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Gaining the Advantage through Early Case Assessment:

Sophisticated Searching Techniques to Assess
Exposure and Save Money

White Paper



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"[T]he legal system has, for decades blessed the use of keyword search tools and databases for discovery review."¹ Recent court opinions, however, have cast some doubt as to the efficacy of keyword search methodology.² Indeed, even the Sedona Conference working group has advocated using more advanced techniques.³ The Sedona Conference did not make the distinction between *simple* keyword search and *sophisticated* keyword search. Yet, the Sedona Conference working group did identify several aspects of keyword searches that go beyond *simple* keyword searches.

Courts are issuing sanctions more frequently for inadequate search methodology⁴, and recent opinions have highlighted the need for quality in search methodology.⁵ There are two reasons for improving the quality of the searches: 1) reduce the amount of information that has to be reviewed; and 2) reduce the cost of discovery. The downside for the requestor is that you may not get the right ESI. The downside for the respondent is that you might get sanctioned.

Using a sophisticated keyword search can increase significantly the quality of the search while helping the practitioner avoid sanctions. This article will provide some helpful "best practices" with respect to searching for ESI and describe how those practices can be implemented with off-the-shelf tools that enable the attorney to perform the searches in a defensible manner while avoiding sanctions.

The Root of the Problem

The advent of computer technology has created a 10,000 fold increase in the number of documents created in the last 30 years.⁶ This productivity increase has been so pervasive that the vast majority of documents involved in lawsuits are created and/or stored in electronic form.⁷ If the sheer quantity of documents were not enough, attorneys must also contend with the breadth of document *types*. Beyond mere word processing ("text") documents, we have to search audio files, video files and more, some of which themselves can be embedded within the "text" word processing document.

To compound the problem, almost every major MS Office document is saved in its own native (and often proprietary) format, ensuring the need to use the creating application in order to access the full potential of that particular ESI. The rate of document creation, plus the proliferation of document types, continues to increase, and with them the pressure on attorneys to accommodate the needs of their clients.

In contrast to the enormous increase in the number of documents created, the legal world has been ensconced in 19th Century rules that had, as a fundamental assumption, a low number of discoverable documents—all of which could be reviewed by the attorney by hand. Indeed, the predicate of the "review everything before production" practice had its origin in 19th Century technology. Adherence to this practice has led to some curious techniques to contain costs, such as hiring teams of "information reviewers" in Asia, where attorneys in the U.S. lose control and knowledge about their case to Asian outsourcing—all to maintain the old practice.⁸

Fortunately, the legal field is revamping its rules to accommodate the explosive proliferation of ESI. While the 2006 amendments to the Federal Rules of Civil Procedure were a start, we are seeing a ripple effect emanating from those amendments. Indeed, recent opinions⁹ are strongly encouraging attorneys to adjust the habits that were honed under the old rules. For example, some attorneys may be reticent to conduct searches *before* the Rule 26(f) ("meet & confer") conference, because they may unnecessarily uncover relevant documents while skirting ethics requirements like Rule 3.4.¹⁰ However, the quality of the resulting ESI, as well as the overall cost of discovery can be reduced if attorneys conduct a set of preliminary searches before the first 26(f) conference.

Software tools have improved steadily.¹¹ While earlier tools provided only *simple* keyword search capability that has been criticized by courts, solutions such as AccessData eDiscovery provide *sophisticated* keyword search capabilities identified by the Sedona Conference as necessary to improve the quality of discovery.

The Difference between Simple and Sophisticated Keyword Searches

Simple keyword searches are those that find exact matches of words or groups of words in documents containing searchable text. Specifically, the functionality for simple keyword searches includes exact matching of keywords, as well as Boolean¹² grouping of keyword terms. *Sophisticated* keyword searches, on the other hand, include all of the features of *simple* keyword searches, but include variations on the keywords themselves, such as fuzzy, stemming, phonic, synonym, proximity, and regular expressions. Several of these additional features were identified by the Sedona Conference Working Group as lacking in then-existing tools and their absence was seen by the Working Group as diminishing the effectiveness of keyword searches.¹³ Their inclusion, however, overcomes the criticism meted out by the courts and the Sedona Conference Working Group.¹⁴

Sophisticated Searching

As mentioned previously, sophisticated keyword searches have additional features that distinguish them from their simpler brethren. The sophistication of the search yields fewer false positives and a higher percentage of relevant ESI. Let's review the various features that comprise sophisticated keyword searching, namely fuzziness, stemming, phonic, synonym, proximity and regular expressions.

Fuzziness

Fuzzy searches enable the attorney find documents with a keyword even if that keyword has been misspelled. Misspellings are common, particularly in email messages. Consequently, the ability to search for keywords, even when they are misspelled, is of particular importance. Note, AccessData technology even allows the attorney to adjust the "fuzziness" of the search to prevent different words from being misinterpreted as a grossly misspelled version of the keyword, thus avoiding "false positives."

Stemming

A search with stemming finds grammatical variations of keywords by reducing¹⁵ words to their stem, base or root form. For example, toggling the stemming option with the keyword "apply~" will match any document that contains the words "apply", "applies" or "applied". Stemming is particularly useful when searching for a set of documents covering a time range, where the event in question occurs somewhere in the middle of that range, and the tense of the verb associated with the event changes depending upon when the document was created.

Phonic

Phonic searches find keywords that sound like—but don't necessarily have the same meaning as—the designated keyword. For example, a phonic-enabled search for "fryer" would return all documents containing the word "fryer" and "friar". Phonic searches are particularly useful for trademark infringement cases. Similarly, phonic searches are useful when the defendant is using a "code word" in the form of a phonic in order to frustrate a simple keyword search. For example, a custodian might use "operation too" instead of "operation two" or "operation 2".

Synonym

Synonym searches find documents with words that match the keyword and words that have a similar meaning. For example, a synonym-enabled search for the keyword "idle" would return all documents containing the words "jobless", "unemployed", etc. Synonym searches are particularly useful when the attorney knows the basic cause of action, but does not know how either party referred to that activity in their respective correspondence.

Proximity

Proximity searches are those that identify documents with one keyword within a certain number of words from another keyword. For example, a proximity search for "patent w/5 infringement" are much more likely to return documents with "patent infringement" and "infringement of a patent", but likely exclude documents containing "infringement" and "patently wrong". AccessData eDiscovery provides a flexible way to enable proximity searches by broadening or narrowing the number of intervening words.

Regular Expressions

Regular expressions provide a concise and flexible means for identifying strings of text of interest, such as particular characters, words or patterns of characters (such as a social security number). The expression itself is written in a formal language that enables very precise searching of text-based documents. For example, all Visa credit card numbers start with a "4" but new cards have 16 digits and old cards have 13. Thus, a regular expression that would find Visa credit card numbers in a document would be:

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\<4\d\d\d[\-\. ](\d\d\d\d[\-\. ]){2}\d\d\d\d\>
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Regular expressions can be used to find number ranges, email addresses, dates, social security numbers, credit card numbers, Internet protocol ("IP") addresses, HTML tags and many other sets of character strings when you know the format for the character string but not the content of the characters.

Prioritization of Results

A quality electronic discovery product will enable the searcher to prioritize the results of the search, *e.g.*, to provide a list of documents that satisfy the search criteria but also identify those documents that satisfy the criteria in multiple ways. Ideally, the prioritization of the results would make it easier for the attorney to characterize certain subsets of documents according to the search criteria (*e.g.*, privileged, hot keywords, etc.) for easy tagging and subsequent review by selected attorneys

Ability to Quickly Test for Quality

Courts are stressing the need to test the results of keyword searches.¹⁶ Hand in hand with the sophistication of the search is the ability to test the results. Traditionally, tools used to collect and process the ESI were not built to review (and thus test) the results. Instead, the results of the collection/culling were lumped into a load file for subsequent review by attorneys using tools built only for reviewing. That bifurcated process is cumbersome, and impedes the quality assurance process.

AccessData eDiscovery employs a new, fast review technology¹⁷ that enables the attorney to make an early assessment of the collected data and to nimbly adjust the search criteria to remove non-responsive data—without switching tools. This same quality assurance capability can also be employed for early case assessment to gauge the exposure of the company and to assess the merits of the cause of action.

Equally important to reviewing the "hits" is reviewing at least some of the documents that were not selected. In many cases, documents that one might think *should* have been selected were not. A quick review of those unselected documents can reveal flaws in the search criteria. If flaws in the search criteria are found, the technology should allow the user to remedy the criteria quickly by modifying the search and re-applying the modified criteria. The search/test/modify sequence can be accomplished quickly using technology, such as AccessData eDiscovery, which has advanced database features and processing power.

Documentation

In order to defend the search before the court, documentation is essential. A viable eDiscovery technology will provide detailed reports of the searches conducted. More importantly, reports must be generated for all aspects of the identification, collection, processing and analysis process. No gaps should be left unfilled between steps in the process. This can be ensured with a solution, such as AccessData eDiscovery, because only one application is used for the entire eDiscovery lifecycle, and that application leverages the same reporting technology renowned by law enforcement forensic examiners. This reporting feature can be essential for justifying the use of a search protocol to a court should there ever be a dispute regarding the selection of the search protocol used and the subsequent production of ESI.

Advanced Tools Enable New Options

Upon service of process (or the potent threat of litigation), it is natural for an attorney to cast the net wide for potentially relevant ESI. First, casting a wide net is easy, and the courts encourage it. It's easy, because typically you simply identify potential witnesses or participants as custodians of the ESI, and instruct the IT person to grab all the data that each custodian's has. Storage space is cheap, and the penalties for spoliation can be severe.¹⁸

While there are several fine articles discussing best practices for producing ESI after a request for production (RFP),¹⁹ there are few that discuss searching before the Rule 26(f) ("meet & confer") conference. Doing searches early, as we shall see, can reduce the costs of discovery for the company; and in particular reduce the likelihood of producing privileged information.²⁰ Recall that the 2006 amendments to the FRCP did not change the *substantive* privilege waiver law,²¹ only the *procedure*.²² Note also that the techniques outlined herein will not replace the need for cooperation between counsel.²³ However, performing keyword searches—with the right solution—is both legally defensible and potentially fruitful.

Why search early? The real question is why *wouldn't* you search before the 26(f) conference? The reason for searching only *after* the RFP was cost. Many companies farmed out their eDiscovery work to specialized eDiscovery service vendors. While convenient, those vendors often charged for each service, including conducting individual searches. Since you were charged by the search, you naturally wanted to minimize the number of searches, and waiting until after the RFP was issued seemed logical. Moreover, the outsourced collection/farming/processing process was cumbersome, so performing searches before the 26(f) conference was impractical. This is an example of cost surreptitiously dictating legal procedure.

Could the procedure be changed if the cost equation were modified? Yes. Bringing the eDiscovery application in-house can substantially reduce costs and increase responsiveness. So much so, that the cost of individual searches is minimal. With costs minimized and with the right software tool, the searching can commence shortly after the data is collected. Indeed, pre-26(f) searching is entirely consistent with early case assessment practice widely preferred by large corporations, because it enables them to assess their company's exposure and the merits of the case. Similarly, even if the case does not settle early, the searches that were conducted during the early case assessment can be used—or expanded upon—to get a jump on opposing counsel at the 26(f) conference itself.

Simply because you have the capability to perform in-house searches in a very cost-effective manner does not impose a duty to do so. In some instances, especially where the company is the defendant, you may wish to delay discovery for as long as possible. Recall, of course that you can refuse to participate in a Rule 26(f) conference on the grounds that commencing discovery is not permitted until the Court sets the Rule 16 conference.

There are potential ethics issues with respect to conducting searches before the Rule 26(f) conference. If you conduct a search based on a set of keywords, are you ethically compelled to conduct a review of the results? The ethical requirements vary significantly depending upon the jurisdiction. For example, the guidelines for the federal District Court in Kansas implores counsel to "make a reasonable attempt to review their clients' ESI to ascertain the contents..."²⁴ Texas attorneys, on the other hand, have the option to conduct searches (but not review), as a means to reduce the cost of discovery.²⁵ The ABA Model Rule states the same sentiment in more positive terms.²⁶ In short, ethical rules are not going to prevent the attorney from conducting pre-26(f) searches. Indeed, the ethical rules only encourage such action so long as the company's interests are not compromised.

For more information on AccessData eDiscovery, visit www.eDiscoveryWithAccessData.com.

¹ The Sedona Conference WG1, The Sedona Guidelines: Best Practices Commentary on the Use of Search and Information Retrieval methods in E-Discovery, 8 Sedona Conf. L.J. 189 (2007) (hereinafter, "Sedona Best Search Practices"). According to the preface of the article, the "Working Group on Electronic Document Retention and Production (WG1) ... represents the work of its Search and Retrieval Sciences Special Project Team, consisting of a diverse group of lawyers and representatives of firms providing consulting and legal services to the legal tech community." ... "The mission of the Search and Retrieval Sciences Special Project Team has been to explore the nature of the search and retrieval process in the context of civil litigation and regulatory compliance in the digital age. The goal of this Best Practices Commentary is to provide the bench and bar with an educational guide to an area of e-discovery law that we believe will only become more important over time, given the need to accurately and efficiently search for relevant evidence contained within the exponentially increasing volumes of electronically stored information (ESI) that are stored and made subject to litigation, investigations, and regulatory activities." *Id.*

² See, e.g., *Victor Stanley, Inc. v. Creative Pipe, Inc.*, 250 F.R.D. 251 (D. Md. 2008) (Responding to a Rule 34 request, defense counsel notified the court that individualized privilege review of the responsive ESI would delay production unnecessarily and cause undue expense. In an attempt to alleviate the problem, the defendant gave its computer forensics expert a list of keywords to be used to search and retrieve privileged and protected documents from the set of documents that were identified as responsive according to a joint protocol worked out with the plaintiff. During a subsequent document production, the defendant produced 165 electronic documents that the defendant later claimed to be privileged. Plaintiff moved the court to declare the 165 documents unprivileged. Upon review, the Court noted that:

"[f]irst, the Defendants are regrettably vague in their description of the seventy keywords used for the text-searchable ESI privilege review, how they were developed, how the search was conducted, and what quality controls were employed to assess their reliability and accuracy. ... As will be discussed, while it is universally acknowledged that keyword searches are useful tools for search and retrieval of ESI, all keyword searches are not created equal; and there is a growing body of literature that highlights the risks associated with conducting an unreliable or inadequate keyword search or relying exclusively on such searches for privilege review. Additionally, the Defendants do not assert that any sampling was done of the text searchable ESI files that were determined not to contain privileged information on the basis of the keyword search to see if the search results were reliable. Common sense suggests that even a properly designed and executed keyword search may prove to be over-inclusive or under-inclusive, resulting in the identification of documents as privileged which are not, and non-privileged which, in fact, are. The only prudent way to test the reliability of the keyword search is to perform some appropriate sampling of the documents determined to be privileged and those determined not to be in order to arrive at a comfort level that the categories are neither over-inclusive nor under-inclusive.")

³ *Sedona Best Search Practices*, *supra*, note 2.

⁴ See, e.g., *D'Onofrio v. SFX Sports Group, Inc.*, 254 F.R.D. 129 (D.D.C. Oct. 2008) (Court found the defendant's search protocol "fundamentally misguided" and proceeded to generate its own search protocol and required the protocol be applied to "any depository" that might contain relevant evidence.); *Kipperman v. Onex Corp.*, 2008 WL 4372005 (N.D. Ga. Sept. 19, 2008) (when the defendant ignored the court's suggested keyword search criteria crafted to reduce the amount of ESI produced, the court denied a subsequent plea for relief, stating: "defendants must now lie in the bed that they have made"); *ClearOne Communications, Inc. v. Chiang*, 2008 WL 920336 (D. Utah Apr. 1, 2008) (taking matters into its own hands, the court refined a search protocol by adding search terms and instructing the defendant to conduct distinct conjunctive and disjunctive keyword searches).

⁵ See, e.g., *Victor Stanley*, *supra*, note 3; *William A. Gross Constr. Assocs., Inc. v. Am. Mfrs. Mut. Ins. Co.*, 2009 WL 724954 (S.D.N.Y. Mar. 19, 2009) ("While keyword searches have long been recognized as appropriate and helpful for ESI search and retrieval, there are well-known limitations and risks associated with them, and proper selection and implementation obviously involves technical, if not scientific knowledge." ... "Selection of the appropriate search and information retrieval technique requires careful advance planning by persons qualified to design effective search methodology. The implementation of the methodology selected should be tested for quality assurance; and the party selecting the methodology must be prepared to explain the rationale for the method chosen to the court, demonstrate that it is appropriate for the task, and show that it was properly implemented." The court excerpted an opinion of Magistrate Judge Facciola, taking the warning even further: "Whether search terms or 'keywords' will yield the information sought is a complicated question involving the interplay, at least, of the sciences of computer technology, statistics and linguistics. Given this complexity, for lawyers and judges to dare opine that a certain search term or terms would be more likely to produce information than the terms that were used is truly to go where angels fear to tread. This topic is clearly beyond the ken of a layman and requires that any such conclusion be based on evidence that, for example, meets the criteria of Rule 702 of the Federal Rules of Evidence.")

⁶ George L. Paul and Jason R. Baron, *Information Inflation: Can the Legal System Adapt?*, 13 RICH. J.L. & TECH. 10 (2007), which is available at <http://law.richmond.edu/jolt/v13i3/article10.pdf> ("Perhaps more easily grasped, the amount of information in business has increased by thousands, if not tens of thousands of times in the last few years. In a small business, whereas formerly there was usually one four-drawer file cabinet full of paper records, now there is the equivalent of two thousand four-drawer file cabinets full of such records, all contained in a cubic foot or so in the form of electronically stored information." at 10). The aforementioned paper also cited GEORGE L. PAUL AND BRUCE H. NEARON, THE DISCOVERY REVOLUTION: E-DISCOVERY AMENDMENTS TO THE FEDERAL RULES OF CIVIL PROCEDURE 4-5 (2006) ("Organizations now have thousands if not tens of thousands of times as much information within their boundaries as they did 20 years ago."). There are several reasons for this increase, but most center around the computerization of the workplace. For example, it is now very easy to create/send emails, whereas in prior practice, the message would never be created or would have been the subject of a formal letter. Similarly, emails can be modified and forwarded to hundreds of individuals at the push of a few buttons. Because electronic documents are easy to create and very easy to copy, more copies of more documents exist.

⁷ *Thompson v. HUD*, 219 F.R.D. 93, 96 (D. Md. 2003) (citing *In re Bristol-Myers Squibb Securities Litigation*, 205 F.R.D. 437, 440 n.2 (D.N.J. 2002) (estimating that more than 90% of all records are created electronically); Michelle C.S. Lange, *Sarbanes-Oxley Has Major Impact on Electronic Evidence*, The National L.J., January 2, 2003 ("[w]ith 93 percent of all business documents created electronically and only 30 percent ever printed to paper, corporations in the last few years have been compelled to address the retention of, and potential liability

associated with, electronic documents and communication."). A copy of the latter article is available at: <http://www.law.com/jsp/article.jsp?id=1039054510969>.

⁸ See, e.g., John Tredennick, *Your Next Office: Bangalore?*, LAW PRACTICE TODAY, July 2005.

⁹ See, e.g., Victor Stanley, *supra*, note 3 and William Gross Constr., *supra*, note 6.

¹⁰ MODEL RULES OF PROF'L. CONDUCT R. 3.4 (2003) (can't obstruct access to evidence or unlawfully alter, destroy or conceal a document or other material having potential evidentiary value and you can't counsel or assist someone else to do so).

¹¹ See, e.g., Anne Kershaw, "Automated Document Review Proves Its Reliability", Digital Discovery & e-Evidence, November 2008 (machines are much better than human reviewers).

¹² Boolean searches find combinations of designated keywords (e.g., "cat AND dog" returns all documents containing both the keywords "cat" and "dog").

¹³ *Sedona Best Search Practices*, *supra*, note 2.

¹⁴ Some of the criticism meted out by the court had to do with the selection of particular keywords -- not the utility of keyword searches. See, e.g., *United States v. O'Keefe*, 537 F. Supp. 2d 14 (D.D.C. 2008) ("Whether search terms or 'keywords' will yield the information sought is a complicated question involving the interplay, at least, of the sciences of computer technology, statistics and linguistics.... Given this complexity, for lawyers and judges to dare opine that a certain search term or terms would be more likely to produce information than the terms that were used is truly to go where angels fear to tread."); *Equity Analytics, LLC v. Lundin*, 248 F.R.D. 331, 333 (D.D.C. 2008), ("[D]etermining whether a particular search methodology, such as keywords, will or will not be effective certainly requires knowledge beyond the ken of a lay person (and a lay lawyer)...."). No software application can replace the attorney or expert with respect to keyword selection. The tool can only enhance the capability of the attorney to find the relevant ESI.

¹⁵ The term "reducing" is also known as "deriving."

¹⁶ *In re Seroquel Prods. Liab. Litig.*, 244 F.R.D. 650, 660 n. 6, 662 (M.D. Fla. 2007) (Where the Court criticized the defendant's use of keyword search in selecting ESI for production, noting the failure of the defendant to provide information "as to how it organized its search for relevant material, [or] what steps it took to assure reasonable completeness and quality control" and observing that "while key word searching is a recognized method to winnow relevant documents from large repositories ... [c]ommon sense dictates that sampling and other quality assurance techniques must be employed to meet requirements of completeness."); see also, *William Gross Constr.*, *supra*, note 6.

¹⁷ AccessData eDiscovery products employ's Microsoft's Silverlight technology to enable a quick and early assessment of the document by quickly retrieving a copy of the document very rapidly via a web browser. This enables not only the in-house attorney to review the documents, but also outside counsel -- without the need for specialized software.

¹⁸ Documents and other information are central to every legal matter -- even for those matters that don't involve litigation. For matters involving litigation (even potential litigation), an extra duty -- preservation -- is imposed upon the party. "The duty to preserve evidence 'arises when the party has notice that the evidence is relevant to litigation or when a party should have known that the evidence may be relevant to future litigation.'" *Acorn v. City of Nassau*, 2009 WL 605859 at 2 (E.D.N.Y. March 9, 2009) citing *Zubulake v. UBS Warburg LLC* ("*Zubulake IV*"), 220 F.R.D. 212, 216 (S.D.N.Y.2003) (which quoted *Fujitsu Ltd. v. Federal Express Corp.*, 247 F.3d 423, 436 (2d Cir.2001). "Once the duty to preserve arises, a litigant is expected, at the very least, to 'suspend its routine document and retention/destruction policy and to put in place a litigation hold.'" *Id.*, citing *Zubulake IV*, 220 F.R.D. at 218; and also *Doe v. Norwalk Cmty. Coll.*, 2007 U.S. Dist LEXIS 51084, at *14 (D. Conn. July 16, 2007) (a party needs to take affirmative acts to prevent its system from routinely destroying information). Spoliation of evidence, when there is a duty to preserve it, can prompt a court to impose sanctions on you (the attorney) and/or your company. Sanctions are often monetary, but other sanctions include: the striking of pleadings, default judgment, dismissal of the case or an adverse inference. See, e.g., *Kipperman v. Onex Corp.*, 2009 WL 1473708 (N.D. Ga. May 27, 2009) (\$1,022,700 in monetary sanctions levied against the defendant for "a textbook case of discovery abuse."); FRCP Rule 37(b)(2)(iii): "striking pleadings in whole or in part"; *Channel Components, Inc. v. Am. II Electronics, Inc.*, 915 So. 2d 1278 (Fla. Dist. Ct. App. 2005) (striking of pleading considered, but not imposed by the Court); FRCP Rule 37(b)(2)(vi): "rendering a default judgment against the disobedient party"; *Gutman v. Klein*, 2008 WL 4682208 (E.D.N.Y. Oct 15, 2008) (Magistrate Judge recommended default judgment in favor of plaintiff, plus attorneys fees); *Atlantic Recording Corp. v. Howell*, 2008 WL 408008 (D. Ariz. Aug. 29, 2008) (default judgment warranted after "brazen destruction of evidence"); FRCP Rule 37(b)(2)(v): "dismissing the action or proceeding in whole or in part" *Kvitka v. Puffin Co., LLC*, 2009 WL 385582 (M.D. Pa. Feb. 13, 2009) (all of plaintiff's claims were dismissed, and an adverse inference instruction awarded to defendant's cross-claims after plaintiff intentionally discarded her laptop in spite of a duty to preserve it); *Smith v. Slifer Smith & Frampton/Vail Assocs. Real Estate, LLC*, 2009 WL 482603 (D. Colo. Feb. 25, 2009) (Despite lack of evidence of a "smoking gun," the Court awarded an adverse inference against the defendant because documents were destroyed well after the litigation hold notice was put in place.)

¹⁹ See, e.g., *Sedona Best Search Practices*, *supra*, note 2; Craig Ball "Surefire Steps to Splendid Search" available at: http://www.craigball.com/Surefire_Steps_to_Splendid_Search.pdf. The attorney should be mindful of the practice points identified by the Sedona Conference best search practices article, *supra* note 2. Specifically:

Practice Point 3. The choice of a specific search and retrieval method will be highly dependent on the specific legal context in which it is to be employed.

Practice Point 4. Parties should perform due diligence in choosing a particular information retrieval product or service from a vendor.

Practice Point 5. The use of search and information retrieval tools does not guarantee that all responsive documents will be identified in large data collections, due to characteristics of human language. Moreover, differing search methods may produce differing results, subject to a measure of statistical variation inherent in the science of information retrieval.

Practice Point 6. Parties should make a good faith attempt to collaborate on the use of particular search and information retrieval methods, tools and protocols (including as to keywords, concepts, and other types of search parameters).

Practice Point 7. Parties should expect that their choice of search methodology will need to be explained, either formally or informally, in subsequent legal contexts (including in depositions, evidentiary proceedings, and trials).

²⁰ *Victor Stanley, supra*, note 3 ("Use of search and information retrieval methodology, for the purpose of identifying and withholding privileged or work-product protected information from production, requires the utmost care in selecting methodology that is appropriate for the task because the consequence of failing to do so, as in this case, may be the disclosure of privileged/protected information to an adverse party, resulting in a determination by the court that the privilege/protection has been waived. Selection of the appropriate search and information retrieval technique requires careful advance planning by persons qualified to design effective search methodology. The implementation of the methodology selected should be tested for quality assurance; and the party selecting the methodology must be prepared to explain the rationale for the method chosen to the court, demonstrate that it is appropriate for the task, and show that it was properly implemented.").

²¹ See, PAUL & BARON, *supra* note 7 at 36.

²² *Id.*, citing PAUL & NEARON, *supra* note 7 identifying changes to Rule 26(f) and Rule 26(b)(5) as procedural only. However, the new changes to FRE 502 may offer some relief.

²³ For a discussion as to why cooperation with opposing counsel is important, see, e.g., *Ross v. Abercrombie & Fitch Co.*, 2008 WL 4758678 (S.D. Ohio Oct. 27, 2008) (The inability of counsel to communicate properly about ESI led to the defendant's refusal to produce documents. The Court declined to compel production of those documents without a showing by the plaintiff that it would somehow benefit by the production.)

²⁴ US District Court for the District of Kansas "Guidelines for Discovery of Electronically Stored Information (ESI)" available at: <http://www.ksd.uscourts.gov/guidelines/electronicdiscoveryguidelines.pdf> A more comprehensive list of patent-related and electronic discovery-related local rules, forms and guidelines for U.S. district courts is available at: <http://www.ediscoverylaw.com/2008/10/articles/resources/updated-list-local-rules-forms-and-guidelines-of-united-states-district-courts-addressing-ediscovery-issues/>

²⁵ TEX. DISCIPLINARY R. PROF. CONDUCT 3.02 (1989) ("In the course of litigation, a lawyer shall not take a position that unreasonably increases the costs or other burdens of the case or that unreasonably delays resolution of the matter.")

²⁶ MODEL CODE OF PROFESSIONAL CONDUCT Rule 3.2 (2002) ("A lawyer shall make reasonable efforts to expedite litigation consistent with the interests of the client.")