I. INTRODUCTION

Today's lawyer has both an ethical obligation to understand current technology and an ongoing duty to keep abreast of new technology relating to the practice of law. Given the speed of technological growth, any approach to the ethical practice of law that involves simply trying to apply current ethical rules to current technology will be outdated even before it can be implemented. What is required is to develop a predictive model based upon the evolution of ethical rules that anticipates how ethical rules might evolve to address the use of new technologies. Once the predictive model is developed, the practitioner needs to identify the practitioner's unique goals and determine how technology might assist the practitioner in accomplishing those goals within the predictive model.

This holistic approach requires combining the evolution of the ethical rules with technology and the practitioner's long-term goals. The combination must incorporate both the letter and the spirit of the relevant ethical rules. Unlike a heuristic approach, the holistic approach to technology and ethics allows a lawyer to maximize the benefit of technology to the benefit of both lawyers and clients. The holistic approach also minimizes the likelihood of encountering an ethical problem when implementing newly adopted technology.

Forging a path through the dense thicket of technology and the ethical rules may seem daunting. Avoiding ethical problems associated with new technology requires education and vigilance. Merely practicing law as one has done in the past and remaining willfully ignorant of ever-changing ethical rules and new technology is a recipe for disaster. Just because a lawyer has not yet received an ethical reprimand is not evidence that the lawyer is practicing ethically. Proactive identification and
continuous implementation of a holistic model of ethical practice in the face of new technology is every lawyer's duty, regardless of whether or not the lawyer's activities are ever reviewed by an ethics committee.

II. NEW TECHNOLOGY MEETS OLD ETHICAL RULES

The difficulty in implementing new technology into the practice of law can be off-putting to many lawyers. Most ethical rules were written with the postal service and landlines in mind. As a result, trying to make sense of ethical rules in a time of email, mobile devices, and electronically stored information is not unlike trying to force a square peg into a round hole. How then is a lawyer to approach new technology with only old ethical rules in hand?

Ethical rules regarding technology typically evolve after reports of incidents involving lawyers misusing new technology. It is axiomatic that ethical rules specifically addressing a particular type of new technology cannot appear before the new technology appears. Even after the new technology appears, the promulgators of ethical rules are in no rush to enact new ethical rules specific to that technology, choosing instead to take a wait-and-see approach to craft the rules to more specifically address the likely ethical concerns. Often, a lawyer must use the new technology in an unethical manner before the rule-making bodies know what conduct to prohibit. As unethical use of technology often goes unreported, it is not until someone actually reports an abuse of the new technology before rule-making bodies even consider enacting an ethical rule specific to that technology. It is often not until after an investigation and adjudication of an abuse that all the facts necessary for new rule promulgation come to light. Even then, someone must propose a new rule, which must be discussed and revised, before the body enacts a new ethical rule addressing the use of the new technology. As a result, there may be a span of several years between the time lawyers begin using the new technology and the ethical rules regarding its use are promulgated.

Even after years of discussion regarding appropriate new ethical rules governing new technology, it is unusual that the resulting ethical rules are perfectly drafted to address the use of the new technology. Given the limitations of language, and relative unfamiliarity of some ethics committees with new technology, new ethical rules governing the use of new technology often substitute broad, vague language for precise boundaries. These broad rules leave it to later adjudicators to apply the vague language to specific incidents on a case-by-case basis. On the upside, such an approach allows later adjudicators more leeway to judge cases after time has passed and when a particular technology is perhaps better understood. On the downside, broad, vague ethics rules may provide lawyers with even less guidance and more potential pitfalls than the old rules. Over time, these new ethical rules are revised to more narrowly address the specific new technology. The hope of future narrowing revisions are unfortunately of little guidance to the lawyer using the technology today. Where then can lawyers look for guidance on the ethical application of new technology to the practice of law?

III. CHARTING A PATH

Existing ethical rules, while not specifically addressing the use of the newest technology, still represent the best resource for a lawyer charting a path for the ethical use of new technology in the practice of law. If lawyers can track the ongoing evolution of ethical rules, they can not only extrapolate how existing ethical rules might apply to existing technology, but they can make informed predictions as to how even newer ethical rules may emerge governing the use of new technology. Because inexact predictive models do not bind new ethical rules regarding new technology, lawyers would be well advised to use such models both cautiously and conservatively until new ethical rules governing the new technology actually emerge. While even a cautious and conservative approach to such predictive models is no guarantee of avoiding an ethical violation, defending an action based on a cautious implementation of an informed predictive model is a far better defense than one premised upon maintaining one's head firmly under the sand.

Navigating the ethical minefield of technology can be equally daunting to both the technophobe and the technophile. Many technophobes are more experienced lawyers. While they may have a firm grasp of the ethical rules, they fear the misapplication of poorly understood technology to those rules. As a result, they avoid new technology, compounding the problem and leaving
themselves susceptible to an ethical violation when they are eventually forced to use a new technology. Conversely, many technophiles are less experienced lawyers. While newer lawyers may understand the letter of the ethical rules, they lack the insight that comes with years of seeing how the rules are applied in practice and which rules present the greatest danger of violation. Compounding the problem is the technological hubris that often goes hand-in-hand with technological proficiency. One way people become proficient with technology is simply immersing themselves in the technology prior to gaining a full understanding of its limitations. Technophiles often employ a heuristic approach, sometimes even learning more from failures than successes. While such an approach can dramatically flatten the technological learning curve for technologies such as video game and operating systems, such an approach can prove to be professional suicide when it comes to technologies like document security and e-discovery.

Interestingly, technology can help both the technophile and the technophobe avoid a catastrophic collision between the ethics rules and new technology. Developing a predictive model for the ethical use of new technology in the practice of law begins with three initial steps: understanding the rules, understanding the technology, and identifying the most likely culprits.

A. UNDERSTANDING THE RULES

The first step in developing a predictive model for the ethical use of new technology is understanding the ethical rules. This means understanding not only the applicable ethical rules, but also how those rules have developed over time and how those rules are interpreted by both the courts and ethics committees.

1. The Rules

While it is advisable to be familiar with all of the ethical rules, lawyers looking to develop a predictive model for the ethical use of new technology should concentrate on those ethical rules most likely to impact a particular lawyer's jurisdiction and area of practice. Not all ethical rules impact all types of lawyers equally. The odds that a transactional attorney will run afoul of an ethical rule governing decorum in the courtroom are far less likely than the odds that the same attorney will run afoul of an ethical rule relating to avoiding conflicts of interest. One method of determining which ethical rules have the greatest impact on which areas of practice is reviewing a list of recent disciplinary actions. An even better method is to review all of the ethical rules, identifying and eliminating those rules that are unlikely to impact a lawyer's particular area of practice and focusing a disproportionate amount of time on becoming intimately familiar with the remaining rules.

A comprehensive analysis of ethical rules affecting a lawyer's practice should not only concentrate on those rules from the lawyer's own jurisdiction, but also those rules from other jurisdictions relating to the lawyer's practice. While lawyers are not bound by ethical rules from other jurisdictions, it is not unreasonable to consider courts and ethics committees might look to such extra-jurisdictional rules when presented with novel applications of ethical rules to new technology or when promulgating new ethical rules within their own jurisdiction.

2. The Evolution of the Rules

Old ethical rules, along with old comments, old ethics opinions, and court interpretations relating to the old rules, provide invaluable insight not only as to the meaning of existing rules, but as to what future ethical rules relating to new technology might eventually look like. Assume for example that an old ethics opinion stated it was unethical to use Technology A with a client without obtaining written authorization from the client. Ten years have passed since that ethics opinion was issued. In the interim, Technology A has become ubiquitous, without a single reported incident of a client being compromised by its use. Assume no action has ever been taken against a lawyer for using Technology A without written client authorization. Assume also, that since the ethics opinion was issued, many other jurisdictions have specifically allowed the use of Technology A not only without requiring written client authorization, but without even having to inform the client of the use of Technology A by the lawyer. If the jurisdiction then issued a new ethics opinion regarding Technology A, stating that a lawyer need no longer obtain written authorization from the client but need only take reasonable care to protect the confidentiality of the
communications using Technology A without knowing the evolution of the ethical considerations governing use of Technology A, it would be very difficult for a lawyer to determine what constitutes “reasonable care” in the use of Technology A. With a clear understanding of the evolution of the ethical considerations governing use of Technology A, a lawyer has a much better idea of whether reasonable care dictates that the lawyer disclose the use of Technology A to every client. While it may be possible to predict how existing ethical rules may apply to future technology by only reading the rules, understanding the history of the rules and staying abreast of newer rules from other jurisdictions makes for more accurate predictions.

3. The Interpretation of the Rules

When trying to interpret how various ethics rules might be applied in a particular situation, there is no need to reinvent the wheel. Lawyers should look first to see if there have been any recent court rulings, ethics opinions, and/or disciplinary actions addressing the application of a particular ethical rule to the use of a particular technology. If a governing body has already interpreted how a particular ethical rule applies to a new technology, that determination should serve as a polestar for developing a predictive model for the ethical use of the new technology.

A ruling regarding the application of a particular ethical rule to a new technology makes a lawyer's life easier by providing specific guidance as to what is and what is not allowed. Such a ruling can be problematic, however, in cases where the ruling is overbroad and/or misinformed. While most judges and ethics committee members issuing formal decisions regarding the application of ethical rules to new technology are extremely well versed in the ethics portion of the adjudication equation, some will be the first to admit their relative technological naïveté. When issuing decisions involving new technology, less technologically sophisticated judges and ethics committee members may lean toward the adoption of broader, vaguer, and more conservative opinions to prevent more technologically sophisticated lawyers from trying to exploit flaws in a narrower, more specific, and more liberal opinion. It is typically easier for a judge or ethics committee to later narrow a broad ruling than to later broaden a narrow ruling. Additionally, promulgators of ethical rules and opinions are wary of creating rules that are simultaneously too broad to allow the ethical practitioner to efficiently service clients and too narrow to prevent the unethical practitioner from using the letter of the poorly structured rule to justify an unethical practice.

If a lawyer disagrees with the determination of the governing body regarding an ethical rule or opinion, the onus is on the lawyer to convince the governing body to issue a new opinion in line with the lawyer's interpretation of the rules. While reversing an ethics rule or opinion is far from guaranteed, it is not impossible. Before requesting a reexamination of an existing ruling, however, a lawyer would be well advised to conduct an exhaustive analysis of the ethics associated with using the technology. This is the lawyer's opportunity to educate the governing body about the new technology and its benefits. The analysis should also include the history of the ethical rule, relevant case law, and ethical rulings from the lawyer's jurisdiction. If applicable, the lawyer should describe how the proposed new interpretation of the ethical rules has expanded the benefits of the new technology to lawyers and their clients in other jurisdictions while simultaneously guarding against unethical uses of the new technology.

While successfully overturning an ethics rule or opinion is not easy, the proper research and presentation can go a long way toward broadening an unnecessarily narrow ethical determination to permit broader ethical use of a new technology. It is imperative that any attempt to overturn an ethical determination regarding new technology be proactive, rather than reactive. As hard as it may be to change the collective mind of such a governing body, trying to implement such a change before being accused of violating the associated ethical rule is easier than trying to implement such a change after being accused of violating the ethical rule in question. Compliance with ethical rules is one time where asking permission is far easier than asking for forgiveness.

B. UNDERSTANDING THE TECHNOLOGY

The second step in developing a predictive model for the ethical use of new technology is understanding the technology relating to the lawyer's area of practice. Technology is constantly evolving, promising the ability to provide faster, better, and cheaper service to lawyers and their clients. Ethical rules governing how lawyers may and may not use this technology are
stagnant by comparison, inherently unable to keep pace with an increasingly sophisticated technological landscape. Just as it is important to fully understand the ethical rules relating to the use of new technology, it is equally important to fully understand the technology itself.

Technology offers lawyers the opportunity to provide faster, better, and cheaper service to their clients, but technology also has its pitfalls. Building proficiency with the latest technology necessarily involves a certain amount of trial and error, where the user learns as much, if not more, from failures as from successes. Technology is a work multiplier, dramatically magnifying the consequences of the user's actions. Technology is agnostic as to whether the work it does is ethical or unethical. Unfortunately, given the nature of the practice of law, technology is often better at multiplying the detrimental effects of bad decisions than it is in multiplying the beneficial effects of good decisions. While sending thousands of discoverable documents to opposing counsel with a click of a mouse may save a few hours of a lawyer's time, accidentally including some non-discoverable documents along with that click of the mouse can lead to anything from an adverse inference instruction to a multimillion dollar claim for malpractice.

Understanding the technology does not require knowing everything there is to know about a technology, or even knowing all of the latest technology options. While more information is desirable, gaining knowledge about new technologies quickly reaches a point of diminishing returns. With technology, the sweet spot of understanding often rests with a detailed, but not necessarily comprehensive, working knowledge of widely distributed, thoroughly tested products. These technologies are often cheaper and more stable than newer technologies, which may still be working the bugs out. Of particular importance is a lawyer's knowledge of potential limitations and/or security flaws associated with a technology that could detrimentally affect the client information maintained by the lawyer.

Before implementing a new technology, a lawyer should, at a minimum, conduct a due diligence audit of the technology. One thing to consider in such an audit is the lawyer's ongoing ability to access the technology. If the lawyer implements the technology, is there any way that the technology could be used to restrict a lawyer's access to the technology or to information stored by the lawyer using the technology? Another consideration is whether the new technology has adequate security measures in place to prevent unauthorized third-party access to the technology and other information accessible through the technology. Still another consideration is how license agreements or terms of service may affect a lawyer's access to the technology and other information accessible through the technology if the lawyer misses a payment for the technology or terminates the license agreement relating to the technology.

The lure of the very latest technology can be irresistibly attractive to the technophile lawyer. The dangers associated with the newest untested technology, however, are several-fold. First, the technology may still have untested security vulnerabilities. Second, the technology may not garner a wide enough user base to justify regular, comprehensive updates, or even continued support of the technology itself. Third, the technology might be quickly eclipsed by a newer, more nimble technology, requiring the lawyer to quickly discard the technology in favor of the even newer technology. Fourth, the constant quest for the absolute latest technology will likely involve ongoing disruptions to a lawyer's practice as systems are constantly removed and installed.

Conversely, the familiarity of a legacy system may cause a technophobic lawyer to put off updating a technology until well past the time the technology has become more of a liability than an asset. This approach is a ticking time bomb. At any time an unscrupulous third party could exploit the vulnerability of the older technology, accessing the information contained therein, and using the information for identity theft, extortion, or just to embarrass the lawyer or his or her clients.

The wisest, most ethical technology solution lies somewhere between the outdated and cutting edge technologies. The best course of action may instead be to select current, broadly distributed, and thoroughly tested, technology. Not only is more mainstream technology often more user friendly, but it is also often packaged with a standard set of commonly used features. Selecting a known system also allows for streamlined updates instead of constantly discarding one technology for another. More mainstream systems can also reduce security concerns associated with legacy systems and more cutting edge technology, further reducing the likelihood of an ethical violation.
While ethical rules and opinions rarely, if ever, mandate the use or abandonment of any particular technology, they may mandate a lawyer conduct due diligence on the outdated technology to assess the potential for risk, the damage which could result, and/or the estimated cost of remediation. Finally, for lawyers governed by such rules, it may be easier to demonstrate that the standards contained within such rules are met by a more mainstream technology than by either a cutting edge or legacy technology. While it may be possible that a cutting edge technology may be more secure than a more mainstream solution, in the event a breach occurs and an ethical violation is alleged, it may be quite difficult to try to prove the superiority of a breached cutting edge system over a mainstream system with which one or more of the people reviewing the ethics allegation may be more familiar. When it comes to an ethical breach relating to technology, being an outlier, whether by being too cutting edge or too behind the times, is not an enviable position from which to lodge a defense.

Is it incumbent upon a lawyer to understand every technical aspect of every technology used by that lawyer's firm? While a greater familiarity with technology, especially with technology the lawyer uses on a daily basis, is desirable, no ethical rules mandate that a lawyer be familiar with every particular technical specification of every technology he or she uses. For those technologies with which a lawyer is least familiar and/or those technologies most susceptible to compromise, the lawyer would be well advised to enlist an expert to guide the lawyer in the use of the technology and warn against likely pitfalls. An expert can also serve a lawyer as an ongoing advisor whom the lawyer can access before a problem arises instead of using the more typical heuristic approach familiar to general technophiles.

In enlisting experts, it is important to select an expert or experts familiar with both the technology and the ethical ramifications of the use of that technology. It is especially important that the expert be aware of special ethical considerations regarding the use of a particular technology in the practice of law. If a lawyer cannot retain a single expert who possesses both an expert knowledge of the technology and a familiarity with the ethical rules governing its use by attorneys, the lawyer may enlist multiple experts to assist with the installation and use of the technology. When enlisting multiple experts, open communication is critical. If the experts are not allowed to confer with one another, there is an increased chance that one expert may think another expert is handling a particular matter, while potentially catastrophic security breaches fall through the cracks between the experts’ respective fields of knowledge.

Minimizing the downside of technology involves gaining proficiency with a particular technology prior to implementing it in the practice of law. As much of the technology involved in the practice of law builds on technology used outside of the law office, it is important for lawyers to immerse themselves in technology both inside and outside of their profession. But just as improvident use of technology by a lawyer within the practice of law can have devastating consequences, so too can the improvident use of technology by a lawyer outside the practice of law. While the line between what constitutes ethical and non-ethical use of technology by a lawyer is relatively broad, it is also relatively fuzzy. The technologically unsophisticated lawyer must master those tried and true uses of technology before wandering anywhere near the line.

C. IDENTIFYING THE MOST LIKELY CULPRITS

The third step in developing a predictive model for the ethical use of new technology is identifying those uses of technology most likely to embroil a lawyer in ethical trouble. Not all ethical problems are created equal. A small number of activities account for a large number of ethical breaches. What follows is a list of some of the more notorious culprits.

1. Electronic Transmissions

Everything a lawyer writes or transmits electronically, whether via email, or by posting to the lawyer's own website, is subject to multiple ethical rules prohibiting false, fraudulent, and misleading statements of law or fact. A major difference between the application of the ethical rules to hard copy and electronic transmissions is that, depending upon the type, an attorney may be subject to an ongoing ethical duty to continuously revise the electronic transmission to maintain its accuracy as events change. Although a statement on a lawyer’s website that the lawyer is a member of a particular fraternal organization might be true today, it may not be true tomorrow. If a lawyer is suspended or disbarred, that lawyer must immediately update all
publicly accessible outstanding electronic communications, including social media websites, to reflect that change in status. As soon as the statement is no longer true, the lawyer is committing an ethical violation until the content is updated. To avoid ethical problems regarding electronic transmissions, it is advisable to schedule periodic reviews of all information a lawyer posts online to ensure the information is still accurate. In addition, it is advisable to avoid posting information the lawyer has reason to believe might become inaccurate at a later date.

In some jurisdictions, lawyers may publish specific amounts awarded by jury verdict or recovered by settlement, provided the lawyer adheres to very strict guidelines regarding accuracy, disclaimer, and the lawyer's duty of confidentiality. The goal of such disclaimers is to abrogate potential consumer confusion relating to the language regarding verdicts and settlements. Although such advertisements are allowed in some jurisdictions, they are not allowed in others. Special care must be taken in law firms where lawyers are admitted to practice in multiple jurisdictions to ensure that the firm's website and all information contained therein is in compliance with the ethical rules of each state in which the firm's lawyers are licensed to practice.

2. Legal Information vs. Legal Advice

A natural conflict arises between protecting the public from overreaching lawyers trying to solicit their business and providing members of the public with detailed information about their rights and access to legal services. While in the past the stifling of lawyers may have traditionally prevailed, currently the interest of educating the public is in the forefront. There is no prohibition on providing legal information. Providing legal advice, however, may obligate a lawyer to undertake certain duties regarding the party to whom the lawyer provides such advice. There is no bright line between what constitutes legal information and what constitutes legal advice. As the line between legal information and legal advice is blurry, lawyers should avoid offering any information to any non-client that a court might possibly construe as legal advice. This is especially true when providing legal information online. To avoid a lawyer's communication being construed as legal advice, the lawyer should avoid offering information that applies the law to a specific fact pattern or that might otherwise affect the legal rights of the person receiving the information. As with any client engagement, prior to offering legal advice, a lawyer should run a conflict check covering all relevant parties and enter into a formal written engagement of representation. Lawyers should avoid advising any party as to any specific course of action prior to such formal engagement of that party as a client. If there is any doubt as to whether or not a non-client may reasonably interpret a lawyer's communication as legal advice, the lawyer should communicate directly to the non-party that the lawyer is not the non-party's lawyer and follow that up with a written letter of non-engagement, detailing the consequences of ignoring any applicable statutes of limitation.

3. Creating a Client-Lawyer Relationship

All lawyers should have well-defined new client intake procedures that include an automated conflict check system, operated either by the attorney directly or indirectly through a responsible and knowledgeable staff member. New client intake safety procedures must include special rules, procedures, and disclaimers regarding inquiries from prospective clients. Whether the inquiry is in the form of a telephone call, postal mail, email, or through the lawyer's website, absent specific intake protocols, such inquiries may trigger special duties under certain ethical rules requiring a lawyer to disqualify himself or herself not only from representation of the prospective client, but from one or more pre-existing matters as well.

While not all persons who communicate information to a lawyer are entitled to protections afforded to clients, all that the rules require for a person to become a prospective client, and thereby trigger the duties under Rule 1.18 of the Model Rules of Professional Conduct, is to consult with the lawyer about the possibility of forming a client-lawyer relationship. Either the lawyer or the inquiring party may be deemed to have initiated consultation. If the party is deemed to have initiated the consultation, the lawyer's response will dictate the existence of a client-lawyer relationship. If the lawyer is deemed to have initiated the consultation, either through a general or specific solicitation of a client-lawyer relationship, a party's response to
such a *724 solicitation may trigger the “prospective client” duties under Rule 1.18, which may require the lawyer to not only decline representation of the inquiring party, but to disqualify himself or herself from a preexisting representation. 23

To avoid conflicts of interest with prospective clients, lawyers must avoid inviting the public, or any prospective client, to submit confidential information to the lawyer prior to the lawyer running a formal conflict check. Jurisdictions vary as to whether a stranger sending confidential information to a lawyer in response to contact information found on the lawyer's website triggers a duty by the attorney to maintain the confidentiality of the information so received. 24 To avoid confusion, lawyers should include detailed disclaimers near *725 the contact information on the lawyers' webpages to reduce the likelihood that a potential client might view the contact information as an offer of engagement for legal services. 25 To be effective, limitations, conditions, and disclaimers of a lawyer's obligations must be conspicuous, written in plain language, not misleading, and understandable to the average reader. 26 If there is any reason to believe that a non-client may reasonably believe a client-lawyer relationship exists, the lawyer should provide the party with a written letter of non-engagement, detailing the consequences of ignoring any applicable statutes of limitation.

4. Unauthorized Practice of Law

Practicing law in a state other than one in which a lawyer is admitted to practice is an ethical violation. 27 “A lawyer may not assist a person in practicing law in violation of the rules governing professional conduct in that person's jurisdiction.” 28 Along with its benefits, the internet adds much complexity to the practice of law. Prior to the ubiquity of the internet, what constituted practicing law in another state was much easier to determine. Today, an attorney receiving a phone call or email may not even know the state from which the communication originates. It is not uncommon for prospective clients to perform an online search regarding a specific legal problem and contact the first lawyer that appears in the search results without regard to jurisdiction. It is therefore imperative that lawyers confirm the jurisdiction *726 in which a prospective client's issue arises prior to even running a conflict check.

In addition to vetting correspondence from prospective clients for jurisdiction, lawyers should avoid presenting legal information online without indicating to which particular jurisdiction the information pertains. It would be incorrect for a lawyer to assume information he or she posts on a firm website or blog will only be seen by individuals in that lawyer's own jurisdiction. If the information is jurisdiction-specific, the lawyer should clearly indicate as much in a manner likely to be seen by anyone reading the information. Similarly, if a lawyer is providing legal information in a chat room or on social media, the lawyer should make it clear to which jurisdiction the legal information pertains.

In the event a lawyer wishes to offer legal services in a jurisdiction where the lawyer is not admitted to practice, Rule 5.5 of the Model Rules of Professional Conduct provides several exceptions for lawyers practicing in states in which they are not admitted to practice. 29 Rule 5.5 provides exceptions for a foreign lawyer offering legal services: 1) “undertaken in association with a lawyer who is admitted to practice in [the] jurisdiction”; 30 2) “reasonably related to a pending or potential proceeding before a tribunal in [the] jurisdiction, if the [foreign] lawyer . . . is authorized by law to appear in such proceeding or reasonably expects to be so authorized”; 31 3) reasonably related to an alternative dispute resolution proceeding “if the services . . . are reasonably related to the lawyer's practice in a jurisdiction in which the foreign lawyer is admitted to practice”; 32 or 4) otherwise “reasonably related to the lawyer's practice in a jurisdiction in which the lawyer is admitted to practice.” 33 These exceptions are limited and narrowly defined. If a lawyer wishes to use one or more of these exceptions, the lawyer must determine if these model exceptions exist in the jurisdiction in question and prepare well in advance to ensure strict adherence to the specific requirements of the relevant exception(s).

5. Electronically Stored Information
Electronically stored information ("ESI") is information electronically stored in any medium from which information can be obtained. ESI includes writings, drawings, graphs, charts, photographs, sound recordings, images, and other data or data compilations. ESI also includes metadata. Metadata may include, among others, information regarding previous edits to documents, digital notes regarding the document, and the date the document was created and/or last edited. Metadata may be easy to find or it may be deeply embedded in other ESI.

While technology makes searching, reviewing, sorting, and producing documents much easier, technology makes mistakes as well. One problem that arises is in the production of documents in litigation. After a lawyer has collected all responsive documents, before providing those documents to opposing counsel, the lawyer must analyze each document to ensure that not only are all of the documents discoverable, but that all of the metadata associated with the documents is discoverable as well. If the lawyer fails to vet all ESI prior to production, the lawyer may encounter ethical, as well as financial, hardships. Conversely, if metadata associated with other ESI falls within the scope of requested and discoverable information, inadvertently removing or altering that metadata prior to production may result in sanctions as well.

In situations where documents to be produced are numerous or complex, lawyers should enlist experienced outside document production vendors to assist in the preservation, identification, analysis, collation, and production of documents for litigation. Lawyers, however, cannot simply rely on the client or outside vendors to identify and produce all discoverable ESI. The ultimate responsibility for preserving the integrity of the discovery process still rests with the lawyer. Lawyers must ensure discovery is handled correctly by documenting and overseeing the entire process.

Effective ESI discovery practices begin before a lawsuit is even filed. Given the often-short time frames allotted for ESI production, lawyers need to thoroughly familiarize themselves with all aspects of the ESI production process beforehand. Long before discovery begins, lawyers need to advise clients on proper document management and destruction protocols, as well as appropriate social media activities and remedial measures. Before a potential client even walks in the door, litigators need to develop appropriate Federal Rules of Civil Procedure 26(f) planning meeting strategies, draft comprehensive template protective orders that include both quick peek and claw-back provisions, familiarize themselves with appropriate search term protocols, pre-select appropriate ESI management vendors, and develop capabilities for generating comprehensive privilege logs. From the Rule 26(f) planning meeting to the actual document production itself, the lawyer is responsible for overseeing the entire process. Failure to develop appropriate ESI discovery strategies ahead of time cannot help but leave a lawyer vulnerable to claims of malpractice and/or ethical violations.

6. Failure to Secure Client Data

Lawyers have a duty to maintain the requisite knowledge and skill to competently represent their clients. This requires lawyers to keep abreast of the risks and benefits associated with changing technology relevant to the practice of law. Lawyers also have a duty to prevent the inadvertent disclosure of, or unauthorized access to, confidential client information in the possession of the lawyer. This entails making a reasonable effort to prevent access to, or disclosure of, confidential client information while such information is being transmitted or stored by the lawyer. Reasonableness, in this context, involves a number of mercurial factors that necessarily change over time. Some of the factors used to determine whether a lawyer has taken reasonable steps to safeguard a client’s confidential information include the sensitivity of the information, the vulnerability of the security system currently in place, the likelihood of a third-party defeating the current security system, the cost of tighter security, the difficulty of implementing tighter security, and the hardships associated with using tighter security.

At the very least, a lawyer must take basic security precautions to protect client information. These measures include ensuring physical security of a lawyer's office and property, as well as redundant off site back up of all client information, including client
trust accounts. The greatest technological encryption systems in the world will not guard against an unauthorized person walking into an unlocked lawyer's office and stealing physical client files. In addition to locking the office, lawyers should ensure laptops, tablets, and mobile devices containing client information are password protected, provided with location and kill features, and are never allowed in public outside of the lawyer's possession.

In addition to physical security measures, if a lawyer stores or transmits client information electronically, the lawyer must also take reasonable technological measures to secure that information. What constitutes “reasonable” security of client information, however, changes over time. In the past a lawyer storing all client information on a third party server located in a different state, accessible only over the internet (“cloud storage”), might have been seen as ethically unreasonable. Today, cloud storage, resilient to both breaches in physical security and natural disasters, may be seen as an even more reasonable approach to security than storing paper files in a file cabinet in a lawyer's own office.

Determining whether a particular technological option for safeguarding client information is ethical or not at a given point in time requires due diligence on the part of the lawyer. This due diligence relates to all aspects of information assurance. A lawyer must ensure appropriate access to all electronically stored client information. This includes storing electronic client information in multiple locations to ensure accessibility, investigating the bona fides of the electronic document storage vendor, confirming the cost of the electronic document storage system and the vendor's remedies in the event of non-payment, ensuring retrieval of data upon termination of the vendor, and negating any rights the vendor may wish to claim in the data. Due diligence may also require the lawyer to ensure the vendor notifies the lawyer in the event of any unauthorized access to the client information.

The level of security required to protect client information varies with the type of information secured. Although historically unencrypted emails have not been found to be at a substantially increased risk of interception as compared to telephone calls, ethical may mandate email encryption in circumstances where the lawyer is aware the information being emailed is extraordinarily sensitive and/or at a heightened risk of interception. Also, while a lawyer may not automatically be required to obtain the consent of clients to use third-party electronic storage or even inform clients that a lawyer is using such storage to store client information, the scope of a particular representation and/or the sensitivity of the data involved may ethically mandate client disclosure and/or consent.

Problems may arise when a lawyer is ethically obligated to conduct due diligence on a desired technology but lacks the requisite technological expertise to conduct the due diligence. In such a case, some jurisdictions allow the lawyer to hire individuals with the requisite specialized knowledge and skill to perform the complex due diligence associated with implementing a particular information technology solution. In those jurisdictions where such “specialized knowledge and skill” also includes an understanding of the ethics rules applicable to implementation of the particular information technology solution, suitable third-party due diligence vendors may be hard to find.

IV. THE TAO OF TECHNOLOGY ETHICS

The foregoing objective approach to the ethical implementation of new technology into the practice of law is only half of the equation. The other half involves a more subjective, holistic model. Whereas the best course of action is for a lawyer to obtain a mastery of technology and the ethical rules and opinions of all fifty states, such an exhaustive approach is simply not feasible for the average practitioner. For the average lawyer, a holistic model is more practical.

In addition to obeying the letter of the applicable ethical rules, lawyers should obey the spirit of those rules as well. The holistic model melds the lawyer's own specific practice goals with those of the predictive model relating to the evolution of the
relevant ethical rules. Taking a proverbial step back to determine the goals the ethical rules are trying to accomplish allows a lawyer to more closely align his or her own goals with those of the ethical rules. This alignment not only reduces the likelihood that a lawyer might inadvertently violate an ethical rule but may pay dividends in terms of productivity and improve client relations and the lawyer's overall satisfaction with the practice of law.

The holistic model still requires a solid understanding of the predictive model relating to the evolution of the ethics rules of the lawyer's own jurisdiction but is based upon an understanding of the lawyer's unique practice goals and a comprehensive path toward accomplishing those goals. It is important to define the lawyer's practice goals and the path to accomplishing those goals very carefully with a firm commitment to the ethical predictive model outlined above. Once the goal and the path are in line with the predictive model, the practice of law becomes proactively, rather than reactively, ethical. Rather than constantly pushing the boundaries of the ethical rules, the holistic model embraces the ethical rules toward a goal that is mutually beneficial to both the lawyer and his or her clients.

In place of a comprehensive mastery of technology, the holistic model identifies and matches the lawyer's practice goals with the appropriate technology. Technology is not a one size fits all solution. Not only is the latest, greatest technology not for every lawyer, but being an early adopter requires a large pocketbook, superior technological expertise, contentment with constant change, a penchant for failure, and diving into uncharted ethical waters.

There is no need for such overkill. Implementing too much technology can be even more problematic than implementing too little technology. The holistic model forces lawyers to determine their specific practice goals and use those goals to dictate the appropriate technology for their specific practice, rather than implementing the latest technology and allowing that technology to dictate those goals necessary to justify the technology itself. If a lawyer's practice goal is to be a better litigator, instead of learning how to use technology in the courtroom by trial and error, the lawyer may simply ask a seasoned judge about some of the avoidable technology errors lawyers make in the courtroom. If a lawyer's practice goal is to reduce the likelihood that client information might be destroyed by fire, instead of implementing a complex and expensive cloud storage solution, the lawyer may simply opt for secure off-site rotating storage of a hard drive backup of all client files. If a lawyer's practice goal is to increase business, instead of pushing the envelope of ethical online advertising, the lawyer may elect to start a blog distributing legal information relating to the lawyer's practice area. The key is understanding one's own goals and working with, rather than in opposition to, the ethical rules to accomplish those goals.

Determining what a lawyer's needs and goals are can be difficult, especially with the assistance of a technology vendor. Instead of matching a lawyer's goals to the appropriate technology solution, most technology vendors try to redefine the lawyer's goals in terms of one of the technology solutions the vendor happens to offer. Technology vendors may even go so far as to offer solutions to problems the lawyer does not even have. By the time the money has been spent and the technology implemented, lawyers often feel obligated to adjust their goals to justify the typically large investment of time and money the lawyer spent on the new technology.

So how does a lawyer know what he or she needs, if he or she does not even know what options are available? And once the lawyer identifies available options, how does the lawyer determine the appropriate technology solutions tailored to meet his or her goals? One option is to share insight and strategies with colleagues. Another option is to visit with attendees at continuing legal education presentations related to technology. Still another option is talking to attendees at legal technology trade shows. Lawyers should find attorneys with similar goals and ask them questions about their own technology. Why did you choose a particular solution? What do you like about the solution? What do you dislike about the system? Are you glad you selected this product? What type of learning curve does the technology require? How does the staff like the system? What do you know now that you wish you knew before you purchased the solution? Do you have present plans to replace the solution?

Online research is also a valuable resource. Crowd sourced reviews are typically more illuminating than reviews on a technology vendor's own website. Technical forums are also a good way to get uncensored feedback and advice regarding the applicability of particular technology solutions to accomplishing particular goals. Technical forums aimed at attorneys can be especially
useful to lawyers seeking technical solutions. Just be aware that online contributors are more likely to adopt newer and more complex systems than the average practitioner might need and may be biased in favor of the solution they selected for themselves. There is no single recipe for identifying a technological solution perfectly tailored to one's own practice. Often the best a lawyer can do is to collect as much information as possible from similarly situated practitioners and then, armed with that knowledge, approach vendors to identify the solution most closely aligned with the practitioner's identified practice goals.

Another aspect of the holistic model is professionalism. Acting unprofessionally to gain a short-term advantage is a shortsighted strategy. Lawyers are what they do. If a lawyer acts unprofessionally, that lawyer is an unprofessional lawyer. Unprofessional conduct closes off access to colleagues and clients who may be rightfully concerned that the lawyer may eventually direct such conduct at them. With the advent of the internet, the upsides of professionalism and the downsides of unprofessionalism have only increased. The internet provides a platform for lawyers to put their professionalism on display for thousands of lawyers and potential clients. Conversely, whereas in the past only one or two people might have been privy to a lawyer's particular act of unprofessionalism, if the act is egregious enough, the internet may expand the exposure of that single act to thousands of people. Additionally, once someone posts about an unprofessional act online, that post will likely be online well past the demise of the lawyer in question. And if that post makes its way to the front page of search results for a particular lawyer, that lawyer's reputation may never recover. This is a new age, one where the internet oversees the actions of all attorneys, promoting professionalism, sharing, collegiality, and ethical behavior and undermining unprofessionalism, selfishness, duplicity, and unethical behavior.

*735 Defining one's own goals in a professional manner, one that incorporates the predictive model, is the heart of the holistic model. The holistic model shuns complacency in favor of striving for personal, as well as collective, betterment. It involves finding one's own voice, one's own path in a landscape of similar, yet not quite identical, travelers. Whether one views the trip as a constant battle against the elements or a contented quest toward enlightenment all depends on one's personal interpretation of the Tao of technology.

**V. CONCLUSION**

One of the most important aspects of practicing law is often overlooked. Best practices dictate that lawyers seeking to leverage technology combine both objective and subjective approaches. The objective approach involves identifying a predictive model of the evolution of the ethical rules affecting a lawyer's jurisdiction and practice area. The subjective approach involves a lawyer defining his or her unique practice goals and using the predictive model to define a path to reach those goals. Finally, the lawyer can identify the technology most suitable to facilitating the lawyer's travel along the path within the bounds of not only existing, but hopefully yet to be promulgated, ethical rules. Properly executed, the holistic model, incorporating both objective and subjective elements, can increase productivity, improve client relations, and increase the lawyer's overall satisfaction with the practice of law.

Footnotes

1. MODEL RULES OF PROF'L CONDUCT R. 1.1 cmt. 8 (1983) (stating, “A lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology...”).

2. Iowa Supreme Court Bd. of Prof'l Ethics & Conduct, Op. 90-44 (1991) (providing, “A lawyer using cellular, mobile or portable telephone shall inform the other party thereof and that any matter communicated in this manner is not confidential and also may result in the loss of the attorney-client privilege.”).

3. See Iowa Supreme Court Bd. of Prof'l Ethics & Conduct, Op. 96-01 (1996) (providing a safe harbor of allowing Iowa attorneys to encrypt email in lieu of obtaining written consent from the client to communicate via email); Iowa Supreme Court Bd. of Prof'l Ethics

[a] lawyer sending or receiving substantive communications with a client via e-mail or other electronic means ordinarily must warn the client about the risk of sending or receiving electronic communications using a computer or other device, or e-mail account, to which a third party may gain access. The risk may vary. Whenever a lawyer communicates with a client by e-mail, the lawyer must first consider whether, given the client's situation, there is a significant risk that third parties will have access to the communications. If so, the lawyer must take reasonable care to protect the confidentiality of the communications by giving appropriately tailored advice to the client.


6 See Iowa State Bar Ass'n Comm. on Ethics Practice & Guidelines, Op. 11-01 (2011) (establishing a reasonable and flexible approach to an attorney's use of new technology, but requiring attorneys to perform due diligence on such technology to assess the level of protection needed and to protect client information based upon the particular client, matter, and information involved).

7 See Iowa State Bar Ass'n Comm. on Ethics & Practice Guidelines, Op. 14-01 (2014) (noting that while attorneys were not required to replace Windows XP after Microsoft Corporation announced it would no longer update the operating system, attorneys do have an ongoing duty of due diligence in assessing system security). “[P]rograms and procedures which were secure two years ago may not be secure now.” Id.


[1] [P]erforming due diligence regarding information technology can be complex and requires specialized knowledge and skill. [2] This due diligence must be performed by individuals who possess both the requisite technology expertise and as well as [sic] an understanding of the Iowa Rules of Professional Conduct.... [3] [A] lawyer may discharge the duties... by relying on the due diligence services of independent companies, bar associations or other similar organizations or through its own qualified employees. Id.

9 For litigators, it is also imperative to become familiar with the court's technology. In one case described to the author by a federal judge, the judge's courtroom had recently been provided with wireless lavalieres microphones for use by counsel. The judge warned counsel to turn off the microphones when leaving the courtroom, as they broadcast from everywhere in the courthouse. During a break after an evidentiary ruling, the judge, still in the courtroom, heard a mysterious loud flush through the courtroom's audio system. The judge then heard the senior partner say to his younger associate “Can you believe that stupid a**hole's evidentiary ruling.” When the senior partner returned, he found a note from the judge that read “Dear Mr. _____, do you remember when I advised you to shut off your lavalier mics when you left the courtroom. It was good advice.” The note was signed “The Stupid A**hole.” (Personal communication on file with author, February 16, 2015).

10 MODEL RULES OF PROFL CONDUCT R. 4.1(a), 7.1, 8.4(c) (1983).
See, e.g., Missouri Bar Legal Ethics Counsel, Informal Op. 0074 (2006) (stating that a law firm must remove a lawyer's biographical information from the firm's website within a reasonable time after lawyer leaves the firm).

See, e.g., Dorothy Anderson, Loss of License: Rules Governing Suspension or Disbarment, MASS.GOV (Feb. 2010), http://www.mass.gov/obcbbo/lossoflicense.htm. [Suspended or disbarred attorneys] may not use or distribute stationery, cards or other written materials in which [they] hold themselves out to be a practicing attorney. The same is true of... telephone voice mail recording, e-mail, websites or other electronic communications... [Suspended or disbarred attorneys] should not use the titles 'Esq.' or 'J.D.'.... If [they] were practicing in a partnership or association with other attorneys, [their] name must be removed from letterhead, websites, and other promotional materials while [they] are suspended.

Id.


Providing a prominently displayed disclaimer that is specifically tailored to the information presented on a webpage regarding a lawyer or law firm's achievements precludes a finding that the webpage is likely to lead a reasonable person to form an unjustified expectation that the same results could be obtained for other clients in similar matters.

Id.; Oklahoma Bar Ass'n Ethics Counsel, Op. 320 (2004) (stating that an advertisement must be accurate; must include a disclaimer; must not suggest that the lawyer is promising similar results; must state that settlements are the result of negotiations that may be affected by factors other than the legal merits of the case; and must not violate the lawyer's duty of confidentiality); New York State Bar Ass'n. Comm. on Prof'l Ethics, Op. 771 (2003) (providing that a website disclaimer may cure otherwise misleading client testimonials and reports of past results if the disclaimer is tailored to address the misleading information and it is reasonable to expect that anyone who reads the potentially misleading information will also read the disclaimer).


Iowa Supreme Court Bd. of Prof'l Ethics & Conduct, Op. 92-33 (1993) (stating the committee does not approve of the listing of verdicts and settlements, being of the opinion that such listings can be misleading and in violation of Disciplinary Rule 2-101(A)). Iowa adopted the Rules of Professional Conduct in 2005, replacing the Code of Professional Responsibility, which contained separate Ethical Considerations (“EC”) and Disciplinary Rules (“DR”), with DR 2-101(A) being replaced by Iowa Rules of Professional Conduct Rules 32:1.18 cmt. 2, 32:7.1, 32:7.2, and 32:7.3.

MODEL RULES OF PROF'L CONDUCT R. 7.2 cmt. 1 (1983) (stating, “The interest in expanding public information about legal services ought to prevail over considerations of tradition,” namely “that a lawyer should not seek clientele.”).

Perkins v. W. Coast Lumber Co., 62 P. 57, 58 (Cal. 1900) (determining, “When a party seeking legal advice consults an attorney at law, and secures that advice, the relation of attorney and client is established prima facie.”).

See, e.g., Iowa Supreme Court Bd. of Prof'l Ethics & Conduct, Op. 92-33 (1992) (recognizing that lawyers should assist laypersons in recognizing legal problems but should carefully refrain from giving or appearing to give a general solution applicable to all apparently similar individual problems). This opinion is based upon Iowa DR 2-101(A), which was rescinded in 2005 by IOWA RULES OF PROF'L CONDUCT R. 32:1.18 cmt. 2, 32:7.1, 32:7.2, and 32:7.3. See also, e.g., State Bar of Ariz., Op. 04 (1997).

[Due to] the inability to screen for a potential conflict with an existing client (in violation of ER 1.7) and the possibility of disclosing confidential information (in violation of ER 1.6) [...]; lawyers should not answer specific legal questions from lay people through the Internet unless the question presented is of a general nature and the advice given is not fact-specific.

Id. See also, e.g., California Standing Comm. on Prof'l Responsibility & Conduct, Formal Op. 164 (2003) (noting both lawyers and the public benefit from lawyers disseminating information about legal rights and responsibilities but cautioning lawyers that a duty may arise based upon context, words, or conduct); In re Anderson, 79 B.R. 482, 485 (Bankr. S.D. Cal. 1987) (noting legal advice has been defined as that which “require[s] the exercise of legal judgment beyond the knowledge and capacity of the lay person”).

[A] consultation does not occur if a person provides information to a lawyer in response to advertising that merely describes the lawyer's education, experience, areas of practice, and contact information, or provides legal information of general interest. Such a person communicates information unilaterally to a lawyer, without any reasonable expectation that the attorney is willing to discuss the possibility of forming a client-lawyer relationship, and is thus not a 'prospective client.'

Id.


[A] consultation is likely to have occurred if a lawyer, either in person or through the lawyer's advertising in any medium, specifically requests or invites the submission of information about a potential representation without clear and reasonably understandable warnings and cautionary statements that limit the lawyer's obligations, and a person provides information in response.

Id.; see also MODEL RULES OF PROF'L CONDUCT R. 1.9(a) (1983).

A lawyer who has formerly represented a client in a matter shall not thereafter represent another person in the same or a substantially related matter in which that person's interests are materially adverse to the interests of the former client unless the former client gives informed consent, confirmed in writing.

Id.

24. See, e.g., State Bar of Ariz. Comm. on the Rules of Prof'l Conduct, Op. 04 (2002) (while merely maintaining an email address is not enough to require an attorney to maintain unsolicited information received through the email address confidential, if the email address is listed on the attorney's website, the absence of express disclaimers may trigger the attorney's duty to maintain emailed information confidential); Massachusetts Bar Ass'n Comm. on Prof'l Ethics, Op. 01 (2007).

In the absence of an effective disclaimer, a lawyer who receives unsolicited information from a prospective client through an e-mail link on a law firm web site must hold the information in confidence even if the lawyer declines the representation. Whether the lawyer's firm can represent a party adverse to the prospective client depends on whether the lawyer's obligation to preserve the prospective client's confidences will materially limit the firm's ability to represent the adverse party.

Id. See also State Bar of S.D. Ethics Comm., Op. 2 (2002) (stating that the sender of email containing substantive facts about potential will contest, but no identifiable information about the sender may be deemed a "client" under the rules, necessitating the use of a "non-engagement communication so as to avoid any confusion regarding the creation of the attorney-client relationship"). But see IOWA RULES OF PROF'L CONDUCT R. 32:1.18 cmt. 2 (2012).

[A] consultation does not occur if a person provides information to a lawyer in response to advertising that merely describes the lawyer's education, experience, areas of practice, and contact information, or provides legal information of general interest. Such a person communicates information unilaterally to a lawyer, without any reasonable expectation that the attorney is willing to discuss the possibility of forming a client-lawyer relationship, and is thus not a 'prospective client.'

Id. See also Iowa State Bar Ass'n Comm. on Ethics & Practice Guidelines, Op. 07-02 (2007) (an attorney's web page, by itself, does not constitute a request or consent to the sharing of confidential information, whereas a "web page that is designed to allow a potential client to submit specific questions of law or fact to the lawyer for consideration would constitute bilateral communication with an expectation of confidentiality.").

that a disclaimer on website warning against disclosure of confidential information and that the firm had no duty to maintain the confidentiality of any submitted information was sufficient to avoid inference of attorney-client relationship); State Bar of Ariz. Comm. on the Rules of Prof'l Conduct, Op. 04 (2002) (stating that law firm websites should include disclaimers regarding whether or not e-mail communications from prospective clients will be treated as confidential); Massachusetts Bar Ass'n Comm. on Prof'l Ethics, Op. 01 (2007) (providing that the failure to condition the use of e-mail links on a attorney's website by appropriate disclaimers triggers the requirement that the attorney maintain the confidentiality of the information furnished in emails received through the e-mail links).

ABA Comm. on Ethics & Prof'l Responsibility, Formal Op. 457 (2010); Florida Bar Prof'l Ethics Comm., Op. 07-3 (2009) (providing that a website disclosure should inform website visitors that the lawyer does not intend to treat information sent unilaterally to the lawyer as confidential and that “information provided through the website could be used in the future against the [sender].”).

See MODEL RULES OF PROF'L CONDUCT R. 5.5 cmt. 1 (1983) (“A lawyer may practice law only in a jurisdiction in which the lawyer is authorized to practice.”).

Id.

Id at R. 5.5.

Id. at R. 5.5(c)(1).

Id. at R. 5.5(c)(2).

Id. at R. 5.5(c)(3).

Id. at 5.5(c)(4).


See, e.g., Allied Concrete Co. v. Lester, 736 S.E.2d 699, 703 (Va. 2013) (sanctioning a lawyer $542,000 and a client $180,000 for spoliation when lawyer directed client to delete photographs from social media and lawyer signed discovery responses that client did not have the social media accounts); Florida Bar Prof'l Ethics Comm., Op. 14-1 (2015) (stating that a lawyer may advise client to change social media privacy settings and even remove material from social media profile as long as material is preserved and there is no spoliation); North Carolina State Bar, Formal Op. 5 (2014) (stating that a lawyer may advise a client to remove information on social media if not spoliation or otherwise illegal).

FED. R. EVID. 502(d) (providing that quick peek provisions in protective orders allow a party to produce material to the opposing party for initial review without waiving privilege or work-product protection). The reviewing party can then designate desired documents pursuant to a Federal Rule of Civil Procedure 34 request, after which the producing party reviews the designated documents, and asserts claims of privilege or work-product protection as appropriate.
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42  *Id.* (providing that claw-back provisions in protective orders state that privilege is not waived regarding inadvertently disclosed documents); see Zubulake v. UBS Warburg, L.L.C., 216 F.R.D. 280, 290 (S.D.N.Y. 2003) (acknowledging parties may enter into claw-back agreements that provide for the return of inadvertently produced privilege documents).


43  *Id.* at R. 1.1 cmt. 8.

44  *Id.* at R. 1.6.

45  *Id.* at R. 1.6 cmt. 18.

46  *See, e.g.*, New York State Bar Ass'n Comm. on Prof'l Ethics, Op. 842 (2010) (stating, “Not only technology itself but also the law relating to technology and the protection of confidential communications is changing rapidly.”).


48  *See, e.g.*, New York State Bar Ass'n Comm. on Prof'l Ethics, Op. 842 (2010) (providing, “A lawyer may use an online data storage system to store and back up client confidential information provided that the lawyer takes reasonable care to ensure that confidentiality will be maintained in a manner consistent with the lawyer's obligations under Rule 1.6.”).

49  *Model Rules of Prof'l Conduct* R. 1.6 cmt. 18 (1983).

50  *See, e.g.*, IOWA CT. R. 45.2(3)(a) (requiring lawyers to maintain current financial records as required by Iowa Rule of Professional Conduct 32:1.15).

51  Location features allow a device to be located with another computer. A kill switch allows a device to be rendered useless in the event the device is stolen.

52  Information assurance includes the use of physical, technological, and administrative systems to manage the security, integrity, accessibility, authenticity, and confidentiality of user data.


54  *See, e.g.*, Iowa State Bar Ass'n Comm. on Ethics & Practice Guidelines, Op. 11-01 (2011) (recommending unrestricted lawyer access to the information and another source for storage to access in the event the first source denies access).

55  *See, e.g.*, id. (requiring investigating the operating record of any proposed storage vendor, including location, contractual rights and obligations, choice of law provisions, limitations on damages, and rights claimed in data).

56  *See, e.g.*, id. (recommending inquiry into how vendor is paid and what happens to data in the event of non-payment or termination).

57  *See, e.g.*, Oregon State Bar, Formal Op. 188 (2011).

58  *See, e.g.*, New York State Bar Ass'n Comm. on Prof'l Ethics, Op. 709 (1998) (differentiating the transmission of standard client information from information of an extraordinarily sensitive nature and/or at a heightened risk of interception); Iowa State Bar Ass'n Comm. on Ethics & Practice Guidelines, Op. 11-01 (2011) (recognizing some data necessitates more protection than others).

59  New York State Bar Ass'n Comm. on Prof'l Ethics, Op. 709 (1998) (stating, “So far as we are aware, there is little evidence that the use of unencrypted Internet e-mails has resulted in a greater risk of unauthorized disclosure than is posed by other forms of communication that are commonly used without compromising ethical obligations, such as telephones and facsimile machines.”).

60  *Id.*

[I]n circumstances in which a lawyer is on notice for a specific reason that a particular e-mail transmission is at heightened risk of interception, or where the confidential information at issue is of such an extraordinarily sensitive nature that it is reasonable to use only a means of communication that is completely under the lawyer's control, the lawyer must select a more secure means of communication than unencrypted Internet e-mail.

*Id.*
Early adopters seek out the latest technological innovations often to the exclusion of cheaper, more stable solutions.

Some of these avoidable errors include: 1) believing a PowerPoint presentation will make a mediocre lawyer more than mediocre; 2) failing to blow up an exhibit on the document camera or in their electronic trial exhibit software large enough for the jurors to read it; 3) displaying a document on the document camera crooked so the jurors have to wrench their necks to see it; 4) trying to show a exhibit to the jury electronically that has not yet been admitted into evidence; 5) placing too much information on timelines; and 6) not having a back-up plan in the event of a technology failure (Personal communication on file with author, February 16, 2015).

The actions of a third-party can reflect on a lawyer's professionalism as well. In another case described to the author, a federal judge watched as a lawyer called several witnesses to lay foundations for “their” PowerPoint presentations. The attorney asked each witness on direct examination, “Did you prepare a PowerPoint presentation to assist the jury in understanding your direct examination?” In response, each witness testified, “Yes.” The attorney then proceeded to make the points highlighted in the PowerPoint presentations. On the next witness, after the witness claimed he had prepared the PowerPoint himself, the judge interrupted and asked the witness directly, “Seriously, you prepared the PowerPoint, how odd that each prior witness had also prepared a PowerPoint? Are you sure the law firm did not prepare it, after all it is in the same font and background color and format as all the prior witnesses’ PowerPoints? That strikes me as a very odd coincidence!” In response, the witness admitted, “I meant to say the law firm prepared it.” “So,” said the judge, “You lied about that?” The witness replied, “I guess you could say that.” (Personal communication on file with author, February 16, 2015).