



TECHSHOW2020

Skills Building: Best Practices for Teaching Tech to Law Students

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FIFTIETH SELECTED BIBLIOGRAPHY ON COMPUTERS, TECHNOLOGY, AND THE LAW

(January 2018 through December 2018)

INTRODUCTION

Each year, the *Journal* provides a compilation of the most important and timely articles on computers, technology, and the law. The Bibliography, indexed by subject matter, is designed to be a research guide to assist our readers in searching for recent articles on computer and technology law. This year's annual Bibliography contains nearly 1000 articles, found through the examination of over 1000 periodicals.

The Bibliography aims to include topics on every legal aspect of computers and technology. However, as new issues in this field emerge, we welcome your suggestions for additional topics and sources, as well as your commentary on the Bibliography.

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Law students—avoid malpractice and embrace technology!

Did you know that [thirty-five states](#) have expressly included knowledge of technology in the official comments for their Rules of Professional Conduct? Most states have adopted language similar to comment 8 of the ABA Model Rule 1.1: Competence. Two states – Florida and North Carolina – now require attorneys to take CLE courses on technology during each of their CLE cycles.

More and more, technology is integrating into the practice of law and affecting many different areas and raising different ethical issues. Lawyers do not need to be IT experts, but they do need to “keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology.” As you begin to delve further into the matter through [ethics](#) opinions and other documents, you will also find that lawyers are held to a “reasonable efforts” standard with regard to technology.

What do “reasonable efforts” look like? State and ABA ethics opinions give us some ideas:

- Recognize the nature of the threat to confidentiality, including how to treat materials based on their sensitivity.
- Understand how confidential information is stored and transmitted.
- Understand and use reasonable security methods, both on and offline
- Conduct due diligence on vendors who have access to client information
- Train attorneys and staff on how to use technology and security methods.

There is still debate amongst the legal community regarding how these new(ish) rules will be implemented, but the issue is escalating based on some prominent issues coming to light. On January 8th, 2019, Paul Manafort’s attorneys filed a [response](#) to claims made by Special Counsel Robert Mueller. It was soon discovered that whomever redacted the document failed to do so properly, allowing anyone to read the “redacted text” by copying and pasting the blacked out sections. While there is likely a staff member at one of the firms being blamed for the problem, attorneys and law students should remember that the attorneys who sign the documents also take responsibility for the contents of the documents. Should sanctions or a malpractice suit come out of this situation, “my secretary did it” is not a valid excuse.

Client confidentiality is a huge issue that needs to remain on an attorney’s radar at all times, but it is not the only concern in the legal realm with regards to technology. Technology audits, such as those the (in)famous Casey Flaherty required [of Kia Motors’ outside counsel](#), raised the question “in which technologies should a ‘competent’ attorney be proficient?” There are some who [opine](#) that if you are capable of serving your client more efficiently using technology, but refuse to learn how to do so, you are overbilling your clients. Problems may also arise while representing your client if you do not understand how technologies function. For instance, in the video below, we see what happens when prosecutor



Bernie de la Rionda tries to question a witness about a social media technology that he does not understand.



[Video: George Zimmerman Trial – Day 4 – Jenna Lauer’s Twitter - <https://youtu.be/rY0TGH1OYuY>]

This type of questioning hurts the client, the attorney, and the attorney’s firm. This behavior reasonably leads back to the ethics rule of competence and whether the attorney was adequately prepared to represent his client.

Embracing technology is not something that one can do for a single moment in time, either. The concept of technology continually evolves. At one point in time, when people discussed technology, they spoke of the wheel, a bicycle, or even a telephone. Today, however, those technologies are so ingrained in our society that most people would not include them in a conversation about learning to use technology — unless referring to a smart telephone.

As the technologies evolve, so, too, does the need for attorneys’ knowledge of these technologies. It should not surprise anyone, for example, that the [American Academy of Matrimonial Lawyers](#) reported in 2015 that 99% of attorneys surveyed said that text messages are being introduced as evidence in divorce cases. Also, 67% of attorneys surveyed have noted a rise in evidence from apps.

Great leaps are being made in the assumption of attorney’s technological knowledge in small periods of time, however. For instance, in a [November 2018 Canadian judicial opinion](#), a judge deciding upon an award of attorney’s fees refused to allow a \$900 research fee, in part because the attorney did not use “artificial intelligence” sources.

Thus, in three short years, we went from attorneys needing to know enough about how text messages and apps function to use them as evidence to using artificial intelligence to conduct legal research.



Now that you understand the implications of NOT embracing technology, what should you do in order to avoid those pesky malpractice claims and bar grievances? I recommend the following topics:

- MS Office, including Word, Excel, PowerPoint, and Outlook. These programs are industry standards and you need to understand how to use them efficiently and effectively.
- General principles of increasing efficiency and effectiveness, such as document and service automation, collaboration technologies, and portability.
- The creation and manipulation of PDFs, including redaction.
- A thorough understanding of what metadata is, how it is generated, and how to remove it from a wide variety of materials, including documents, images, movies, audio clips, etc. (metadata scrubbing).
- Cybersecurity, including how to select vendors who will help you protect your data, acquiring cyberinsurance policies, and training employees on best practices and use of available tools.
- The threats and opportunities involved with using personal devices to complete legal work.
- An understanding of the technologies that your clients use or which your opponent may utilize, such as accident recreation software.
- If you are planning to be a trial attorney:
 - Courtroom technologies, including exhibit presentation software, voir dire software, etc.
 - eDiscovery platforms, principles, and specific court rules.
- General practice software, such as case management systems, billing software, efilings systems, and common mobile productivity applications.
- Google and specialized searches, such as public records and social media.
- Data Analytics.
- Keep an eye on cutting edge technologies, for example:
 - Artificial Intelligence (already very active in the legal realm)
 - Augmented and Virtual Reality
 - 3D printing
 - Blockchain and cryptocurrencies



This list may look overwhelming, but remember, attorneys do not need to be IT specialists. They need to have a general awareness of the technological issues and be willing to increase their knowledge and skills should their practice require it. Attorneys will also differ in their knowledge based on the type of law that they practice. A trial attorney will need to know different technologies than a real estate attorney or a mediator.

The key is a willingness to learn.



Technology Competence

What the Ethical Duty Means for You and Your Firm

December 2017

by Ivy B. Grey



Introduction

When the American Bar Association published its rules update in 2012, the notion that lawyers would incorporate technology into legal practice felt more aspirational than realistic. Five years later, it is now clear that technology awareness, wisdom, and adoption are necessary. Ignoring the duty also has business, practical, and ethical ramifications.

This white paper explains the codified duty of technology competence. It reviews business and ethical consequences of the new requirements; and it explores the practical implications for your firm. It is split into four sections:

- What Is the Duty of Technology Competence?
- Why Does It Matter?
- How Does It Affect You?
- Becoming Technologically Competent: The Example of MS Word

What Is the Duty of Technology Competence?

Background

It was once unthinkable that lawyers would email clients or store information in the cloud; that they would research cases online rather than in the library; or that firms would exist with no physical office. Now each of those things is common in legal practice.

The American Bar Association (the “ABA”) noticed this shift. In 2009, the ABA formed the Ethics 20/20 Commission (the “Commission”) to study technology in law. The Commission was led by Andrew Perlman, who served as its Chief Reporter. In 2012, following this lengthy study, the ABA revised the Model Rules of Professional Conduct (the “Model Rules”). The rule revisions reflect lawyers’ changing relationship with technology; and they acknowledge how prevalent technology has become in modern society, and in legal practice.

“Competency directly relates to everything that lawyers do and every tool we use to serve our clients.”

Updating the Existing Duty of Competence

A lawyer’s fundamental duty has always been to provide competent representation to her client. In the past, lawyers thought of competence as focused solely on the substantive knowledge of a certain area of law combined with the experience and ability to adequately represent a client in a specific engagement. As times changed, so did the view of what it meant to be competent. The modern view is that competency directly relates to all aspects of performing our duties as lawyers—it is about everything that lawyers do and every tool we use to serve our clients.

The text of Model Rule 1.1 requires lawyers to provide competent representation. Now Comment 8 to Model Rule 1.1 goes further, it reads: “a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology[.]” We refer to this as the duty of technology competence.



It requires that every lawyer:

- keep abreast of changes to technology used in legal practice;
- develop an awareness of technology, its functionality, and available offerings;
- gain a grasp of the risks and benefits associated with using technology; and
- attain a reasonable level of skill in all chosen technology.

Competence does not mean perfection, expertise, or paranoia. Instead, it requires a baseline understanding of, and reasonable proficiency in, the technology at hand.

The update does not change the duty to maintain competence under Model Rule 1.1. Rather, the revision clarified that maintaining technology competence is part of meeting the well-established duty of competence. Now we know that the duty of competence includes both substantive knowledge of law and awareness and competent use of the tools that lawyers use to practice law. In short: Lawyers can no longer be proudly unaware of technology and still claim to ethically serve their clients' needs.

Nationwide Adoption of Technology Competence

States started adopting revised Model Rule 1.1 in 2013, and the rate of adoption is increasing. At the time of drafting, 28 states had adopted some version of the new Model Rule and two other states (California and New Hampshire) have made other efforts to acknowledge a duty of competence related to technology.

Complementary Continuing Legal Education Update

The CLE ecosystem is also changing to reflect the new technology mandate and the corresponding need for technology training. In February 2017, the ABA adopted a revised Model Rule for Minimum Continuing Legal Education ("MCLE"). This revision responded to revised Model Rule 1.1 and Comment 8, and Florida's inclusion of technology-focused courses in its MCLE requirements, which became effective January 1, 2017. The revision helps lawyers comply with Model Rule 1.1. To encourage access to high quality technology programs, the Commission recommended accrediting technology MCLE programs. The revised MCLE requirements are important because they reinforce that the duty is continuing and that mere exposure to technology is not enough.

Technology Competence in Practice

To technology advocates, it may seem woefully insufficient to require lawyers to dedicate a few hours per year to developing technology competence. However, while one would hope that lawyers would strive for mastery, it is not what the duty of technology competence requires. Only a baseline level of competence in the tools we use is required and it is possible to attain that baseline through lower doses of training followed by actual usage. To that end, we must acknowledge that technology competence is broad yet attainable.

In practice, the definition of technology competence must include the tools that lawyers use to practice law, such as case management software, document management software, billing software, email, a PDF system with redacting capabilities, and the MS Office Suite, particularly MS Word. Any lawyer who does not develop basic skills in these six types of programs will risk ethical rebuke.

Debunking Myths About MS Word

Myth #1: MS Word doesn't pose an ethics issue...

A simple MS Word document implicates six ethics rules: Model Rules 1.1, 1.5, 1.6, 4.4, 5.1, and 5.3.

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Why Does Technology Competence Matter?

Whether the impact of technology makes you afraid or excited, we should all think about the ethical and business ramifications of Model Rule 1.1. Potential implications include:

- unreasonable fees;
- failure to train and supervise; and
- lower realization rates and profits.

These dangers of failing to learn technology are explored below.

"Incompetent use of basic office technology may be more than a billing write-off—it may constitute an ethical violation."

Unreasonable Fees

Failure to understand how technology works implicates multiple ethics rules, such as the obligation to bill fairly under Model Rule 1.5. Lawyers who refuse to learn to use technology properly could be overbilling clients for work that would have been done better and faster if they had used technology appropriately. Deliberately slow, low skilled, and low tech work could violate Model Rule 1.5 because this failure to work efficiently may amount to "churning" the bills. Further, inability to effectively use technology tools, or refusal to learn, raises issues of technology incompetence. And if incompetent representation means unreasonable fees, then failing to become competent in technology would also lead to unreasonable fees. This may be more than a billing write-off—it may constitute an ethical violation.

Failure to Train and Supervise

The ethical violations are not just limited to fees. The duty to train and supervise under Model Rules 5.1 and 5.3 relates to the duty of competence.

According to Model Rule 5.1(a), partners, senior lawyers, and firm management must ensure that the firm has developed, and continues to enforce, policies that direct and facilitate that all lawyers in the firm conform to the ethical rules. And under Model Rule 5.1(b), they must also ensure that all lawyers in the firm actually comply with all ethical rules. To be clear, in both cases, the ethical rules include the duty of technology competence. So if your subordinates are not meeting their ethical duties—and you fail to address the problem—then you are violating your own ethical duties.

Tech Competence and Client Confidentiality

Another practical impact of the duty of technology competence is the duty to protect client confidences under Model Rule 1.6. Even outside of the litigation context, the duty to not disclose information related to the client's representation plays a role. Under Model Rule 1.6(a) and (c), lawyers may not reveal client confidences and must take reasonable measures to protect them.

This has implications for every document drafted in MS Word. That's because MS Word documents contain hidden metadata that falls within the scope of "information related to the representation." Metadata includes everything about the document's properties, ranging from the file path and author permissions, to editing history (comments and track changes) and drafting time. Such metadata has the potential to reveal sensitive information about a client's case. A lack of technological understanding increases the risk that metadata will be unwittingly disclosed.

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This duty extends beyond lawyers in the firm to practice support staff and vendors. Practice support staff play a key role in delivering legal services and managing outside vendors and resources. Because they work with lawyers, under Model Rule 5.3 they must also meet the ethical standards that lawyers meet. Firm management must have effective measures in place to ensure their compliance; and together, management and practice support staff must ensure that effective measures are in place to ensure ethical compliance of all vendors and staff.

Whatever the makeup of the team that provides legal services, each person must do so in a manner that is compatible with the responsible lawyer's own ethical obligations. That means that vendors (and staff) must have adequate security measures that meet the duty of confidentiality and must be technologically competent. It is the duty of the lawyer to supervise completion of the delegated work and compliance with ethical rules.

"Technological competence is not just a disciplinary or malpractice concern. It is becoming essential in a marketplace where clients handle more of their own legal work and use non-traditional legal service providers. To compete, lawyers need to learn how to leverage 'New Law'—technology and other innovations that facilitate the delivery of legal services in entirely new ways. Lawyers are also being pressed to make better use of well-established technologies, such as word processing."

The Twenty First Century Lawyer's Evolving Ethical Duty of Competence
Andrew Perlman (2014)

Lower Realization Rates and Profits

When lawyers don't spend enough time on substantive, billable work, it hurts the bottom line. That's a particular challenge for solo and small firm lawyers. According to Clio's 2nd Annual Legal Trends Report, "[T]he average small-to-midsize firm only collects 1.5 hours of paid work time for each workday."

Before the bill even reaches the client, many lawyers voluntarily write down their time by 20-25% because they believe that the process took too long. While not expressly recognized as such, these voluntary write-downs are largely due to lack of technology competence, which pushes a larger portion of would-be substantive legal work into the non-billable clerical category. Without adequate technology training, assessment, and process management, lawyers are recognizing there is a problem with workflow and legal service delivery, but miss the root cause to address and are left without a tangible plan to resolve the problem.

Write-downs and discounts are a temporary salve to a long-term problem. Every tenth of an hour cut from the bill costs the firm the value of that time, reduces realization rates, and sets a precedent for further billing discounts. If nothing changes, over time, the funnel will continue to narrow, and the business of lawyering will become financially unsustainable.

When lawyers see they are losing so much of each day, the natural inclination is to work more or work harder. A real solution that would lead to coprosperity—and stop the narrowing of the funnel—would be to invest in learning the tools that lawyers use every day, such as MS Word. When lawyers become more proficient and efficient in using their basic office technology, both the lawyer and the client benefit. According to Casey Flaherty, on average a client will save 15% on its bill, while, at the same time, the firm will profit 16% more on the same work. So, rather than continuing to fight against office technology, lawyers should embrace learning it. With improved usage, lawyers can spend more time developing more nuanced arguments and creative solutions, which provides more value to clients.



Evidence shows that substandard MS Word skills won't cut it. Technological illiteracy results in inefficient and poor work product, lower realization rates, lost profits, and even malpractice. On the other hand, research shows that training to build competence works. According to a 2013 study by Capensys and Neochange Inc., "[L]egal workers who adopt technology and learn how to use it can bill for more of the time they spend working, achieving [25%] higher billable resource utilization[.]"

Clients want lawyers to deliver great work product but they're also demanding that lawyers cut costs and charge them less. And the ethics rules require that lawyers change their anti-technology ways. There are no longer any business, practical, or ethical excuses that lawyers can make to avoid learning about, understanding, and adopting technology. Lawyers who refuse to keep up with modern technology risk violating ethical obligations and face becoming obsolete.

Debunking Myths About MS Word

Myth #2: My job is thinking, not typing...

Over the last decade, the share of MS Word keystrokes attributable to lawyers (as compared to staff) has shifted from 39% to 80%.

How Does the Duty of Technology Competence Affect You?

If a lawyer is incompetent, the lawyer has three choices:

- Sufficiently learn the necessary information before undertaking the matter;
- Delegate to competent staff or associates; work with technical consultants and competent counsel; or
- Decline the representation.

Lawyers may seek help in meeting their duty of competence. Delegation is a viable option. But do not be tricked into thinking that delegation is an easy way out for lawyers lacking technology competence. Delegation means sharing authority and responsibility with an employee or a third party and adequately supervising them. Effective delegation takes work and consideration and can lead to great efficiencies. The person delegating must have enough knowledge and ability to give direction, ask questions, ensure ethical compliance, and determine whether the work was done properly. Without some level of technological literacy, a lawyer is incapable of providing proper oversight.

Partners and Supervising Lawyers

Word processing tools have become ubiquitous, and use of MS Word has increased for all lawyers. Staff are now expected to support up to eight lawyers, which is significantly more than the pre-2008 standard of supporting one to three lawyers. So more lawyers, regardless of seniority, are expected to do their own work. Despite high billing rates, partners and supervising lawyers are not exempt from this trend. In fact, it's because of their high billing rates that proficiency, not mere competence, is ever more important—even 30 minutes wasted struggling with MS Word is costly for the client and provides little, if any, value.

Debunking Myths About MS Word

Myth #3: I can delegate all grunt work in MS Word...

Even if you delegate, you must still have an awareness and understanding of what is possible and how the work should be done. On late nights, weekends, and in time crunches, you must be able to do this work yourself.

Debunking Myths About MS Word

Myth #4: My secretary will do it...

According to the Survey of Law Firm Economics, legal support jobs have steadily trended downward since 2007. It is projected that each support staff person will soon support seven or eight lawyers.

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Under the ethics rules, partners and supervising lawyers are not responsible only for themselves. They are also charged with bringing all other lawyers and staff within their firm into ethical compliance, too. To meet the duty of adequate training and supervision, partners and supervising lawyers must create policies and procedures that facilitate compliance with all ethical duties. For technology competence, this means technology training programs.

Junior Associates

Young lawyers are often thought of as “digital natives”. As a result, there is an assumption that they have innate technological skills that are helpful for legal work. However, young lawyers’ technology experience is usually social or lifestyle-focused and their learning is undirected and informal. Nobody grew up using document management software, encrypted email, redacted PDFs, and MS Word in the way that lawyers do. Thus, when it comes to workplace technology, young lawyers’ skills are incomplete and their knowledge is largely superficial.

It is true that many young lawyers are more comfortable with technology. However, developing skills only happens when use is combined with competency-based training. Though young lawyers must take it upon themselves to develop technology competence under Model Rule 1.1, firm management must also support and encourage those efforts—not penalize them.

Designing Training Programs that Work

Training programs must be supported by firmwide policies that encourage, reward, and make time for it. Ideally, firms would incorporate training as part of a professional development program and align technology training with developing substantive core competencies necessary for advancement in each practice group. Without a truly supported firmwide technology training program designed to assess and actually build core competencies, lawyers will be set up for failure.

Management must carve out time for training and treat that time with respect. When lawyers and staff feel penalized for investing non-billable time in training, management undermines the program and fails to meet the duties set forth in Model Rule 5.1.

Assessment as the Foundation for Training

Successful training efforts start with a skills assessment, incorporate competency-based learning with deliberate practice, and have a clear, practical link to each lawyer’s practice.

Assessment plays a key role in training. It serves as a reality check and provides a roadmap for future learning. It also helps to differentiate mere exposure from proficiency, which is necessary because superficial knowledge and years of exposure to programs make it easy for us to overestimate our skills.

Debunking Myths About MS Word

Myth #5: Young lawyers will do it...

Fewer than a third of students tested using the Legal Technology Assessment could perform more than 60% of the basic functions in MS Word required for legal practice.

Debunking Myths About MS Word

Myth #6: MS Word doesn't really matter...

According to a National Conference of Bar Examiners survey of recent law graduates, using basic office technology ranks 6th out of the 30 most important skills for a new lawyer to acquire. According to a survey by The Lawyer and Brochet, 99% of fee earners say MS Word is a critical tool, yet a third say they don’t get the most out of it.



Assessment-based learning rewards people who possess the necessary skills by allowing them to skip certain training, and provides direction for people who do not yet have the skills. With assessment, we focus our efforts on building competency without wasting time.

Becoming Technologically Competent: The Example of MS Word

Identifying Technology in Your Practice

Technology competence is about the tools that lawyers use to practice law rather than the substance of the law we practice. The software we use in the business of law is necessarily included in the mandate to learn technology. Nothing illustrates that more clearly than the example of MS Word.

"Using your computer as a glorified, glowing typewriter does not meet the minimum standard for technologically competent lawyers."

Competency Starts with Software Everyone Uses

When Comment 8 was revised to explicitly state that technology is part of the duty of competence, it necessarily affected Comment 5 to Model Rule 1.1. So Comment 5 must be read to mean that technology is part of the "methods and procedures" necessary to competently provide legal services. Therefore, under Comment 5, lawyers must use the technology methods and procedures that meet the standards of competent practitioners. Today, no competent lawyer would rely solely upon a typewriter to write a contract, brief, or memo. Typewriters are not part of "methods and procedures" used by competent lawyers. So using your computer as a glorified, glowing typewriter is unlikely to meet the standards.

As legal professionals, we do intricate work and create complex documents, such as briefs, motions, contracts, exhibits, and e-filings. So even our daily word processing is more complicated than the average user. Document preparation, drafting, and polishing consumes a significant amount of every lawyer's time regardless of practice area. Therefore superficial and merely passable use of MS Word is not enough. When using technology, a baseline level of competence is necessary. Word processing is integral to practice and must be learned.

Legal Documents: Our Key Deliverable

As lawyers, our primary and most tangible deliverable is our written work. When the client representation ends, the written documents are the lasting evidence of the advice and counsel we gave or the value we created. Legal documents are more than just words on paper, they are meaningful representations of our work. Lawyers take writing seriously, and judges, colleagues, and clients evaluate legal documents harshly.

If written documents are our key deliverables, then it makes sense to think that we ply our trade with our word processing tools. Though the profession can be slow to change, a lawyer who cannot use word processing tools may soon seem like a carpenter who can't use power tools.

Benefits of Learning MS Word

Even small improvements in how we use MS Word, such as learning to apply styles and collaborate using track changes can have a significant impact. Though each new skill we develop for working in MS Word may seem minor in isolation, when taken together, they add up. Lawyers who use MS Word properly save time, allocate more time to substantive and satisfying work, write off less time on client bills, and have higher realization rates. 7



Skills to Learn in MS Word

These are some basic MS Word skills that every person at your firm should possess. Lawyers perform these tasks again and again, every day. If possible, they should be delegated to a lower-level employee. Yet, some level of competence at each task is necessary—even for partners—because partners are now typing and creating their own documents. The skills are:

- Apply and modify styles;
- Automatically number paragraphs or add line numbers;
- Clear document metadata;
- Create and update a table of contents and table of authorities;
- Insert and fix footers;
- Insert and delete comments;
- Insert and update cross-references;
- Insert hyperlinks;
- Insert non-breaking spaces;
- Insert page breaks;
- Insert section and paragraph symbols; and
- Use headings for navigation and accessibility.

Lawyer's Guide to MS Word Resources and Training

Part of learning technology is knowing what is possible in a given program and having resources to draw upon when needed. The Lawyer's Guide is an ever-expanding list of articles, blawgs, on-demand CLEs, companies, and products that help lawyers get the most from MS Word. The focus is on free, low cost, and tiny tech solutions, so it's a great resource for any lawyer.

www.intelligentediting.com/lawyersguide

It's also important to know that more is possible. Even if you will not become an advanced user, you should know that additional functions are available in MS Word, such as macros for repetitive tasks; creation of form documents; availability of a Quick Parts Gallery for reusable content; and customizable styles and templates. There are also third-party add-ins that can help save time on drafting and proofreading. The key is to know when you should look for a solution. Look for improvements in areas where you are wasting the most time or experiencing the most frustration.

"Comment 8 supplies a forward-looking directive to continue learning and seeking efficiency-enhancing solutions."

Beyond Competence

The duty of technology competence is not static. It addresses how lawyers currently work, and also requires lawyers to keep abreast of technological changes and developments. Comment 8 supplies a forward-looking directive that implies something active. Though learning the programs we already have is a good place to start, lawyers must also continue to seek solutions that will make them more efficient.

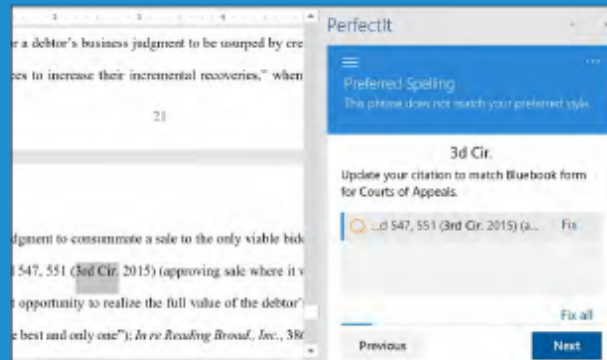
Keeping abreast of changes can mean looking for new programs or searching for ways to enhance your current set of programs. You can achieve both by learning about MS Word add-ins. Add-ins for MS Word are often developed by lawyers and are available through the MS Office Store or directly from the developer. They run within MS Word from the ribbon and add functionality and speed, simplifying cumbersome non-billable tasks. Add-ins designed for lawyers address the ever-increasing complexity of legal documents while leaving the final determinations to lawyers. They augment legal intelligence—not replace it.

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PerfectIt with American Legal Style

You can dramatically cut the time you spend proofreading by using PerfectIt with American Legal Style. It helps find and correct consistency errors, legal-specific typos, and *Bluebook* formatting. PerfectIt also enforces leading legal writing style guidance, so it helps add polish to your text. It ensures that you work faster and better while still keeping complete control over the text of your document. It's inexpensive, easy to use and easy to install. A free trial is available from www.intelligentediting.com



For example, relying on spellcheck and grammar check alone will not help lawyers achieve the required levels of proofreading accuracy that the profession demands. According to our own survey, lawyers spend more than three hours per week proofreading, and many spend much more. A LexisNexis study found that lawyers are spending 10 hours per week on the task, and that, despite commercial and compliance risk, one third of lawyers are skipping proofreading all together. Though clients demand perfect documents, they do not wish to pay for the time involved in making them perfect. So the ethics and business decision should be to seek software to help. Add-ins for proofreading do exactly that. They're low cost and deliver instant impact.

"Relying on spellcheck and grammar check alone will not help lawyers achieve the required levels of proofreading accuracy that the profession demands."

Pushing beyond the minimum level of competence and enthusiastically seeking improvements within MS Word benefits you and your firm. It improves your efficiency and ensures that you are not overbilling your clients for your written work.



Conclusion

Every lawyer and every legal workflow is affected by the duty of technology competence. Neither newness to the profession nor imminent retirement provide exemptions.

Data security and e-discovery get attention in the press. However, under the duty of technology competence, lawyers must use all of their technology tools of the trade properly. That starts with mundane tools that lawyers use every day, especially where there are ripe opportunities for learning, such as with MS Word. Ignoring that can lead to inefficient and poor work product, lower realization rates, lost profits, and creates a multi-layered cluster of incompetence and potential ethical violations across firms.

To prevent that, every lawyer needs to be aware of their responsibilities. Firm management must create training programs to help all lawyers and staff to develop technology skills, and provide adequate time and incentive to do so. Individual lawyers should critically evaluate their workflows, time records, and billing outcomes to understand how they work, identify the programs they use most, and make a training plan to improve the areas where they need to build technology competence—followed by actual training. And support staff should seek training and play an active role in improving their own workflows, rather than just accepting assignments and maintaining the status quo.

“To succeed, firms must create a culture of continuous improvement, and empower individual lawyers and staff to explore, adopt, and fully learn technology.”

The legal profession is changing. Clients are expecting services to be delivered differently and lawyers must find new and efficient ways to meet client needs. Technology is part of that. The rapidly expanding nationwide codification of the duty of technology competence is driving a paradigm shift. As firms adjust, the most successful ones will be those that create a culture of continuous improvement, and empower individual lawyers and staff to explore, adopt, and fully learn technology.

Tools for Enhancing MS

- **WordRake** helps with avoiding legalese and writing clear and concise prose, which also helps stay within page limits.
- **PerfectIt with American Legal Style** helps with proofreading, particularly with consistency errors, legal-specific typos, *Bluebook* formatting, and enforcing legal writing style guides.
- **Compass by jEugene** helps with verifying consistent substantive use of defined terms and cross-references.
- **CitePad** helps to accurately type *Bluebook* citations and toggle between irksome features, such as small caps and footnotes.
- **Best Authority** helps to automate marking citations and creating a table of authorities for long briefs.



About the Author

Ivy B. Grey is an accomplished lawyer and writer. She is the author of *American Legal Style for PerfectIt*, which is a proofreading and editing add-in for lawyers. Ivy is also a Senior Attorney at Griffin Hamersky LLP. She focuses her practice on bankruptcy, which includes distressed transactions and some litigation. She's been named as a Rising Star in the New York Metro Area for four consecutive years, and her significant representations include *In re AMR Corp. (American Airlines)*, *In re Dewey & LeBoeuf LLP*, *In re Eastman Kodak Company*, *In re Filmed Entertainment Inc. (Columbia House)*, and *In re Nortel Networks Inc.* Ivy received her J.D. from the University of Houston Law Center where she was Chief Notes & Comments Editor of the *Houston Business & Tax Law Journal*. Prior to becoming a lawyer, Ivy spent about 10 years working in public relations and advertising. You can follow Ivy on twitter at @IvyBGrey or connect with her on LinkedIn at www.linkedin.com/in/ivybgrey/.



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RESOURCES TO HELP LAWYERS AND LAW STUDENTS WITH TECHNOLOGICAL COMPETENCIES

Debbie Ginsberg, Educational Technology Librarian

The resources below are starting places for exploring legal technological competencies. The resources and the competencies they address are not exhaustive - future lawyers will need to continue to develop and improve new competencies throughout their practice.

Online teaching tools

These tools allow lawyers and law students to “learn by doing”. Users can earn legal technology certificates by completing modules.

- Procertas - <https://www.procertas.com/>
 - Tests the user’s ability to perform discrete tasks in programs like Word, Excel, and Acrobat. Users can use their own computers - PC or Mac - and their own versions of Office and Acrobat.
- National Society for Legal Technology - Legal Technology Certificate - <https://legaltechsociety.wildapricot.org/certification>
 - NSLT covers a wide variety of legal technologies. Users learn to use these technologies using online simulations.

Syllabuses

- Syllabi Commons (CALI) - <https://techforlawstudents.classcaster.net/syllabi-commons/>
 - A growing list of nearly 60 legal technology syllabuses and lecture modules donated by dozens of law schools

Sample Law School Programs

Many law schools are offering institutes, certificates, clinics, and courses integrating law and technology. These are a few examples.

- The Law Lab (Chicago-Kent) <https://www.thelawlab.com/>
- Cybersecurity & Data Privacy Certificate (Loyola LA) - <https://www.lls.edu/academics/concentrationsspecializations/jdconcentrationcoursesofstudy/cybersecuritydataprivacy/>
- Legal Innovation & Technology Certificate (Suffolk) - <https://www.legaltechcertificate.com/>
- Startup@BerkeleyLaw Clinic (Berkeley) - <https://www.law.berkeley.edu/experiential/startupberkeleylaw/entrepreneurs/>
- Entrepreneurship & Innovation Clinic (Boston College) - <https://www.bc.edu/bc-web/schools/law/academics-faculty/experiential-learning/clinics/entrepreneurship-innovation.html>
- Online Dispute Resolution course (Santa Clara) - https://law.scu.edu/scheduled_classes/online-dispute-resolution-the-state-of-the-art-5-2/



- The Policy and Business of Cryptocurrencies course (Hofstra) - <https://lawnews.hofstra.edu/2018/12/19/legal-technology-courses/>

Online videos/webinars

- Law Technology Today webinars (ABA) - <https://www.lawtechnologytoday.org/category/webinars/>
 - These webinars address the “how to” for legal competencies.
- Why Law Faculty Need to Learn About Legal Tech and What they Need to Know webinar (AALS) - <https://www.aals.org/sections/list/technology-law-and-legal-education/techwebinar1/>
 - Moderated by this panel’s own April Dawson, Speakers include Catherine Sanders Reach, ABA Techshow Co-Chair, and Michael Robak, the organizer of the law school speakers at past TECHSHOWs
 - Slides feature additional helpful resources

The annual CALI Conference features many programs on teaching technology to law students and law practice technology. The 2020 conference will be held at the Chicago-Kent College of Law - <https://www.cali.org/CALI-Conference>

- They Said There Would Be No Math: Law Schools Teaching High Tech and High Concept Courses (CALI 2019) - <https://youtu.be/Cpw3PHe3gYU>
- Law Students + Access To Justice + Legal Education Technology = A2J Author (CALI 2019) - <https://youtu.be/UbcNGZHjyM4>
- From Decoder Rings to Deep Fakes Translating Complex Technologies for Legal Education (CALI 2019) - <https://youtu.be/AajWuBA6puc>
- Are You Experienced: Simple Timesheets for Experiential Learning Courses (CALI 2019) - <https://youtu.be/PyJar8HgJgs>
- Teaching Tech to Law Students (CALI 2018) - <https://youtu.be/jbaNGK4a6bw>
- More CALI Videos - <https://www.youtube.com/channel/UCAGrA9Jx9q6DSO1X1Ov0Y-Q>

Libguides for teaching tech

Law school libraries’ online guides can be great starting points for all kinds of topics. The guides below provide additional resources about law practice technologies and technology competencies.

- Law Practice, Management, and Technology (Florida State University) - <https://guides.law.fsu.edu/LawPracticeandManagement/Home>
- Law Firm Technology (University of South Carolina) - <http://guides.law.sc.edu/lawfirmtech>
- Legal Technology for Students and Practitioners (Maine School of Law) - <http://lawguides.minelaw.maine.edu/lawtech/duty>



Useful Articles and resources

- ABA TECHREPORT 2019 (a good overview of current legal tech issues) - https://www.americanbar.org/groups/law_practice/publications/techreport/abatechreport2019/
- Law Technology Today Quick Tips Archives (ABA) - <https://www.lawtechnologytoday.org/category/quick-tips/>
- How Legal Professionals Can Keep up With Technology - <https://www.lawtechnologytoday.org/2019/10/how-legal-professionals-can-keep-up-with-technology/>
- Do Lawyers and Law Students Have the Technical Skills to Meet the Needs of Future Legal Jobs? - <http://www.slaw.ca/2017/06/29/do-lawyers-and-law-students-have-the-technical-skills-to-meet-the-needs-of-future-legal-jobs/>
- 7 Key Tech Skills for Law Students - <https://www.lawyer-monthly.com/2018/11/7-key-tech-skills-for-law-students/>
- Teaching Tech: How Legal Education Coursework Is Changing in Today's Digital Era - <https://www.law.com/legaltechnews/2019/10/01/teaching-tech-how-legal-education-coursework-is-changing-in-todays-digital-era/?slreturn=20200006204253>

Legal Technology Competencies Outline

The list below is a starting point for determining what technologies lawyers and law students should focus on. Individual practices will require additional competencies. New technologies and technological threats will also expand this list.

Everyday work

No one wants to spend hours fighting Word documents. Mastering the software you use every day will save hours of time - and alleviate legal work's most common frustrations.

- Common desktop software like Office and Acrobat
- Practice software (e.g. discovery software for trials or contract-analysis software for transactional work)
- Mobile practice apps

Marketing

If you are looking for new clients, online tools can be invaluable.

- Social media (e.g. when and how to use networks like Twitter, Facebook, and LinkedIn)
- Websites (creating, securing, updating, and search engine optimization)



Security

Law firms have been called the “soft underbelly of the internet.” Taking precautionary measures to protect your firm’s and your clients’ data is no longer just an option.

- Threats (from ransomware to stealing passwords)
- Protections (e.g. antivirus software, VPNs)
- Responses (how will you respond *when* you are hacked?)
- User training (training yourself and others in your firm to avoid common threats)

Efficiency

Your time is literally money. Evaluating firm processes and projects can speed up your work, not to mention improve consistency and reduce errors.

- Process management - how lawyers handle common or repetitive work)
- Project management - how lawyers handle individual matters
- Task management

Resource Evaluation

Before you install/buy/license a new product:

- Product research (e.g. what problems does it solve and will the product make your life easier?)
- Product evaluation (e.g. what are the benefits and risks?)
- Budget evaluation (e.g. what are the costs for purchase, what are the implementation costs, and what will the future maintenance costs be?)
- Future-proofing (e.g. can you transfer data/work/information to a competitor?)
- Working with vendors (e.g. what are the terms of service?)

Continuous Learning

- Planning learning paths (e.g. what technologies do you need to learn now to improve your practice, and what will you learn in the future?)

Ethics

- Model Rule (1.1. Comment 8)
- Other applicable rules (other rules may also require lawyers to use technology well)

