, INC., *2024 Report on Diversity in U.S. Law Firms* 8 (2025) [hereinafter *NALP Report*].

¹⁶ *Id.*

¹⁷ *Id.* at 7.

¹⁸ *Id.* at 12.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *ABA Demographics*, *supra* note 4.

²² *NALP Report*, *supra* note 15.

²³ *ABA Demographics*, *supra* note 4.

²⁴ Anna Stolley Persky, *Retiring Reluctantly: As lawyers age, many struggle with exit strategies*, AM. BAR ASS'N J. (January 11, 2024), <https://www.abajournal.com/web/article/retiring-reluctantly-as-lawyers-age-many-struggle-with-exit-strategies>.

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²⁶ *Milestones in the History of U.S. Foreign Relations, 1945-1952: The Early Cold War*, U.S. DEP'T OF STATE, <https://history.state.gov/milestones/1945-1952> (last visited Dec. 31, 2024).

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²⁸ Doug Owrain, *Born at the Right Time: A History of the Baby Boom Generation*, Toronto: University of Toronto Press (1997).

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³⁰ P. J. O'Rourke, *Popular Culture and the Baby Boomers*, WASH. EXAM'R (January 2, 2012), <https://www.washingtonexaminer.com/magazine/1535868/popular-culture-and-the-baby-boomers/>.

³¹ Richard Fry, *Millennials overtake Baby Boomers as America's largest generation*, PEW RSCH. CTR. (Apr. 28, 2020), <https://www.pewresearch.org/short-reads/2020/04/28/millennials-overtake-baby-boomers-as-american-largest-generation/>.

³² *Id.*

³³ Steve Robinson, *History and Future of the Social Security Trust Fund*, THE CONCORD COAL. (Aug. 31, 2023), <https://www.concordcoalition.org/deep-dives/issue-brief/history-of-social-security-part-1/>.

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- ³⁶ *Id.*
- ³⁷ U.S. *Legal Services Market Size & Trends*, GRAND VIEW RSRCH. <https://www.grandviewresearch.com/industry-analysis/us-legal-services-market-report> (last accessed Apr. 11, 2025).
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- ³⁹ *Profile of the Legal Profession 2024*, AM. BAR ASS'N (Aug. 7, 2024), <https://www.americanbar.org/news/profile-legal-profession/>.
- ⁴⁰ Roy S. Ginsburg, *When I'm 64: Lawyers Want to Stay "Needed" in Their Retirement Years*, ROYGINSBURG BLOG (November 26, 2014), <https://www.royginsburg.com/published-articles/im-64-lawyers-want-stay-needed-retirement-years/>.
- ⁴¹ John Ries, *Avoiding Ghosts from the Past in Retirement*, ALPS INSURANCE BLOG (Jan. 10, 2024), <https://www.alpsinsurance.com/blog/avoiding-ghosts-from-the-past-in-retirement>; Persky, *supra* note 24.
- ⁴² *Occupational Outlook Handbook, Legal Occupations*, U.S. BUREAU OF LAB. STAT.'S (Aug. 29, 2024), <https://www.bls.gov/ooh/legal/>.
- ⁴³ *Id.*
- ⁴⁴ ABA Demographics, *supra* note 4.
- ⁴⁵ *Id.*
- ⁴⁶ SOC. SEC. ADMIN., RETIREMENT BENEFITS 05-10035 (2024)..
- ⁴⁷ Persky, *supra* note 24.
- ⁴⁸ John S. Koehler, *Dear Colleagues: Planning for an Ethical Retirement*, VA. MOUNTAIN/VALLEY LAW.'S ALL., Oct. 1, 2024.
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- ⁵¹ *Id.*
- ⁵² Henry C. Su, *Legal Deserts: A Starting Place for Discussion*, VA. LAW., Oct. 2023.
- ⁵³ Michele Van Ploeg, David Nulph & Ryan Williams, *Mapping Food Deserts in the United States*, U.S. DEP'T OF AGRIC. ECON. RSCH. SERV. (Dec. 1, 2011), <https://www.ers.usda.gov/amber-waves/2011/december/data-feature-mapping-food-deserts-in-the-u-s>.
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- ⁵⁷ Jonathan Baum, *For Lawyer Mental Health, An Ounce of Prevention is Worth a Pound of Cure*, VA. LAW.'S WKLY., August 24, 2024.
- ⁵⁸ *Virginia Lawyers' Wellness Initiative*, VA. CRTS., <https://www.vacourts.gov/courtadmin/aoc/ed/programs/vlwi/home> (last accessed Apr. 23, 2025).

⁵⁹ The first half of this Report address the incorporation of AI into legal practice.

⁶⁰ Judy Perry Martinez & Geoffrey Thomas Burkhart, *Report on the Future of Legal Services in the United States: 12 Recommendations for Improving the Delivery of Legal Services to the American Public*, THE BAR EXAM’R, June 2017.

⁶¹ Tara Hughes, *How States Are Using Limited Licensed Legal Paraprofessionals to Address the Access to Justice Gap*, AM. BAR ASS’N STANDING COMM. ON PARALEGALS BLOG (Sept. 2, 2022), <https://www.americanbar.org/groups/paralegals/blog/how-states-are-using-non-lawyers-to-address-the-access-to-justice-gap/>.

⁶² The Section of this Report entitled “When Paralegals Use Generative Artificial Intelligence: Maximizing Return While Building an Ethics Infrastructure” addresses specific training suggestions for paraprofessionals on AI use.

⁶³ N.C. GEN. STAT. § 7A-37.1 (2025).

⁶⁴ *Pro Se Centers Help Even the Odds for Litigants Without Lawyers*, U.S. CTS. (Aug. 20, 2015), <https://www.uscourts.gov/data-news/judiciary-news/2015/08/20/pro-se-centers-help-even-odds-litigants-without-lawyers>.

⁶⁵ VA. CODE § 65.2-205.

⁶⁶ Michele Bertran, *Judiciary Ombudsman: Solving Problems in the Courts*, 29 FORDHAM URB. L.J. (2002).

⁶⁷ *Report of the Pro Bono Task Force*, THE LEGAL SERVS. CORP. (July 2012), <https://www.lsc.gov/our-impact/publications/other-publications-and-reports/report-pro-bono-task-force>.

⁶⁸ Teresa Matich, *How to Work Remotely as a Legal Professional: A Guide*, CLIO BLOG (Dec. 19, 2024), <https://www.clio.com/blog/working-remotely-as-a-lawyer/>.

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Conclusion

The 2022 Report concluded with a discussion about the impacts of COVID-19 on the legal profession. Specifically, the conclusion focused on remote versus in-person or hybrid work for lawyers and what the new normal might look like. In the past three years since the last Report, the discussion has changed. The introduction of remote or hybrid work originated from health and safety concerns during the pandemic. Now, in 2025, it is no longer a question of *whether* remote and hybrid work will remain in place. Remote and hybrid work is now a part of a broader conversation of *how* to work remotely, including how the technology that makes remote work possible should be integrated into the legal profession.

This Report has examined how technology is being integrated into the legal profession and offered ideas about additional ways to integrate it. The Report has also pointed out some of the technology's shortcomings and areas of opportunity for the legal profession. In doing so, this Report has made a few things clear.

The practice of law has progressed from manual tasks, physical objects, and in-person requirements to automation, virtual objects, and computerized or virtual communication and courtroom appearances. Far from being an obstacle or displacing lawyers, this Report has clarified that AI and other technological advancements can be leveraged to assist lawyers and judges in daily tasks. If leveraged well, technology also has the potential to help the legal profession uphold the rules of professional responsibility, perhaps better than it could without the advancements.

Likewise, clients will reap the benefits as lawyers can deliver a stronger work product in less time. Technological advancements also deliver tools that can help increase access to justice. But for technology to help breach the justice gap, technology itself must be accessible.

Alongside the benefits of technology come challenges and risks. The legal profession is relatively slow to adopt technology, but adoption is steadily increasing. However, the legal field has large knowledge gaps regarding technology and how it works. Lawyers must understand the basics of technology and how it works. Knowledge will encourage technological implementation. Knowledge will also help ensure that the legal field is equipped to safeguard legal processes.

Aside from technological advancements, technology itself must also be regulated. Without appropriate safeguards, technology can do as much, if not more, harm than good. As legislatures struggle to strike the right balance in governing technology, lawyers must be prepared to engage with these new laws. Lawyers cannot be prepared to appropriately protect clients' interests or pose challenges if they are not familiar with the current technology and the basics of how it works.

Also of profound concern is the gap in cybersecurity measures taken by the profession. There is still much work to be done to educate the legal field regarding cybersecurity measures and in ensuring that appropriate measures are implemented. Education and implementation must be ongoing as technology and threats continue to evolve.

This Report has also demonstrated that beyond technology, the legal profession itself is changing. As the age and demographics of lawyers and judges evolve, the profession changes with it. Although not new, a major concern highlighted is the shortage of attorneys practicing. The number of attorneys practicing is on the verge of becoming even lower. Technology is one potential tool to aid in providing much-needed legal services

to the public. But as the Report makes clear, additional measures will be needed to meet the legal needs of Virginians.

While this Report outlines the benefits and challenges of current technology and the future of the profession, it also surfaces ethical questions. The legal profession must continue to evaluate whether the present ethical rules, as written, provide lawyers with enough guidance in navigating technological changes. It is incumbent upon each member of the bar to ensure that they are adequately abreast of technology and its complex relationship with the law. The legal profession must determine whether the existing ethical standards are adequate as they pertain to technology. As technological changes are ongoing, examination of the ethical standards must also be ongoing.

As the legal profession continues to change, the professional obligations that each lawyer assumes when taking the attorney oath ground the legal field. Among other obligations, lawyers assume the responsibility of competence, diligence, communication, honesty with the tribunal, confidentiality, and zealous advocacy. These and the other rules of professional responsibility ensure that legal professionals do not lose sight of the broader goals and obligations of being an attorney. The commitment to professional responsibility ensures that lawyers remain guardians of the rule of law. The struggle to decipher how to navigate technological advances so that tools fit within the broader framework of ethical obligations demonstrates how the profession remains the same, despite advancements. The legal profession's zealous commitment to upholding the rigorous standards of ethics is ultimately what will mold the future of law and safeguard the communities we serve.

Respectfully submitted,

The Special Committee on Technology and the Future Practice of Law

June 9, 2025

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Appendix

Additional Reading

Below is a list of further recommended reading on reports and trends of technology within the legal field.

- **Clio's Legal Trends Report**, <https://www.clio.com/resources/legal-trends/>
- **ABA Technology Trends Reports**,
https://www.americanbar.org/groups/law_practice/resources/tech-report/?login
- **Gavel's 2024 Legal Tech Trends Report for Solo & Small Firms**,
<https://www.gavel.io/resources/2024-legal-tech-trends-for-small-and-solo-firms>
- **Thomson Reuter's 2025 Report on the State of the US Legal Market**,
<https://www.thomsonreuters.com/en-us/posts/legal/state-of-the-us-legal-market-2025/>
- **ABA Center for Innovation's 2024 Innovation Trends**,
<https://www.americanbar.org/content/dam/aba/administrative/center-for-innovation/2024cfi-midterm-itr.pdf>
- **ABA Law Practice Resources**
https://www.americanbar.org/groups/law_practice/resources/