I. INTRODUCTION

[1] The continuing expansion and virtually limitless array of technology and media available to store electronic information has had an immeasurable impact on the amount of information large organizations create and maintain. In many instances, this information continues to be available long after it has served the originator’s purposes. Yet, such information is not exempt from discovery in litigation, and attempting to identify, preserve, collect, review, and produce that information results in a significant burden on litigants, while the failure to do so can result in draconian sanctions or adverse publicity.

[2] The existence of all of this information often requires large organizations to spend millions of dollars attempting to comply with modern discovery obligations, and ironically, these burdens may be triggered if an adversary can meet the very low evidentiary threshold that
notice pleading requires. Debate as we may the logic of imposing such significant burdens based on such a minimal showing, discovery, and particularly electronic discovery, is here to stay. While the burdens imposed are significant, modern discovery rules (especially the Federal Rules of Civil Procedure as amended in 2006) take into account these burdens and can be used to shield litigants from sanctions or undue burdens. To prevent sanctions and avoid other undue burdens, litigants must show their electronic discovery efforts were reasonable. To make such a showing, large organizations must be prepared to proactively manage electronic discovery issues through internal organization, communication, and the implementation of processes and procedures designed to preserve and produce relevant information.

[3] This article will survey the impact of electronic discovery on large organizations. It will first describe electronic discovery and the 2006 amendments to the Federal Rules of Civil Procedure and the impact of the amendments on the way large organizations operate. The article will then review some of the potential solutions to common electronic discovery problems.

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The Supreme Court recently reiterated that our “simplified notice pleading standard relies on liberal discovery rules and summary judgment motions to define disputed facts and issues and to dispose of unmeritorious claims.” Thus, it is now beyond dispute that “[b]road discovery is a cornerstone of the litigation process contemplated by the Federal Rules of Civil Procedure.” The Rules contemplate a minimal burden to bringing a claim; that claim is then fleshed out through vigorous and expansive discovery.

Zubulake, 217 F.R.D. at 311 (quoting Swierkiewicz, 534 U.S. at 512).
3 See FED. R. CIV. P. 37(f).
II. ELECTRONIC DISCOVERY

[4] “Electronic discovery” or “e-discovery” is a term of art that describes one particular aspect of the broader litigation discovery process. Discovery is the “[c]ompulsory disclosure, at a party’s request, of information that relates to the litigation.”4 Electronic discovery deals with the subset of that compulsory disclosure that requires the identification, preservation, collection, review, and production of electronic records and information “stored in any medium from which information can be obtained.”5 Indeed, a wide array of records stored on a variety of media are subject to discovery, including not only traditional electronic sources, such as computers, but also data stored on items like iPhones and BlackBerries, memory sticks, flash drives, data discs, and even Internet-based voicemail.6 Access to all of this information may be helpful to the truth-seeking function of the courts, but several problematic side effects result: enhanced discovery compliance costs, enhanced discovery burdens, and the need for lawyers and judges to apply the law to highly technical topics generally beyond the knowledge of laymen.

[5] Because a substantial amount of electronic data is typically stored in diverse ways, and the information systems that house them are technical and idiosyncratic, mistakes can happen all too easily, and will often have far-reaching and unintended effects. These mistakes can occur at any stage of the electronic discovery process. At the preservation stage, if a litigation hold is not issued in a timely manner, or if counsel and the organization are unfamiliar with how records should be stored, relevant information could be discarded.7 The litigation hold also could be drafted too narrowly because certain “key players” were not identified, resulting in the loss of relevant information.8 Even when the hold is properly issued, without periodic reminders about the hold’s existence or revisions

4 BLACK’S LAW DICTIONARY 498 (8th ed. 2004).
5 FED. R. CIV. P. 34(a)(1).
6 See FED. R. CIV. P. 34 advisory committee’s notes, subdivision (a) (2006 Amendment).
8 See generally Danis, 2000 WL 1694325 at *12-14.
to the hold as the case takes shape, there is an increased risk that relevant information will not be preserved. Data may be lost or corrupted if appropriate harvesting methods are not followed during the collection stage. During the processing and review stages, lack of planning can result in additional errors, including the inadvertent production of privileged materials.

[6] Until recently, courts had little rule-based guidance addressing the problems peculiar to electronic discovery. Initially, a number of private organizations formed to provide guidance to the bench and bar. Then, after lengthy debate, the Supreme Court approved the 2006 amendments to the Federal Rules of Civil Procedure, which were designed to address these problems. A number of states have followed suit and adopted e-discovery rules, with some following the lead established by the federal rule amendments, some adopting only portions of the amendments, and others choosing to take an entirely individualized approach.

A. The 2006 Amendments to the Federal Rules of Civil Procedure

[7] The 2006 electronic discovery amendments to the Federal Rules of Civil Procedure are intended to assist courts and litigants in balancing the need for electronically stored information with the burdens that accompany obtaining it. Rules 16, 26, 33, 34, 37, and 45 of the Federal

9 See generally id. at *17.
10 See generally id.
13 See infra Part II.A.
15 See id. at 325-27.
Rules of Civil Procedure were amended in a manner designed to provide access to relevant information, while reducing the burdens imposed on producing parties. For example, through the use of the undefined term “electronically stored information” (ESI), the amendments create an initial limitation on a party’s obligation to produce relevant information and data.\textsuperscript{16} At the initial disclosure stage, a party must provide a “copy of, or a description by category and location of, all . . . electronically stored information . . . in [its] possession, custody, or control” that the disclosing party may use to support its claims or defenses.\textsuperscript{17} A party, however, need only initially produce ESI from “reasonably accessible” sources.\textsuperscript{18} If ESI is “not reasonably accessible because of undue burden or cost,” then the party need not produce it, though the party is still obligated to identify it.\textsuperscript{19} The non-producing party may move to compel production of information from sources designated as “not reasonably accessible,” and if it does so, “the party from whom discovery is sought must show that the information is not reasonably accessible because of undue burden or cost. If that showing is made, the court may nonetheless order discovery from such sources if the requesting party shows good cause, considering the limitations of Rule 26(b)(2)(C).\textsuperscript{20} To balance the burdens imposed on a

\textsuperscript{16} FED. R. CIV. P. 34 advisory committee’s notes, subdivision (a) (2006 Amendment) (“The wide variety of computer systems currently in use, and the rapidity of technological change, counsel against a limiting or precise definition of electronically stored information.”).

\textsuperscript{17} FED. R. CIV. P. 26(a)(1)(B).

\textsuperscript{18} FED. R. CIV. P. 26(b)(2)(B).

\textsuperscript{19} FED. R. CIV. P. 26 advisory committee’s notes, subdivision (b)(2) (2006 Amendment) (Identification contemplates that the disclosing party will “provide enough detail to enable the requesting party to evaluate the burdens and costs of providing the discovery and the likelihood of finding responsive information on the identified sources.”).

\textsuperscript{20} FED. R. CIV. P. 26(b)(2)(C). This Rule states that:

The frequency or extent of the use of the discovery methods otherwise permitted under these rules and by any local rule shall be limited by the court if it determines that: (i) the discovery sought is unreasonably cumulative or duplicative, or is obtainable from some other source that is more convenient, less burdensome, or less expensive; (ii) the party seeking discovery has had ample opportunity by discovery in the action to obtain the information; or (iii) the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy,
producing party with the adversary’s desire to obtain relevant ESI, the court can impose conditions on production from a “not reasonably accessible” source, including shifting the cost burden from the producing party to the party seeking to obtain the discovery.21

[8] The amendments also require that the parties proactively address discovery in a collaborative fashion, which is intended to minimize court involvement and make discovery as self-executing as possible. Under Rule 26(f), parties are required to meet and develop a plan to address electronic discovery issues prior to the Rule 16(b) scheduling conference.22

[9] One of the more controversial aspects of the amendments is the so-called Rule 37(f) “safe harbor.”23 Rule 37 authorizes federal courts to sanction parties for discovery abuses.24 By recognizing the “distinctive feature of computer operations, [and] the routine alteration and deletion of information that attends ordinary use, Rule 37(f) creates an exception to this authority.” 25 The advisory committee’s notes explain that there are several “steps essential to computer operation [that] may alter or destroy information, for reasons that have nothing to do with how that information might relate to litigation.”26 As a result, the usual operation of computer systems may cause a party to lose potentially discoverable information, the parties’ resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.

Id.

21 See FED. R. CIV. P. 26 advisory committee’s note, subdivision (b)(2) (2006 Amendment) (Federal Rules of Civil Procedure 33 and 34 also contemplate that electronically stored information may be relied upon to answer interrogatories, or to comply with the document inspection and production requirements. Rule 34 requests may specify the desired form of ESI production, though such demands are subject to undue burden and cost limitations of Rule 26(b)(2)(B), and Rule 34 contemplates objections as to the form of production, though the objecting party must specify an agreeable production format and otherwise produce the documents in a manner that is reasonably useable.).
22 FED. R. CIV. P. 26(f).
23 FED. R. CIV. P. 37(f).
24 FED. R. CIV. P. 37(a)-(d).
25 FED. R. CIV. P. 37 advisory committee’s notes, subdivision (f) (2006 Amendment).
26 Id.
even if such a loss is not the result of the party’s intentional conduct. Consequently, Rule 37(f) provides: “[a]bsent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system.” This limitation, however, only applies to so-called “rules-based” sanctions. Therefore, the court still retains authority to sanction a party for routine loss of data pursuant to its inherent authority to control litigation.

B. REALITY MEETS THE NEW RULES: THE NATURE OF DATA AT LARGE ORGANIZATIONS

Large organizations are dynamic in nature and increasingly operate through the use of electronic data and information, which, as Rule 34 of the Federal Rules of Civil Procedure makes clear, may be subject to disclosure and discovery in litigation. Terabytes and terabytes of data

27 Id.
28 FED. R. CIV. P. 37(f) (emphasis added). “The good faith requirement of Rule 37(f) means that a party is not permitted to exploit the routine operation of an information system to thwart discovery obligations by allowing that operation to continue in order to destroy specific stored information that it is required to preserve.” FED. R. CIV. P. 37 advisory committee’s notes, subdivision (f) (2006 Amendment).
29 FED. R. CIV. P. 37(f).

Every CIO on the planet is besieged by data. They come in through the electronic door by way of e-mail, they’re generated by employees creating business plans and purchase orders, and they multiply almost exponentially.

The fact that much of these data are paperless should, at least in theory, make data management much simpler. The reality, however, is that it’s almost impossible to conceive how much data are produced by a company in a single day, let alone decades.

And sometimes these data come through in multiple languages. In large corporations where employees are spread around the globe and furiously pounding out messages on BlackBerrys, new data are being generated every second of every day. All of this information has to be stored somewhere, but the sheer volume coupled with the complexity of interactions in a company make this a daunting task even to the best-trained IT professionals.
and information are generated, serving a purpose, and then forgotten but never really lost. This data and information may exist not only on employee hard drives, but also in e-rooms and on shared work drives, flash drives, PDAs, databases, and legacy systems no longer in use. Business employees or IT personnel may be the custodians of this data, yet they may have no substantive knowledge of the data contents. The difficulty in complying with the 2006 amendments (or their state counterparts) by identifying, preserving, collecting, and producing all relevant sources of ESI creates a challenge that is daunting at best and, without careful planning, ripe for disaster.

[11] The rules do not require perfection, but organizations (and their lawyers) must be in a position to demonstrate that the efforts made to comply with discovery demands were reasonable. Making reasonable and good faith efforts to comply with discovery is a theme emphasized throughout recent rules and cases that analyze whether an organization has met its discovery obligations. Though somewhat amorphous (out of necessity, given that courts must apply the standard to a multitude of different situations and scenarios), organizations can plan ahead by retaining counsel familiar with electronic discovery requirements. Electronic discovery counsel can help organizations design policies and procedures that assist employees to identify, separate, retain, and produce relevant information. Organizations that take these steps are much less likely to receive sanctions or draconian discovery orders.

C. DUTIES OF COUNSEL

[12] Large organizations are not in this alone. Rule 26(g)(1) of the Federal Rules of Civil Procedure requires an attorney of record to sign all disclosures certifying that “to the best of the person’s knowledge,
information, and belief formed after reasonable inquiry . . . [the disclosure] is complete and correct as of the time it is made . . . .” 34 In effect, Rule 26(g)(1) imposes on counsel a duty to guide, manage, and supervise her client’s efforts to comply with disclosure obligations. 35 Rule 26(g)(1) also requires that counsel certify that discovery objections and responses are consistent with the Rules, current law, or have a reasonable argument otherwise. 36 With the reality of broad electronic discovery and the complexities and idiosyncrasies of modern record keeping and information systems, counsel must become knowledgeable about the ways her client maintains records and she must also manage the process from preservation to production so that she can certify compliance. As we will see, lawyers and organizations alike can be sanctioned for perceived shortcomings or failures in the discovery process. 37

D. Qualcomm v. Broadcom: A Cautionary Tale for Large Organizations and Counsel

[13] Qualcomm Inc. v. Broadcom Corp. 38 provides nine million reasons why large organizations should proactively confront the electronic discovery monster head-on. For lawyers, Qualcomm teaches that failure to appropriately manage the discovery process can be hazardous to one’s license and reputation. Qualcomm, Inc. (“Qualcomm”) filed suit against Broadcom Corp. (“Broadcom”), alleging Broadcom infringed on several patents. 39 Broadcom claimed that Qualcomm participated with Broadcom and others in a “Joint Video Team” (“JVT”) that created the standard by which Qualcomm’s patented products were designed. 40 Consequently, Broadcom claimed the patents were unenforceable. 41

34 FED R. CIV. P. 26(g)(1).
35 See FED R. CIV. P. 26 advisory committee’s notes, subdivision (g) (1983 Amendment) (stating that “Rule 26(g) imposes an affirmative duty to engage in pretrial discovery in a responsible manner that is consistent with the spirit and purposes of Rules 26 through 37”).
36 FED R. CIV. P. 26(g)(1)(B)(i).
37 See e.g. Zubulake v. UBS Warburg LLC, 229 F.R.D. 422 (S.D.N.Y. 2004).
39 Id. at *1.
40 Id.
41 Id. at *1, *3.
To prove its claims, Broadcom sought discovery related to Qualcomm’s participation in the JVT. Qualcomm denied it was involved in the JVT during the time period at issue, but nonetheless agreed to produce responsive non-privileged documents “which [could] be located after a reasonable search.” Qualcomm also stated that its investigation was ongoing and that it would supplement responses as “warranted by its investigation.” Yet, after designating two Rule 30(b)(6) corporate witnesses to testify on its behalf (as individuals most knowledgeable about participation in the JVT) Qualcomm and its counsel failed to search either employee’s computer for relevant documents. During the second employee’s deposition, counsel for Qualcomm discovered that a Qualcomm employee was on one of the JVT e-mail distribution lists. But the attorney failed to question whether Qualcomm was involved in the JVT during the relevant time period. During trial, Qualcomm’s counsel discovered twenty-one emails on a Qualcomm witness’ computer that were associated with the development of the standard through the JVT during times wherein Qualcomm claimed it was not participating. After trial, in-house counsel for Qualcomm admitted that it failed to produce nearly 50,000 relevant documents, many of which undercut Qualcomm’s representations to the court. Magistrate Judge Barbara Major issued an order that Qualcomm show cause why the company and nineteen of its attorneys should not be sanctioned for alleged discovery abuses, including the failure to produce “tens of thousands” of relevant documents. The attorneys were those who “signed discovery responses, signed pleadings and pretrial motions, and/or appeared at trial on behalf of Qualcomm.”

42 Id. at *2.
43 Id.
44 Id.
45 Rule 30(b)(6) requires an organization named as a deponent to designate individuals to testify on its behalf, to the extent the organization has set forth which matters the individual is qualified to testify. FED. R. CIV. P. 30(b)(6).
46 Id. at *3. The first witness testified Qualcomm never participated in the JVT, which was incorrect, so Qualcomm agreed to produce another 30(b)(6) witness. The second witness testified that Qualcomm began work with the JVT in 2003. Id.
47 Id. n.2.
48 Id. at *4.
49 Id. at *6.
50 Id. at *1.
51 Id.
The court found that, “Qualcomm, its employees, and its witnesses actively organized and/or participated in a plan to profit heavily by (1) wrongfully concealing the patents-in-suit while participating in the JVT and then (2) actively hiding this concealment from the Court, the jury, and opposing counsel during the present litigation.” Judge Major found that Qualcomm’s “counsel participated in an organized program of litigation misconduct and concealment throughout discovery, trial, and post-trial before new counsel took over lead role in the case . . . .” The court explained:

For the current “good faith” discovery system to function in the electronic age, attorneys and clients must work together to ensure that both understand how and where electronic documents, records and emails are maintained and to determine how best to locate, review, and produce responsive documents. Attorneys must take responsibility for ensuring that their clients conduct a comprehensive and appropriate document search. Producing 1.2 million pages of marginally relevant documents while hiding 46,000 critically important ones does not constitute good faith and does not satisfy either the client’s or attorney’s discovery obligations. Similarly, agreeing to produce certain categories of documents and then not producing all of the documents that fit within such a category is unacceptable.

The court noted that it had authority to sanction Qualcomm’s attorneys on the basis of Rule 26(g) and its requirement that an attorney certify that the objections and responses were made following a reasonable inquiry, analogizing this requirement with those found in Rule 11. The court then explained that by agreeing to produce all responsive documents based on a diligent search, Qualcomm gave Broadcom no reason to believe it was not participating in discovery in good faith. Consequently, Broadcom did not file a motion to compel under Rule 37, a

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52 Id. at *5.
53 Id.
54 Id. at *9.
55 Id. at *7.
56 Id. at *8.
prerequisite to the imposition of sanctions under the Rule. The court instead relied on its inherent authority to sanction, explaining:

[R]eview of Qualcomm’s declarations, the attorneys’ declarations, and Judge Brewster’s orders leads this Court to the inevitable conclusion that Qualcomm intentionally withheld tens of thousands of decisive documents from its opponent in an effort to win this case and gain a strategic business advantage over Broadcom. Qualcomm could not have achieved this goal without some type of assistance or deliberate ignorance from its retained attorneys.

The court found that Qualcomm failed to provide sufficient evidence to establish that it actually searched for responsive documents during the time period at issue or that it conducted any searches of the computers or databases of employees likely to have responsive documents, including those it identified to serve as its corporate witnesses. The court said such searches were “basic,” and the failure to conduct them was indicative of Qualcomm’s bad faith, along with the sheer volume of unproduced documents that directly undercut Qualcomm’s representations. In summary, the court concluded:

Qualcomm had the ability to identify its employees and consultants who were involved in the JVT, to access and review their computers, databases and emails, to talk with the involved employees and to refresh their recollections if necessary, to ensure that those testifying about the corporation’s knowledge were sufficiently prepared and testified accurately, and to produce in good faith all relevant and requested discovery. . . . Qualcomm chose not to do so and therefore must be sanctioned.

57 Id.
58 Id. at *9.
59 Id. at *10.
60 Id.
61 Id. at *12.
[17] Of the nineteen Qualcomm attorneys ordered to show cause, the court sanctioned six, referring generally to their failure to conduct a reasonable inquiry into Qualcomm’s discovery efforts. As support for its findings, the court explained:

It is inconceivable that these talented, well-educated, and experienced lawyers failed to discover through their interactions with Qualcomm any facts or issues that caused (or should have caused) them to question the sufficiency of Qualcomm’s document search and production. Qualcomm did not fail to produce a document or two; it withheld over 46,000 critical documents that extinguished Qualcomm’s primary argument of non-participation in the JVT. In addition, the suppressed documents did not belong to one employee, or a couple of employees who had since left the company; they belonged to (or were shared with) numerous, current Qualcomm employees, several of whom testified (falsely) at trial and in depositions. Given the volume and importance of the withheld documents, the number of involved Qualcomm employees, and the numerous warning flags, the Court finds it unbelievable that the retained attorneys did not know or suspect that Qualcomm had not conducted an adequate search for documents.

The court went on to say:

[O]ne or more of the retained lawyers chose not to look in the correct locations for the correct documents, to accept the unsubstantiated assurances of an important client that its search was sufficient, to ignore the warning signs that the document search and production were inadequate, not to press Qualcomm employees for the truth, and/or to encourage employees to provide the information (or lack of

62 Id. at *13-15. The court declined to sanction a number of attorneys, including several who signed pleadings acting as local counsel, by finding that, based on the totality of the circumstances, this would be inappropriate. Id. at *16.
63 Id. at *12.
information) that Qualcomm needed to assert its non-participation argument and to succeed in this lawsuit. These choices enabled Qualcomm to withhold hundreds of thousands of pages of relevant discovery and to assert numerous false and misleading arguments to the court and jury. This conduct warrants the imposition of sanctions.64

The court explained that Rules 26(g) and 37 of the Federal Rules of Civil Procedure should not be read so narrowly that only the attorney who signed false discovery responses could be sanctioned.65 To find otherwise would allow an attorney to rely on “inadequate or misleading” discovery responses to present “false and unsupported legal arguments.”66 The court again found sanctions appropriate under its inherent powers.

[18] The court sanctioned Qualcomm in the amount of $8,568,633.24—the total sum of Broadcom’s litigation costs and attorneys’ fees.68 This was justified because “Qualcomm’s failure to produce the massive number of critical documents at issue in this case significantly increased the scope, complexity and length of the litigation and justifies a significant monetary award.”69 The sanctioned attorneys were required to send a copy of the court’s order to the California State Bar Intake Unit so that their conduct could be evaluated and, if necessary, sanctioned by the State Bar.70 In addition, the court required Qualcomm and all sanctioned attorneys to participate in a “Case Review and Enforcement of Discovery Obligations” program (CREDO).71 The CREDO required that the sanctioned attorneys and Qualcomm:

64 Id. at *13.
65 Id. at n.9.
66 Id.
67 Id.
68 Id. at *17.
69 Id.
70 Id. at *18. While the court’s order was upheld in these respects, it was vacated in part because the court found that the self-defense exception to the attorney-client privilege applied and as a matter of due process, Qualcomm’s lawyers were entitled to rely on otherwise privileged communications and materials to defend their conduct. See Qualcomm v. Broadcom, No. 05CV1958-RMB (BLM), 2008 WL 638108, at *3 (S.D. Cal. March 5, 2008).
(1) identify the factors that contributed to the discovery violation: insufficient communication (including between client and retained counsel, among retained lawyers and law firms, and between junior lawyers conducting discovery and senior lawyers asserting legal arguments), inadequate case management (within Qualcomm, between Qualcomm and the retained lawyers, and by the retained lawyers), inadequate discovery plans (within Qualcomm and between Qualcomm and its retained attorneys), etc.;

(2) create and evaluate proposals, procedures, and processes that will correct the deficiencies identified in subsection (1);

(3) develop and finalize a comprehensive protocol that will prevent future discovery violations;

(4) apply the protocol developed under subsection (3) to other factual situations (such as when a client does not have corporate counsel, when the client has a single in-house lawyer, when the client has a large legal staff, and when there are two law firms representing one client);

(5) identify and evaluate methods that corporations can implement to better enable counsel to identify potential sources of discoverable documents (e.g. the correct databases, archives, etc.), and

(6) identify any other information or suggestions that will help prevent discovery violations.72

*Qualcomm* is an important reminder that courts may have zero tolerance for discovery mismanagement and that the stakes cannot be higher for lawyers or their clients.73 The remainder of this article will discuss the problems that can occur during various stages of the electronic discovery production process, stressing forward thinking and proactive planning as a solution, with the assistance of counsel knowledgeable about electronic discovery.

72 Id. at *19.
73 See id.
III. PRESERVATION AND COLLECTION

A. IDENTIFYING THE RIGHT CUSTODIANS, DATA, AND INFORMATION

[19] Identifying the right custodians and data can be a difficult task, but it is the first step of any effort to appropriately tackle electronic discovery. Large organizations are structured for conducting business, but this does not necessarily mean that they are structured in a manner that makes complying with e-discovery obligations easy or even feasible without substantial planning and oversight by counsel. The primary factor that contributes to difficulties in electronic discovery is the requirement that documents be preserved, extracted, and categorized in a manner that is “unnatural” to the organization. Although difficult, demonstrating a reasonable good faith effort to preserve and collect the right data is essential to avoid sanctions.74

[20] For example, in Coleman (Parent) Holdings v. Morgan Stanley & Co.,75 Coleman (CPH) filed a lawsuit against Morgan Stanley, alleging fraud in connection with a stock sale.76 An SEC regulation required that Morgan Stanley maintain certain documents, including e-mail, for two years, although Morgan Stanley overwrote its e-mails after one year.77 During discovery, the court ordered Morgan Stanley to (1) search its backup tapes for relevant e-mail; (2) identify e-mails containing certain words and key phrases; (3) produce all responsive non-privileged e-mails; (4) provide a privilege log; and (5) certify compliance with the order by May 14, 2004.78 Although some e-mails were produced as required, the certification was not executed until more than a month after it was due.79 Once executed, it was also incorrect in its assertion that the production was complete, and the court found that the declarant, a Morgan Stanley employee responsible for managing records, knew this to be the case at the time he executed the declaration.80 In fact, potentially relevant e-mail

74 See id. at *9-12; see also supra text accompanying note 28.
75 No. 502003CA005045XXOCAI, 2005 WL 679071, at *1 ( Fla. Cir. Ct. March 1, 2005).
76 Id. at *1.
77 Id.
78 Id.
79 Id.
80 Id. at *2.
stored on nearly 2000 back-up tapes at two different storage locations still needed to go through a complicated restoration process prior to attorney review and production.81 This process was not completed until approximately January 2005, with trial scheduled for that February.82 Also, during November 2004, an additional 8000 e-mails were produced, but according to the court, these were not associated with either of the two previously identified catalogs of back-up tapes.83

[21] During January and February 2005, additional back-up tapes were discovered at other facilities on three separate occasions.84 While the continued production from these sources was ongoing, Morgan Stanley discovered that an incorrect date range limiter had been used to search the sources of potentially relevant information identified and produced in May 2004. This resulted in Morgan Stanley unintentionally omitting potentially responsive e-mail in the portion of the production that was timely made.85

[22] In its opinion, the court documented all of these issues, which it perceived as shortcomings, and relied on them to make the following findings:

[D]espite MS & Co.’s affirmative duty arising out of the litigation to produce its e-mails, and contrary to federal law requiring it to preserve the e-mails, MS & Co. failed to preserve many e-mails and failed to produce all e-mails required by the Agreed Order. The failings include overwriting e-mails after 12 months; failing to conduct proper searches for tapes that may contain e-mails; providing a certificate of compliance known to be false when made and only recently withdrawn; failing to timely notify CPH when additional tapes were located; failing to use reasonable efforts to search the newly discovered tapes; failing to timely process and search data held in the staging

81 Id.
82 Id.
83 Id. at *3.
84 Id. at *4.
85 Id.
area or notify CPH of the deficiency; failing to write software scripts consistent with the Agreed Order; and discovering the deficiencies only after CPH was given the opportunity to check MS & Co.’s work and the MS & Co.’s attorneys were required to certify the completeness of the prior searches. Many of these failings were done knowingly, deliberately, and in bad faith.86

The court said it was clear that Morgan Stanley had intended to “thwart” discovery, and as a sanction, shifted the burden of proof for CPH’s fraud claim to Morgan Stanley.87 The court further sanctioned Morgan Stanley by requiring that it pay for CPH’s costs in bringing the motion, agree to read a conclusive statement of facts detailing the discovery problems in the case, and allow CPH to argue any inferences that could be drawn from the facts, including that Morgan Stanley’s “concealment” could be relied upon to support a punitive damages claim.88

[23] *Morgan Stanley* provides an extreme example of the problems large organizations can face for failing to identify sources of potentially relevant data. Problems identifying relevant data are avoidable, but require up-front planning and substantial involvement and oversight by counsel. Organizations should strive to retain counsel familiar with electronic discovery requirements and allow counsel to become familiar with the organization and its operations. Once litigation is reasonably anticipated (and throughout litigation), it is important for the client and discovery counsel to understand as much as possible about the facts of a case so that appropriate steps can be taken to preserve relevant documents. Prior to litigation, counsel and the client should consider working together to map the organization’s information systems and technology infrastructure; doing so enables the organization to combine this information with the facts of the case to identify sources of potentially relevant data.

86 Id. at *5.
87 Id. at *6.
88 Id. at *7-8.
B. PRESERVING AND COLLECTING DATA AND INFORMATION: THE ZUBULAKE CASES

[24] Identifying data is only the first step. Once relevant data are identified, they must be preserved. Accordingly, it is also essential that counsel and the client become familiar with the manner in which records are stored, and the retention period for those records, especially back-up tapes, so that counsel and the client can issue an appropriate order or “litigation hold” to prevent inadvertently discarding potentially relevant information. Failure to properly preserve data was at the core of one of the most notable e-discovery cases, Zubulake v. UBS Warburg LLC (Zubulake I).

[25] In Zubulake I, Laura Zubulake sued her former employer UBS for gender discrimination, and sought to prove her case by discovering e-mail and other information that existed in UBS’s active electronic files and archived back-up media. The question posed was “[t]o what extent is inaccessible electronic data discoverable, and who should pay for its production?” The court poignantly observed “[t]he more information there is to discover, the more expensive it is to discover all the relevant information until, in the end, ‘discovery is not just about uncovering the

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89 Preservation of back-up tapes can often be costly and may not be necessary.
90 See supra note 7.
92 Id. at 312-13. The Zubulake cases are famous in the e-discovery world; they are a series of five opinions written by Judge Shira Scheindlin prior to the amendments to the Federal Rules of Civil Procedure. Four of the Zubulake opinions – Zubulake I, III, IV, and V – highlight some of the problems organizations and counsel can face in identifying and preserving relevant information and offer sound guidance as to the appropriate manner for resolving the peculiar problems raised by e-discovery. In particular, the cases explore and endeavor to answer the questions of when a court should shift the costs and burdens of e-discovery between litigants, under what circumstances and when electronic data must be preserved, how an organization should go about such preservation efforts, and the duties of organizations and counsel to participate in the discovery process. See Zubulake I, 217 F.R.D. 309 (S.D.N.Y. 2003); Zubulake v. UBS Warburg LLC (Zubulake III), 216 F.R.D. 280 (S.D.N.Y. 2003); Zubulake v. UBS Warburg LLC (Zubulake IV), 220 F.R.D. 212, 215 (S.D.N.Y. 2003); Zubulake v. UBS Warburg LLC (Zubulake V), 229 F.R.D. 422, 426 (S.D.N.Y. 2004).
93 Id. at 311.
truth, but also about how much of the truth the parties can afford to disinter.”

[26] Zubulake wanted e-mail stored on UBS’s back-up tapes, which would be costly to restore. To resolve the parties’ dispute, the court began by describing its authority to shift the cost burden associated with discovery. Foreshadowing the eventual distinction made by the Federal Rules of Civil Procedure, the court explained that often discovery of electronic information will be unduly burdensome based on whether the data is stored “in an accessible or inaccessible format.” The court ordered UBS to produce, at its expense, all responsive e-mails existing in an accessible format (i.e., in a format that could be readily accessed with minimal burden). The court ordered further sampling from the back-up tapes that stored e-mail, and an affidavit providing the sampling results, along with the costs of restoration, so that it could then rule on whether cost-shifting was appropriate.

[27] Zubulake III addressed the merits of UBS’s cost-shifting request. The court engaged in a multi-factor analysis to determine that some cost-shifting was appropriate, but determined that only the cost of restoration and searching are appropriately shifted to any degree. A producing party “should always bear the cost of reviewing and producing” responsive documents, even if retrieved from an inaccessible source, because the reviewing party has the sole power to design the review protocol and control costs.

[28] After the restoration and search process was complete, the parties found themselves back in front of the court for Zubulake IV. UBS had failed to preserve certain back-up tapes and e-mails had been deleted from

94 Id.
95 Id. at 312-13.
96 Id. at 315-16.
97 Id. at 318 (emphasis omitted).
98 See id. at 324.
99 Id.
101 Id. at 289-90.
102 Id. at 290 (emphasis in original).
UBS’s active systems after counsel issued a litigation hold directing employees to preserve all documents related to the Zubulake litigation. Zubulake sought sanctions, requesting the reallocation of the restoration costs to UBS and reimbursement for the costs to re-depose certain witnesses, as well as an adverse inference instruction to the jury.

The court observed that the failure to preserve electronically stored information is a spoliation issue, and found authority to sanction litigants for the spoliation of evidence under its inherent authority and the Federal Rules. The key question was the scope of UBS’s duty to preserve the e-mail, which required inquiry into when the duty arose and then, to the extent such a duty existed, the outer parameters of that duty. The court explained that the duty arises when “litigation [is] reasonably anticipated.” Although Zubulake filed an EEOC charge in August 2001, the court found that UBS reasonably anticipated litigation before that time, explaining:

Merely because one or two employees contemplate the possibility that a fellow employee might sue does not generally impose a firm-wide duty to preserve. But in this case, it appears that almost everyone associated with Zubulake recognized the possibility that she might sue. For example, an e-mail authored by Zubulake’s co-worker Vinnay Datta, concerning Zubulake and labeled “UBS attorney client priviladge [sic],” was distributed to Chapin (Zubulake’s supervisor), Holland and Leland Tomblick (Chapin's supervisor), Vail (Zubulake’s former supervisor), and Andrew Clarke (Zubulake’s co-worker) in late April 2001. That e-mail, replying to one from Hardisty, essentially called for Zubulake’s termination: “Our biggest strength as a firm and as a desk is our ability to share

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104 Id.
105 Id. at 216. “Spoliation is ‘the destruction of or significant alteration of evidence, or the failure to preserve property for another’s use as evidence in pending or reasonably foreseeable litigation.’” Id. (quoting West v. Goodyear Tire & Rubber Co., 167 F.3d 776, 779 (2d Cir. 1999)).
106 Id.
107 Id. at 217.
information and relationships. Any person who threatens this in any way should be firmly dealt with. . . . [B]elieve me that a lot of other [similar] instances have occurred earlier.”

[30] The court then addressed the breadth of UBS’s preservation obligations, explaining that it is completely unnecessary for a company to “preserve every shred of paper, every e-mail or electronic document, and every backup tape,” recognizing that such a draconian requirement would “cripple large corporations . . . that are almost always involved in litigation.”

The court explained that the “duty should certainly extend to any documents or tangible things . . . made by individuals ‘likely to have discoverable information that the disclosing party may use to support its claims or defenses,’” including documents prepared for those persons and information that is “‘relevant to the subject matter of the action.’” As shorthand for describing the breadth of a litigant’s preservation duty, the court coined the phrase “key players” to describe those individuals who are likely to have, or know where to obtain, information relevant to the litigation.

[31] Summarizing a litigant’s preservation obligations, the court said:

The scope of a party’s preservation obligation can be described as follows: Once a party reasonably anticipates litigation, it must suspend its routine document retention/destruction policy and put in place a “litigation hold” to ensure the preservation of relevant documents. As a general rule, that litigation hold does not apply to inaccessible backup tapes (e.g., those typically maintained solely for the purpose of disaster recovery), which may continue to be recycled on the schedule set forth in the company’s policy. On the other hand, if backup tapes are accessible (i.e., actively used for information retrieval),

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108 Id. (alterations in original) (footnote omitted).
109 Id.
110 Id. at 217-18 (quoting FED. R. CIV. P. 26(a)(1)(A), (b)(1)).
111 Id. at 218.
then such tapes would likely be subject to the litigation hold.

However, it does make sense to create one exception to this general rule. If a company can identify where particular employee documents are stored on backup tapes, then the tapes storing the documents of “key players” to the existing or threatened litigation should be preserved if the information contained on those tapes is not otherwise available. This exception applies to all backup tapes.\textsuperscript{112}

Applying these standards to the motion for sanctions, the court explained that UBS had a duty to preserve the back-up tapes at issue, but because Zubulake could not demonstrate that the information contained on the back-up tapes would have supported her claims, an adverse inference instruction was not warranted.\textsuperscript{113} The court required UBS to pay the costs for Zubulake to re-depose certain witnesses on the issues surrounding the destruction of relevant e-mails.\textsuperscript{114}

[32] During these depositions, Zubulake discovered that additional potentially relevant e-mails were intentionally deleted, despite the existence of a litigation hold instructing that they be retained, and other e-mail had not yet been collected from an employee; consequently, neither had been produced.\textsuperscript{115} Zubulake again requested that the court sanction UBS, and the court took up the issue in \textit{Zubulake V}.\textsuperscript{116} \textit{Zubulake V} explained a party’s duty to heed counsel’s advice to preserve potentially relevant documents and discussed in detail counsel’s key role as an active participant in, and supervisor of, a party’s discovery compliance efforts.\textsuperscript{117} Acknowledging that litigants often issue a “litigation hold” to instruct custodians that certain information and data needed for litigation must not be discarded, the court explained that preservation duties go further: “[a]
party’s discovery obligations do not end with the implementation of a ‘litigation hold’—to the contrary, that’s only the beginning. Counsel must oversee compliance with the litigation hold, monitoring the party’s efforts to retain and produce the relevant documents.”118 The court explained that “counsel and client must take some reasonable steps” to identify relevant sources of information and that counsel has an affirmative duty to locate relevant information, requiring that counsel “become fully familiar with her client’s document [and] data retention architecture” by communicating with key players and information technology personnel.119 After identifying and preserving sources of potentially relevant information, there is an ongoing duty to ensure continued compliance with the preservation directive.120 The court explains that this may involve periodically communicating directly with key players and assisting the client to put procedures in place to segregate and preserve relevant back-up media.121

[33] The court found that UBS’s counsel failed to appropriately communicate the litigation hold, interview key players, and that UBS failed to heed counsel’s warnings and preserve relevant e-mails.122 In addition, the court found that the failure to preserve was willful and that an adverse inference instruction was appropriate.123 The court also required that UBS pay the costs associated with re-deposing witnesses in light of the tardy production of e-mails, along with the costs of the motion.124

[34] Zubulake IV and V create a roadmap for large organizations wrestling with electronic discovery obligations. A large organization that is willing to work with counsel to proactively implement plans and procedures that help ensure the timely and continued preservation of ESI will have little difficulty showing that its efforts were reasonable. In contrast, taking an ad hoc approach to electronic discovery not only increases the risk that

118 Id. at 432.
119 Id. (emphasis in original).
120 Id. at 433.
121 Id. at 433-34.
122 Id. at 436.
123 Id. at 436-37.
124 Id. at 437.
relevant data and information will be discarded, but virtually guarantees a finding that the organization’s efforts were not reasonable.

[35] If the information is never collected when needed, it will not matter that the information was preserved. Zubulake V touched on the potential ramifications of such a situation; when a key player complies with the litigation hold, but counsel fails to collect her documents, the ultimate result is the late production of responsive e-mail(s). Tardy production can certainly cause problems, as it did for UBS, but it could have been worse. Failing to collect the information could result in it never being discovered and produced, which opens the door for an adversary to argue that such information was intentionally “hidden.”

[36] Collection problems also go far beyond merely neglecting to ask for responsive information. The technical nature of electronic media, and the special software that may be necessary to appropriately “harvest” the preserved data or information, can cause a myriad of problems that result in loss or corruption of the data as it actually exists in the organization’s files. At best, this might mean an invasive exploration of confidential and proprietary files by an adversary’s expert to confirm that the data produced was not altered. At worst, an organization may be faced with a finding that the evidence was spoliated by the process.

[37] Given the risks, an organization’s plans to address discovery should include identifying and selecting appropriate ESI vendors. An ESI vendor can provide various services, including data collection, processing, data hosting, and production. Some vendors provide all of these services, which can be desirable for a variety of reasons, including reduced pricing and better quality.

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125 See id. at 424.
127 See id. at 168-70.
128 Cf. id. (discussing the consequences of errors in document review).
129 Id. at 170-72.
130 Id. at 172.
C. THE VALUE OF PRIVILEGE WHEN FACING SANCTIONS

[38] No matter how prepared an organization is, it will inevitably face accusations that its electronic discovery efforts were below par. To show such claims are baseless, it will often be necessary to rely on information that the organization deems privileged. For example, when a law firm or general counsel’s office issues to company employees a “litigation hold” or other notice informing the constituents of ongoing litigation and the need to preserve relevant documents, courts have recognized such communications fall within the scope of the attorney-client privilege. 131 Appropriate preservation notices or “litigation holds” that suspend an organization’s usual records retention schedule are very helpful documents. Litigants should consider that revelation of the contents of the communication, in the right circumstances, may help demonstrate that the organization’s discovery compliance efforts were reasonable. It may not even be necessary to reveal the contents of the communication beyond the court. Litigants should first seek to submit such information to the court for in camera inspection. This should preserve the privilege while providing the court with information it needs to find that the steps taken were reasonable. 132

IV. DOCUMENT REVIEW

A. IDENTIFYING RELEVANT DOCUMENTS AND WITHHOLDING PRIVILEGED DOCUMENTS

[39] Counsel walks a razor’s edge in the document review realm, ensuring that a client’s production is broad enough to encompass all

131 See Muro v. Target Corp., 250 F.R.D. 350, 360 (N.D. Ill. 2007); see also Ford Motor Co. v. Hall-Edwards, No. 3D08-2447, 2008 WL 5070290, at *6 (Fla. App. 3 Dist. Dec. 3, 2008) (“We conclude that the Ford suspension orders were created by Ford’s attorneys in anticipation of litigation and thus constitute work product. Moreover, because revealing the documents identified by Ford’s counsel as those that need to be kept in anticipation of litigation would reveal the mental impressions of counsel, suspension orders fall within the absolute immunity protecting opinion work product. . . . Further, the suspension orders constituted legal advice given by Ford’s Office of the General Counsel to its client concerning the scope of documents which should be retained for purposes of pending or anticipated litigation. Thus, they are protected under the attorney-client privilege.”)
132 See, e.g., Muro, 250 F.R.D. at 360.
responsive documents (and “responsiveness” is often subjective), while narrow enough to not unnecessarily expose confidential or otherwise privileged client information to the opposing party or the public. In addition, document review accounts for a substantial amount of litigation costs—some claim upwards of 90%.\textsuperscript{133} Often a client, understandably looking to reduce costs, will hire contract attorneys and other vendors to accomplish the review task.

[40] Experts in this field agree that, like so many other aspects of e-discovery, investing in creating a careful plan and assembling the right team can make the process manageable and produce a defensible and more accurate review product.\textsuperscript{134} The importance of having a well-considered plan becomes all the more important when one considers that document reviews rely heavily on the most junior attorneys. Breaking the process into stages that allow for proper information gathering, communication with opposing counsel, selecting appropriate review tools and vendors, appropriate review team training, and quality control all assist in the timely and accurate completion of the document review process.\textsuperscript{135}

B. USE OF ADVANCED SEARCH AND REVIEW METHODS: DISCOVERY EXPERTS?

[41] Changes are on the horizon in the area of electronic discovery. With increasingly more advanced methods of searching the gigabytes or terabytes of data needed for litigation becoming available, large organizations and counsel may find themselves looking for experts to validate their efforts. Two opinions recently issued by Judge John M. Facciola illustrate the emphasis that courts are placing on the document search and review process.\textsuperscript{136} Taken together, the opinions envision that litigants will need to fulfill the requirements of Rule 702 of the Federal Rules of Evidence to challenge and defend their document search and


\textsuperscript{135} See id. at 57-60.

These opinions underscore the necessity of having a proactive plan in place to handle discovery, and competent counsel to supervise and implement the plan, so that an expert can later opine that the search methods utilized would yield the intended results.

1. United States v. O’Keefe

[42] In O’Keefe, the United States was ordered to search its files and produce documents associated with expedited visa applications. The government used keywords to identify potentially responsive documents and provided the court with an affidavit detailing the key words relied upon. Judge Facciola explained “[w]hether 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,” and that keyword searching, at least for the purpose of complying with discovery obligations, is “clearly beyond the ken of laymen [including lawyers and judges].” The party challenging the sufficiency of such a search, however, has the burden of showing that it was insufficient, and Judge Facciola said such challenges must be

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137 Rule 702 of the Federal Rules of Evidence provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

FED. R. EVID. 702; see also O’Keefe, 537 F. Supp. 2d 14; Equity Analytics, 248 F.R.D. 331 (applying Rule 702 of the Federal Rules of Evidence to document search and review).


140 Id. at *16-18.

141 Id. at *24 (citing George L. Paul & Jason R. Baron, Information Inflation: Can the Legal System Adapt?, 13 RICH. J.L. & TECH. 10 (2007)).
bolstered by evidence that complies with the requirements of Federal Rule of Evidence 702.\textsuperscript{142}

2. \textit{EQUITY ANALYTICS V. LUNDIN}\textsuperscript{143}

[43] \textit{Equity Analytics}, another Judge Facciola opinion, was issued less than a month after \textit{O’Keefe}.\textsuperscript{144} The lawsuit was based on Equity Analytics’ allegations that Lundin, a former employee, illegally accessed its computer systems after he was terminated.\textsuperscript{145} The parties agreed that a search of Lundin’s personal computer (which he was using for personal matters and his new work) would need to be conducted, but they disagreed as to how that search should be accomplished.\textsuperscript{146} Predictably, Equity Analytics (Equity) wanted an expansive forensic search of Lundin’s personal computer, citing a change in operating systems as potentially corrupting files and preventing the discovery of relevant information, while Lundin preferred a search restricted to certain keywords and files, citing the substantial amount of irrelevant and confidential personal information contained on his computer.\textsuperscript{147}

[44] Judge Facciola said:

\begin{quote}
L]awyers express as facts what are actually highly debatable propositions as to the efficacy of various methods used to search electronically stored information. . . .
\end{quote}

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[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) and requires expert testimony that meets the requirements of Rule 702 of the Federal Rules of Evidence. Obviously, determining the significance of the loading of a new operating system upon file structure and retention and why the contemplated forensic search will yield information that will not be
\end{quote}

\begin{footnotes}
\begin{enumerate}
\item Id. at *24.
\item 248 F.R.D. 331 (D.D.C. 2008).
\item Id.
\item Id. at 332-33.
\end{enumerate}
\end{footnotes}
yielded by a search limited by file types or keywords are beyond any experience or knowledge I can claim.

Accordingly, I am going to require Equity to submit an affidavit from its examiner explaining why the limitations proposed by plaintiff are unlikely to capture all the information Equity seeks and the impact, if any, of the loading of the new operating system upon Lundin’s computer and the data that was on it before the new operating system was loaded. The expert shall also describe in detail how the search will be conducted. Armed with that information, supplemented if necessary by a hearing at which the expert will be cross examined, I can make the best possible judgment as to how to balance Equity’s need for information against Lundin’s privacy.148

[45] The expert was to make a “mirror image” of the hard drive, which would presumably preserve Lundin’s computer in its current state, but Equity, concerned that the mirror image would not be exact, wanted the computer that Lundin needed to make a living preserved until the conclusion of the litigation, effectively depriving Lundin of its use. Judge Facciola again deferred to the expert to determine whether the mirror images would be “perfect copies” of Lundin’s hard drives.149

[46] Given the prevalence of Google, Yahoo, and other search engines, we take it for granted that we can rely on keyword searching as a tool without needing to resort to an expert to make sure we identified the information desired. Lawyers have been using keywords to search Westlaw and Lexis for years. Yet Judge Facciola’s point in O’Keefe is well taken. We know from personal experience that not all searches are equally effective. While we can become journeymen, or even search experts, if we often use the same search tool to look for the same types of information, the skills required are a combination of understanding the technology we are using and the linguistics necessary to identify the desired information. Considering this, before large organizations and lawyers represent to courts that they have conducted a reasonable search, they should consider whether they should identify someone who can be

148 Id. at 333.
149 Id. at 333-34.
qualified as an expert under Rule 702 to conduct or supervise the search. If challenged, the “search expert” will be in a position to opine that the search was reasonable and identified the desired relevant documents.150

[47] Keyword searching is literally the tip of the iceberg when it comes to separating the relevant from non-relevant in document review. Advanced forms of technology are being explored that are intended to reduce costs while enhancing accuracy.151 While in its infancy, such methods show great promise. Large organizations that rely on such methods, however, will need to be prepared to show, likely through an expert, that the search method was successful in identifying relevant information.

V. PRODUCTION

A. FORM OF PRODUCTION

[48] With the variety of media types in existence, the available methods of production have also grown. It is no longer necessary to produce multiple bankers boxes filled with hard copy documents; the same volume can often be captured on a single DVD or computer hard drive. But with the variety of production options comes a new problem: often the selected method of production will not be acceptable to the opposing party, perhaps because the party does not have the required software to view the documents or, as is becoming increasingly common, it prefers the “native” version of the document, as opposed to an imaged .pdf or .tiff copy.152

150 It will also be necessary to document the steps taken to conduct the search.
151 For example, the company H5 claims that, through the use of advanced technology and experts, it can reduce document review costs and inaccuracy by fifty percent. See H5 Company Approach, http://www.h5.com/services/approach.html (last visited Mar. 31, 2009).
152 “Native format” is defined as follows:

Electronic documents have an associated file structure defined by the original creating application. This file structure is referred to as the “native format” of the document. Because viewing or searching documents in the native format may require the original application (for example, viewing a Microsoft Word document may require the Microsoft Word application), documents may be converted to a neutral format as part of the record acquisition or archive process. “Static” formats (often called “imaged formats”), such as TIFF or PDF, are
[49] The court in *Aguilar v. Immigration and Customs Enforcement Division*\textsuperscript{153} underscored the solution to this problem, which is to address ESI production early:

This lawsuit demonstrates why it is so important that parties fully discuss their ESI early in the evolution of a case. Had that been done, the Defendants might not have opposed the Plaintiffs’ requests for certain metadata. Moreover, the parties might have been able to work out many, if not all, of their differences without court involvement or additional expense, thereby furthering the “just, speedy, and inexpensive determination” of this case. *See* Fed. R. Civ. P. 1. Instead, these proceedings have now been bogged down in expensive and time-consuming litigation of electronic discovery issues only tangentially related to the underlying merits of the Plaintiffs’ *Bivens* claims. Hopefully, as counsel in future cases become more knowledgeable about ESI issues, the frequency of such skirmishes will diminish.\textsuperscript{154}

[50] In *Aguilar*, the parties failed to address the document production format during the Rule 26(f) conference and when plaintiff’s discovery requests likewise failed to specify a desired production format.\textsuperscript{155} After

\begin{quote}
designed to retain an image of the document as it would look viewed in the original creating application but do not allow metadata to be viewed or the document information to be manipulated. In the conversion to static format, the metadata can be processed, preserved and electronically associated with the static format file. However, with technology advancements, tools and applications are becoming increasingly available to allow viewing and searching of documents in their native format, while still preserving all metadata.
\end{quote}


\textsuperscript{153} *Aguilar v. Immigration and Customs Enforcement Div. of U.S. Dep’t of Homeland Sec., No. 07 Civ. 8224(JGK)(FM), 2008 WL 5062700 (S.D.N.Y. Nov. 21, 2008).*

\textsuperscript{154} *Id.* at *14.

\textsuperscript{155} *Id.* at *2.
defendants had nearly completed processing the documents, plaintiff
demanded that certain documents be produced in a “native” format, while
others be produced with the corresponding metadata for each file.\textsuperscript{156} 
\textit{Aguilar} is but one example of why it is so important for large
organizations and counsel to discuss the production format up-front, which
will help avoid a waste of time and resources.

\textbf{B. PRIVILEGE CONCERNS}

[51] Because the amount of available relevant data has grown
exponentially, it has become increasingly difficult to prevent the
inadvertent production of privileged information. Recently, the Federal
Rules of Evidence were amended to address this problem.

\textbf{1. RULE 502 OF THE FEDERAL RULES OF EVIDENCE}

was enacted.\textsuperscript{157} The Rule applies to all federal cases filed after its
enactment and in any pending proceeding whenever “just and
practicable.”\textsuperscript{158} It also operates to prevent arguments of waiver in state
court proceedings, to the extent disclosure is made in a federal proceeding.
In Rule 502(a), the Rule first addresses so-called “subject matter waiver,”
which extends waiver of the attorney-client privilege beyond the actual
document produced to anything dealing with the “subject matter” of the
communication actually disclosed.\textsuperscript{159} In attempting to limit the damage to

\textsuperscript{156} Id.

\textsuperscript{157} FED. R. EVID. 502.

\textsuperscript{158} Id. advisory committee’s note.

\textsuperscript{159} See FED. R. EVID. 502(a). See generally Alabama Aircraft Indus., Inc.-Birmingham v.

Metadata, frequently referred to as “data about data,” is electronically-
stored evidence that describes the “history, tracking, or management of
an electronic document.” It includes the “hidden text, formatting
codes, formulae, and other information associated” with an electronic
document. . . . Although metadata often is lumped into one generic
category, there are at least several distinct types, including substantive
(or application) metadata, system metadata, and embedded metadata.

\textit{Id.} at *3 (citations omitted).
the privilege that was often caused by such disclosures, Rule 502(a) provides that, if disclosure of a privileged communication occurs, the waiver extends to undisclosed communications only if three criteria are satisfied: 1) the waiver must be intentional; 2) the disclosed and undisclosed communications concern the same subject matter; and 3) in fairness, ought to be considered together. 160 This will prevent expansive inadvertent disclosures, while simultaneously preventing attorneys from abusing the attorney-client privilege: disclosing only favorable communications and withholding unfavorable communications of the same subject matter. 161

[53] Rule 502(b) of the Federal Rules of Evidence deals with the inadvertent waiver of attorney-client privileged communications. 162 A litigant comes within the scope of the Rule when the disclosure is inadvertent, reasonable steps were taken to prevent disclosure, and upon discovery, reasonable steps were promptly taken to address the waiver. 163

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160 FED. R. EVID. 502(a).
161 Id.
162 FED. R. EVID. 502(b).
163 Id. The Rule expressly contemplates that this may involve taking the steps set-forth in Federal Rule of Civil Procedure 26(b)(5)(B):

If information produced in discovery is subject to a claim of privilege or of protection as trial-preparation material, the party making the claim may notify any party that received the information of the claim and the basis for it. After being notified, a party must promptly return, sequester, or destroy the specified information and any copies it has; must not use or disclose the information until the claim is resolved; must take reasonable steps to retrieve the information if the party disclosed it before being notified; and may promptly present the information to the court under seal for a determination of the claim. The producing party must preserve the information until the claim is resolved.

FED. R. CIV. P. 26(b)(5)(B). Rule 502(c) of the Federal Rules of Evidence provides that:

When the disclosure is made in a State proceeding and is not the subject of a State-court order concerning waiver, the disclosure does not operate as a waiver in a Federal proceeding if the disclosure:

(1) would not be a waiver under this rule if it had been made in a federal proceeding; or
(2) is not a waiver under the law of the state where the disclosure occurred.
One of its best features is the uniform effect of a federal court’s ruling that a waiver has not taken place. In cases pending before a federal court, to the extent the court determines a waiver has not taken place, that order stands in any other federal or state proceeding.164

[54] At least two courts have had the opportunity to apply the inadvertent waiver provisions of Rule 502 of the Federal Rules of Evidence, and early indications stress that it is essential to conduct defensible methods of search and review so that a court will find that the litigant’s efforts were reasonable.165 This is the lynch-pin: if the court finds the review was careless or not conducted in a reasonable manner, the privilege will be lost.

[55] In Relion, Inc. v. Hydra Fuel Cell Corp.,166 Relion Inc.’s (“Relion”) counsel reviewed documents in preparation for production to avoid providing privileged documents to Hydra Fuel Cell Corp. (“Hydra”).167 Counsel did not identify two privileged e-mails contained within a production that occupied “over 40 feet of shelf space.”168 Four months later, Hydra notified Relion of the production, and Relion claimed it was inadvertent.169 The court was not persuaded, proclaiming, “Relion has not carried its burden of disproving waiver.”170 Because Relion had the opportunity to review the files prior to inspection by Hydra, and Hydra delivered a hard copy and text-searchable copy of those documents selected for copying, the court concluded that “Relion did not pursue all reasonable means of preserving the confidentiality of the documents

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164 FED. R. EVID. 502(d). Rule 502(e) contemplates that parties can agree that production of privileged information will not constitute a waiver, but such agreements are binding only on the parties. The agreement would need to be incorporated into a court order to have effect beyond the parties. FED. R. EVID. 502(e).
167 Id. at *3.
168 Id. at *2-3.
169 Id. at *3.
170 Id.
produced to Hydra,” thereby waiving the privilege.\textsuperscript{171} It is questionable whether the standard imposed by the court, “all reasonable means,”\textsuperscript{172} is actually consistent with the plain language of Rule 502(b), which requires that only “reasonable steps” be taken to prevent disclosure.\textsuperscript{173} Nonetheless, litigants can expect, and must be prepared to confront, differing opinions on what is reasonable; \textit{Relion} shows that the threshold will be quite high in some courts.

[56] In \textit{Laethem Equip. Co. v. Deere and Co.},\textsuperscript{174} the court came to the entirely opposite conclusion than the court in \textit{Relion}. Plaintiff produced two discs that contained privileged information and discovered the error nearly a month later when defendant attempted to use the documents during a deposition.\textsuperscript{175} Concluding that the production was inadvertent, the court explained plaintiff’s review efforts were reasonable, citing the limited privilege disclosure as compared with the volume of documents actually produced in the case and the fact that the production took place outside of the litigant’s “inspect and copy” procedure, which may have allowed plaintiff to identify the documents.\textsuperscript{176} Finding that plaintiff also promptly attempted to rectify the inadvertent production, the court explained:

Plaintiffs’ counsel first discovered the inadvertent disclosure at the January 31, 2008, deposition of plaintiff's expert Thomas Schwartzenberger. Counsel lodged an objection based on privilege at that deposition, sent a letter to defense counsel demanding return of the information on the same day, and lodged repeated objections and requests for return at subsequent depositions. And, by February 21, three weeks after learning of the inadvertent disclosure, plaintiffs had secured from the Court an order compelling defendants to return the inadvertently disclosed disks. In

\begin{footnotesize}
\begin{enumerate}
\item Id.\textsuperscript{171}
\item Id.\textsuperscript{172}
\item FED. R. EVID. 502(b)(2).\textsuperscript{173}
\item 2008 WL 4997932 (2008).\textsuperscript{174}
\item Id. at *8-9.\textsuperscript{175}
\item Id. at *9.\textsuperscript{176}
\end{enumerate}
\end{footnotesize}
these circumstances, plaintiffs diligently attempted to rectify the inadvertent disclosure.\footnote{Id.}

[57] Even though Federal Rule of Evidence 502 is helpful in attempting to create uniformity in the area of privilege waiver and reward litigants for their reasonable efforts, the two cases above make clear that courts will closely scrutinize whether a litigant’s efforts were truly reasonable. The more demonstrable a litigant’s efforts and routine procedures are, and the more sophisticated its counsel is in the area of e-discovery, the more likely a court will uphold privilege claims despite production.


[58] As Federal Rule of Evidence 502 makes clear, document search and review methods are inextricably tied to the question of whether inadvertently produced privileged documents will maintain their status as privileged.\footnote{FED. R. EVID. 502; Id. at 257.} Although not decided under Rule 502, *Victor Stanley v. Creative Pipe* makes clear that, as technology advances and more sophisticated methods of document retrieval emerge, demonstrating “reasonable” efforts may require expert opinion, similar to that which was required in *O’Keefe* and *Equity Analytics*.\footnote{Cf. id (discussing the difficult process of determining whether inadvertent production of attorney client privileged materials or work-product protected materials constitutes a waiver); see supra Part IV.B.1-2.} Courts will continue to reward litigants who proactively address their discovery obligations with an eye toward defending the methods used.

[59] In *Victor Stanley*, the parties disputed the scope of defendants’ document production, which the court resolved by requiring the parties to confer and present a joint protocol for the search and retrieval of ESI (both parties’ experts were involved in designing the searches).\footnote{Id. at 253-54.} The defendants claimed that a full privilege review of the population of relevant documents would be unduly burdensome and could not be timely completed, so defendants proposed a keyword search buttressed by a

\footnotesize{\begin{itemize}
\item[177] Id.
\item[178] 250 F.R.D. 251 (D. Md. 2008).
\item[179] FED. R. EVID. 502; Id. at 257.
\item[180] Cf. id (discussing the difficult process of determining whether inadvertent production of attorney client privileged materials or work-product protected materials constitutes a waiver); see supra Part IV.B.1-2.
\item[181] Id. at 253-54.
\end{itemize}}
“clawback agreement” that would prevent inadvertent waiver of the attorney-client privilege by production of privileged documents. When the court extended the discovery deadline by four months, however, the defendants abandoned their request for a clawback agreement. Defendants and their counsel created a keyword list of seventy keywords that were to be used to identify potentially privileged documents. The search was conducted and all documents that did not contain the keywords were produced. A large subset of files could not be text searched, but rather than manually review each document, and citing time constraints, counsel elected to look at the document titles only, exploring the document contents further if it appeared that they contained potentially privileged information. The result was the production of 165 purportedly privileged documents, and defendant could not explain from which document population the documents were inadvertently produced.

Finding fault with the methods used to search for and identify potentially relevant documents, as well as a lack of information from which the court could determine whether the search was reasonable, the court explained:

[T]he 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. While it is known that M. Pappas (a party) and Mohr and Schmid (attorneys) selected the keywords, nothing is known from the affidavits provided to the court regarding their qualifications for designing a search and information retrieval strategy that could be expected to produce an effective and reliable privilege review. . . . [A]ll 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. There is no evidence on the record that the Defendants did so in this case. Rather, it appears from the information that they provided to the court that they simply turned over to the Plaintiff all the text-searchable ESI files that were identified by the keyword search Turner performed as non-privileged, as well as the non-text searchable files, that [defense counsel’s] limited title page search determined not to be privileged.\textsuperscript{188}

Later, the court expanded on this and, relying on \textit{Equity Analytics} and \textit{O’Keefe}, explained:

\textit{[T]he Defendants obtained the results of the agreed-upon ESI search protocol and ran a keyword search on the text-searchable files using approximately seventy keywords selected by . . . [defendant and counsel]. Defendants, who bear the burden of proving that their conduct was reasonable for purposes of assessing whether they waived...}

\textsuperscript{188} \textit{Id.} at 256-57.
attorney-client privilege by producing the 165 documents to the Plaintiff, have failed to provide the court with information regarding: the keywords used; the rationale for their selection; the qualifications of . . . [defendant and counsel] to design an effective and reliable search and information retrieval method; whether the search was a simple keyword search, or a more sophisticated one, such as one employing Boolean proximity operators; or whether they analyzed the results of the search to assess its reliability, appropriateness for the task, and the quality of its implementation. 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.189

[61] The court stressed that because discovery disputes often require that the court make factual determinations, it was entirely appropriate for a court to rely on Rule 702 of the Federal Rules of Evidence to analyze whether the selected search method was likely to identify the desired subset of documents, and that as a finder of fact the court is entitled to actual facts to decide discovery disputes, rather than the mere representations that the search was “diligent” or “reasonable.”190 As it applied to defendant, the court explained:

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.191

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189 Id. at 259-60.
190 Id. at 261.
191 Id. at 262.
[62] To decide whether defendant waived the attorney-client privilege, the court employed a balancing test that took into consideration: (1) the reasonableness of the precautions taken to prevent inadvertent disclosure; (2) the number of inadvertent disclosures; (3) the extent of the disclosures; (4) any delay in measures taken to rectify the disclosure; and (5) overriding interests in justice.\textsuperscript{192} The court spent the bulk of its opinion explaining why defendant’s search and retrieval methods were unreasonable, pointing consistently to the lack of factual information, upon which it could find the search reasonable. The court then quickly dispatched with the remaining factors to find defendant’s production constituted a privilege waiver.

[63] \textit{Victor Stanley} underscores the need for large organizations to have practices and procedures in place that are routinely and consistently utilized to identify potentially relevant and privileged documents. As \textit{Victor Stanley} makes clear, though a lofty and admirable goal, perfection is not demanded under the Federal Rules. What is required, and rewarded, are proactive plans to address discovery in a manner calculated to substantially comply with the Rules.

VI. CONCLUSION

[64] The Federal Rules of Civil Procedure and courts interpreting the Rules or their state counterparts, reward reasonable efforts to comply with the discovery process. Large organizations should work with outside counsel to proactively address electronic discovery by designing and implementing plans, policies, and procedures targeted at capturing, preserving, and producing relevant information. Without question, such efforts will not make the organization challenge-proof, but the risk of sanctions or costly court orders will be greatly reduced.

\textsuperscript{192} \textit{Id.} at 259.