E-DISCOVERY'S THREAT TO CIVIL LITIGATION: REEVALUATING RULE 26 FOR THE DIGITAL AGE*

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INTRODUCTION

"[T]he presumption is that the responding party must bear the expense of complying with discovery requests."[1]

Since 1978, changes in technology have allowed litigants in civil cases to create and store much more information than has ever been possible before. Unfortunately, the costs of searching through these ever-growing sources of electronically stored information threaten to undermine the civil litigation system. Indeed, many civil litigants may find that they cannot sustain the costs of the discovery-related litigation. As a result, these civil litigants will never be able to obtain a judicial resolution of the merits of their case.

The Federal Rules of Civil Procedure, even though they were amended in 2006 specifically to address the costs and scale of e-discovery, not only fail to contain the cost or scope of discovery, but, in fact, encourage expensive litigation ancillary to the merits of civil litigants' cases. This Article proposes that the solution to this dilemma is to eliminate the presumption that the producing party should pay for the cost of discovery. This rule should be abandoned in favor of a rule that would equally distribute the costs of discovery between the requesting and producing parties.

A. The Problem

To an outsider, the American judicial system must seem very puzzling. A defendant facing the death penalty in a criminal case has "no general constitutional right to discovery,"[2] and generally has no

1. Justice Lewis Franklin Powell, Jr., writing for the Court in Oppenheimer Fund, Inc. v. Sanders, 437 U.S. 340, 358 (1978).

2. 23 AM. JUR. 2D *Depositions and Discovery* § 233 (2010); Mary Prosser, *Reforming Criminal Discovery: Why Old Objections Must Yield to New Realities*, 2006

due process right to even interview prosecution witnesses, much less to depose them prior to trial.[3] While some courts have been, in the interest of justice, inclined to grant limited discovery in serious criminal cases, the defining judicial view of criminal discovery in the United States was set forth by the eminent American jurist Learned Hand, who stated that, in criminal cases, "[The Court's right to grant discovery] is said to lie in discretion, and perhaps it does, but no judge of this court has granted it, and I hope none ever will."[4]

Civil litigants suing for mere money, on the other hand, have a vast arsenal of no-holds barred, intrusive, and often extravagantly expensive investigative discovery weapons available to them in most courts, both state and federal.[5] These weapons include the right to depose witnesses under threat of contempt for failure to appear,[6] serve interrogatories,[7] demand production of documents,[8] compel answers to written questions,[9] and demand admissions of wrongdoing under oath and penalty of perjury.[10] In the quest for evidence to use against an opponent in court, the civil litigant can even demand that an opponent submit to a potentially degrading

WIS. L. REV. 541, 561 (2006) (citing *United States v. Ruiz*, 536 U.S. 622, 629 (2002); *Weatherford v. Bursey*, 429 U.S. 545, 559 (1977); *Wardius v. Oregon*, 412 U.S. 470, 474 (1973)). Prof. Prosser also describes a case where a defendant, who was charged and convicted of an armed robbery, was not able to timely obtain discovery about an alternate suspect that had been disclosed to police. *Id.* at 541-45. By the time the defendant managed to obtain the alternate suspect information, the witness who had provided the alternate suspect information could not be found. *Id.* In spite of the weakness of the case, the defendant was convicted of the crime. *Id. See generally* FED. R. CRIM. P. 16-17; *infra* Part I (briefly describing the evolution of discovery practice) and Part IV (contrasting discovery practices in other countries).

3. 23 AM. JUR. 2D *Depositions and Discovery* § 233 (2010); s*ee* Daniel B. Garrie & Daniel K. Gelb, *E-Discovery in Criminal Cases: A Need for Specific Rules*, 43 SUFFOLK U. L. REV. 393, 399-400 (2010) (citing Degan v. United States, 517 U.S. 820, 825 (1996)).

4. Prosser, *supra* note 2, at 583 (quoting United States v. Garsson, 291 F. 646, 649 (S.D.N.Y. 1923)).

5. *See* Note, *Discovery Abuse Under the Federal Rules: Causes And Cures*, 92 YALE L.J. 352, 353-56 (1982) [hereinafter *Discovery Abuse*].

6. FED. R. CIV. P. 37(b) (permitting the court to sanction a party for failure to comply with the court's discovery orders); FED. R. CIV. P. 37(b)(2)(A)(vii) (allowing the court to hold a party in contempt for refusing to comply with the court's discovery orders); FED. R. CIV. P. 30 (allowing a party to take depositions of other parties to litigation).

7. FED. R. CIV. P. 33 (allowing a party to submit interrogatories).

8. FED. R. CIV. P. 34 (allowing a party to request the production of documents, electronically stored information, and "tangible things" and to enter another's land for the purpose of inspecting a property or object on a property).

9. FED. R. CIV. P. 31 (providing for deposition, based on written questions, of "any person . . . without leave of court.").

10. FED. R. CIV. P. 36 (authorizing requests for admission on any party).

physical and psychiatric examination.[11]

Not surprisingly, the exercise of such broad and invasive investigatory powers by private litigants in American civil courts has appalled much of the civilized world, particularly when American courts purport to authorize or even order an investigative process that extends, vigilante-like, into other countries.[12] Accordingly, several countries (most notably France, the United Kingdom, and Switzerland), have acted to protect the privacy of their citizens by enacting "blocking" statutes which can make compliance with an American court's discovery order a criminal offense punishable by severe fines and imprisonment.[13]

In addition, EU privacy laws strictly forbid the disclosure of "any information relating to an identified or identifiable individual," which includes even such mundane information as e-mail addresses.[14] A French Commission[15] has held that "certain disclosures under the [U.S.] Federal Rules [of Civil Procedure] 'breach the French legal provisions on data protection,'"[16] and the U.K.'s Information Commissioner has declared that "it violates the EU [privacy] directive for an individual outside of the European Union to access personal data hosted on a U.K. Web site."[17] And, several European courts have held that any discovery ordered by an American court must not only come under their own supervision, but must also comply with their own interpretation of the Hague Convention on Taking Evidence Abroad in Civil or Commercial Matters.[18]

Although foreign countries enact blocking statutes to protect

11. *See* FED. R. CIV. P. 35 (permitting the court to order a physical or medical examination of a party when the party's "mental or physical condition . . . is in controversy").

12. *See* Shannon Capone Kirk et al., *When U.S. E-Discovery Meets E.U. Roadblocks*, NAT'L LAW J., Dec. 22, 2008, http://www.law.com/jsp/lawtechnologynews/PubArticleLTN.jsp?id=1202426918666.

13. *Id.*

14. *Id.* (quoting Directive 95/46/EC of the European Parliament and the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data, art. 2(a), 1995 O.J. (L. 281) (internal quotation marks omitted)).

15. *Id.* (referring to the French Commission Nationale de L'informatique et Des Libertés (CNIL)).

16. *Id.* (citing *Discovery Case: Another Sensitive Issue with the USA*, CNIL, http://www.cnil.fr/english/news-and-events/discovery-case/ (cited article no longer available online)).

17. *Id.*

18. Seth Berman, *Cross-border Challenges for E-Discovery*, 11 BUS. L. INT'L 123, 127 (2010). Berman notes that this can even "prevent a corporation from collecting its own data, or interviewing its own employees, if the purpose of that data gathering is to comply with [U.S.] discovery demands." *Id.*

their citizens from what they see as American courts' unjustified attempts to extend American hegemony in flagrant disregard of the privacy rights of their own citizens, American courts have thus far showed little respect for such statutes or the purported rights of foreign citizens for whose protection these statutes were enacted.[19] For example, in *Strauss v. Credit Lyonnais, S.A.*,[20] an American court ordered a defendant to produce a document in accordance with the Federal Rules of Civil Procedure, despite the fact that such production would violate French privacy laws.[21] When the American court dismissed the defendant's concern about French privacy laws and persisted in ordering the document production, the French lawyer against whose client the order was directed reluctantly complied.[22] The lawyer was subsequently criminally prosecuted by French authorities and convicted of violating French privacy laws, and the French supreme court later affirmed his conviction and fine.[23] Although the defendant was sentenced to a criminal fine of €10,000 (about $15,000), it was widely believed that the only reason the defendant did not receive a lengthy prison sentence was that he was a French citizen.[24]

The lack of respect shown by American courts for privacy rights protected by foreign and EU statutes has led Judge Simon H. Rifkind to observe that a "'foreigner watching the discovery proceedings in a civil suit would never suspect that this country has a highly-prized tradition of privacy enshrined in the Fourth Amendment.'"[25] But privacy is not the only basis for resistance to American discovery demands. Indeed, many courts in the EU view the use of discovery in American courts as an example of the kind of "abuse of court process" that would be the subject of disciplinary action or contempt if attempted in their own courts.[26] And, commenting on one high profile case—the Westinghouse Uranium litigation—one legal scholar noted

19. *See id.* at 129.

20. 242 F.R.D. 199 (E.D.N.Y. 2007).

21. *Id*. at 225.

22. *Id.*

23. Kirk et al., *supra* note 12 (citing In re Advocat "Christopher X," Cour de Cassation [Cass.] [Supreme Court for Judicial Matters] Paris, Chambre Criminelle, Dec. 12, 2007 (Fr.)).

24. Berman, *supra* note 18, at 128; Kirk et al., *supra* note 12 (noting examples of enforcement of foreign privacy laws in response to American litigation).

25. Hein Kötz, *Civil Justice Systems in Europe and the United States*, 13 DUKE J. OF COMP. & INT'L L. (SPECIAL ISSUE) 61, 74 (2003) (quoting Simon H. Rifkind, *Are We Asking Too Much of Our Courts?*, 70 F.R.D. 96, 107 (1976)).

26. Stephen N. Subrin, *Discovery in Global Perspective: Are We Nuts?*, 52 DEPAUL L. REV. 299, 307 (2002) (quoting Warren Pengilley, *United States Trade and Antitrust Laws: A Study of International Legal Imperialism from Sherman to Helms Burton*, 6 COMPETITION & CONSUMER L.J. 208 (1999)).

that the "'the House of Lords regarded the [U.S.] discovery process as being a fishing expedition and thus an abuse of court process.'"[27]

Indeed, equating "fishing expeditions" with abuse of process appears to be the prevalent theme among foreign jurists. As one Australian jurist put it: "a person who has no evidence that fish of a particular kind are in a pool desires to be at liberty to drag it for the purpose of finding out whether there are any there or not." [28] Another commentator has noted that "'Canada and Great Britain view much United States discovery as a fishing expedition.'"[29] Other commentators have noted that "what the French fear most is not the revelation of damaging material but rather the occurrence of 'fishing expeditions,' i.e. any request that is not for a clearly identified document."[30]

Professor Stephen Subrin, in his aptly titled article *Discovery in Global Perspective: Are We Nuts?,* posits that, from the global perspective, the negative connotations of American discovery include "wasted time and expense for both private individuals and the court system, invasions of privacy, and the unfairness of forcing defendants to expend resources when plaintiffs do not have advance information of liability."[31] More pointedly, Hein Kötz, a former dean of Bucerius, the first private law school in Germany, and director of the Max Planck Institute for Foreign and International Private Law, has noted strong feelings abroad "that it is possible and by no means rare in the United States for a plaintiff to *bring* a lawsuit in order to discover whether he might actually have one."[32]

Proponents of broad and invasive discovery have often justified it by arguing that it harnesses the profit motive on the part of private citizens—effectively deputizing them—to go and ferret out wrongdoing, particularly by corporations, that would not otherwise be discovered.[33] In light of this rationale, resistance to fishing

27. *Id.*

28. *Id.* (quoting Hooker Corp. v. Australia (1985) 80 F.L.R. 94, 104 (Austl.) (internal quotation marks omitted)).

29. *Id.* (citing E. Charles Routh, ALI-ABA, *Dispute Resolution – Representing the Foreign Client in Arbitration and Litigation*, *in* GOING INTERNATIONAL: FUNDAMENTALS OF INTERNATIONAL BUSINESS TRANSACTIONS 592 (1996)).

30. *Id.* at 307-08 (quoting Vincent Mercier & Drake D. McKenney, *Obtaining Evidence in France for Use in United States Litigation*, 2 TUL. J. INT'L & COMP. L. 91, 51 (1994)). *See generally* Stephen N. Subrin, *Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules*, 39 B.C. L. REV. 691 (1998).

31. Subrin, *supra* note 26, at 308.

32. Kötz, *supra* note 25, at 61 n.*, 74.

33. *See* Paul V. Niemeyer, *Here We Go Again: Are the Federal Discovery Rules Really in Need of Amendment?*, 39 B.C. L. REV. 517, 519-20 (1998) (noting that, according to proponents of broad discovery, "broad discovery has enhanced, and perhaps even expanded, enforcement of substantive rights"). Niemeyer also notes that

expeditions may be explained in part by the notion that the private enforcement of laws ought to be left to public officials—government investigators, prosecutors, and law enforcement officers—rather than plaintiffs seeking money.

The other traditional rationale for liberal discovery rules is that if each party to a lawsuit knows everything about the other side's case, settlement will be more likely to follow.[34] This Article argues that the exact opposite is the case: overly liberal discovery rules encourage profligate, time-consuming, and expensive discovery and incentivize a relatively risk-free factual inquiry while the lawyer's meter is running. In such cases, settlement generally comes on the courtroom steps only days before the scheduled trial. Given the inclination of lawyers to hold out until trial to get the best deal possible, an early trial date is far more likely to induce settlement; and early trial dates are only possible if the entire process is streamlined, and the crippling costs of discovery mitigated by rules that equitably allocate the costs of discovery.

Although those who justify broad American-style discovery conjure up the impecunious plaintiff whose only hope of taking on a large stonewalling corporation is the panoply of producer-funded discovery tools authorized under rules 26-37 of the Federal Rules of Civil Procedure, the studies of the Institute for the Advancement of the American Legal System[35] have revealed that the availability of expensive discovery devices hardly favors the impecunious. On the contrary, a well-heeled litigant can effectively win a case by overpowering its opponent with onerous discovery demands; a poorly funded opponent faced with these tactics must eventually agree to settle the case for a pittance without the merits ever being addressed.[36] Furthermore, juries are rendered irrelevant on issues

some corporations that are frequent litigation targets might actually prefer the tort system of deterrence and compensation to "an additional layer of government regulation that might follow if the full disclosure requirement was eliminated." *Id.* at 520.

34. Subrin, *supra* note 30, at 698, 716 (noting that Edson Sunderland, who drafted the discovery rules in the Federal Rules of Civil Procedure, viewed broad discovery as "permitting each side to assess the strengths and weaknesses of their cases in advance, frequently making trials unnecessary because of informed settlement").

35. The Institute for the Advancement of the American Legal System ("IAALS") "is a national, non-partisan organization dedicated to improving the process and culture of the civil justice system." *Mission*, INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYSTEM, http://www.du.edu/legalinstitute/mission.html (last visited Feb. 25, 2011). The IAALS is directed by former Colorado Supreme Court Justice Rebecca Love Kourlis. *Who We Are*, INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYSTEM, http://www.du.edu/legalinstitute/whoweare.html (last visited Feb. 25, 2011).

36. *See* AM. COLLEGE OF TRIAL LAWYERS & INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYSTEM, FINAL REPORT ON THE JOINT PROJECT OF THE AMERICAN COLLEGE OF TRIAL LAWYERS TASK FORCE ON DISCOVERY AND THE INSTITUTE FOR THE

relating to the merits of a case because, as a practical matter, judges effectively determine the winners by handing down discovery rulings—and these rulings often follow acrimonious and prolonged discovery litigation that can dwarf a trial on the merits of the case in time and expense.[37]

Moreover, suggestions that invasive discovery somehow favors plaintiffs are belied by such cases as *United States v. Phillip Morris*,[38] in which defendant Phillip Morris demanded the production of electronically stored information from over thirty federal agencies, "yielding [over] 200,000 e-mail 'hits,'" compliance with which "required a 'small army' of lawyers, law clerks and activists working full time for over six months,"[39] all costing millions of dollars.[40]

Nor are the discovery horror stories limited to the monumental cases. They now include even simple and routine cases, including divorce cases. In one Connecticut case the Institute examined, a husband fishing for something scandalous on his wife's laptop demanded that the court order his wife to not only produce her laptop for forensic examination by experts, but to "stop using, accessing, turning on, powering, copying, deleting, removing or installing any program, files and or [sic] folders or booting up her laptop."[41] The

ADVANCEMENT OF THE AMERICAN LEGAL SYSTEM 9 (rev. April 15, 2009) [hereinafter FINAL REPORT], *available at* http://www.du.edu/legalinstitute/pubs/ACTL-IAALS%20Final%20Report%20rev%208-4-10.pdf (noting that 71 percent of survey respondents thought litigants used discovery "as a tool to [coerce a] settlement"); *Discovery Abuse*, *supra* note 5, at 357 ("[D]iscovery benefits a litigant by allowing him to threaten to impose costs—in the form of burdensome requests—upon his opponent. A rational opponent will then offer the threatening party a more favorable settlement to avoid the costs of responding to the threatened discovery requests.").

37. *See* INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYSTEM, ELECTRONIC DISCOVERY: A VIEW FROM THE FRONT LINES 21 (2008) [hereinafter FRONT LINES], *available at* http://www.du.edu/legalinstitute/pubs/EDiscovery-FrontLines.pdf (noting that, according to one expert, "organizations with strong, but modest-sized cases—cases that they would have pursued before the advent of e-discovery—may choose not to pursue those claims because the predicted e-discovery costs would exceed the expected recovery"); *see also In Re: Fannie Mae Sec. Litig.,* 552 F.3d 814, 816-18 (D.C. Cir. 2009) (describing litigation in which a non-party government office expended over $6 million, amounting to more than nine percent of the agency's annual budget, but failed to fully satisfy e-discovery requests for archived e-mail messages).

38. 449 F. Supp. 2d 1 (D.D.C. 2006), *aff'd in part and vacated in part*, 566 F.3d 1095 (D.C. Cir. 2009); *see also* FRONT LINES, *supra* note 37, at 8 (describing the magnitude of the discovery conducted in *Philip Morris*); George L. Paul & Jason R. Baron, *Information Inflation: Can the Legal System Adapt?*, 13 RICH. J.L. & TECH. 10, ¶¶ 16-18 (2007) (describing government's difficulty responding to requests for voluminous discovery in *Phillip Morris*).

39. FRONT LINES, *supra* note 37, at 8.

40. *See id.* at 5.

41. *See id.* at 6 (citing Ranta v. Ranta, No. FA980195304S, 2004 WL 504588, at *1 (Conn. Super. Ct. Feb. 25, 2004)).

court granted the request, leaving the wife in fear of even touching her computer for fear of being punished by the court for "spoliation."[42]

Indeed, as discussed in more detail in Part II, the costs of American discovery have risen to such a high level that many Americans with real disputes requiring resolution are simply excluded from the courts and, thus, from any real chance of obtaining justice in a peaceable manner.[43] This consequence has aroused the interest and concern of the Institute for the Advancement of the American Legal System ("the Institute"). The Institute's recent focus has been on a particularly contentious subcategory of discovery known commonly referred to as "e-discovery," which refers to discovery of electronically stored information ("ESI"). The Institute has observed that, because of "the sheer [volume] of electronic information" now stored in computers and databases around the country, litigants incur "staggering costs" in discovery.[44] Over 30 billion e-mails are generated by federal agencies alone,[45] and that is only the tip of the iceberg. And, among the themes revealed by a survey[46] of the fellows of the American College of Trial Lawyers conducted by the Institute in 2009 was that discovery costs "far too much and, [has] become an end in itself;" the survey also revealed that "[t]he discovery rules . . . are "impractical in that they promote full discovery at a value above almost everything else."[47]

The increasing costs of broad discovery threaten to overwhelm the civil justice system. In the past, broad discovery at the expense of producers may have been a reasonable approach to allocating the costs of discovery because a producer's search costs consisted mostly of the labor associated with combing through a manageable set of file cabinets, work papers, and boxes of paper documents.[48] As individuals and businesses have shifted from keeping paper records

42. *Id.* (citing *Ranta*, No. FA980195304S, 2004 WL 504588, at *1).

43. United States Magistrate Judge James K. Bredar remarks that:

> On the one hand, the purpose of litigation is to find the truth of the matter, so the availability of more information that might be relevant to that quest is a good thing. On the other hand, recent experience teaches that meaningful and complete access to new information troves is expensive – prohibitively so for some litigants. The just resolution of a dispute has little value to a party if bankruptcy was the price of its achievement.

FRONT LINES, *supra* note 37, at 1.

44. *Id.*

45. *Id.* at 8.

46. The survey was sent to 3,812 fellows, and 1,494 responded to the survey. FINAL REPORT, *supra* note 36, at 2.

47. *Id.*

48. *See* SHIRA A. SCHEINDLIN ET AL., ELECTRONIC DISCOVERY AND DIGITAL EVIDENCE: CASES AND MATERIALS 43 (2009).

to keeping computerized records, however, the scale and variety of stored information makes production a task of a much larger magnitude.[49] The costs associated with searching and producing responsive information from this ever-expanding body of information has increased along with the size of the body itself.[50] And the amount of data that individuals, businesses, and other entities store is increasing exponentially.[51]

For instance, in a racial discrimination case against the Secret Service in 2000, the plaintiff demanded a search of over 20 *million* electronic documents generated over a period of sixteen years, netting a grand total of exactly ten e-mails potentially helpful to the plaintiff. The millions of dollars such a search surely consumed exceeded by many times the amount in controversy in the case.[52] Indeed, when one considers just the cost of attorney review of millions of documents for privilege, the potential costs rise to astronomical levels.[53]

In 2009, a survey conducted by a joint project of the American College of Trial Lawyers ("ACTL") Task Force on Discovery and the Institute for the Advancement of the American Legal System revealed that seventy-five percent of ACTL members believed that "electronic discovery has resulted in a disproportionate increase in the expense of discovery and thus an increase in total litigation expense."[54] Seventy-six percent stated that "courts do not understand

49. Paul & Baron, *supra* note 38, ¶¶ 10-13, 21-23.

50. *Id.* ¶¶ 14-20.

51. *Id.* ¶¶ 12, 20.

52. *See* FRONT LINES, *supra* note 37, at 8.

53. *See id.* at 5 (describing typical e-discovery costs and estimating that a "midsize" case will incur $2.5 to $3.5 million in costs).

54. FINAL REPORT, *supra* note 36, at 15-16. In addition, one of the co-authors of this article, Professor Robert Hardaway, conducted a survey of attorneys in civil cases to evaluate the perception of the bar with respect to the costs of discovery. The study involved 500 randomly selected cases filed and closed between the years 2004 and 2006 in Colorado, Delaware, and Oregon. Surveys were sent to both the plaintiff's attorney and defendant's attorney for each case. The surveys aimed to determine the resources used by the attorneys in each case and the attorneys' perception of the cost effectiveness of discovery both on a case-by-case basis and generally. Each survey contained the following questions:

1. What size was your firm when you handled this case?
2. Were you counsel for the plaintiff or defense?
3. What was the approximate length of the case, from filing to disposition?
4. What was the total cost of discovery in this case?
5. What was the ultimate recovery in this case?

Answer whether you Strongly Agree, Agree, are Neutral, Disagree, or Strongly Disagree with the following statements:

6. In regard to this particular case, the benefits of discovery justified the cost.
7. Generally speaking, the benefits of discovery justify the cost.

the difficulties parties face in providing electronic discovery."[55] The study further revealed that respondents believed electronic discovery to be "a nightmare and a morass,"[56] and that recent attempts by the Advisory Committee on Civil Rules to address the issue in new rule 26(b)(2) were "inadequate."[57]

With regard to potential sanctions set forth in rule 37(e) for failure to comply with a court's discovery orders, respondents felt that the legal tests for discovery compliance were "not self-explanatory and [we]re difficult to execute in the world of modern information technology."[58] Most telling was the respondents' complaint that standards such as "'undue cost and burden,' 'reasonably accessible,' 'routine good faith operation,' and 'good cause'" presented "traps for even the most well-intentioned litigant."[59]

The latter observations lead us to the crux of the problem with American discovery rules generally, and rules relating to e-discovery specifically: the costs of litigating, arguing and contending with subjective and slippery discovery "standards," as explained fully in Part III, can push the total cost of litigation so high that people with legitimate disputes in need of resolution are simply excluded from the process. A 2007 study, published under the auspices of the

Of the surveys returned, twenty were from plaintiffs' attorneys and twenty-four were from defendants' attorneys. Exactly half of the responses (twenty-two attorneys) revealed that in their particular case, the attorney either strongly agreed or agreed that the benefits of discovery justified the cost. Of those twenty-two, eighty-six percent believed that, in general, the benefits of discovery justify the cost. However, these responses varied depending on which party the attorney represented. Among attorneys for plaintiffs, seventy percent believed that the cost of discovery was justified in their particular case and sixty percent believed the cost is justified generally. However, among attorneys for defendants, only forty-six percent believed the cost of discovery was justified in their particular case and forty-two percent believed the cost of discovery is justified generally. On average, the cost of discovery for defendants equaled ninety-five percent of the total recovery ordered. For plaintiffs, the cost of discovery equaled forty-one percent of the amount recovered.

55. *Id.*; *see also* Nicola Faith Sharpe, *Corporate Cooperation Through Cost-Sharing*, 16 MICH. TELECOMM. & TECH. L. REV. 109, 126-30 (2009) (noting that the recent amendments to the Federal Rules of Civil Procedure have not been especially successful because the rules still rely on judges to intervene to curb abusive discovery and suggesting that judges do not, and perhaps cannot, effectively perform this function).

56. FINAL REPORT, *supra* note 36, at 14.

57. *Id.; see also* Sharpe, *supra* note 55, at 127 (2009) (noting that "a majority of lawyers felt that they did not receive 'adequate and efficient help from the courts in resolving discovery disputes and problems'") (quoting Wayne D. Brazil, *Civil Discovery: Lawyers' Views of Its Effectiveness, Its Principal Problems and Abuses*, 1980 AM. B. FOUND. RES. J. 787, 862-63 (1980)).

58. FINAL REPORT, *supra* note 36, at 14.

59. *Id.*

Center for International Legal Studies, estimated that in "commercial litigation, the collection and review of documents alone can amount to 30-40 percent . . . of the total litigation expense, with a comparable expenditure for other discovery."[60] And the Rand Institute for Civil Justice reports that up to "90 [percent] of the costs of e-discovery may be attributable to 'eyes-on' ESI review by attorneys."[61] And there is no question that this review is not only costly, but generates a vast quantity of "drudge work" that displaces more interesting, rewarding, and socially valuable work within the legal profession.[62] One mid-level associate who spent two of the first three years of her career reviewing documents now predicts that "unless some checks on this system are developed, the explosion of electronic information has the capability to destroy the civil litigation system."[63]

B. Attempts to Solve the Problem

The threat to the civil litigation system posed by the current discovery rules, and by e-discovery rules in particular, is now well documented in numerous law review articles,[64] papers, and studies produced by institutes and conferences ranging from the Institute for the Advancement of the American Legal System[65] to the American College of Trial Lawyers,[66] and the Rand Institute for Civil Justice.[67]

This article argues, however, that the proposals for meeting this threat have to date been inadequate to meet that threat, and that immediate, objective, and even revolutionary measures in the form of new rules are now required to rescue a civil system on the verge of self-destruction and collapse.

Appellate court decisions have been less than helpful in setting objective and practical e-discovery standards.[68] Appellate decisions

60. THE COMPARATIVE LAW YEARBOOK OF INTERNATIONAL BUSINESS 24 (Dennis Campbell ed., 2007).

61. FRONT LINES, *supra* note 37, at 20 (citing JAMES N. DERTOUZOS ET AL., RAND INST. FOR CIVIL JUSTICE, THE LEGAL AND ECONOMIC IMPLICATIONS OF E-DISCOVERY: OPTIONS FOR FUTURE RESEARCH 3 (2008), *available at* http://www.rand.org/pubs/occasional_papers/2008/RAND_OP183.pdf).

62. *Id.* at 24.

63. *Id.*

64. *See supra* notes 25, 30, 36-38, and 62 and accompanying text; *infra* notes 83, 93-97 and accompanying text.

65. *See* FRONT LINES, *supra* note 37; FINAL REPORT, *supra* note 36.

66. FINAL REPORT, *supra* note 36.

67. DERTOUZOS ET AL., *supra* note 621.

68. *See id.* at 7 (noting that there are very few appellate court opinions to guide trial courts in their application of the law related to e-discovery). The report also notes that Texas and Mississippi have done the most to explicitly address the costs of e-discovery in their civil procedure rules. *Id.*

that meaningfully address discovery issues are rare because (1) most cases are settled, (2) those that go through trial and appeal rarely turn on the discovery rulings, and (3) appellate courts afford the broadest of discretion to the discovery rulings of trial courts.[69] Interlocutory review of discovery orders is, of course, even rarer.[70]

Courts seeking guidance on e-discovery law have therefore had to resort to trial court decisions, even those of courts in other circuits. The case cited most often is the 2003 employment discrimination case *Zubulake v. UBS Warburg,*[71] litigated in the Southern District of New York. In that case, the plaintiff, hoping that something incriminating might be found in the computer files of the defendant company, demanded "all documents concerning any communication by or between UBS employees concerning Plaintiff . . . includ[ing], without limitation, electronic or computerized data compilations."[72] Not satisfied with the 350 pages of documents and 100 pages of e-mails defendant produced, the plaintiff also demanded any and all additional e-mails that might be found in "deleted" files stored on backup media.[73] When advised that the cost of producing such tapes would exceed $300,000, the plaintiff not only persisted in demanding that the defendant produce the backup tapes, but also that the defendant should pay the entire $300,000 cost of retrieving and producing them.[74]

69. *Id.*; *e.g.,* Sanders v. Shell Oil Co., 678 F.2d 614, 618 (5th Cir. 1982) ("A trial court enjoys wide discretion in determining the scope and effect of discovery. It is, in fact, unusual to find an abuse of discretion in discovery matters."). Dertouzos et al. note that "the number of instances where (1) an e-discovery dispute resulted in an unsatisfactory outcome, (2) a judge actually ruled on the discovery issue, and (3) there was a final judgment in the case providing the necessary conditions for appellate review would be extremely few in number." DERTOUZOS ET AL., *supra* note 61, at 7. *But see* Stephen N. Subrin, *How Equity Conquered Common Law: The Federal Rules Of Civil Procedure in Historical Perspective***,** 135 U. PA. L. REV. 909, 935 (1987) ("If the decision of litigated questions were to depend upon the will of the Judge or upon his notions of what was just, our property and our lives would be at the mercy of a fluctuating judgment, or of caprice. The existence of a system of rules and conformity to them are the essential conditions of all free government . . . .") (quoting D.D. FIELD, *Magnitude and Importance of Legal Science*, reprinted in 1 SPEECHES, ARGUMENTS, AND MISCELLANEOUS PAPERS OF DAVID DUDLEY FIELD 517, 530 (A. Sprague ed., 1884) (Address at the opening of the Law School of the University of Chicago, Sept. 21, 1859)).

70. DERTOUZOS ET AL., *supra* note 61, at 7. Some discovery orders, such as those ordering physical and mental examination, have sometimes been held to be subject to extraordinary writ review. *See, e.g.*, Schlagenhauf v. Holder, 379 U.S. 104, 108-09 (1964).

71. Zubulake v. UBS Warburg LLC, 217 F.R.D. 309 (S.D.N.Y. 2003).

72. *Id.* at 312.

73. *See id.* at 312-13, 313 n.19. The backup media included both tapes and optical disks. *Id.* at 314.

74. *See id.* at 313.

In the style of an appellate court, the trial judge in that case, U.S. District Judge Shira Scheindlin (who is also co-author of a casebook entitled *Electronic Discovery and Digital Evidence*[75]) invented a new "Seven-Factor Test"[76] incorporating a series of subject balancing tests almost guaranteed to incite acrimonious litigation and contention. After applying this test, the court ordered the defendant to produce at its own expense all e-mails on optical disks as well as a selected number of backup tapes to be the subject of cost-shifting arguments at a later time.[77]

Without any appellate or Supreme Court guidance establishing judicial standards for the special case of e-discovery, the core of *Zubulake*'s holding appears to have been based on dicta in a twenty-five year old Supreme Court case that "the presumption is that the responding party must bear the expense of complying with discovery requests."[78] Even though this dictum pre-dated e-discovery by at least a decade, this fact did not inhibit the *Zubulake* court in conjuring up its new seven-part test for assessing whether requests for ESI warranted any shifting of the costs of production to the requesting party.[79]

In response to such cases, Rule 26 was amended on December 1, 2006. In what may prove to be the most unhelpful provision ever codified in the form of a rule, amended Rule 26(f) sidestepped most of the e-discovery issues likely to arise during the pre-trial process by simply urging the parties to "confer" on discovery issues[80]—presumably in hopes that if the parties could somehow agree on such issues as whether one party should cough up a third of a million dollars in retrieval fees (as in *Zubulake*), the trial court would be let off the hook for having to decide the most critical discovery issues. (If counsel could indeed negotiate such issues, one assumes that reaching a final settlement would be relatively easy.)

In recognition that at least some contingency provision must provide for what happens if the parties do not agree on a discovery

75. SCHEINDLIN ET AL., *supra* note 48.

76. *Zubulake*, 217 F.R.D. at 322, 324. The *Zubulake* court adapted its test from the eight-factor version of a similar test applied in Rowe Entertainment v. William Morris Agency, Inc., 205 F.R.D. 421, 429 (S.D.N.Y. 2002). *Zubulake,* 217 F.R.D. at 316, 321-24.

77. *Zubulake,* 217 F.R.D. at 324.

78. Oppenheimer Fund, Inc. v. Sanders, 437 U.S. 340, 358 (1978) ("[T]he presumption is that the responding party must bear the expense of complying with discovery requests, but he may invoke the district court's discretion under Rule 26(c) to grant orders protecting him from 'undue burden or expense.'"); FED. R. CIV. P. 26(c) (allowing a court to issue an order protecting a party of the "undue burden" of production); *see also Zubulake*, 217 F.R.D at 317.

79. *Zubulake,* 217 F.R.D. at 316-24.

80. *See* FED. R. CIV. P. 26(f).

issue, amended Rule 26(b)(2) requires a party to produce ESI if it is "reasonably accessible"; however, if the party can show that the data sought is not reasonably accessible because of "undue burden or cost," the opposing party can nevertheless require production if he can show "good cause."[81] The whole issue of cost-shifting is apparently dealt with by a provision stating that the court may "specify conditions for the discovery."[82]

Others have since recognized that littering discovery rules with such terms as "good cause," "undue burden," and "reasonably accessible" not only fails to offer a solution to the e-discovery problem, but, as discussed further in Part III, makes the problem worse by creating additional points of litigation and contention that will only increase the ninety percent of litigation costs now allocated to discovery and further delay the adjudication of the actual merits of cases.

Writing in the *Harvard Journal of Law and Technology*, Professor Henry Noyes observed that

> [f]or more than twenty years, the Federal Rules of Civil Procedure governing discovery have been poked, prodded, and tweaked – but never overhauled – to combat the problem of discovery run amok. The one constant in this process . . . has been increasing reliance on judges to exercise their discretion to limit discovery. The rulemakers have hoped that judges will rescue the discovery process from itself.[83]

Amended Rule 26(f) justifies Professor Noyes's conclusion that "the rulemakers have continued to pepper the [discovery] [r]ules with meaningless good cause standards. Good cause is . . . bad medicine for the discovery rules."[84] Even more to the point is Noyes's observation that "experience ha[s] shown that judges' discretion is guided by the historical policy of liberal discovery, which has overwhelmed the language and structure of the discovery amendments."[85]

Indeed, one might wonder why the rulemakers have failed to enact rigorous and realistic solutions to the problem of rising discovery costs. As Professor Noyes asks, "Why would the rulemakers spend significant time and energy on the e-discovery amendments if they knew that the amended rule[s] would not reduce the cost and burden of discovery, but would instead increase judicial discretion?"[86]

81. *See* FED. R. CIV. P. 26(b)(2)(B).

82. *See id.; Zubulake,* 217 F.R.D. at 317-18.

83. Henry S. Noyes, *Good Cause Is Bad Medicine for the New E-Discovery Rules*, 21 HARV. J. L. & TECH. 49, 95 (2007).

84. *Id.*

85. *Id.*

86. *Id.*

His answer is disheartening, particularly because it has the ring of truth: "Judges have come to dominate membership on the Civil Rules Advisory Committee in recent years and judges tend to favor broad discretion."[87]

Noyes further notes that debate over whether to reform the discovery rules "generally falls along party lines—plaintiffs' lawyers on one side, defense lawyers on the other."[88] The judges on the committee avoided making hard choices by relying on broad judicial discretion. This enabled them to cater to the demands of defense lawyers by "publicly stating that the amendments would limit the burden of discovery," but at the same time catering to the plaintiffs' lawyers by assuring them that "in practice, courts would rely on the familiar and friendly mantra of liberal discovery to interpret the vague good cause standard."[89]

Somewhat more helpful in addressing discovery problems than trial court opinions or the recent rule amendments are some of the suggestions offered by think tanks and institutes. These range from "[p]roportionality should be the most important principle applied to all discovery,"[90] and "there should be early disclosure of prospective trial witnesses,"[91] to "discovery should not be used for enabling a party to see whether or not a valid claim exists."[92]

In a rising tide of law review articles exploring the options for easing the costs and burdens of e-discovery, scholars have proposed:

- "[p]ostpon[ing] the discovery until after summary judgment";[93]
- aggressive use of technology to "improve the efficiency of the discovery process";[94]
- that litigants become better versed at "articulating in plain English the unique burdens involved in locating and producing ESI"[95] and "invoke[e] FRCP 1 as a basis

87. *Id.* (quoting Robert G. Bone, *Who Decides?: A Critical Look at Procedural Discretion*, 28 CARDOZO L. REV. 1961 (2007)).

88. *Id.*

89. *Id.* at 91.

90. FINAL REPORT, *supra* note 36, at 7. *See also id.* at 14 ("Electronic discovery should be limited by proportionality, taking into account the nature and scope of the case, relevance, importance to the court's adjudication, expense and burdens.").

91. *Id.* at 14.

92. *Id.* at 17.

93. Scott A. Moss, *Litigation Discovery Cannot Be Optimal but Could Be Better: The Economics of Improving Discovery Timing in a Digital Age*, 58 DUKE L.J. 889, 954 (2009).

94. *See* Mia Mazza et al., *In Pursuit of FCRP 1: Creative Approaches to Cutting and Shifting the Costs of Discovery of Electronically Stored Information*, 13 RICH. J.L. & TECH. 11, ¶ 174 (2007).

95. *Id.* ¶ 175.

for the innovative use of search strategies and cost-shifting to increase efficiency and reduce costs across the board in discovery";[96]

- that judges and litigators should be "encouraged to attend technical workshops where they can obtain a full understanding of the complexity of the electronic storage and retrieval of documents."[97]

Like medical reform suggestions to the effect that "waste and fraud should be reduced," many of these scholarly proposals would doubtless be beneficial if they could be implemented. This article argues, however, that more concrete solutions to the e-discovery crisis will be required to truly open the American courts to those who most need judicial redress.

Several groups representing the defense bar recently presented a white paper at the 2010 Conference on Civil Litigation at Duke Law School.[98] Not surprisingly, the groups' paper proposed that "[a] party submitting a request for discovery [be] required to pay the reasonable costs incurred by a party responding to a discovery request."[99] They argue that this proposal would (1) "encourage[] parties to self-police discovery";[100] (2) reduce the incentive "to make overly broad requests without consequence and to impose cost and burden on an adversary to increase the chances of resolving the case without regard to ability to prove the merits";[101] and (3) encourage "cooperation among litigants to avoid disputes and to promote efficient discovery."[102]

While these arguments are compelling, and might finally constrain the costs of discovery, they are unrealistic because they will inevitably be perceived as favoring defendants too strongly; thus,

96. *Id.* ¶ 176.

97. FINAL REPORT, *supra* note 36, at 15.

98. LAWYERS FOR CIVIL JUSTICE ET AL., WHITE PAPER: RESHAPING THE RULES OF CIVIL PROCEDURE FOR THE 21ST CENTURY 22-23 (May 2, 2010), *available at* http://www.dri.org/ContentDirectory/Public/CommitteeDocs/0440/Reshaping%20the%20Rules%20of%20Civil%20Procedure%20for%20the%2021st%20Century.pdf (noting that "[t]he 2006 amendments . . . did not eliminate the driving forces behind the decades-long effort to identify an appropriate and manageable scope of discovery, namely discovery abuse, misuse and unnecessary expense") [hereinafter WHITE PAPER].

99. *Id.* at 56.

100. *Id.* at 59 ("The current approach allows the requesting party to make overly broad requests without consequence and to impose cost and burden on an adversary to increase the chances of resolving the case without regard to ability to prove the merits.").

101. *Id.* at 59-60.

102. *Id.* at 60 ("A requester-pays rule would strongly encourage cooperation. Such a rule gives both parties an incentive to work together to obtain discovery needed to resolve the merits of the case in the cheapest, quickest way possible.").

these proposals have little practical chance of adoption. Accordingly, this article argues that, although Rule 26(b) favors plaintiffs, and the position advocated by the white paper favors defendants, a reasonable compromise would be to share the costs of production. Indeed, Professor Nicola Sharpe recently made a compelling case for a mandatory 50/50 allocation of discovery costs in complex civil litigation between corporate entities.[103] Sharpe observes that amended Rule 26(b)'s reliance on judicial discretion has failed to reduce the cost of discovery:

> Under the current rules, in which the party responding to a discovery request bears the cost of compliance, corporate litigants are subjected to potentially frivolous and overly broad discovery requests by opportunistic opponents because the party requesting discovery is able to externalize the cost of compliance. Such opponents may then extract settlement values that exceed the expected value of a judgment in their favor.[104]

Stated in more basic terms, Sharpe's point is that there is a natural human tendency toward frugality and reasonableness when one has to contribute to the cost of what is desired. Like a child who screams, throws a fit, and demands that her mother buy her a doll, but then reflects cautiously on whether she really wants the doll when told she can have the doll only if she pays for half of it with her allowance, a litigant who knows that he will be responsible for half the cost of any ESI he demands will be more circumspect and rational in deciding on what he really has to have.

C. Proposed Solution

This Article contends that Professor Sharpe's proposal is sound, but does not go far enough. Indeed, the rapid increase in the amount of information available for litigants during discovery exposes the problems underlying our simple presumption that the producing party should pay the costs for production. The rapidly increasing scope and cost of e-discovery increases the possibility that a plaintiff with weak claims will nonetheless be able to use the discovery process as leverage to obtain a settlement in excess of the plaintiff's claims' value because the defendant wishes to avoid an expensive discovery process that will be unavoidable if the case proceeds to litigation.[105] Similarly, it also creates the possibility that either party will prolong the discovery process to create leverage to encourage

103. Sharpe, *supra* note 55, at 113-14.

104. *Id.* at 112.

105. *See* Jonathan T. Molot, *How U.S. Procedure Skews Tort Law Incentives*, 73 IND. L.J. 59, 74 (1997) (arguing that a party can improve its position by making "burdensome discovery requests").

settlement.[106] It encourages counsel for both parties to conduct the most thorough search possible for their clients under their professional obligation of zealous representation,[107] even when the costs of the search far exceed the value of the evidence to either party.[108] It also allows parties to "treasure hunt" for additional claims because the underlying data is richer and more complete than ever before.[109] The proper role of discovery is simply to allow a party to obtain evidence relevant to its claims,[110] and, therefore, this article argues that the discovery process must be modified to curb these abuses.[111]

Moreover, the 2006 amendments to Rule 26, which are discussed in Part I.D and Part III, have failed to significantly reduce the cost or scope of litigation.[112] Therefore, it is time to expand Sharpe's proposal

106. *See id.;* Toshiba Am. Elec. Components, Inc. v. Superior Court, 21 Cal. Rptr. 3d, 532, 539-40 (Cal. Ct. App. 2004).

107. *See* MODEL RULES OF PROF'L CONDUCT R. 1.3 (2004) ("A lawyer shall act with reasonable diligence . . . in representing a client.").

108. Griffin B. Bell et al., *Automatic Disclosure in Discovery—The Rush to Reform*, 27 GA. L. REV. 1, 12 (1992) ("Lawyers may thus regard themselves as both ethically and professionally bound to take advantage of whatever procedural opportunities are available to them, with the unfortunate result of discovery practices that seem designed to intimidate as much as to discover."); FINAL REPORT*, supra* note 36, at 7.

109. *See* Richard L. Marcus, *E-Discovery Beyond the Federal Rules*, 37 U. BALT. L. REV. 321, 322-23 (2008) (keynote address given at the *University of Baltimore Law Review* Symposium on March 13, 2008) (comparing e-mail to the "corporate equivalent of DNA" and observing that it captures more information than would have been written down before e-mail became commonplace); SCHEINDLIN ET AL., *supra* note 48, at 44-45 (observing that a variety of information sources are stored when created digitally, including intermediate drafts of documents and virtual conferences).

110. Paul & Baron, *supra* note 38, ¶ 28 ("The 1938 switch to notice pleading and liberal discovery was intended to ensure cases would be decided on the merits – by allowing full disclosure of the pertinent facts prior to trial, thereby avoiding unfair surprise.").

111. These abuses are even less justifiable when imposed on a non-party. When a party to litigation requests discovery from a non-party, this poses an unexpected and often undeserved burden on the non-party producer. In spite of this, the producer must still bear the costs, and the parties to the litigation have little or no incentive to control the scope of their requests to the non-party. *See* Marcus, *supra*, note 109, at 333 (describing how lawyers use discovery to obtain a local transit authority's data to show where an opposing party was at a specific time). While this information might be relevant, its production entails a cost to the transit authority without any reciprocal benefit. *See also In Re: Fannie Mae Sec. Litig.,* 552 F.3d 814, 817-18 (D.C. Cir. 2009) (describing litigation in which a non-party government office expended $6 million, amounting to nine percent of the agency's annual budget, but failed to fully satisfy e-discovery requests for archived e-mail messages).

112. WHITE PAPER, *supra* note 98, at 22-23 ("The 2006 amendments . . . did not eliminate the driving forces behind the decades-long effort to identify an appropriate and manageable scope of discovery, namely discover abuse, misuse and unnecessary expense.").

for 50/50 cost-sharing to all civil cases and to all types of discovery—and especially e-discovery. Only a fundamental reform like this can truly stem the skyrocketing costs of discovery, and open the courts of justice to that large segment of the American public currently excluded.

This Article continues with an overview of the origins of discovery and shows that the "producer-pays" presumption is premised on the notion that full disclosure would speed along the inexpensive resolution of cases and could be adequately controlled through judicial supervision. Part I explains the development of the "producer-pays" presumption and the reluctance among federal courts to order that the requesting party participate in paying for discovery. Part II discusses how the technological environment of discovery has shattered the practical realities that formerly constrained the scope and costs of the discovery process. Part III shows how the amendments to the Federal Rules of Civil Procedure have not only failed to cabin the cost and scope of discovery, but actually encourage litigation ancillary to the merits of the case. Finally, Part IV briefly examines the discovery rules of states and foreign countries that reject the "producer-pays" presumption, and shows that a functional civil justice system need not adopt the "producer-pays" presumption.

I. THE HISTORY OF DISCOVERY

Although the presumption of vast civil discovery did not exist in early English courts, early American courts encouraged discovery.[113] The "precursor[s] [of] modern pretrial discovery" can be found in the English equity courts.[114] These courts, also known as Courts of Chancery,[115] allowed pretrial discovery mainly for plaintiffs to an action and to defendants who filed a crossbill.[116] In these courts, beginning in the 16th century, the chancellor would compel the defendant personally to come before him to answer, under oath, each sentence of the petitioner's bill or complaint.[117] The defendant would

113. Subrin, *supra* note 69, at 918-22 (discussing history of equity procedure).

114. *Id.* at 919.

115. *Id.* at 914.

116. ROBERT WYNESS MILLAR, CIVIL PROCEDURE OF THE TRIAL COURT IN HISTORICAL PERSPECTIVE 201, 203 (1952) (describing the reasoning for this as "emanation of the royal authority"); *see also* ALBERT PUTNEY, POPULAR LAW LIBRARY (1908) (defining "cross bill" as when the "defendant in equity files a cross bill for discovery only against the plaintiff in the original bill, the defendant to the original bill shall first answer thereto before the original plaintiff shall be compellable to answer the cross bill. The answer of the original plaintiff to such cross bill may be read and used by the party filing the cross bill at the heading, in the same manner and under the same restrictions as the answer praying relief may now be read and used").

117. MILLAR, *supra* note 116, at 204 (noting that the method of appearing was both

be compelled to answer questions that were attached to the bill.[118] The equity court would then rely on these answers in lieu of testimony in open court.[119] The only way that a defendant in chancery could obtain any form of discovery from the plaintiff was by using a cross-bill; in effect, the defendant needed to begin a new proceeding, and this required authorization from the crown.[120]

Thus, the equity court would grant pre-trial discovery to aid the plaintiff in his or her claim for substantive relief falling within the Court's particular jurisdiction.[121] The equity court could also grant discovery as an aid to the proceedings elsewhere.[122] For example, a party in an action at common law could exhibit a bill in the Court of Chancery for the purpose of discovery material evidence to be used in the trial of their existing common law action.[123]

In contrast to this factfinding procedure in the equity courts, there was virtually *no* means of discovery available in the common law system.[124] Beginning in the 1200s, propositions to be answered by the adversary under oath were attached to complaints to serve as both a statement of claim and position of the plaintiff.[125] Although somewhat reminiscent of the modern interrogatory, this position statement was the closest device to modern discovery available to parties in a common law action.[126] These parties though could, at their option, file a bill in the equity court for the purpose of

complicated and expensive, parallel to the current method); Subrin, *supra* note 69, at 919 ("The Chancellor, however, compelled the defendant personally to come before him to answer under oath each sentence of the petitioner's bill."). *See also* P. Tucker, *The Early History of the Court of Chancery: A Comparative Study*, 115 THE ENGLISH HISTORICAL REVIEW 791, 801-06 (2000) (explaining the increase in judicial activity and the bulk of the workload was concerned with equitable cases).

118. MILLAR, *supra* note 116, at 203 (explaining further that denial in an answer could only be defeated with testimony of two witnesses or "equal quantum of proof" by one witness and supporting circumstances); Subrin, *supra* note 69, at 919.

119. MILLAR, supra note 116, at 204 (explaining that the purpose of the bill was to obtain discovery and an equity court would exhibit the bill to use in trial).

120. *Id.* at 203 (describing cross-bill as "in effect the institution of a new proceeding").

121. *Id.* at 204 (explaining further the role the bills played in discovery and how it related to each party).

122. *Id.* (describing that the sole purpose of these bills was for either side to obtain discovery).

123. *Id.* (explaining process of the bill; namely, answer did not provide this double character situation when no claim for substantive relief exists).

124. *Id.* (describing that reform of this complicated, expensive system began by extending common-law courts the power to compel discovery).

125. *Id.* at 201 (explaining that this classic system of discovery facts was patterned after affirmative propositions that were answered by an adversary under oath).

126. *Id.* at 202 (describing the system including interrogating part, which first appeared toward the end of the seventeenth century and consisted of "specific interrogatories addressed to the defendant").

discovering material evidence to aid in the trying of their action at common law.[127]

A. American Discovery

Reform of the English discovery process began as early as 1800 in the new states.[128] In 1800, South Carolina allowed common law courts to compel discovery in minor causes of action.[129] Kentucky followed by allowing justices of the peace to compel discovery in 1809.[130] Discovery emerged as a feature of the ordinary common law practice in Mississippi for the first time in 1828.[131] Mississippi allowed for a petition under oath that called for an order of discovery to follow in writing.[132] Refusal to follow the discovery order would result in an admission of the facts in relation to which discovery was sought.[133]

Other states proceeded to the common use of interrogatories in common law actions; Virginia, for instance, enacted a statute permitting the interrogatory in 1831.[134] This statute provided for the filings of interrogatories by both parties and for an order to answer such interrogatories, as long as they were material, pertinent, and of such character that the interrogated party would be bound to answer them on a bill in an equity court.[135] If a defendant failed to answer the interrogatory, a default judgment would be entered against him; when plaintiff failed to answer, the action would be dismissed.[136] However, the introduction of the oral examination or deposition in the New York Code of 1848 radically changed the pre-trial discovery practices of the early American states.[137]

127. *Id.* at 204 (describing that the sole purpose of the bill was to gain discovery and "either party to an action in a common-law court might exhibit a bill in the Court of Chancery for the purpose of discovering material evidence to be used in the trial of that common-law action").

128. *Id.* (stating that it was America, not England, that started the reform and it began with extending power to compel discovery to common law courts).

129. *Id. See also* Robert Wyness Millar, *Three American Ventures in Summary Civil Procedure*, 38 YALE L.J. 193, 197-200 (1928) (discussing the "legislative basis of what came to be known as the South Carolina 'summary process'").

130. MILLAR, *supra* note 116, at 204-05 (describing the course of reform throughout the individual states).

131. *Id.* at 205 (discussing the start of the adoption of the petition process).

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.* at 206.

137. *Id.* at 211.

B. The Field Code of 1848 and the Federal Equity Rules

The primary goal of the New York Code of 1848, known as the Field Code, was predictability.[138] The Field Code provided for some pretrial discovery[139] and permitted the court to grant a plaintiff "'any relief consistent with the case made by the complaint, and embraced within the issue.'"[140] The Field Code attempted to reduce the amount of documentation prevalent in the equity courts and in the early common law discovery mechanisms modeled after those courts.[141]

The Field Code also eliminated equitable bills of discovery and the interrogatories that were part of the equitable bill.[142] The code included no interrogatory provisions, motions to produce documents were severely limited, and pretrial depositions were to be before a judge who would rule on evidence objections and were used in lieu of calling a party at trial.[143] The code was ultimately adopted in more than half of the states.[144]

Later, under the revised Federal Equity Rules of 1912, the equitable bill of complaint no longer contained charges of evidence or interrogatories.[145] Under these rules, after filing a pleading, either party had the opportunity to file written interrogatories or requests for documents material to the support or defense of the cause.[146] Answers to these interrogatories were made under oath, and parties

138. Subrin, *supra* note 69, at 934-35 ("The major goal of the Field Code was to facilitate the swift, economic, and predictable enforcement of discrete, carefully articulated rights."); *see also* George W. Wickersham, *The New York Practice Act*, 29 YALE L.J. 904, 904 (1920) (discussing the origination of the Code, which was "drawn by David Dudley Field, and adopted in 1848, which furnished a model for almost all of the other states of the Union, had grown to such dimensions as to constitute a voluminous, intricate and inelastic system of civil practice in our courts, which involved great expense to litigants, and too frequently led to the merits of the controversies being entirely obscured by question of mere procedure").

139. Subrin, *supra* note 30, at 696.

140. Subrin, *supra* note 69, at 934 (quoting N.Y. COMM'RS ON PLEADINGS, THE FIRST REPORT OF THE (NEW YORK) COMMISSIONERS ON PRACTICE & PLEADING 139 (1848). For background on Field's motivations to create the Field Code, see generally SPEECHES, ARGUMENTS, AND MISCELLANEOUS PAPERS OF DAVID DUDLEY FIELD (1884).

141. Subrin, *supra* note 69, at 936; Subrin, *supra* note 30, at 696.

142. Subrin, *supra* note 69, at 936; Subrin, *supra* note 30, at 696.

143. Subrin, *supra* note 69, at 937; *see also* NAT'L AMERICANA SOC'Y, 1 LEGAL AND JUDICIAL HISTORY OF NEW YORK 439-42 (Alden Chester ed. 1911) (examining the history of the development of uniform legal standards and codes in New York).

144. Subrin, *supra* note 69, at 939; *see also* MILLAR, *supra* note 116, at 204-06 (discussing the new pattern for procedural legislation that spread across the country); Subrin, *supra* note 30 at 696.

145. MILLAR, *supra* note 116, at 212 (noting that the newly adopted method was patterned directly on the English Rules).

146. *Id.* at 212.

could file written objections before being required to answer.[147]

C. The Federal Rules of Civil Procedure

The Rules Enabling Act[148] granted the Supreme Court the power to prescribe rules regarding the general process and procedure of civil actions at law.[149] The act limited this power, however, to issuing rules that did not abridge, enlarge, or modify the substantive rights of the litigants.[150] This Act allowed the Supreme Court to draft the Federal Rules of Civil Procedure in 1938.[151]

Unlike the Field Code, which severely limited discovery, the Federal Rules embraced broad discovery.[152] The rules promote full disclosure: Rule 26 makes all information relevant to the subject matter of an action discoverable, absent a valid privilege.[153] Although the members of the Federal Rules Advisory Committee were initially concerned about replacing in-court testimony with discovery devices because of distant memories of the unwieldy documentation of the equity system,[154] the committee rejected proposals to limit discovery.[155] The committee felt that the final discovery rules, summary judgment process, and pretrial conference provisions would limit the scope of disputes and eliminate frivolous issues and claims.[156]

More recently, concern about the lenience of the rules' discovery practices has led to amendments further controlling discovery.[157] In 1980, an amendment was added which allowed for discovery conferences[158] and in 1983, amendments were made "relating to

147. *Id.* at 213 (describing also that with this adoption also came a "re-regulation of fact–discovery . . . definitely revealing a discriminating assay of the past development").

148. Rules Enabling Act, ch. 651, Pub. L. No. 73-415, 48 Stat. 1064 (codified as amended at 28 U.S.C. § 2072 (2006)).

149. *Id.*

150. *Id.*

151. *See* MILLAR, *supra* note 116, at 61-62.

152. Subrin, *supra* note 69, at 977.

153. Judith A. McKenna & Elizabeth C. Wiggins, *Empirical Research on Civil Discovery,* 39 B.C. L. REV. 785, 785-86 (1998). *See also* MILLAR, *supra* note 116, at 214-15 (discussing Rule 26(b) in greater detail and noting that "it is not ground for objection that the testimony will be inadmissible at the trial if the testimony sought appears reasonably calculated to lead to the discovery of admissible evidence"). *See* FED. R. CIV. P. 26.

154. Subrin, *supra* note 69, at 978; *see also* MILLAR, *supra* note 116, at 214-15 (noting that its faults opened a new era of civil procedure).

155. Subrin, *supra* note 69, at 977.

156. *Id.* at 979.

157. *Id.* at 984.

158. *Id.*

pretrial conference and the attorney's certification on motions, pleadings, and discovery."[159]

Although members of the Advisory Committee were concerned with the possibility for overly burdensome discovery,[160] ultimately the Federal Rules allowed for expansive discovery with practices and principles originally drawn from the English courts of equity.[161]

D. The 2006 Federal Rule Amendments

Changes in technology forced the Federal Rules to evolve. Amendments dealing specifically with the challenges of discovery of electronically stored information went into effect on December 1, 2006.[162] The discovery conference required under Rule 26(f) must now include discussion of issues related to electronic discovery.[163] This includes discussion of whether ESI will be requested, in what form it will be requested, whether originals or only backups are available, and the expected media and format for the production of this information.[164] Decisions regarding the cost of discovering the material and a schedule for discovery should be made at this conference as well.[165] The pretrial conference contemplated under Rule 16 allows for parties to "discuss and memorialize the agreements" as well as giving the parties an opportunity to seek judicial resolution of discovery disputes.[166]

The 2006 amendments to the Federal Rules also included other provisions intended to help parties manage the costs and burdens of e-discovery. First, Rule 34(a) makes it clear that the producing party

159. *Id.*; *see also* MILLAR, *supra* note 116, at 214 (explaining that when an attorney completed a deposition, it was filed in a sealed envelope with the clerk of the court).

160. Subrin, *supra* note 69, at 979.

161. *Id.* at 922.

162. FED. R. CIV. P. 26(a)(1)(A)(ii), 34(a)(1)(A); Vlad J. Kroll, *Default Production of Electronically Stored Information Under the Federal Rules of Civil Procedure: The Requirements of Rule 34(b)*, 59 HASTINGS L.J. 221, 221 (2007). *See also* Ryan Horning et al., *The Law & Technology: Electronic Discovery: The New Rules,* 20 CBA RECORD 51, 51 (2006).

163. FED. R. CIV. P. 26(f)(3)(C).

164. BARBARA J. ROTHSTEIN ET AL., FED. JUDICIAL CTR., MANAGING DISCOVERY OF ELECTRONIC INFORMATION: A POCKET GUIDE FOR JUDGES 4-5 (2007), *available at* http://www.fjc.gov/public/pdf.nsf/lookup/eldscpkt.pdf/$file/eldscpkt.pdf (urging judges to make sure that a "meaningful . . . conference take place" between the parties and that the conference should include "what information each party has in electronic form and where that information resides; whether the information to be discovered has been deleted or is available only on backup tapes or legacy systems; the anticipated schedule for production and the format and media of that production; the difficulty and cost of producing the information and reallocation of costs, if appropriate; and the responsibilities of each party to preserve ESI").

165. *Id.*

166. *Id.* at 5.

has an obligation to translate ESI into "reasonably usable form" when necessary, but Rule 34(b) also allows a producer to object to the form in which ESI is requested.[167] Next, the amendments included the new "two-tier" discovery provisions in Rule 26(b)(2)(B), which encourages parties to seek discovery from more easily-accessed sources rather than sources that are more costly and difficult to access.[168] Finally, the rules included a safe harbor provision protecting parties who cannot provide ESI "as a result of the routine, good-faith operation of an electronic information system," which was enacted as Rule 37(f), but is now part of Rule 37(e).[169]

II. THE TECHNOLOGICAL CHALLENGES OF E-DISCOVERY

E-discovery[170] poses significant technological problems of scale, accessibility, search capability, and form of production. There are three key problems relating to the storage and production of electronically stored information that contribute to making e-discovery expensive, and, in many cases, disproportionately so. First, technology allows us to create, transmit, and store vastly more information than ever before. Second, the available technological tools for searching through this vast quantity of information are poorly adapted to fully and accurately searching through all of the kinds of information that we generate. And, third, some data is extraordinarily difficult or impossible to effectively search.

A. Problems of Scale

This Article has already hinted at the problems of scale associated with e-discovery. By itself, e-mail is a major driver of the scale of e-discovery.[171] Close to 100 billion e-mail messages are sent each day.[172] That is about 14 messages every day for every human

167. FED. R. CIV. P. 34(a)(1)(A), (b)(2)(B).

168. *See infra* Part III.B.

169. FED. R. CIV. P. 37(e); *see also infra*, Part III.C.3.

170. E-discovery is merely the traditional discovery process described in Rule 26 of the Federal Rules of Civil Procedure, as applied to the disclosure from ESI. *See, e.g.*, Marcus, *supra* note 109, at 321-22, 332. Some question the usefulness of the "e-discovery" moniker, but we use it here because of its usefulness in contrasting discovery of hardcopy documents with discovery of ESI, particularly because of the characteristic problems related to the storage, search, and production of ESI that we describe in this section.

171. *See* FIOS, INC., E-DISCOVERY TRENDS AND PERSPECTIVES: A CONVERSATION WITH CORPORATE COUNSEL 4 (2008), *available at* http://www.fiosinc.com/e-discovery-knowledge-center/electronic-discovery-whitepaper.aspx?id=341 (indicating that survey respondents indicated e-mail management was second only to legal hold oversight in their concerns about e-discovery).

172. Paul & Baron, *supra* note 38, ¶ 12.

being living on Earth.[173] Federal agencies alone create or receive 30 billion messages each year.[174] And, in 2007, the average U.S. worker sent or received 100 e-mail messages daily.[175]

George L. Paul and Jason R. Baron[176] describe the difficulties attendant to searching 18 million e-mails from the presidential records office associated with tobacco litigation:

> For the 18 million presidential record e-mails . . . the search process found . . . 200,000 'hits,' of which over 100,000 were later determined to be responsive. . . . In undertaking a second-stage manual search to determine responsiveness, it was necessary to [use] a team of twenty-five lawyers, law clerks, and archivists . . . full time over a period of six months.[177]

They go on to explain that if the body of potentially responsive documents to a discovery request grew to one billion documents, even under favorable assumptions about how many documents a person can review each day, and using computers to aid in the initial search, review of the potentially responsive documents would still take 100 people 28 weeks to complete and cost at least $20 million.[178] This is not an unreasonable example, either; the number of e-mails held in corporate databases is increasing exponentially.[179]

The exponential growth of stored digital information is not confined to e-mail. It extends to all other kinds of digitally stored information. Between "2004 to 2007, the average amount of data in a Fortune 1000 corporation grew from 190 terabytes to one thousand terabytes."[180] Similarly, "the average data sets at 9,000 American, midsize companies grew from two terabytes to 100 terabytes."[181] This 100 terabyte data set, if printed out, would produce a stack of paper 20,000 miles high.[182] Astoundingly, the hardware needed to store this

173. According to the U.S. Census Bureau, about 6.9 billion people were living on Earth as of November 1, 2010. *World POPClock Projection*, U.S. CENSUS BUREAU, http://www.census.gov/ipc/www/popclockworld.html (last visited Feb. 25, 2011).

174. Paul & Baron, *supra* note 38, ¶ 12.

175. The Sedona Conference WG1, *The Sedona Conference Best Practices Commentary on the Use of Search and Information Retrieval Methods in E-Discovery*, 8 SEDONA CONF. J. 189, 198 (2007) [hereinafter *Search Methods*].

176. "George L. Paul is a partner in Lewis and Roca, LLP, and is a graduate of Dartmouth College (1979) and Yale Law School (1982). . . . Jason R. Baron is Director of Litigation at the National Archives and Records Administration, College Park, Maryland, and is a graduate of Wesleyan University (1977) and Boston University School of Law (1980)." Paul & Baron, *supra* note 49, at nn.* & **.

177. Paul & Baron, *supra* note 38, ¶ 17.

178. *Id.* at ¶ 20.

179. *See id.*

180. SCHEINDLIN ET AL., *supra* note 48, at 41.

181. *Id.*

182. DERTOUZOS ET AL., *supra* note 61, at 1-2. Dertouzos explains that 1 terabyte of

100 terabyte data set would only cost $100,000, but the cost to review this much information for relevance would be at least $3.2 billion.[183] And this is for an *average* data set in *2007*![184]

B. The Search Problem

E-discovery forces potential litigants to painstakingly sort through these ever-increasing data stores to find information that is relevant to a dispute or an anticipated dispute. Producers face significant challenges in searching through their information. The traditional method of searching—keyword searches—is often too blunt and error-prone to be truly reliable.[185] While newer search technologies are being developed, these technologies are expensive to set up and use.[186] Further, a wide variety of non-textual data is simply not keyword searchable.[187] Finally, regardless of the method a producer selects, the producer must be prepared to face challenges to the thoroughness of the search.[188] Compared to yesteryear, these tasks can be monumental.

Indeed, lawyers seem to collectively recall a simpler time when the documents that were relevant to requests for production could easily be found in a file cabinet or box that a lawyer or paralegal could manually review accurately and quickly.[189] This halcyon notion is misleading, however. In a 1985 study, researchers found that people are not especially good at manually locating responsive paper documents from a larger body of potentially responsive paper documents.[190] In the study, lawyers reviewed 40,000 documents

information would, if printed, would produce "a 200-mile-high stack of paper." *Id.* By comparison, note that the diameter of the Earth is just under 8,000 miles. *Earth Closing in on Sun - But Don't Panic,* CBSNEWS.COM, http://www.cbsnews.com/stories/2011/01/03/tech/main7209119.shtml (last visited Feb. 25, 2011). Most of us only *feel* like we have this much work.

183. *Search Methods, supra* note 175, at 198 n.13 (observing that a gigabyte of data costs $1 to store and $32,000 to review). Since a terabyte is about 1,000 gigabytes, a 100 terabyte data set would be 100,000 gigabytes.

184. Exacerbating the problem is the need to conduct a privilege review of documents already reviewed for responsiveness. *See generally* John M. Facciola, *Sailing on Confused Seas: Privilege Waiver and the New Federal Rules of Civil Procedure*, 2006 FED. CTS. L. REV. 6 (2006); Jessica Wang, Comment, *Nonwaiver Agreements after Federal Rule of Evidence 502: A Glance at Quick-Peek and Clawback Agreements*, 56 UCLA L. REV. 1835, 1839-40 (2009); Committee note 2 to FED. R. EVID. 502; SCHEINDLIN ET AL., *supra* note 48, at 500-01.

185. *See infra* Part II.B.

186. *See infra* Part II.B.

187. *See infra* Part II.D.

188. *See infra* Part II.C.

189. *See, e.g.*, *Search Methods, supra* note 175, at 198; Paul & Baron, *supra* note 38, at ¶ 13.

190. *Search Methods, supra* note 175, at 206.

totaling 350,000 pages for responsiveness to a discovery request.[191] The lawyers thought they had found about 75% of the relevant documents, but in fact they found only about 20% of the responsive documents.[192] Nonetheless, courts and litigants appear to think that producers can accurately search huge databases of electronic documents both for responsiveness and for privilege review.[193] Because of this, electronic discovery may actually raise the standards of completeness in discovery beyond what was historically required in searches of hardcopy documents in paper files. This exacerbates the costs associated with crafting, executing, and justifying the reliability of the search protocol.

The primary method that producers use to search through their data is the keyword search.[194] The paradigmatic example of searching in e-discovery is conducting a keyword search for responsive e-mails. E-mail correspondence is often crucial to establish facts in litigation.[195] But, because of the massive amounts of correspondence stored in e-mail systems, producers must rely on automated methods to search through the database of stored messages to find documents responsive to a discovery request.[196] Often, this process begins with a familiar keyword search that is conceptually similar to the searches that lawyers perform in online legal databases like Westlaw and LexisNexis.[197] The keyword search is likely to be a process of iterative refinement until the producer feels that the keyword search has produced the best set of results possible.[198] Then, if practical, humans may review the results manually to further ensure that the documents are responsive and to

191. *Id.*

192. *Id.*

193. *Id.* at 199; *see also* Victor Stanley, Inc. v. Creative Pipe, Inc, 250 F.R.D. 251, 256-57 (D. Md. 2008) (concluding a party's keyword review was inadequate to preserve privilege because the party failed to perform a quality control step to validate the keyword search). Perhaps the *Victor Stanley* court was correct, but the apparent goal is to ensure that the search is not overinclusive or underinclusive. If the science is to be believed, this would have been an unrealistic goal with a manual search of paper documents, and will remain unrealistic even with searches of digital information.

194. *Search Methods*, *supra* note 175, at 200 ("By far the most commonly used search methodology today is the use of 'keyword searches' of full text and metadata as a means of filtering data for producing responsive documents in civil discovery.").

195. *See* R. Scott Simon, *Searching For Confidentiality In Cyberspace: Responsible Use of E-Mail for Attorney-Client Communications*, 20 U. HAW. L. REV. 527, 531 & n.17 (1998) ("Now that practitioners have discovered that discovery of e-mail can be a 'gold mine—or a nightmare,' e-mail messages are appearing more frequently in litigation and playing a part in court decisions."); Paul & Baron, *supra* note 38, ¶¶ 14-20.

196. *Search Methods, supra* note 175, at 200.

197. *Id.* at 197.

198. *See* Mazza et al., *supra* note 94, ¶¶ 77-78 (noting that litigants are beginning to use sampling techniques to "validate proposed keywords").

filter out any privileged documents.

Unfortunately, keyword searches are not always reliable. While keyword searches may be quite effective when searching for messages and other documents containing a proper name, in other contexts, the reliability of keyword searches can vary.[199] Indeed, courts are increasingly skeptical of the adequacy of keyword-driven production.[200] Some search problems stem from words with multiple meanings, the use of unanticipated words and abbreviations, and typographical errors within the set of documents to be searched.[201] For instance, the word "strike" has multiple meanings: it describes a labor walkout, an options trading tactic, a military action, as well as having sport-related meanings.[202] Therefore, a search involving the term "strike" would tend to be overinclusive.[203] Conversely, a message or other document referring to a strike as an "OLW"—an "organized labor walkout"—would not be included in the search results because it does not contain the keyword.[204] The search would also fail to include messages that misspelled "strike."[205]

The risk of misspelling is particularly acute when searching scanned documents, because optical character recognition ("OCR")—the technology that translates the image of a scanned document into searchable text—is not entirely reliable.[206] The actual reliability of scanned text can vary considerably with the quality of the original, the typeface of the original, the care taken during scanning, the scanning method, and the quality of the OCR software itself.[207] In one experiment, the average per-character accuracy rate for bitonal (black and white) images was about 97.5 percent, meaning that errors occurred in 25 out of each 1000 characters.[208] Because words tend to have five characters on average, this results in an error in

199. *Search Methods*, *supra* note 175, at 201.

200. *See, e.g.*, Victor Stanley, Inc. v. Creative Pipe, Inc., 250 F.R.D. 251, 256-57 (D. Md. 2008).

201. *Search Methods*, *supra* note 175, at 201.

202. *Id.*

203. *Id.*

204. *Id.* at 202-03.

205. *Id.*

206. *Id.*

207. *See generally* Tracy Powell & Gordon Paynter, *Going Grey? Comparing the OCR Accuracy Levels of Bitonal and Greyscale Images*, D-LIB MAGAZINE (Mar./Apr. 2009), *available at* http://www.dlib.org/dlib/march09/powell/03powell.html (performing experiments on OCR accuracy and obtaining accuracy levels ranging from 88.6 percent to 98.2 percent); Rose Holley, *How Good Can It Get? Analysing and Improving OCR Accuracy in Large Scale Historic Newspaper Digitisation Programs*, D-LIB MAGAZINE (Mar./Apr. 2009), *available at* http://www.dlib.org/dlib/march09/holley/03holley.html (Mar./Apr. 2009).

208. Powell & Paynter, *supra* note 207.

125 of each 1000 words.[209] Presumably, OCR errors are even more likely with proper names, because OCR software uses dictionaries of words to improve accuracy, but proper names would generally not appear in these dictionaries.[210]

Courts are beginning to take notice of the problems attendant to keyword searches. One judge wrote, "[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 . . . ."[211] Now, producers may be expected to use a technique of sampling the documents that a particular keyword search produces to determine whether the keyword search is accurate.[212] Thus, a producer would be required to compose a keyword search to sift through the potentially responsive documents, and then manually review the results to verify whether the search is over-inclusive or under-inclusive.[213] If so, the producer would refine the keyword search and begin again. While there is no required threshold of reliability, the producer must "arrive at a comfort level" that the keyword search is reliable.[214]

Because keyword search results can be both over-inclusive and under-inclusive, emerging technologies enable producers to engage in a more sophisticated search of a set of documents. These technologies allow a computer to use learning techniques, contextual cues, and synonym databases to distinguish responsive documents from the rest.[215] Some of these technologies are also able to assign scores to potentially responsive documents to indicate the likelihood of a match, which allows parties to prioritize review of those documents which are most clearly responsive.[216] These technologies can be used

209. Karen Kukich, *Techniques for Automatically Correcting Words in Text*, 24 ACM COMPUTING SURVEYS 377, 378 (1992), *available at* http://portal.acm.org/citation.cfm?doid=146370.146380. Assuming that words of interest to parties in litigation are generally longer than some of the shorter articles and conjunctions that regularly appear in colloquial speech, we can assume the error rate would in fact be higher for search terms relevant to litigation.

210. *See id.* at 383-84 (discussing the challenges of using dictionaries to improve text recognition accuracy).

211. Victor Stanley, Inc. v. Creative Pipe, Inc., 250 F.R.D. 251, 256-57 (D. Md. 2008).

212. *Id.* at 257.

213. *Id.*

214. *Id.*

215. *Search Methods*, *supra* note 175, at 202-03, 207-08; Mazza et al., *supra* note 94, ¶¶ 54-57.

216. *The Grumpy Editor's Guide to Bayesian Spam Filters*, LWN.NET (Feb. 22, 2006), http://lwn.net/Articles/172491/. The article discusses spam filtering of e-mail, but the problem of filtering legitimate messages from undesired messages is conceptually the same as filtering any kind of responsive document from a body of documents.

both to identify potentially responsive documents as well as to attempt to identify privileged documents within the set of responsive documents.[217] However, these advanced, emerging search technologies are unlikely to significantly reduce the costs of e-discovery. First, these technologies can be expensive and time-consuming to set up and validate compared to keyword searching.[218] Indeed, these costs can be significant enough that the best technologies may not be suited to satisfying smaller requests for production.[219] Further, because lawyers (and judges) may not fully understand these technologies, they may not be comfortable relying on the results.[220] And, because these technologies are newer and less well-understood, parties must expect to work even harder to convince courts and opposing parties of the reliability of the search.[221]

C. Supporting the Search Protocol

Regardless of the method a producer uses to search through its information, the producer must also confront additional costly burdens. The producer must either negotiate an appropriate search protocol or procedure with the requesting party or, if negotiation fails to yield a mutually acceptable protocol, the producer must be prepared to defend the sufficiency of its production efforts.[222] A producer may even need to engage experts to construct proper search terms, and these experts must also be able to credibly testify that the search terms [were] properly constructed" and produced accurate results.[223] Producers who do not engage costly experts risk that a court will order further searches, driving up the expense and increasing the delay of discovery.[224] As one group of experts noted, "The key to defensibility is that litigants deploy these search strategies as part of a reasonable, good-faith, *well-documented* discovery protocol. Lawyers must . . . have confidence that they have taken measures to ensure the quality of their searches."[225] Because producers must be prepared to defend their search protocols against motions to compel further discovery, producers must incur the costs

217. *Search Methods*, *supra* note 175, at 203.

218. *Id.* at 203 n.29. *But see* Mazza et al., *supra* note 94, ¶ 5 (claiming that these search technologies may reduce discovery costs).

219. *Search Methods*, *supra* note 175, at 203 n.29.

220. *Id.* at 203.

221. *Id.*

222. *Search Methods*, *supra* note 175, at 212; *see e.g., In re* CV Therapeutics, Inc. Sec. Litig., No. C-03-3709 SI, 2006 WL 2458720, at *2 (N.D. Cal. Aug. 22, 2006) (requiring producer to disclose search terms for testing).

223. Mazza et al., *supra* note 94, ¶ 51.

224. *Id.*

225. *Id.* ¶ 68 (emphasis added).

to prepare records justifying and explaining their procedures, because producers will never know in advance whether they will need to defend these methods.[226]

D. Problems Inherent in Data

Unfortunately for producers, the e-discovery problems that drive up the cost and duration of litigation are not confined merely to the methods and procedures used to search for responsive information. They also stem from the difficulty of searching the various repositories of data that litigants possess. Many kinds of data can be difficult or nearly impossible to effectively search.

1. Non-searchable Data

Increasingly, litigants are storing a variety of non-textual data that computers cannot effectively search. Some organizations, aided by the transition to voice-over-internet technology, which allows telephone calls to be transmitted over data networks, have begun recording a variety of audio communications.[227] One frequent use of this technology is to record calls from call centers and help desks for quality control and auditing purposes.[228] Another is the storage of voice mail messages in unified message systems.[229] Organizations are also beginning to use internet-based cameras to record audio and video for security purposes.[230] The ease with which cameras can be connected to an existing data network and the resulting audio and video stored on a central hard drive has increased the amount of data that organizations can capture and retain.[231] Organizations are also

226. *Search Methods*, *supra* note 175, at 212 (noting that attorneys should be prepared to discuss their search procedures).

227. FIOS, INC., VOICE MAIL AND AUDIO RECORDINGS: EVOLVING E-DISCOVERY STANDARDS 2, *available at* http://www.fiosinc.com/e-discovery-knowledge-center/electronic-discovery-whitepaper-data.aspx?id=127 [hereinafter VOICE MAIL] (last visited Feb. 25, 2011).

228. *Id.* at 2.

229. *Id.* Unified messaging attempts to centralize voice mail, e-mail, and other kinds of transactional communications into a central mailbox. *See Unified Messaging Definition*, PCMAG.COM, http://www.pcmag.com/encyclopedia_term/0,2542,t=unified+messaging&i=53423, 00.asp (last visited Feb. 25, 2011); Jason Krause, *Law Hacks*, 93 A.B.A. J. 36 (2007).

230. AXIS COMMC'NS, IP-SURVEILLANCE DESIGN GUIDE 3, *available at* http://www.axis.com/files/manuals/gd_ipsurv_design_32568_en_0807_lo.pdf (last visited Aug. 29, 2010); Terry Denison & Tony Sivore, *Eyes All Around*, AM. CITY & COUNTY, http://americancityandcounty.com/security/facility/co-rec-center-surveillance-system (last visited Aug. 29, 2010) (describing a project involving the use of eighteen cameras to maintain security within a municipal recreational facility); Adam Cohen, *A Casualty of the Technology Revolution: 'Locational Privacy,'* NY TIMES, Sept. 1, 2009, at A28.

231. *See* AXIS COMMC'NS, *supra* note 230, at 24 ("As larger hard drives are produced

eager to use this technology because of its low cost relative to videotapes and the ease with which it can be both stored and accessed.[232]

While these technologies offer compelling benefits, they can be especially troublesome during litigation because their contents cannot be readily searched using keywords or other automated methods. While computers can attempt to convert speech to text, so that computer programs can then search the contents using keywords, the process is notoriously inaccurate.[233] And, even if a producing party had the people to listen to each audio file that might be responsive to a discovery request, it can also be difficult for humans to listen attentively and accurately for any sustained length of time.[234]

2. Backup Tapes and Duplicative Data

Backup tapes[235] and other forms of archival media also represent potentially significant costs during discovery. Most organizations make routine backups of important information.[236] This backup process essentially makes copies of data on a schedule.[237] Often, data files are backed up periodically even when they have not changed since the last backup.[238] Backup procedures generally copy changed data (i.e. files that have changed since the last backup) even more frequently.[239] Not long ago, it was a customary practice for many organizations to make backups of changed data on a daily basis, and

at lower costs, it is becoming less expensive to store video.").

232. *See id*. at 4-5, 22-24.

233. VOICE MAIL, *supra* note 227, at 3 n.3 (observing that the very highest accuracy that can be expected is 85 percent).

234. *Id.* at 3. Courts, as a result, could have a difficult choice to make when confronted with documents that should have been but were not disclosed in response to a discovery request: sanction an innocent producer who failed to identify responsive documents even though there is simply no reliable way to do so, or to skip the sanctions, and thereby eliminate a producer's incentive to make a complete effort to produce all responsive documents. *See also* Victor Stanley, Inc. v. Creative Pipe, Inc., 250 F.R.D. 251, 256 (D. Md. 2008) (describing the shortcuts that litigants must typically take to determine whether materials that are not keyword searchable are responsive).

235. Historically, information was often backed up to a magnetic tape. Increasingly, organizations are relying on arrays of hard disks to house copies of old information. Computers can copy data to a hard disk can much more rapidly than it can copy a file to tape. Some organizations then archive the hard disk backups to tape. As a practical result, the backup is likely to run more often, capturing even more copies of files as they are changed over time. SCHEINDLIN ET AL., *supra* note 48, at 40.

236. *Id.* at 58.

237. *Id.*

238. *Id.* at 60.

239. *Id.*

of all data on a weekly basis.[240] Migration away from dependence on magnetic tapes has since made even more frequent backups possible.[241]

Typically, organizations reuse their backup tapes according to a planned rotation, overwriting the data previously stored on the tape.[242] But, organizations often set aside backup tapes periodically to allow them to keep an archive of older data.[243] This means that most organizations have a significant number of backup tapes, which may contain archival copies of the organization's data that could be several years old.[244]

Backup information can be quite expensive to search because generally the information that has been archived is not immediately accessible for searching, even if the data would be searchable if it were accessible.[245] Generally, the only accessible source of information about the backup tapes is a backup database. The backup database contains only an index of the names and basic attributes of the archived files and the files' locations on the backup tapes.[246] Since tape reading hardware must read tapes sequentially, they must read through the entire tape to find a desired file.[247] For a search of the *contents* of a file to proceed, the file must be restored from the tape.[248] That means that the file must be copied from the tape (or other archival medium) to a computer to allow the computer to search its contents.[249] Put more simply, to actually search the contents of a backup tape, the tape's contents must first be copied from the tape to a computer. Therefore, to search a large set of backup tapes requires that the contents of each tape be copied to a computer. And, making the process even more laborious and time-consuming, it can take a significant amount of time for a computer to read the information stored on a backup tape.[250]

240. *Id.*

241. *Id.* at 42.

242. *Id.* at 61.

243. *Id.*

244. *See id.*

245. *See id.* at 58 (noting that structured backups contain only data about "what was backed up, when it was backed up, and how it was backed up").

246. *See id.* at 658.

247. Grant J. Esposito & Thomas M. Mueller, *Backup Tapes, You Can't Live With Them And You Can't Toss Them: Strategies For Dealing with the Litigation Burdens Associated with Backup Tapes Under the Amended Rules of Civil Procedure*, 13 RICHMOND J.L. & TECH. 13, ¶ 5-6 (2006).

248. *See id.* ¶ 5 (quoting Rowe Entertainment, Inc. v. William Morris Agency, Inc., 205 F.R.D. 421, 429 (S.D.N.Y. 2002) (noting that backup tapes are not organized for access to individual files).

249. *See id.*

250. *How Long Does it Take to Restore a Tape*, EMAG SOLUTIONS,

Aside from the problem of restoring the contents of backup tapes to a computer where the data can be searched, backup tapes also pose a massive redundancy problem. Because the purpose of the these archives of backup copies is to reduce an organization's information assets to a portable format that can be used to recover data in the case of loss,[251] an organization's backups will contain many backups of the same files.[252] For the many files that are stored but never changed, this means an organization may have to sort through many copies of the same file.[253] However, the backup may also contain different versions of a file that the users changed over time.[254] Although "de-duplication" technology exists that can filter out duplicates of items that are discovered in a search, the application of this technology, even though it may create a net benefit compared to manual search, still imposes an additional time and cost burden on each search for responsive documents.[255]

And, ironically, in spite of all the copies of files that are placed in backup archives, it is also possible for a file to be created and deleted before the backup procedure can make an archival copy of it.[256]

The process of searching through backup tapes is, in fact, so burdensome that courts have been willing to treat backup tapes as inaccessible, and to order "sampling" to determine whether the backup tapes are likely to contain information that could not be discovered from more readily accessible sources of information.[257] "Sampling" entails the restoration of a small representative set of backup tapes to test whether the backup tapes are likely to contain enough responsive information that could not be obtained through a

http://www.emaglink.com/newsletter_archive/newsletter_August_2005.htm (last visited Aug. 29, 2010) (describing the time it takes to restore each of several varieties of backup tapes). Some kinds of low-capacity tapes can be restored in as little as one hour, but larger tapes can take more than six hours. *Id.*

251. Esposito & Mueller*, supra* note 247, ¶ 5.

252. *Id.* ¶ 7.

253. *Id.*

254. *See id.*

255. *See Search Methods, supra* note 175, at 200. Not only does an organization lose money associated with the time it takes to apply de-duplication, but it must also expend the money to acquire the technology first. *See id.* It may also be that this form of de-duplication may be subject to challenge, especially if the technology actually allows for slight variance among documents it considers duplicates. *See id.* at 200 n.16. As with other steps in e-discovery, the responding party may incur even more costs as it carefully documents and validates each step in its method so that it can justify its methods to opposing parties and the court if necessary.

256. Esposito & Mueller*, supra* note 247, ¶ 8.

257. *E.g.,* Zubulake v. UBS Warburg, LLC, 217 F.R.D. 309, 324 (S.D.N.Y. 2003) (ordering producer to restore any five backup tapes the requesting party selected to determine whether the contents of the backup tapes justified further production at producer's expense).

more easily accessible source so as to justify further production.[258]

3. Databases

Searching a database can also be quite difficult because many databases are stored as a single file or a small number of files.[259] E-mail messages in Microsoft's Exchange e-mail product or data stored in Microsoft's SQL Server database product, for instance, are all stored collectively in one large file or a small number of large files.[260] Unlike a more accessible data file, such as a Microsoft Word document, there is no way to directly search these databases.[261] The database cannot simply be opened and the contents of the database searched on screen from top to bottom. Rather, the database must be searched using an appropriate "front-end" application. Often, front-end computer programs are written with the ordinary business needs, rather than litigation, in mind. Therefore, a full search of a database can necessitate the expensive creation of new software tools.[262] And, in some cases, it can be difficult to search a database without interfering with the continuing operation of the system, because of the computational power necessary or the difficulty of getting a copy of the database restored for discovery purposes to coexist with the functioning (or "live") version of the database that the producer uses and relies on in its operations.[263]

For instance, in *Crown Life Insurance*,[264] a defendant insurance

258. *See id.*

259. *See Understanding Files and Filegroups*, MICROSOFT, http://msdn.microsoft.com/en-us/library/ms189563.aspx (last visited Nov. 7, 2010).

260. *Id.*; *The Exchange Message Store*, MICROSOFT http://technet.microsoft.com/en-us/library/bb125025(EXCHG.65).aspx (last visited Nov. 7, 2010) (noting that each Microsoft Exchange mailbox store—which contains the e-mail messages stored on the e-mail server—consists of two files, each of which is organized in a different way to optimize performance). *See also* Williams v. Sprint/United Mgmt. Co., 230 F.R.D. 640, 647 (D. Kan. 2005) (noting that "the database is a completely undifferentiated mass of tables of data. The metadata is the key to showing the relationships between the data; without such metadata, the tables of data would have little meaning").

261. *See* Crown Life Ins. Co. v. Craig, 995 F.2d 1376, 1383 (7th Cir. 1993) (classifying database files as "inaccessible").

262. *E.g.*, Dilley v. Metro. Life Ins. Co., 256 F.R.D. 643, 645 (N.D. Cal. 2009) (noting that searching a database would require "substantial difficulty and expense").

263. Flying J Inc. v. TA Operating Corp., No. 1:06cv00030 TC, 2008 U.S. Dist. LEXIS 37180, at *7 (D. Utah May 6, 2008) (claiming that "the processing burden of querying its system will impair current operations"); *see* ACRONIS, INC., BACKING UP AND RESTORING A MICROSOFT® EXCHANGE ENVIRONMENT 3-4 (2008), *available at*, http://www.acronis.com/enterprise/download/docs/whitepaper/?f=ARMSExchange_whitepaper.en.pdf (describing the difficulties inherent in backing up and restoring Microsoft Exchange Databases).

264. Crown Life Ins. Co. v. Craig, 995 F.2d 1376 (7th Cir. 1993).

company failed to produce the "raw data" directly from a database.[265] Crown Life claimed that this data was not accessible.[266] Flatly refusing to even consider that raw data could be inaccessible, the court held that Crown Life had a duty to make the data available nonetheless, and, that its failure to do so constituted willful disobedience of the court's orders to compel.[267] The court expected Crown Life to fashion some method of producing this data.[268]

This problem is made even more expensive because the results of the database search must be produced in some logical format to the requesting party.[269] Although, according to Rule 34(b)(2)(E)(ii), discovery materials may be produced in the format "in which they are ordinarily maintained,"[270] the producing party must be prepared to demonstrate that the format of production indeed matches the format in which the data is ordinarily maintained.[271] Because computer databases are often internally organized in a fashion that is transparent to the users of the database,[272] a producer may need to employ yet another expensive expert witness to testify about the internal organization of the producer's databases. Also, in cases when the requesting party cannot readily perceive or understand the underlying organization, the producer may have to provide the requesting party additional information about how the information is organized during the ordinary course of business.[273]

In addition, when these database problems are combined with the problem of backup tapes, it often means that a large and difficult-to-search database file must be searched not just once, but once for each copy of the database that is archived on a backup tape.[274] The

265. *Id.* at 1378.

266. *Id.* at 1383.

267. *Id.*

268. *See id.* (expecting Crown Life to produce the data because over a year of discovery had taken place).

269. SEC v. Collins & Aikman Corp., 256 F.R.D. 403, 409 (S.D.N.Y. 2009) ("Under Rule 34 of the Federal Rules of Civil Procedure, ... [t]he litigant may either produce documents 'as they are kept in the usual course of business or must organize and label them to correspond to the categories in the request.'") (quoting FED. R. CIV. P. 34(b)(2)(E)(ii)).

270. FED. R. CIV. P. 34(b)(2)(E)(ii). *See also* Pass & Seymour, Inc. v. Hubbell, Inc., 255 F.R.D. 331, 337 (N.D.N.Y. 2008) (concluding that, even when documents are produced in the manner in which they are ordinarily maintained, the producer may still need to provide "at least some modicum of information regarding how they are ordinarily kept in order to allow the requesting party to make meaningful use of the documents").

271. *Collins & Aikman*, 256 F.R.D. at 409.

272. *See* Williams v. Sprint/United Mgmt. Co., 230 F.R.D. 640, 647 (D. Kan. 2005).

273. *Pass & Seymour*, 255 F.R.D. at 335.

274. *See* Fendi Adele S.R.L. v. Filene's Basement, Inc., No. 06 Civ. 244, 2009 U.S. Dist. LEXIS 32615, at *10-12 (S.D.N.Y. Mar. 24, 2009).

result is that it could take significant labor to truly perform an exhaustive search of a database and the archived copies.[275]

Finally, because of the costs of equipment, network bandwidth, and power, it can be expensive to maintain a copy of a large database for purposes of compliance with a producer's discovery obligations. For instance, in one case, a litigant asserted it would cost over $27,000 per month simply to maintain a restored database for purposes of satisfying requests for discovery related to the database.[276]

4. Metadata

Another driver of discovery cost is the metadata associated with electronically stored information. Metadata refers generally to the information stored in a file in excess of the "body" or "main portion" of the file.[277] Examples include the name of the file, a file's location on disk, the file's type, size, and access control list,[278] the last modified date, the creation date, and the date of last access.[279] Files created in certain programs may have even more extensive metadata. For instance, Microsoft Word documents may contain a revision history, comments, information about the author, and other information.[280] These changes can even accompany a Microsoft Word document that is electronically converted into the Adobe Acrobat "PDF" format.[281] The formulas in spreadsheet documents are also elements of metadata.[282] Often, a hardcopy of a spreadsheet will contain the result of the formula's calculation, but not the formula itself.[283] This does not disclose how the calculation was done, so a requesting party may have a legitimate interest in obtaining the spreadsheet with the formula metadata intact.[284]

Metadata can be an expensive challenge, because a producer may need to (1) determine whether it must produce metadata, (2)

275. *See id.*

276. Best Buy Stores, L.P. v. Developers Diversified Realty Corp., 247 F.R.D. 567, 570 (D. Minn. 2007).

277. *See generally* W. Lawrence Wescott II, *The Increasing Importance of Metadata in Electronic Discovery*, 14 RICH. J.L. & TECH. 10, ¶¶ 2-8 (2008).

278. An access control list is a list of the users who the operating system should permit to access a file. *Access Control Lists (IIS 6.0)*, MICROSOFT, http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/27f4d33b-ab42-4705-b214-0031d37e0ef8.mspx?mfr=true (last visited Nov. 7, 2010).

279. Williams v. Sprint/United Mgmt Co., 230 F.R.D. 640, 645-46 (D. Kan. 2005).

280. *Id.* at 647; Philip J. Favro, *A New Frontier in Electronic Discovery: Preserving and Obtaining Metadata*, 13 B.U. J. SCI. & TECH. L. 1, at 7-8 (2007).

281. Favro, *supra* note 280, at 9.

282. *Williams*, 230 F.R.D., at 653, 657.

283. Favro, *supra* note 280, at 15 (quoting *Williams*, 230 F.R.D. at 647).

284. *Id.* (quoting *Williams*, 230 F.R.D. at 647).

preserve and disclose relevant metadata, (3) find a way to review the metadata for responsiveness and privilege, and (4) produce information with relevant metadata intact but without privileged or irrelevant metadata. As in other areas of e-discovery, a producer must be prepared to justify its production efforts; it may also need to employ technical experts both to produce a search and production protocol and to justify that protocol against challenges.[285]

The first problem is determining whether metadata is part of the discovery request. The Federal Rules of Civil Procedure do not explicitly address the production of metadata,[286] and there have been conflicting trends in cases addressing the issue.[287] Normally, Rule 34(b) permits a requesting party to specify the form in which it wishes to receive the data.[288] Presumably, this would allow a requesting party to specify that it wishes to receive responsive ESI with its metadata intact.[289] If a requesting party does not specify the format in which it wishes to receive the requested ESI, the producer may deliver it in either the form in which the producer ordinarily maintains it or in any other reasonably usable form.[290]

Frequently, whether metadata is part of the request is not clear on the face of the request.[291] Lawyers face the dilemma of discussing the metadata at a discovery conference.[292] If a producer discloses the

285. *See, e.g.*, Autotech Techs. Ltd. P'ship v. AutomationDirect.com, Inc., 248 F.R.D. 556, 558-60 (N.D. Ill. 2008) (concluding a producer did not have to produce metadata in its native form when the requestor did not explicitly ask for native data and the producer produced the requested information in paper and PDF formats). Although the producer prevailed, the producer did have to defend itself against the requesting party's motion to compel discovery. *Id.*

286. Wescott, *supra* note 277, ¶ 9.

287. *Id.* ¶¶ 15-33.

288. *Id.* ¶ 10; FED. R. CIV. P. 34(b)(1)(C). Nonetheless, a producer "may object to the form of production and elect not to produce the metadata," the requesting party can "seek[] its production through a motion to compel." Favro, *supra* note 280, at 19.

289. Wescott, *supra* note 277, ¶ 9.

290. FED. R. CIV. P. 34(b)(2)(E); Wescott, *supra* note 277, ¶ 11.

291. Williams v. Sprint/United Mgmt Co., 230 F.R.D. 640, 645-46 (D. Kan. 2005) (describing the producer's uncertainty inherent to the disclosure when the request is silent about metadata).

292. Rule 26(f) mandates a discovery conference. Rule 26(f)(3)(C) specifically requires litigants to discuss "any issues about disclosure or discovery of electronically stored information, including the form or forms in which it should be produced." FED. R. CIV. P. 36(f)(3)(C). The advisory committee notes to the 2006 amendments to the rules specifically mention that the parties may need to discuss the production of metadata, and note that it is difficult to review metadata for privilege. Fed R. Civ. P. 26(f), 2006 Advisory Committee Notes. They also note that the presence of metadata in an electronic file is often not "apparent to the reader." *Id.* In any case, "[w]hether this information should be produced may be among the topics discussed in the Rule 26(f) conference. If it is, it may need to be reviewed to ensure that no privileged information is included, further complicating the task of privilege review." *Id.*

existence of potentially relevant metadata, the requesting party, who, under the current rule lacks substantial incentive to exercise restraint, is likely to ask for as much metadata as it can get. The producer thereby incurs additional cost. Or, the producer can quietly assume that the metadata is not part of the request, and deal with any challenges as they arise.[293] This is a dangerous course that may make a producer look as if she is trying to avoid disclosure of relevant information.[294]

Unfortunately for producers, courts have come to varying opinions regarding whether producers should presume that they must disclose metadata. For instance, in *Williams*, the court concluded that the production of metadata was required when the producer is aware or should be aware that particular metadata was relevant to the dispute and the requesting party asks for the documents in the format in which they are kept in the ordinary course of business.[295] Otherwise, the *Williams* court concluded, the general presumption is against the mandatory disclosure of metadata.[296]

In 2004, the Sedona Conference agreed. They noted that, "In most cases, . . . metadata will have no material evidentiary value. . . . And there is also the real danger that information recorded by the computer may be inaccurate."[297] The conference also concluded that "any time (and money) spent reviewing [metadata] is a waste of resources."[298] Although the conference conceded that metadata would occasionally be useful for producers because it would (1) tend to prevent the "inadvertent or deliberate modification of evidence" and (2) allow a producer an opportunity to contest the authenticity of a document "if the metadata would be material to that determination,"

293. *E.g.*, *Autotech Techs.,* 248 F.R.D. at 556-60 (describing a case in which the requestor specified no means of production, and the producer appears to have unilaterally decided not to produce the documents in their original electronic format; the requestor later filed a motion to compel seeking the electronic versions).

294. *See* Bray & Gillespie Mgmt. LLC v. Lexington Ins. Co., 259 F.R.D. 568 (M.D. Fla. 2009) (concluding a party's failure to produce metadata was improper and appeared to be part of a "Practice of Concealing and Misrepresenting Material Information"); *see also* FED. R. CIV. P. 26(a)(1)(A)(ii) (requiring a party to disclose, without a discovery request, "a copy—or a description by category and location—of all documents, electronically stored information, and tangible things that the disclosing party has in its possession, custody, or control and may use to support its claims or defenses, unless the use would be solely for impeachment").

295. *Williams*, 230 F.R.D. at 652.

296. *Id.*

297. The Sedona Conference, *The Sedona Principles: Best Practices Recommendations & Principles for Addressing Electronic Document Production*, 5 SEDONA CONF. J. 151, 156 (2004).

298. *Id.* at 193.

the conference recommended that the default presumption should indeed be against requiring disclosure of metadata except when the producer knows that particular metadata is relevant.[299]

Some courts have gone even further. In *Wyeth v. Impax Laboratories*, the court adopted a blanket presumption against disclosure of metadata.[300] Other courts have adopted the contrary presumption, however. [301]

If a producer concludes that it must produce metadata, it must be careful not to modify the requested metadata during production. This can be a challenge because even accessing the data can change the metadata.[302] For example, accessing a file would change the last accessed date that the storing computer maintains.[303] Although Rule 37(e) protects parties that lose ESI during the "routine, good-faith operation of an electronic information system,"[304] the production of data for discovery purposes is probably not such a circumstance.[305]

For instance, in *Hagenbuch v. 3B6 Sistemi Elettronici Industriali S.R.L.*,[306] the court compelled the production of native-format documents that the producer had already produced in TIFF format. [307] The court reasoned that the TIFF versions did not contain all of the information in the original files, because they were missing metadata.[308] This metadata was an important element of the plaintiff's case because it would help in producing a timeline of the events relevant to the litigation.[309] The TIFF format information, the

299. *Id.; see also* Favro, *supra* note 280, at 5-6, 11-12 (2007) (describing the value of metadata in "establishing and ensuring document integrity").

300. Wyeth v. Imax Laboratories, 248 F.R.D. 169, 171 (D. Del. 2006). The converse side of this problem for requesting parties is that if metadata may contain discoverable information, a requesting party should specifically request the desired metadata. Autotech Techs. Ltd. P'ship v. AutomationDirect.com, Inc., 248 F.R.D. 556, 560 (N.D. Ill. 2008).

301. Wescott, *supra* note 277, ¶ 22.

302. Favro, *supra* note 280, at 20; Williams v. Sprint/United Management Co., 230 F.R.D. 640, 646 (D. Kan. 2005).

303. Wescott, *supra* note 277, ¶ 3.

304. *See* FED. R. CIV. P. 37(e); *infra* Part III.C.3.

305. *See Williams*, 230 F.R.D. at 656-57; *infra* Part III.C.3.

306. No. 04 C 3109, 2006 U.S. Dist. LEXIS 10838 (N.D. Ill. Mar. 8, 2006).

307. *Id.* at *8-10. The TIFF (Tagged Image File Format) format is an image format that is often used to exchange images of printed documents. *See* PSEG Power N.Y., Inc. v. Alberici Constrs., Inc., No. 1:05-CV-657, 2007 WL 2687670, at *2 n.2 (N.D.N.Y. Sept. 7, 2007) (describing TIFFs as "a flexible and adaptable file format for storing images and documents used worldwide. TIFF files use LZW lossless compression without distorting or losing the quality due to the compression. In layman's terms, TIFF is very much like taking a mirror image of many documents in format that can be compressed for storage purposes").

308. *Hagenbuch*, 2006 U.S. Dist. LEXIS 10838, at *8-11.

309. *Id.*

court concluded, was neither in the form the producer used in the ordinary course of business, nor reasonably usable because of the lack of the metadata.[310] Therefore, the court ordered the production of the original data with the metadata intact.[311]

Moreover, in *Williams v. Sprint/United Management Co.*, a Kansas district court concluded that a producer had failed to show cause for failing to produce data in an unaltered state.[312] The court had ordered the producer to produce certain ESI in the state in which it was ordinarily maintained.[313] Nevertheless, the producer had locked certain data cells in an Excel spreadsheet.[314] The producer argued that this protected the integrity of the produced data file.[315] The producer escaped sanctions only because the court, in its 2005 decision, agreed that the law related to the alteration of metadata was not entirely clear.[316] As a result of the *Williams* decision, producers in the District of Kansas are on notice that altering the metadata in a file can warrant a sanction.[317]

The producer also faces a challenge in reviewing metadata for privilege, because it may be hard to access and review en masse.[318] Often, it cannot be directly printed out or viewed on screen.[319] This also makes it difficult to deliver the metadata to requestors who do not want the data in its original format or lack the appropriate software to read the metadata.[320]

In sum, metadata increases costs associated with discovery

310. *Id.* at *7-12.

311. *Id.*

312. Williams v. Sprint/United Management Co., 230 F.R.D. 640, 655-57 (D. Kan. 2005).

313. *Id.* at 655-56.

314. *Id.*

315. *Id.* at 655.

316. *Id.* at 656.

317. *See id.*

318. *Id.* at 646-47.

319. Favro, *supra* note 280, at 4.

320. Williams v. Sprint/United Mgmt. Co., 230 F.R.D. 640, 646 (D. Kan. 2005) (noting that some metadata "can be hidden or embedded and unavailable to computer users who are not technically adept"); *id.* at 646 ("Most metadata is generally not visible when a document is printed or when the document is converted to image files."). Indeed, the review of files containing metadata poses a potentially expensive and embarrassing trap for lawyers; if a file contains privileged information that the producer inadvertently or unknowingly hands over to the requesting party, the disclosure may violate the lawyer's duty of confidentiality and subject the lawyer to malpractice liability for the waiver of the attorney/client privilege. *See id.* at 647; *see also* Favro, *supra* note 280, at 4-6, 10-11 (describing embarrassing disclosures of metadata). If the requesting party does not seek to obtain metadata, or if the metadata contains privileged information, the producer may need to use a "scrubbing" program that eliminates the metadata from the file. *See Williams*, 230 F.R.D. at 647.

because it is difficult to know what metadata exists, how to review it, and when it needs to be disclosed to a requestor. It can also be expensive for a producer to ensure a defensible production because, in many cases, it will require the assistance of a technical expert to assess and disclose metadata properly.

5. Deleted Data

It is often possible to restore electronically stored information that has been deleted. As with backup tapes, however, this process can be difficult, and may even require the assistance of computer forensics specialists. Sometimes, files can be easily restored because there are safeguards against deletion of information that protect computer users from inadvertently deleting data.[321] Indeed, the most common system for doing this is the aforementioned tape backup. Other times, when a user has deleted a file, the space it occupies on a disk is marked as available for storing new information, but the old information is not erased, and can be retrieved using sophisticated software or hardware.[322] In yet other cases, the data may exist in another location where it has not been deleted, such as in the case of an e-mail message that a person sends to multiple recipients; even if one recipient deletes the e-mail, it still exists in the other recipients' mailboxes.[323]

The restoration of deleted data exacerbates the problem of costly discovery because retrieval is expensive. Although the Federal Rules of Civil Procedure provide some protection against the cost of restoration of inaccessible information,[324] including deleted ESI, the producer bears the burden of proving that all of the readily accessible sources of the requested ESI have been adequately searched.[325] The producer may also have to incur the expense of employing computer

321. *E.g.,* Peskoff v. Faber, 244 F.R.D. 54, 56 (D.D.C. 2007) (noting the defendant's computer systems retained e-mails for seven days after the user deleted them).

322. Ordinarily, this is a desirable way to improve computer performance, because it saves the computer the time needed to erase the old data. Even when the location on a disk is overwritten with new data, the new data may not occupy all of the space that the old data did. This results in "slack space." *Id.* at 58. "Deleted data, or remnants of deleted data, is often found in a computer's slack space." Peskoff v. Faber, 240 F.R.D. 26, 29 (D.D.C. 2007) (citing United States v. Triumph Capital Group, Inc., 211 F.R.D. 31, 46 n.7 (D. Conn. 2002)).

323. *See, e.g.,* Richard L. Marcus, *The 2006 Amendments to the Federal Rules of Civil Procedure Governing Discovery of Electronically Stored Information: Fitting Electronic Discovery into the Overall Discovery Mix, in* SCHEINDLIN ET AL., *supra* note 48, at 9 (noting that information may end up on "such diverse items as hand-held devices and home computers of employees").

324. FED. R. CIV. P. 26(b)(2)(B).

325. *See, e.g.,* Baker v. Gerould, No. 03-CV-6558L, 2008 U.S. Dist. LEXIS 28628, at *2-3 (W.D.N.Y. Mar. 27, 2008).

forensic experts to perform the restoration, especially if the producer has not made a convincing case that the requested data cannot be found elsewhere.[326]

While Federal Rule of Civil Procedure 26(b)(2)(B) provides some protection to potential producers from the onerous and expensive burden of disclosing inaccessible data, including difficult-to-retrieve deleted data, the rule requires the producer to identify sources that may contain relevant and responsive information that are not reasonably accessible, and, if challenged, to prove the inaccessibility of the data.[327] Thus, the rule leaves open the possibility that the rule's protection applies only to those sources that a party initially identifies as inaccessible.[328] Consequently, a producer that later discovers or concludes a source of ESI is not accessible because of deletion may not always be able to convince the court that it should not have to produce this data at its own expense.[329]

Thus, because of the vastness of ESI that many litigants store, and the difficulty of adequately and accurately searching this ESI, producers can already expect to incur significant costs. These costs are further increased because producers must be prepared to engage in ancillary litigation to defend their search process against requesting parties who allege the production was inadequate or incomplete.

III. THE LAW OF E-DISCOVERY IN THE FEDERAL COURTS

Unfortunately, the Federal Rules of Civil Procedure exacerbate the problem of ancillary litigation further. While the rules were amended in 2006 to at least partially address the challenges of e-discovery, they continued the traditional American rule of permitting broad discovery and forcing producers to pay for the production.

As this section demonstrates, the federal rules included a safety valve in Rule 26(b)(2)(B), which allows a producer to limit requests for information from sources of electronically stored information

326. *See, e.g., Peskoff*, 244 F.R.D. at 63.

327. DAVID K. ISOM, INACESSIBLE ELECTRONICALLY STORED INFORMATION: A REPORT FROM THE FRONT LINES 7, 9-10 (2008), *available at* http://www.ca10.uscourts.gov/conference/downloads/isom.pdf. Some commentators criticize the rule for allowing the producer to identify inaccessible sources, claiming that it allows a producer to determine its own production responsibilities. *See* Theodore C. Hirt, *The Two-Tier Discovery Provision of Rule 26(b)(2)(B)—A Reasonable Measure for Controlling Electronic Discovery?*, 13 RICH. J.L. & TECH. 12 (2007).

328. *Id. See also infra* Part III.C.3.

329. *Id.*; Cason-Merenda v. Detroit Med. Ctr., 2008 WL 2714239, at *2 (E.D. Mich., July 7, 2008); SCHEINDLIN ET AL., *supra* note 48, at 299; David K. Isom, *The Burden of Discovering Inaccessible Electronically Stored Information*, 2009 FED. CTS. L. REV. 1, 3-4 (2000). *But see id.* at 9-10 (noting that some courts have been willing to apply rule 26(b)(2)(B) to sources that the producing party did not identify early in the litigation).

which it identifies as "not reasonably accessible." As this part will show, this safety valve provision does not go nearly far enough in sparing producers from inordinate litigation costs, and, indeed, imposes yet more litigation costs on producers who wish to attempt to take advantage of it.

The federal rules included another safety valve provision in Rule 37(e) which grants safe harbor to producers when data is lost through the "routine, good-faith operation" of an information system. Sadly, as this part will also show, federal courts have all but read this safe harbor provision out of the rules. They have generally concluded that once the duty to preserve arises—and it arises as soon as litigation becomes foreseeable—any deletion of relevant data is, by definition, not in good faith.

These safety valve provisions not only fail to adequately control the costs associated with e-discovery, they sometimes increase it by fostering ancillary litigation on the producer's entitlement to the protection of these safety valves. As a result, the present rules unjustly assign the increased litigation costs of e-discovery entirely to producers.

A. Cost Shifting in Federal Court

The practice of making the requesting party, rather than the producing party, bear some or all of the costs of production is known as cost shifting (or cost sharing).[330] The cornerstone case in this area is *Rowe Entertainment*.[331] In *Rowe Entertainment*, Magistrate Judge James C. Francis noted, "Too often, discovery is not just about uncovering the truth, but also about how much of the truth the parties can *afford* to disinter. As this case illustrates, discovery expenses frequently escalate when information is stored in electronic form."[332] In the case, the plaintiffs who were "black concert promoters," sued a variety of defendants claiming that the defendants had frozen them out of the market for promoting white bands using "discriminatory and anti-competitive practices."[333] During the discovery stage of the case, several of the defendants moved for a protective order to "reliev[e] them of the obligation of producing electronic mail . . . that may be responsive to the plaintiffs' discovery requests."[334] Judge Francis described the plaintiffs'

330. Rowe Entm't v. William Morris Agency, 205 F.R.D. 421, 428 (S.D.N.Y. 2002).

331. *Id.*; *see also* James M. Evangelista, *Polishing the "Gold Standard" on the e-Discovery Cost-Shifting Analysis:* Zubulake v. UBS Warburg, LLC, 9 J. TECH. L. & POL'Y 1 (2004) (describing the *Rowe Entertainment* case as the gold standard in this area of law).

332. *Rowe Entm't,* 205 F.R.D. at 423 (emphasis added).

333. *Id.*

334. *Id.*

requests as "sweeping":

> For example, they [plaintiffs] demand production of all documents concerning any communication between any defendants relating to the selection of concert promoters and bids to promote concerts. Similarly, the plaintiffs have requested "all documents concerning the selection of concert promoters, and the solicitation, and bidding processes relating to concert promotions." They have also demanded "all documents concerning market shares, market share values, market conditions, or geographic boundaries in which any . . . concert promoter operates." These are but three examples of the thirty-five requests made in the plaintiffs' first document demand.[335]

The moving defendants responded that the "burden and expense involved" with production "would far outweigh any possible benefit in terms of discovery of additional information."[336] The defendants also requested that, if the court required production, the court also order the plaintiffs to pay the expenses of production.[337]

In analyzing the defendants' motions for protective orders, the court conceded that "[t]he plaintiffs have successfully demonstrated that the discovery they seek is generally relevant."[338] The court was also unable to credit the defendants' contentions that the e-mail sources that the plaintiffs had requested would not contain relevant information, or that the relevant information had already been produced in hardcopy.[339] Therefore, the court concluded that there was "no justification for a blanket order precluding discovery of the defendants' e-mails on the ground that such discovery is unlikely to provide relevant information."[340]

The court found the issue of whether to shift some or all of the costs of production "more difficult."[341] The court first noted that "'[u]nder [the discovery] rules, the presumption is that the responding party must bear the expense of complying with discovery requests.'"[342] "Nevertheless," the court continued, "a court may protect the responding party from 'undue burden or expense' by shifting some or all of the costs of production to the requesting party."[343]

The court was unwilling to adopt either of two hardline

335. *Id.* at 424 (record citations omitted).
336. *Id.*
337. *Id.*
338. *Id.* at 428.
339. *Id.*
340. *Id.*
341. *Id.*
342. *Id.* (quoting Oppenheimer Fund, Inc. v. Sanders, 437 U.S. 340, 358 (1978)).
343. *Id.* (quoting *Oppenheimer Fund*, 437 U.S. 340 at 359).

approaches to the production of the requested electronically stored information. First, the court rejected an approach, premised on the notion that the necessity for retrieval is "an ordinary and foreseeable risk" of storing data, requiring the responding party to unconditionally bear the costs of producing stored ESI.[344] The court reasoned that the underlying assumption—"that the party retaining information does so because that information is useful"—is of questionable validity when it comes to easy-to-store ESI.[345] Moreover, the court also reasoned that, even when data is retained, it is often retained not in the expectation of routine future use; rather, it is retained as a disaster-recovery tool.[346] As such, data stored on some inaccessible sources, such as backup tapes, is stored in a fashion that "mirrors the computer's structure, not the human records management structure, if there is one."[347]

The court likewise rejected the opposing hardline approach, which Judge Francis referred to as the "market approach." The "market approach" would require the requesting party to bear the costs of production of ESI in discovery, under the theory that the requesting party can then "perform a cost-benefit analysis and decide whether the effort is justified."[348] The court rejected the market approach because it ran counter to the "producer-pays" presumption as expressed in *Oppenheimer Fund, Inc. v. Sanders*,[349] and because "it places a price on justice that will not always be acceptable: it would result in the abandonment of meritorious claims by litigants too poor to pay for necessary discovery."[350]

Thus, the court concluded that it must instead apply a "balancing approach" that would consider such factors as: (1) the specificity of the discovery requests; (2) the likelihood of discovering critical information; (3) the availability of such information from other sources; (4) the purposes for which the responding party maintains the requested data; (5) the relative benefit to the parties of obtaining the information; (6) the total cost associated with production; (7) the relative ability of each party to control costs and its incentive to do so; and (8) the resources available to each party.[351]

When it applied this balancing analysis to the facts, the court

344. *Id.* at 429 (quoting *In re* Brand Name Prescription Drugs Antitrust Litig., Nos. 94 C 897, MDL 997, 1995 WL 360526, at *2 (N.D. Ill. June 5, 1995)).

345. *Id.*

346. *Id.*

347. *Id.* (quoting Kenneth J. Withers, *Computer-Based Discovery in Federal Civil Litigation*, SF97 ALI-ABA 1079, 1085 (2001)).

348. *Id.*

349. 437 U.S. 340, 358 (1978).

350. Rowe Entm't v. William Morris Agency, 205 F.R.D. 421, 429 (S.D.N.Y. 2002)

351. *Id.*

concluded that the relevant factors "tip[ped] heavily in favor of shifting to the plaintiffs the costs of obtaining discovery of e-mails in this case."[352]

Federal District Judge Shira Scheindlin later criticized the *Rowe Entertainment* decision and others that attempted to "devise[] creative solutions for balancing the broad scope of discovery prescribed in Rule 26(b)(1) with the cost-consciousness of Rule 26(b)(2)" because when courts—like the *Rowe Entertainment* court—balance the relevant factors, they tended to force the requesting party "to bear the cost of discovery."[353] In *Zubulake*, Judge Scheindlin reiterated the presumption that the producing party in discovery must pay for its own production.[354] Judge Scheindlin wrote, "Any principled approach to electronic evidence must respect this presumption."[355]

Judge Scheindlin applied her criticism of *Rowe Entertainment* in *Zubulake*. In *Zubulake*, the plaintiff, Laura Zubulake sued the defendant, UBS Warburg, for gender discrimination and illegal retaliation.[356] Zubulake sought discovery of "all documents concerning any communications by or between UBS employees concerning Plaintiff," including computer data.[357] Although the parties initially agreed on a method for producing the e-mail messages Zubulake expected to get in response to her requests, the defendant later informed Zubulake that it would not search backup tapes for the requested e-mail messages because the cost was prohibitive.[358] UBS Warburg's technical experts testified at some length as to the difficult, time-consuming, and expensive nature of restoring and searching e-mail from backup tapes.[359]

The *Zubulake* court first rejected the notion that UBS Warburg did not have to produce the requested information.[360] Then, the court turned to the question of whether Zubulake should bear any of the significant costs of searching the backup tapes. Invoking the Federal

352. *Id.* at 432.

353. Zubulake v. UBS Warburg LLC, 217 F.R.D. 309, 316 (S.D.N.Y. 2003).

354. *Id.* at 317. *See also* Oppenheimer Fund, Inc. v. Sanders, 437 U.S. 340, 358 (1978) ("[T]he presumption is that the responding party must bear the expense of complying with discovery requests, but he may invoke the district court's discretion under Rule 26 (c) to grant orders protecting him from 'undue burden or expense.'").

355. *Zubulake*, 217 F.R.D. at 317.

356. *Id.* at 311.

357. *Id.* at 312.

358. *Id.* at 313.

359. *Id.* at 314-15.

360. *Id.* at 317. It was particularly damning for UBS Warburg that Zubulake had copies of e-mail messages that should have been a part of UBS Warburg's production, but that UBS Warburg never produced. *Id.*

Rules of Civil Procedure, the court concluded that the *Rowe Entertainment* balancing approach must be modified to better match the "producer-pays" presumption.[361] The court strongly criticized other courts[362] that had concluded that some level of cost-shifting was justified whenever ESI was involved: "This makes no sense. Electronic evidence is frequently cheaper and easier to produce than paper evidence because it can be searched automatically, key words can be run for privilege checks, and the production can be made in electronic form obviating the need for mass photocopying."[363]

The court further declared that routine cost-shifting would make it practically impossible for private parties to sue large corporations. The court reasoned:

> As large companies increasingly move to entirely paper-free environments, the frequent use of cost-shifting will have the effect of crippling discovery in discrimination and retaliation cases. This will both undermine the "strong public policy favoring resolving disputes on their merits," and may ultimately deter the filing of potentially meritorious claims.[364]

The *Zubulake* court acknowledged *Rowe Entertainment*, noting that "its eight factor test has unquestionably become the gold standard for courts resolving electronic discovery disputes."[365] Nevertheless, the *Zubulake* court also concluded that the *Rowe Entertainment* factors would "generally favor cost-shifting," and, that "of the handful of reported opinions that apply *Rowe* or some modification thereof, *all of them* have ordered the cost of discovery to be shifted to the requesting party."[366] Thus, the *Zubulake* court determined that the factors must be modified so that they did not favor cost-shifting.[367] The court concluded the proper considerations were:

> 1. The extent to which the request is specifically tailored to discover relevant information;
>
> 2. The availability of such information from other sources;

361. *Id.*

362. *See, e.g.,* Wiginton v. CB Richard Ellis, Inc., 229 F.R.D. 568, 577 (N.D. Ill. 2004) (concluding that the plaintiffs should pay seventy-five percent of the costs of production).

363. Zubulake v. UBS Warburg LLC, 217 F.R.D. 309, 318 (S.D.N.Y. 2003). Part II, *supra*, belies Judge Scheindlin's reasoning about the ease of searching and producing ESI. While Judge Scheindlin may be correct in that technology can, in some cases, ease the difficulty of production and privilege review, certainly that is not true with respect to all ESI.

364. *Id.* at 317-18.

365. *Id.* at 320.

366. *Id*.

367. *Id.*

> 3. The total cost of production, compared to the amount in controversy;
>
> 4. The total cost of production, compared to the resources available to each party;
>
> 5. The relative ability of each party to control costs and its incentive to do so;
>
> 6. The importance of the issues at stake in the litigation; and
>
> 7. The relative benefits to the parties of obtaining the information.[368]

The *Zubulake* court emphasized, however, that these factors should not weigh equally in the cost-shifting calculus.[369] Rather, the first two factors are the most important.[370] The court also concluded that cost-shifting is appropriate "*only* when electronic data is relatively inaccessible, such as in backup tapes."[371]

The court found it had insufficient evidence to determine whether to order the defendant to search all of its backup tapes for responsive e-mails. Therefore, it ordered the defendant to produce, at its own expense, all responsive messages from five backup tapes that Zubulake was to select.[372] Further, the court ordered the defendant to "prepare an affidavit detailing the results of its search, as well as the time and money spent."[373] This would enable the court to "conduct the appropriate cost-shifting analysis."[374]

The *Zubulake* court later emphasized that, ordinarily, even when cost shifting is appropriate under the seven factor test, the only costs that should be shifted were the costs of rendering any inaccessible data accessible.[375] Once the data is in an accessible format, the court reasoned, there is no basis in law for requiring a requesting party to pay for the costs of searching it or reviewing it for privilege.[376] The court also reasoned that the producer has the "exclusive ability to

368. *Id.* at 322.

369. *Id.*

370. *Id.* at 323.

371. *Id.* at 324.

372. *Id.*

373. *Id.*

374. *Id.*

375. Zubulake v. UBS Warburg, LLC, 216 F.R.D. 280, 291 (S.D.N.Y. 2003).

376. *Id.* at 291. *See also* Cason-Merenda v. Detroit Med. Ctr., No. 06-15601, 2008 WL 2714239, at *2-3. (E.D. Mich. July 7, 2008) (concluding that a motion for cost shifting must be presented to the court before inaccessible data is produced in part because, once the data is produced, the requesting party cannot make intelligent choices to constrain costs, nor can the court consider alternative means of controlling the burdens.) The *Cason-Merenda* court also reasoned that "to the extent that DMC maintains that the information produced by it in discovery was accessible, court ordered cost shifting is inappropriate." *Id.* at *3.

control the cost" of review and control over the "review protocol."[377]

After the defendant performed its search, the *Zubulake* court applied its new seven-factor test:

> Factors one through four tip against cost-shifting (although factor two only slightly so). Factors five and six are neutral, and factor seven favors cost-shifting. As noted in my earlier opinion in this case, however, a list of factors is not merely a matter of counting and adding; it is only a guide. Because some of the factors cut against cost-shifting, but only *slightly so*—in particular, the possibility that the continued production will produce valuable new information—some cost-shifting is appropriate in this case, although UBS should pay the majority of the costs. There is plainly relevant evidence that is only available on UBS's backup tapes. At the same time, Zubulake has not been able to show that there is indispensable evidence on those backup tapes . . . .[378]

Thus, the *Zubulake* court concluded that it would be appropriate for the plaintiff-requestor, Zubulake, to pay for 25 percent of the costs of rendering the backup tapes accessible.[379]

The *Zubulake* seven factor test and *Zubulake*'s presumption that cost-shifting is never appropriate with respect to accessible ESI remain good law in the federal courts.[380] Nevertheless, this approach can be criticized on several grounds. First, because *Zubulake* is not a binding precedent on any federal court, courts can and do modify the cost-shifting analysis as they feel necessary.[381] Second, because the inquiry is highly fact-specific, to the extent that appellate courts even review the decisions of trial courts, they will be deferential to the trial court's decisions.[382] As such, there will be little precedent to

377. *Zubulake*, 216 F.R.D. at 290.

378. *Id.* at 289.

379. *Id.* at 291. It is perhaps ironic that, even after Judge Scheindlin's criticism of prior federal courts' tendencies to order cost-shifting in cases involving significant e-discovery, Judge Scheindlin nonetheless ordered cost shifting when she addressed the issues in *Zubulake*. *Compare* Zubulake v. UBS Warburg LLC, 217 F.R.D. 309, 320 (S.D.N.Y. 2003), *with Zubulake*, 216 F.R.D. at 284-290. This raises the question of whether, when a judge engages in the heavily factual analysis called for under *Zubulake*'s seven factor test, the cost-shifting decision is not in some way influenced by the counter-intuitive nature of the producer-pays presumption (i.e. that the producer must pay to produce information, even though the requesting party receives the value of the production), particularly in fact situations where a plaintiff is seeking to make a defendant go through extraordinary steps to make accessible the very evidence the plaintiff needs to prevail.

380. *See* ROTHSTEIN, *supra* note 164, at 10-11.

381. *Id.* at 11.

382. *E.g.,* John B. v. Goetz, 531 F.3d 448, 458-59 (6th Cir. 2008), *vacated and remanded*, No. 09-6145, 2010 U.S. App. LEXIS 25589 (6th Cir. Dec. 16, 2010) ("Although district courts generally maintain broad discretion in matters of discovery this court will find an abuse of that discretion if 'left with a definite and firm

make the application of the cost shifting factors uniform (and, therefore, predictable) among the federal courts.[383] Nor will there be any practical review for litigants who object to a trial court's decision on cost shifting,[384] even though the cost-shifting decision may be outcome-determinative.[385] And, most importantly, of course, is the problem that the present cost shifting analysis is predicated on the "producer-pays" presumption, which makes the producer pay for a search conducted for the requesting party's benefit.[386]

B. Protections from Discovery of Inaccessible ESI

One of the 2006 amendments to the Federal Rules of Civil Procedure attempted to reduce the costs of e-discovery. Rule 26(b)(2)(B), the so called "two-tier discovery" provision,[387] allows a producer to limit discovery of electronically stored information to more readily accessible sources. In pertinent part, the provision reads:

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conviction that the court below committed a clear error of judgment.'") (quoting Bill Call Ford, Inc. v. Ford Motor Co., 48 F.3d 201, 209 (6th Cir. 1995) (internal citations omitted)).

383. *See* Baston v. Bagley, 420 F.3d 632, 637 (6th Cir. 2005) (reasoning that appellate review of death penalty decisions improves consistency).

384. *See Goetz*, 531 F.3d at 457-58 (observing that trial courts' discovery decisions are not subject to interlocutory review, and, therefore, a party who wishes to challenge a discovery decision is limited to seeking relief in the form of a writ of mandamus). A court will grant a petition for a writ of mandamus only under extraordinary circumstances:

> Mandamus from this court is generally reserved for "questions of unusual importance necessary to the economical and efficient administration of justice' or 'important issues of first impression."
>
> . . . .
>
> . . . We examine whether: (1) the party seeking the writ has no other adequate means, such as direct appeal, to attain the relief desired; (2) the petitioner will be damaged or prejudiced in a way not correctable on appeal; (3) the district court's order is clearly erroneous as a matter of law; (4) the district court's order is an oft-repeated error, or manifests a persistent disregard of the federal rules; and (5) the district court's order raises new and important problems, or issues of law of first impression.

Id. at 457 (quoting EEOC v. K-Mart Corp., 694 F.2d 1055, 1061 (6th Cir. 1982)).

385. Mazza et al., *supra* note 94, at 49. ("Cost-shifting battles are hotly contested and for good reason: decisions on motions regarding who will be required to pay for discovery responses (the cost of which may run into the hundreds of thousands, if not tens of millions, of dollars) can impact severely how an action proceeds and in fact may be outcome-determinative in some cases.").

386. *See* Molot, *supra* note 105, at 74 ("[E]ven where discovery is honestly intended to obtain information, and not to burden the opponent, a party nevertheless may make requests that are not cost justified, that is, requests it would not choose to make were it to bear the costs of compliance. Each party simply lacks incentives to weigh the costs and benefits of its discovery requests because these costs are not internalized.").

387. *See generally* Hirt, *supra* note 327.

> *Specific Limitations on Electronically Stored Information.* A party need not provide discovery of electronically stored information from sources that the party identifies as not reasonably accessible because of undue burden or cost. On motion to compel discovery or for a protective order, 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 . . . . The court may specify conditions for the discovery.[388]

Conceptually, the rule attempts to divert parties seeking discovery toward using those sources that are reasonably accessible to the producer.[389] When a producer responds to a discovery request, it can "identify, by category or type, the sources containing potentially responsive information that it is neither searching nor producing."[390] As long as the producer is able to satisfy the requesting party's needs from reasonably accessible sources of information, there is no need for the requesting party to force the issue further.[391] Nevertheless, if the requesting party is not satisfied, it can file a motion to compel discovery to force the producer to justify its decision to classify the information sources as inaccessible.[392] If the producer is successful, the burden then shifts to the requesting party to show that there is "good cause" to order the discovery from the inaccessible sources.[393] In a wicked turn, this rule, which is intended to reduce the costs and burdens of conducting discovery,

388. FED. R. CIV. P. 26(b)(2)(B).

389. Hirt, *supra* note 327, ¶¶ 4-5. The committee note to Rule 26 notes:

> The volume of—and the ability to search—much electronically stored information means that in many cases the responding party will be able to produce information from reasonably accessible sources that will fully satisfy the parties' discovery needs. In many circumstances the requesting party should obtain and evaluate the information from such sources before insisting that the responding party search and produce information contained on sources that are not reasonably accessible. If the requesting party continues to seek discovery of information from sources identified as not reasonably accessible, the parties should discuss the burdens and costs of accessing and retrieving the information, the needs that may establish good cause for requiring all or part of the requested discovery even if the information sought is not reasonably accessible, and conditions on obtaining and producing the information that may be appropriate.

FED. R. CIV. P. 26 advisory committee's note.

390. FED. R. CIV. P. 26 advisory committee's note.

391. *Id.*

392. FED. R. CIV. P. 26(b)(2); Hirt, *supra* note 327, ¶¶ 7-8. A producer may likewise take the initiative to raise the issue of accessibility in a motion for a protective order, but doing so does not alter the producer's burden to demonstrate that the information source is inaccessible. *See* FED. R. CIV. P. 26(b)(2)(B); Hirt, *supra* note 327, ¶ 25.

393. FED. R. CIV. P. 26(b)(2); Hirt, *supra* note 327, ¶ 8.

may itself require the parties to conduct additional discovery to explicitly address whether the producer's information sources are indeed inaccessible.[394]

Unfortunately, this provision has not meaningfully addressed the cost drivers associated with e-discovery. First, it may encourage bad information management practices. Because producers may be relieved of their burden of production with respect to inaccessible sources, they have an incentive not to improve their information management practices to improve their accessibility.[395] Indeed, as technology improves, it is plausible that organizations could implement new technologies that would improve the accessibility of their information.[396] Indeed, routine business operations might benefit from these kinds of improvements. Counsel for such organizations might nonetheless advise clients to resist these changes so that the universe of data that must routinely be produced during litigation remains smaller, and therefore, less costly to review for responsiveness and privilege. When organizations forego technological changes that would improve efficiency as a strategic response to the litigation environment, they incur the costs of sustained inefficiency.

Second, Rule 26(b)(2)(B) creates more litigation and costly discovery in part because it does not indicate any "sources" that are generally considered accessible or inaccessible.[397] While, as the committee notes indicate, no such definition would be technologically accurate or relevant over the passage of time, the lack of categorical rules makes it difficult for any producer to rely on the protections inherent in the rule.[398]

Third, information sources are not really either accessible or inaccessible.[399] Accessibility runs along a spectrum. The question of inaccessibility, when considered along with the rule's "good cause" provision[400] that allows a requesting party to obtain discovery in spite of inaccessibility, is one of cost justification; almost all

394. Hirt, *supra* note 327, ¶ 10.

395. *Id.* ¶ 32.

396. *See id.*

397. FED. R. CIV. P. 26 advisory committee's note. DERTOUZOS ET AL., *supra* note 61, at 11. Nevertheless, the *Zubulake* court concluded that there was a spectrum of accessibility that ran from "Active, online data" on the most accessible side and "Erased, fragmented or damaged data" on the least accessible side. Zubulake v. UBS Warburg, LLC, 217 F.R.D. 309, 318-19 (S.D.N.Y. 2003).

398. *See* FED. R. CIV. P. 26 advisory committee's note; DERTOUZOS ET AL., *supra* note 61, at 11.

399. *Zubulake*, 217 F.R.D. at 318-19.

400. "[T]he court may nonetheless order discovery from [inaccessible] sources if the requesting party shows good cause, considering the limitations of Rule 26(b)(2)(C)." FED. R. CIV. P. 26(b)(2)(B).

information is accessible for the right price.[401] Thus, as Judge Scheindlin points out, "[t]he fundamental question is: 'Will the uniqueness and/or quality of responsive data that I get from any particular set of ESI justify the cost of the acquisition of that data?'"[402] Thus, courts often apply a "marginal utility" test when deciding whether to order production of information from inaccessible sources.[403] Under this test, "[t]he more likely it is that [an inaccessible source] contains information that is relevant to a claim or defense, the fairer it is that the [producer] search at its own expense. The less likely it is, the more unjust it would be to make the [producer] search at its own expense."[404]

The marginal utility test makes intuitive sense. It funnels a requesting party's discovery efforts toward the least inaccessible source or sources that are likely to contain relevant information because they are more likely to be worth the effort and expense of making them accessible again. The analysis assumes, however, that it is possible to accurately determine the likelihood that any particular inaccessible source is likely to contain relevant information that is not available on a more accessible source.[405] However, the very problem of inaccessibility means that it is indeed likely that a producer may not know exactly what information is available in an inaccessible source.[406] Judge Scheindlin dismisses this argument, saying "while it may be true that a given source of ESI will be difficult and/or expensive to deal with, such a fact alone should not be enough to remove that ESI from consideration."[407] Perhaps if one assumes that the net economic benefit of discovering relevant information is exceedingly valuable, this is true. It is more likely, however, that there are at least some inaccessible sources that are so expensive to render accessible again that the requesting party ought to bear the cost of production. Indeed, placing the cost on the party who will actually reap the benefit allows the requesting party to make a rational economic decision about whether the potential for benefits justifies the production.[408] In such a situation, a requesting party might even decide that it is more rational to pay for some level

401. SCHEINDLIN ET AL., *supra* note 48, at 290.

402. *Id.*

403. *E.g.*, McPeek v. Ashcroft, 202 F.R.D. 31, 34 (D.D.C. 2001); Oxford House v. City of Topeka, No. 06-4004-RDR, 2007 WL 1246200, at *4 (D. Kan. Apr. 27, 2007); Zubulake v. UBS Warburg, LLC, 216 F.R.D. 280, 284 (S.D.N.Y. 2003).

404. *McPeek*, 202 F.R.D. at 34.

405. *See* SCHEINDLIN ET AL., *supra* note 48, at 291.

406. *See id.*

407. *Id.*

408. *See* Rowe Entm't, Inc. v. William Morris Agency, Inc., 205 F.R.D. 421, 429 (S.D.N.Y. 2002).

of preliminary investigation[409] into the contents of the inaccessible sources so that it can make a more rational cost/benefit decision.[410]

C. Preserving Electronically Stored Information

Although producers face significant costs to search for and produce ESI, and can rarely obtain relief from these costs under Rule 26(b)(2)(B), they also face significant costs because, under the federal rules, as soon as litigation becomes reasonably foreseeable, courts generally impose on parties a duty to preserve information that is relevant to the litigation or anticipated litigation.[411]

Facially, this duty imposes no obligation for a party to retain every document or piece of information in its possession.[412] The duty, does, however, require a potential producer to "preserve what it knows, or reasonably should know, is relevant in the action, is reasonably calculated to lead to the discovery of admissible evidence, is reasonably likely to be requested during discovery, and/or is the subject of a pending discovery request."[413] In short, organizations must satisfy themselves—and the court—that any data they delete while litigation is pending is not relevant to litigation or anticipated litigation.[414]

Courts do not agree on exactly when the duty to preserve attaches.[415] "[S]ome courts have accepted common signs of looming litigation to include communication with the adverse parties or when related litigation is filed, other courts have found that the duty should not adhere until a specific discovery request has been made."[416] More recent decisions have been less willing to accept that

409. The preliminary investigation would almost certainly include some kind of sampling. *See, e.g.,* Zubulake v. UBS Warburg, LLC, 217 F.R.D. 309, 324 (S.D.N.Y. 2003); *see also* Victor Stanley, Inc. v. Creative Pipe, Inc., 250 F.R.D. 251, 257 (D. Md. 2008) (noting that sampling was the only prudent method of testing the accuracy of a keyword search).

410. *See, e.g.,* Zubulake v. UBS Warburg, LLC, 216 F.R.D. 280, 281 (S.D.N.Y. 2003).

411. Silvestri v. General Motors Corp., 271 F.3d 583, 591 (4th Cir. 2001); Zubulake v. UBS Warburg, LLC, 220 F.R.D. 212, 216 (S.D.N.Y. 2003).

412. *Zubulake*, 220 F.R.D. at 217.

413. *Id.*

414. *See id.*

415. *See generally* Maria Perez Crist, *Preserving the Duty to Preserve: The Increasing Vulnerability of Electronic Information*, 58 S.C. L. REV. 7, 18-21 (2006).

416. *Id.* at 18-19 (internal citations omitted). However, at least one court has implied that certain kinds of data that are "transient" or "ephemeral" (meaning that the data ordinarily have an extremely short lifespan prior to deletion) are not covered by the duty to preserve until another party actually requests the data. Arista Records, LLC v. Usenet.com, Inc., 608 F. Supp. 2d 409, 431-32 (S.D.N.Y. 2009). Deleted data might fairly be considered ephemeral data. *See id.* The converse of this proposition, however, is the somewhat disturbing proposition that a litigant has a duty to retain this transient data, including all deleted data, once the data has been requested in

a producer had no duty to preserve until a party requested discovery.[417]

The duty to preserve includes a coordinate duty to exercise a reasonable effort in good faith to identify relevant materials prior to deletion.[418] However, because it is impossible to prove the contents of computer files that have truly been deleted, parties must take steps that will assure courts and adverse parties that deleted computer files contained no data relevant to pending litigation.[419] Therefore, it is logical to assume that the duty to preserve causes reasonably cautious parties to avoid the risky deletion of ESI.[420] Indeed, organizations may be reluctant to delete any data, because of the possibility of unforeseeable consequences. In the context of the large organization that is routinely involved in litigation, the duty may prevent the real implementation of any program to purge data that the organization no longer has any business need to retain. Thus, the preservation duty itself places significant additional costs on litigants.

1. Sanctions for Spoliation

But the costs associated with the preservation duty include not only the costs of compliance, but the costs of ancillary litigation to assess and remedy noncompliance. In federal courts, when a party deletes ESI to which the duty to preserve has attached, a court will consider sanctioning the party for spoliation under Rule 37 or the court's inherent authority.[421] While the traditional definition of

discovery. *See id.* Since reliably retaining such data would require the litigant to suspend its use of the corresponding information system, such a requirement could be costly indeed. *See id.*

417. Crist, *supra* note 415, at 19; *see also* Rambus, Inc. v. Infineon Tech. AG, 222 F.R.D. 280, 296-98 (E.D. Va. 2004).

418. *Zubulake*, 220 F.R.D. at 218.

419. *See* Se. Mech. Servs. v. Brody, No. 8:08-CV-1151-T-30EAJ, 2009 U.S. Dist. LEXIS 69830, at *3 (M.D. Fla. July 24, 2009) (noting the producer's contention that it cannot prove what was deleted).

420. *See id.*

421. Crist, *supra* note 415, at 43-44. Federal courts also occasionally cite their "inherent power to regulate litigation, [and] preserve and protect the integrity of proceedings before it." *Id.* (quoting Capellupo v. FMC Corp., 126 F.R.D. 545, 551 (D. Minn. 1989)). *See also* Roadway Express, Inc. v. Piper, 447 U.S. 752, 764 (1980) ("The inherent powers of federal courts are those which 'are necessary to the exercise of all others.' The most prominent of these is the contempt sanction, 'which a judge must have and exercise in protecting the due and orderly administration of justice and in maintaining the authority and dignity of the court.'" (internal citations omitted)). However, federal courts may be limited in applying sanctions under their inherent authority to situations where a party acts in bad faith. *Id.* at 766-67. *But see* Harlan v. Lewis, 982 F.2d 1255, 1260 (8th Cir. 1993) (concluding bad faith is not a prerequisite "to every possible disciplinary exercise of the court's inherent power"). Whether the

spoliation is "the intentional destruction of evidence,"[422] there is a trend in the federal courts of sanctioning parties even for unintentional destruction of evidence. In the landmark *Zubulake* case, Judge Scheindlin stated that spoliation was "the destruction or significant alteration of evidence, or the failure to preserve property for another's use as evidence in pending or reasonably foreseeable litigation."[423] In other words, spoliation is a breach of the duty to preserve.[424] Judge Scheindlin recently reiterated her view: "By now, it should be abundantly clear that the duty to preserve means what it says and that a failure to preserve records—paper or electronic—and to search in the right places for those records, will inevitably result in the spoliation of evidence."[425]

Because the federal rules' approach to discovery is premised on the notion that fair adjudication is most likely when all parties share relevant evidence, the destruction of relevant data strikes at the heart of the idea of fair adjudication.[426] Accordingly, when a producer fails to produce requested information—electronically stored or in paper form—the court will apply sanctions ranging from awards of costs, fines, adverse jury instructions, and, in extreme cases, adverse summary or default judgment.[427] However, the ease with which ESI can be deleted, combined with the fact that organizations routinely purge electronically stored information,[428] has led some federal courts to sanction more broadly for the loss of relevant data.

Not all federal courts are moving to a broader view of the propriety of sanctions for spoliation. Indeed, the various circuits of the U.S. Courts of Appeals are split on how a court should determine whether to sanction a party for the deletion of responsive data, and, if so, what sanction is most appropriate.[429] In the Second Circuit, for instance, a court can sanction a party for negligent spoliation.[430] The

court cites its inherent authority or rule 37 to sanction a party may turn primarily on whether the court has issued an order mandating the discovery. Daval Steel Prod. v. M/V Fakredine, 951 F.2d 1357, 1363 (2d Cir. 1991). If so, sanctions are imposed under rule 37. *Id.* Otherwise, sanctions are imposed under the court's inherent authority. *Id.*

422. Stevenson v. Union Pacific R.R. Co., 354 F.3d 739, 746 (8th Cir. 2004) (quoting Rodgers v. CWR Constr. Inc., 33 S.W.3d 506, 510 (Ark. 2000)).

423. Zubulake v. UBS Warburg LLC, 229 F.R.D. 422, 430 (S.D.N.Y. 2004) (quoting West v. Goodyear Tire & Rubber Co., 167 F.3d 776, 779 (2d Cir. 1999)).

424. *See id.*

425. Pension Comm. of the Univ. of Montreal v. Banc of Am. Secs., LLC, 685 F. Supp. 2d 456, 462 (S.D.N.Y. 2010).

426. Crist, *supra* note 415, at 43-44.

427. *Id.*; SCHEINDLIN ET AL., *supra* note 48, at 387.

428. *Infra*, Part III.C.2.

429. SCHEINDLIN ET AL., *supra* note 48, at 386-88.

430. *Id.* at 387. *Residential Funding Corp. v. DeGeorge Financial Corp.,* 306 F.3d 99 (2d Cir. 2002), illustrates the Second Circuit's approach to sanctions for failure to

Third, Fourth, Ninth, and Eleventh Circuits appear to be generally following the Second Circuit's view that negligent spoliation is sufficient to warrant a sanction.[431] By contrast, in the Eighth Circuit, a court requires "a finding of intentional destruction indicating a desire to suppress the truth."[432] The Fifth, Seventh, and Tenth Circuits[433] follow a middle ground.[434] They generally require the proponent of sanctions to show the producer's bad faith.[435] However,

produce relevant information during discovery. During the course of litigation on a breach of contract, DeGeorge sought the production of e-mails relevant to the controversy. *Id.* at 102. Residential Funding asserted that they were not able to restore the requested data on their own, and retained an appropriate recovery vendor to assist them. *Id.* at 102-03. Residential Funding's recovery vendor also purportedly had trouble. *Id.* at 104. As trial neared, DeGeorge finally hired its own recovery vendor, and asked for direct access to the backup tapes that contained the requested e-mails. *Id.* DeGeorge was able to obtain the responsive e-mails within a few days. *Id.* Therefore, DeGeorge moved for sanctions against Residential Funding. *Id.* at 105.

The district court denied the sanctions motion. *Id.* The district court concluded that DeGeorge had shown only that Residential Funding had acted with negligence, and that mere negligence was insufficient to support a sanction. *Id.* The Court of Appeals vacated, concluding that even negligence was sufficient to allow the district court to impose a discovery sanction. *Id.* at 113. The Court of Appeals remanded the case for a new hearing on the sanctions motion, and ordered that DeGeorge be offered the opportunity to conduct discovery on the sanctions motion itself. *Id.*

431. SCHEINDLIN ET AL., *supra* note 48, at 387-88; *see also Realnetworks, Inc. v. DVD Copy Control Ass'n*, 264 F.R.D. 517, 523 (N.D. Cal. 2009) ("A party's destruction of evidence need not be in 'bad faith' to warrant a court's imposition of sanctions. . . . District courts may impose sanctions against a party that merely had notice that the destroyed evidence was potentially relevant to litigation. . . . However, a party's motive or degree of fault in destroying evidence is relevant to what sanction, if any, is imposed.") (internal citations omitted).

432. SCHEINDLIN ET AL., *supra* note 48, at 387. Stevenson v. Union Pacific Railroad, 354 F.3d 739 (8th Cir. 2004), illustrates the Eighth Circuit's approach. Stevenson alleged that the railroad had spoliated relevant evidence, but the railroad argued that the evidence at issue was destroyed merely as part of a routine records management program. *Id.* at 743. The evidence at issue was stored on tapes that Union Pacific reused after ninety days. *Id.* at 747. Union Pacific contended that, by the time the lawsuit was filed, the tapes had already been reused, and their contents overwritten. *Id.* The district court concluded that Union Pacific had destroyed the tapes in bad faith because Union Pacific was often involved in the kind of litigation at issue and should have know that the documents would be relevant to the litigation, and, therefore, the duty to preserve had attached before the plaintiffs had filed their complaint. *Id.* The district court also concluded, however, that the policy of reusing tapes was "not unreasonable or instituted in bad faith." *Id.* The Court of Appeals nonetheless reversed. *Id.* at 748-49. It concluded that Union Pacific had merely been negligent, and, while negligence was sufficient to support some sanction, it was not egregious enough to support a sanction as severe as the adverse inference instruction. *Id.*

433. Cache La Poudre Feeds, LLC v. Land O'Lakes Farmland Feed, LLC, 244 F.R.D. 614, 635 (D. Colo. 2007) (concluding the Tenth Circuit still required a showing of bad faith as a condition precedent to the application of sanctions).

434. SCHEINDLIN ET AL., *supra* note 48, at 387.

435. *Id.*

with the increased prominence of e-discovery issues, there is "a clear trend away from the 'mens rea' or 'scienter' approach of these [middle-ground] circuits."[436]

When courts find that sanctions are appropriate, they weigh the prejudice to the requesting party[437] and the fault of the spoiling party[438] to determine the appropriate sanction. A proper sanction restores the party harmed by the spoliation to a position comparable to the position the party would have been in but for the loss of the relevant data,[439] and deters further spoliation.[440] Some courts have awarded default judgments based solely on a party's "[d]eliberate, willful and contumacious disregard of the judicial process."[441] However, courts more frequently use the adverse inference instruction to attempt to restore the balance that is lost as a result of the destruction of evidence.[442] The adverse inference instruction allows the factfinder to "assume that the destroyed evidence would have been unfavorable to the party responsible for its destruction."[443]

Courts also consider the prejudice to the requesting party when evidence is destroyed.[444] Some courts have refused to grant sanctions for spoliation without a showing of prejudice.[445] This creates a dilemma for requestors that occurs in several areas of e-discovery law: they are required to put on evidence about what the deleted evidence would have shown.[446] If the requestor has an alternative source of this information, they can show with some clarity what the evidence would have shown, but can probably show little prejudice because they have the alternative source. When a requesting party

436. *Id.*

437. Crist, *supra* note 415, at 50; *see also Stevenson*, 354 F.3d at 748 (analyzing the prejudice to the plaintiff of defendant's spoliation).

438. *See, e.g.*, Adkins v. Wolever, 554 F.3d 650, 652-53 (6th Cir. 2009) ("Because failures to produce relevant evidence fall 'along a continuum of fault—ranging from innocence through degrees of negligence to intentionality,' . . . the severity of a sanction may, depending on the circumstances of the case, correspond to the party's fault.") (quoting Welsh v. United States, 844 F.2d 1239, 1246 (6th Cir. 1988)).

439. Crist, *supra* note 415, at 46, 50.

440. *See*, *e.g.*, Kronisch v. United States, 150 F.3d 112, 126 (2d Cir. 1998) (noting that a sanction for spoliation has "evidentiary, prophylactic, punitive, and remedial rationales").

441. Crist, *supra* note 415, at 45; *see also* Computer Assocs. Int'l, Inc. v. American Fundware, Inc., 133 F.R.D. 166, 169-70 (D. Colo. 1990) (awarding default judgment as a result of intentional destruction of evidence).

442. Crist, *supra* note 415, at 47-48.

443. *Id.* at 47.

444. *E.g.,* Zubulake v. UBS Warburg LLC, 229 F.R.D. 422, 439 (S.D.N.Y. 2004).

445. *E.g.,* Greyhound Lines, Inc. v. Wade, 485 F.3d 1032, 1035 (8th Cir. 2007).

446. *Zubulake*, 229 F.R.D. at 439; *see also* Pension Comm. of the Univ. of Montreal v. Banc of Am. Secs., LLC, 685 F. Supp. 2d 456, 466 (S.D.N.Y. 2010) ("It is often impossible to know what lost documents would have contained.").

lacks an alternative source, it may simply be unable to prove prejudice.[447] Thus, because of the difficulty of proving prejudice, parties may occasionally conclude that they are better for furtively destroying damaging documents rather than disclosing them.[448]

While spoliation is not recognized as a tort in federal courts, some states do recognize spoliation as a tort.[449] The tort may encompass both intentional and negligent spoliation.[450] In the states that recognize it, it is an "interference tort" that is "defined as intentional or negligent interference with a prospective civil action by destruction of evidence."[451]

2. The Records Management Program

In spite of the danger of routinely purging ESI, organizations have a legitimate interest in destroying data to limit the universe of potentially responsive information they must search in the course of discovery and reduce the other costs associated with storing information that they no longer have any business need to retain.[452] To that end, many organizations have established record retention policies.[453] These policies create timeframes for the retention of certain kinds of documents (including ESI).[454] They ordinarily mandate the deletion or destruction of documents after an established period of time.[455] For instance, a record retention policy might specify that an invoice must be retained for three years after payment, or that an organization's financial statements should be

447. *See Pension Comm.*, 684 F. Supp. 2d at 468.

448. Steffen Nolte, *The Spoliation Tort: An Approach to Underlying Principles*, 26 ST. MARY'S L.J. 351, 354 (1994). *See also* Robert L. Tucker, *The Flexible Doctrine of Spoliation of Evidence: Cause of Action, Defense, Evidentiary Presumption, and Discovery Sanction*, 27 U. TOL. L. REV. 67, 67 (1996); JAMIE S. GORELICK, ET AL., DESTRUCTION OF EVIDENCE § 4.1 to § 4.11 (2010) (describing the states' approaches to the tort and noting that California recognized the tort in 1984, but rejected it in 1998).

449. Devin Murphy, *The Discovery of Electronic Data in Litigation: What Practitioners and Their Clients Need to Know*, 27 WM. MITCHELL L. REV. 1825, 1855-56 (2001). See generally GORELICK ET AL., *supra* note 448.

450. Nolte, *supra* note 448, at 360.

451. *Id.*

452. *See* Rambus, Inc. v. Infineon Tech. AG, 222 F.R.D. 280, 294-95 (E.D. Va. 2004).

453. *Id.* These policies are also called document retention policies and document (or record) destruction policies. *See* Crist, *supra* note 415, at 34-45. However, organizations have been less than stellar at clarifying their records management plan's application to electronically stored information. *Id.* For instance, in a recent survey, forty-three percent of surveyed organizations "did not include digital records in their retention [policies]." *Id.* at 35. And, forty-nine percent of survey respondents reported they had no "formal e-mail retention policy." *Id.*

454. Crist, *supra* note 415, at 36.

455. *See id.*

kept indefinitely.[456] Such policies balance the organization's need to retain records with its ability to afford to maintain and search them.[457] This is especially true with backup tapes, which are often recycled on a rigid schedule.[458] These policies normally allow the employees of organization to engage in routine destruction of documents, whether stored electronically or on paper. Ideally, as a result, there are fewer documents to store and to review in the case of litigation.[459]

Sometimes the destruction of data or documents under a records management program may be performed manually, but, in the context of electronically stored information, computer systems themselves often manage the deletion of data on a continual basis.[460] A committee of the Judicial Conference of the United States, in proposing the amendment that became the safe harbor provision of Rule 37(e), explicitly noted that:

> [C]omputer systems lose, alter, or destroy information as part of routine operations, making the risk of losing information significantly greater than with paper. Even when litigation is anticipated, it can be very difficult to interrupt or suspend the routine operation of computer systems to isolate and preserve discrete parts of the information they overwrite, delete, or update on an ongoing basis, without creating problems for the larger system. Routine cessation or suspension of these features of computer operation is also undesirable; the result would be even greater accumulation of duplicative and irrelevant data that must be reviewed, making discovery more expensive and time-consuming. At the same time, a litigant's right to obtain evidence must be protected. There is considerable uncertainty as to whether a party must, at risk of severe sanctions, interrupt the operation of the electronic information systems it is using to avoid any loss of information because of the possibility that the information might be sought in discovery. The advisory committee has heard strong

456. *See id.*

457. *E.g.*, Zubulake v. UBS Warburg LLC, 220 F.R.D. 212, 218 (S.D.N.Y. 2003) (noting that organizations routinely recycle backup tapes); Rambus, Inc. v. Infineon Tech., Inc., 222 F.R.D. 280, 294 (E.D. Va. 2004) (noting that "virtually all companies have document retention policies").

458. *But see Zubulake*, 220 F.R.D. at 218 (concluding that inaccessible backup tapes are presumptively excluded from the duty to preserve as long as they are indeed inaccessible).

459. *Rambus*, 222 F.R.D. at 295. Of course, achieving compliance with document retention policies can be difficult, especially in large organizations. Crist, *supra* note 415, at 35 (noting that according to a 2003 survey, thirty-eight percent of respondents failed to follow their own policy).

460. SUMMARY OF THE REPORT OF THE JUDICIAL CONFERENCE COMMITTEE ON RULES OF PRACTICE AND PROCEDURE 32 (Sept. 2005) [hereinafter SUMMARY], *available at* http://www.uscourts.gov/uscourts/rulesandpolicies/rules/Reports/ST09-2005.pdf.

arguments in support of better guidance in the rules.[461]

Some circuits are more forgiving when responsive or potentially responsive data is lost because of a records management program.[462] The Eighth Circuit generally does not allow for the imposition of sanctions based solely on negligence, so a litigant that fails to "rescue" data from automated deletion under a records management plan that is otherwise reasonable and instituted in good faith is unlikely to face a sanction as severe as an adverse inference instruction.[463] In *Union Pacific*, the court concluded that "[w]here a routine document retention policy has been followed in this context, we now clarify that there must be some indication of an intent to destroy the evidence for the purpose of obstructing or suppressing the truth in order to impose the sanction of an adverse inference instruction."[464] Nevertheless, even the negligent litigant might face lesser sanctions, such as the award of costs and attorney fees.[465]

Other circuits, noting that "[i]t makes little difference to the party victimized by the destruction of evidence whether that act was done willfully or negligently," give no extra slack to parties who delete data because a document to which the duty to preserve had attached was deleted pursuant to an established records management program.[466]

Indeed, in *Rambus, Inc. v. Infineon Tech. AG*,[467] the court was actively hostile to the plaintiff's records management program. The court concluded that since Rambus instituted its records management program out of a desire to reduce the amount of information it would have to search through in the case of litigation, Rambus intended the program to delete evidence relevant to litigation.[468] The court found further support for its conclusion in the fact that Rambus was not expecting to be sued during the time period in which it instituted its document retention program.[469] Therefore, the court reasoned, any discovery concerns must stem from litigation that Rambus itself intended to bring.[470] Finally, the court reasoned,

461. *Id.* at 32-33.

462. Crist, *supra* note 415, at 48.

463. *See* Stevenson v. Union Pacific R.R. Co., 354 F.3d 739, 747 (8th Cir. 2004); Lewy v. Remington Arms Co., 836 F.2d 1104, 1112 (8th Cir. 1988).

464. *Stevenson*, 354 F.3d at 747.

465. *See* Crist, *supra* note 415, at 48; *Union Pacific*, 354 F.3d at 747 (noting that the trial court did not err in concluding Union Pacific's negligence met the bad faith requirement, and was sanctionable).

466. Turner v. Hudson Transit Lines, 142 F.R.D. 68, 75 (S.D.N.Y. 1991).

467. 222 F.R.D. 280 (E.D. Va. 2004).

468. *Id.* at 294-95.

469. *Id.* at 295.

470. *Id.*

the routine deletion of records should have been suspended when it did anticipate bringing its suits.[471] Although the *Rambus* court has a point, the court's ruling would prevent organizations like Rambus from ever actually engaging in the routine deletion of data when they anticipate litigation.[472] Likewise, an organization that is a routine litigation target would be hard-pressed to implement a records management program.[473]

3. Safe Harbor Provisions of Rule 37(e)

Recognizing the difficulties and undesirability of suspending record management programs to accommodate the duty to preserve, the Federal Rules provide a safe harbor provision to shield parties from sanctions for data lost because of the good faith operation of an information system:[474]

> (e) Failure to Provide Electronically Stored Information. Absent 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.[475]

Unfortunately, in practice, Rule 37(e) no longer provides any safe harbor.[476] Courts have generally concluded that, when the duty to preserve attaches to evidence, the safe harbor of Rule 37(e) does not apply because a party cannot, in good faith, delete this relevant evidence, even as part of a records management program.[477] Indeed,

471. *Id.*

472. *See id.* at 294-98. *Compare Rambus*, 222 F.R.D. at 294-98 *with* Concord Boat Corp. v. Brunswick Corp., No. LR-C-95-781, 1997 U.S. Dist. LEXIS 24068, at *17 (E.D. Ark. Aug. 29, 1997) ("Arguably, most e-mails, excluding purely personal communications, could fall under the umbrella of 'relevant to potential future litigation.' For example, the e-mail could contain 'stray remarks' which would have a bearing on some legal issue. Thus, it would be necessary for a corporation to basically maintain all of its e-mail. Such a proposition is not justified.").

473. *Rambus*, 222 F.R.D. at 294-98.

474. FED. R. CIV. P. 37(e); *see also* Favro, *supra* note 280, at 20 (noting the rule is intended to protect parties from "the incidental alteration or deletion of electronically stored information that frequently results from the 'distinctive' nature of computer operations").

475. FED. R. CIV. P. 37(e). This rule used to be Rule 37(f). *See* SUMMARY, *supra* note 460, at 32-33. Doe v. Norwalk Community College, 248 F.R.D. 372, 378 (D. Conn. 2007).

476. DAN H. WILLOUGHBY, JR. & ROSE HUNTER JONES, SANCTIONS FOR E-DISCOVERY VIOLATIONS: BY THE NUMBERS 3, 22-26 (2010), *available at* http://civilconference.uscourts.gov/LotusQuickr/dcc/Main.nsf/$defaultview/24BBAF81AE57DCC9852576DB005D7CC7/$File/Dan%20Willoughby,%20Rose%20Jones,%20Sanctions%20for%20E-Discovery%20Violations.pdf?OpenElement (last visited Feb. 25, 2011); SCHEINDLIN ET AL., *supra* note 48, at 403.

477. *E.g.,* Doe v. Norwalk Cmty. College, 248 F.R.D. 372, 378 (D. Conn. 2007);

once a party is aware of or should reasonably anticipate litigation, the party has the duty to implement a litigation hold.[478] A party who fails to implement the litigation hold cannot take advantage of the safe haven.[479]

Doe v. Norwalk Community College[480] illustrates this point. When the producing party could not produce e-mails that had been requested, they claimed they were covered by the safe-harbor provisions of then-Rule 37(f) (now Rule 37(e)).[481] The court disagreed.[482] The court concluded that the community college's inability to produce e-mail was not protected under the rule because the college had not instituted any effort to retain relevant information, and, even if the college had done so, the college also had not shown that loss of data resulted from a "routine" program to purge information.[483]

Indeed, the second part of the court's conclusion in *Norwalk Community College* reveals another problem with the safe harbor provision of Rule 37(e). A litigant must be prepared with appropriate evidence and argument to justify its case of entitlement to the safe harbor provisions before relying on their protection. [484] In particular, it must show that it "act[ed] affirmatively to prevent the system from destroying or altering information, even if such destruction would occur in the regular course of business."[485] Thus, when a party is forced to rely on Rule 37(e), it must endure the potentially high cost of proving that it deserves the protection.[486]

There are a few other reasons that a litigant should not expect the safe harbor provision of Rule 37(e) to provide any protection from sanctions. First, the rule itself contains an exception for "exceptional circumstances."[487] This suggests that a showing of extreme prejudice to the requesting party's case might overcome the safe harbor.[488] The rule also limits the application of the safe harbor to "sanctions under

Peskoff v. Faber, 244 F.R.D. 54, 60 (D.D.C. 2007).

478. *Norwalk Cmty. College*, 248 F.R.D. at 378; Peskoff v. Faber, 244 F.R.D. 54, 60 (D.D.C. 2007).

479. *Norwalk Cmty. College*, 248 F.R.D. at 378. Similarly, in *Peskoff v. Faber*, when the defendant failed to turn off a routine that automatically deleted e-mail that reached a certain age, the defendant was not entitled to claim the protection of the safe harbor now in Rule 37(e). 244 F.R.D. at 60. *See also supra* Part II.D.5.

480. 248 F.R.D. 372 (D. Conn. 2007).

481. *Id.* at 378.

482. *Id.*

483. *Id.*

484. *See id.*

485. *Id.*

486. *See id.*

487. FED. R. CIV. P. 37(e).

488. SCHEINDLIN ET AL., *supra* note 48, at 402.

these rules."[489] This may indicate that the safe harbor does not protect a party from a sanction imposed under the court's inherent authority, rather than under the Rule 37.[490] Finally, even the term "electronic information system" may limit the protection afforded the litigant under the rule if, the litigant, as the operator of the information system, directed the deletion through the configuration or programming of the information system.[491]

4. The Litigation Hold

Because of the danger inherent in deleting data that an adverse party could claim the duty to preserve had attached, the "best practices" in e-discovery require potential litigants to implement litigation holds.[492] The litigation hold itself can be an expensive undertaking, and is attended by its own perils.

The litigation hold generally entails (1) identifying when a controversy has ripened into a stage that implicates the duty to preserve,[493] (2) identifying members of the organization that might have relevant information,[494] (3) directing these members to retain this information,[495] and (4) monitoring and enforcing compliance during the course of the resolution of the controversy.[496] Counsel for parties have an ethical duty during the course of the lifecycle of the litigation hold to monitor their client's compliance with the program, and to advise them of the "full range of potential negative consequences that could result from the destruction of evidence, including contempt of court, civil and criminal penalties and sanctions, default judgment, or dismissal."[497] The litigation hold also requires counsel to directly engage with custodians of electronically stored information to ensure that the information is retained.[498] This may require counsel to have a full understanding of the organization's information technology architecture and practices, as well as the organization's document retention plan.[499] Indeed,

489. FED. R. CIV. P. 37(e).

490. SCHEINDLIN ET AL., *supra* note 48, at 403.

491. *See id.*

492. *E.g.,* Doe v. Norwalk Cmty. College, 248 F.R.D. 372, 377 (D. Conn. 2007).

493. *See* Crist, *supra* note 415, at 36; Zubulake v. UBS Warburg, 220 F.R.D. 212, 217 (S.D.N.Y. 2003).

494. SCHEINDLIN ET AL., *supra* note 48, at 146-47. Scheindlin observes that this step of identifying the data to be preserved requires counsel to first step through each possible claim and defense to identify the corresponding relevant data. *Id.*

495. *Id.* at 147; Crist, *supra* note 415, at 39.

496. Crist, *supra* note 415, at 37-39; SCHEINDLIN ET AL., *supra* note 48, at 147-149.

497. Crist, *supra* note 415, at 39.

498. *Id.* at 39-40.

499. *Id.* at 39-41.

counsel may need to even take possession of relevant backup tapes for safekeeping.[500] Because of the complexity and thoroughness needed to effectively maintain a litigation hold, organizations must spend significant time and money to execute them effectively.[501]

5. Criticism of the Duty to Preserve

There are a variety of reasons to criticize the duty to preserve. It encourages parties to threaten litigation as early as possible so that the duty to preserve attaches to relevant information that is adverse to the eventual producer.[502] It is also too broad, because it attaches to information that a litigant knows or should know to be relevant, even before any request for the information is made, and without taking into account alternative sources of the same information.[503] It essentially imposes on parties the duty to identify and preserve the opposing party's sources of evidence, without passing any of the associated cost along to the party that benefits from this expenditure of time and money.

IV. THE E-DISCOVERY RULES IN STATE AND FOREIGN COURTS

A. Cost-Shifting in State Court

Not all states share the federal courts' "producer-pays" presumption. In California, for instance, Cal. Code Civ. P. § 2031.280(e) requires that "If necessary, the responding party at the reasonable expense of the demanding party shall . . . translate any data compilations[504] included in the demand into reasonably usable form."[505] This rule makes a requesting party pay for the reasonable costs of making an inaccessible source of ESI accessible, without respect to any of the factors courts consider under the *Zubulake* or

500. *Id.* at 41.

501. SCHEINDLIN ET AL., *supra* note 48, at 152.

502. *See* Southeastern Mech. Servs. v. Brody, No. 8:08-CV-1151-T-30EAJ, 2009 U.S. Dist. LEXIS 69830, at *10 (M.D. Fla. July 24, 2009) (concluding sanctions were inappropriate where backup tapes were recycled before duty to preserve arose).

503. *See* FED. R. CIV. P. 26 advisory committee's note (noting the duty to preserve applies even to inaccessible sources of information).

504. We assume that the term "data compilations," as used in various state rules of civil procedure, is roughly synonymous with "electronically stored information" in the FRCP. *See* ROTHSTEIN, *supra* note 164, at 2 (noting the FRCP uses the term "electronically stored information" rather than the term "data compilation" and identify it as a distinctive category of information subject to discovery obligations on par with "documents" and "things").

505. The California legislature passed this provision specifically to create uniformity and bring predictability to e-discovery cases: "[i]n order to eliminate uncertainty and confusion regarding the discovery of electronically stored information, and thereby minimize unnecessary and costly litigation that adversely impacts access to the courts." 2009 Cal. ALS 5; Stats 2009 ch 5.

Rowe Entertainment tests.[506] Of course, the California rule applies, like the *Zubulake* cost shifting analysis, only to inaccessible sources to ESI.[507]

Similarly, Texas and Mississippi have a similar procedure to protect producers from the cost of producing ESI in a format other than what the producer maintains in the ordinary course of business:

> To obtain discovery of data or information that exists in electronic or magnetic form, the requesting party must specifically request production of electronic or magnetic data and specify the form in which the requesting party wants it produced. The responding party must produce the electronic or magnetic data that is responsive to the request and is reasonably available to the responding party in its ordinary course of business. If the responding party cannot[—]through reasonable efforts[—]retrieve the data or information requested or produce it in the form requested, the responding party must state an objection complying with these rules. If the court orders the responding party to comply with the request, the court must also order that the requesting party pay the reasonable expenses of any extraordinary steps required to retrieve and produce the information.[508]

Thus, the Texas and Mississippi rule, like the California rule, requires that, when the requested ESI is reasonably available in the ordinary course of business, the producer must provide it, at its own cost.[509] However, if the effort to produce the data as requested imposes a burden in excess of a "reasonable effort," then the producer can move for cost shifting.[510] The only costs that are shifted are those associated with the "reasonable expenses of any extraordinary steps required to retrieve and produce the information."[511] As with the California rule, the Texas and Mississippi rule does not shift the costs associated with production of all ESI, nor does it shift the associated costs of ordinary searches or privilege review.[512]

The New York rule goes the furthest in requiring requesting parties to pay for the costs of their requests, because New York has

506. Mazza et al., *supra* note 94, ¶¶ 115-16. *See also* Toshiba Am. Elec. Components v. Superior Court, 21 Cal. Rptr. 3d 532, 538-39 (Cal. Ct. App. 2004) (concluding this provision is "unequivocal. We need not engage in protracted statutory analysis because its plain language clearly states that if translation is necessary, the responding party must do it at the demanding party's reasonable expense").

507. *Toshiba*, 21 Cal. Rptr. 3d. at 538-39.

508. *See* Tex. R. Civ. P. 196.4; Miss. R. Civ. P. 26(b)(5).

509. *See id.;* Mazza et al., *supra* note 94, at 61.

510. *In re* Weekly Homes, L.P., 295 S.W.3d 309, 322 (Tex. 2009).

511. *See* TEX. R. CIV. P. 196.4; *Weekly Homes*, 295 S.W.3d at 322.

512. *See* TEX. R. CIV. P. 196.4; Miss. R. Civ. P. 26(b)(5); *Weekly Homes*, 295 S.W.3d at 322.

never adopted the "producer-pays" presumption.[513] On the contrary, in New York courts, "the presumption at the outset is that the *requesting* party pays for discovery."[514] "Therefore, the analysis of whether electronic discovery should be permitted in New York is much simpler than it is in the federal courts. The court need only determine whether the material is discoverable and whether the party seeking the discovery is willing to bear the cost of production . . . ."[515]

B. Foreign Countries

In a 2009 report for the United Kingdom Judiciary, the United States was singled out as being "the only overseas jurisdiction without cost shifting."[516] The report concludes that, while the "producer pays" presumption may "promote greater access to justice," it also fosters "more claims lacking in merit."[517] Moreover, the American rule tends to require a higher level of harm to make a case viable, and, in the absence of adequate judicial supervision, well-resourced litigants, even if their claims are weak, can cause an adverse party to incur "irrecoverable costs."[518]

Indeed, to the extent that foreign jurisdictions even permit discovery, they are far more conservative in permitting it than the American courts.[519] Data protection and privacy laws of foreign nations constrain the extraterritorial application of otherwise liberal discovery practices of American courts.[520] Even so, foreign courts face the same problems of rising e-discovery costs and unwieldy document requests.[521]

513. Mazza et al., *supra* note 94, ¶ 118.

514. *Id.* (emphasis added).

515. Lipco Elec. Corp. v. ASG Consulting Corp., No. 8775/01, slip op. at 8 (N.Y. Sup. Ct. Aug. 18, 2004).

516. RUPERT JACKSON, 2 REVIEW OF CIVIL LITIGATION COSTS: PRELIMINARY REPORT 474 (May 2009), *available at* http://www.lawcostingltd.co.uk/images/volume2.pdf.

517. *Id.*

518. *Id.*

519. For recent commentary on e-discovery problems in a variety of instances, *see generally* Wendy Akbar, *E-Discovery World Wars: The Privacy Menace*, E-DISCOVERY BYTES (Jan. 12, 2009), http://ediscovery.quarles.com/2009/01/articles/international-issues/ediscovery-world-wars-the-privacy-menace/; THE SEDONA CONFERENCE WORKING GROUP 7, THE SEDONA CANADA PRINCIPLES: ADDRESSING ELECTRONIC DOCUMENT PRODUCTION (Feb. 2007 Public Comment Draft), *available at* http://www.thesedonaconference.org/content/miscFiles/2_07WG7pubcomment.pdf. (providing a comprehensive background and discussion of e-discovery generally, including some discussion of cost in foreign jurisdiction).

520. *See supra* Introduction and text accompanying notes 12-32.

521. The University of Oxford Centre for Socio-Legal Studies has compiled an extensive list of litigation cost reports from around the world. The Centre put on an international conference in July of 2009 in which they presented this research from

Attorneys seeking discovery within the European Union may need to overcome the EU's stringent data protection laws.[522] A foreign party seeking protection against compelled discovery in an American court has the burden of proving that the foreign data protection law actually prohibits production of the data at issue.[523] But, if so proven, these data protection laws may, in some cases, curtail discovery.[524]

And, there are a variety of privacy protections that protect data from production. For example, "the European Court of Human Rights ("ECHR") has held that the right to private communications in the workplace is a fundamental freedom covered under the Convention for the Protection of Human Rights and Fundamental Freedoms . . . ."[525] Employees' telephone calls and emails come under the umbrella of "private life" discussed in the Convention treatises.[526] Accordingly, one French court interpreting the Convention principles found "that under no circumstances may an employer inspect an employee's email, files, or computer, even" if the employer suspects wrongdoing on the part of the employee.[527] Thus "private life" materials from the workplace would likely be non-discoverable in most European courts.

Throughout the EU, the European Data Protection Directive (the "Directive") establishes a regulatory framework around the movement of e-discovery and the treatment of personal data in the legal sphere.[528] The Directive allows for the transfer of personal data

thirty-three jurisdictions. The research was made available to Lord Justice Jackson to help in his report on Civil Litigation Costs, which is referenced in this section of the article. Centre for Socio-Legal Studies*, Research Programme in European and Comparative Civil Justice Systems,* UNIV. OF OXFORD, http://www.csls.ox.ac.uk/european_civil_justice_systems.php (last visited Jan. 31, 2011). *See also* Centre for Socio-Legal Studies*, List of Contributors and Reports*, UNIV. OF OXFORD, http://www.csls.ox.ac.uk/COSTOFLITIGATIONDOCUMENTSANDREPORTS.php (last visited Jan. 31, 2011).

522. Erica M. Davila*, International E-Discovery: Navigating the Maze*, 8 U. PITT. J. TECH. L. POL'Y 5, ¶ 11 (2008).

523. *In re* Vitamins Antitrust Litig, Misc. No. 99-197 TFH, 2001 U.S. Dist. LEXIS 8904, at *44 (D.D.C. June 20, 2001).

524. Davila, *supra* note 522, ¶¶ 9-14. *But see Vitamin Antitrust Litig.,* 2001 U.S. Dist. LEXIS 8904, at *56 n.20 ("[A] federal court may order a party to comply with discovery even if such compliance may violate another sovereign's laws").

525. Davila, *supra* note 522, ¶ 11; *see also* European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by protocols nos. 11 and 14, Rome, 4.XI.1950, *available at* http://conventions.coe.int/treaty/en/treaties/html/005.htm.

526. Davila, *supra* note 522, ¶ 17.

527. *Id.* ¶ 18.

528. *Id.* ¶¶ 11-13; *see also*, *Global Class Actions Exchange*, STANFORD LAW SCH. http://www.law.stanford.edu/library/globalclassaction/index.html (last visited Nov. 7,

between countries "only if the country receiving the data ensures an adequate level of protection."[529] Because of the Directive, the United States Department of Commerce has had to negotiate a "safe harbor" with the European Union, which provides requirements that US companies must choose to adhere to in order to participate in the exchange of personal data with EU countries.[530]

Under the Directive, personal data includes e-mail and other commonly requested electronically stored information. In *In re Vitamins Antitrust Litigation*, German defendants claimed that the German Data Protection Act prohibited the disclosure of employee data that the plaintiff had requested.[531] The defendant claimed that complying with the court's discovery order, in violation of the German Data Protection Act, would be a criminal offense exposing the defendant to substantial fines or prison term.[532] The district court held that even if the German Data Protection Act prohibited disclosure, the plaintiff could compel disclosure on a showing that (1) "information at issue is necessary to protect public interests and/or interests to the plaintiff; and (2) data subjects have no 'legitimate interest' in preventing disclosure of the information."[533] The court ultimately found that the defendant had expressed "some legitimate privacy law concerns" and ordered further proceedings to "determine whether that requested information is absolutely essential to [the plaintiffs'] case."[534]

Other countries, such as France, have statutes that aim to prevent American-style discovery.[535] The French blocking statute prohibits any discovery whatsoever:

> Subject to treaties or international agreements and applicable laws and regulations, it is prohibited for any party to request, seek or disclose, in writing, orally or otherwise, economic, commercial, industrial, financial, or technical documents or information leading

2010) (containing reports from over 50 countries on class action practices in each jurisdiction and including some limited information in litigation costs and practices).

529. Davila, *supra* note 522, ¶ 12.

530. *Id.*; *see also* Benjamin Wright, *Cross-Border eDisclosure: Blocking Statutes and International E-Discovery*, ELECTRONIC DATA RECORDS LAW: HOW TO WIN E-DISCOVERY (Feb. 25, 2009), http://legal-beagle.typepad.com/wrights_legal_beagle/foreign.

531. *In re* Vitamins Antitrust Litig, Misc. No. 99-197 (TFH), 2001 U.S. Dist. LEXIS 8904, at *43 n.11 (D.D.C. June 20, 2001).

532. *Vitamins Antitrust Litig*, 2001 U.S. Dist. LEXIS 8904, at *46-47; *see also In re* Vitamin Antitrust Litig, Misc. No. 99-197 (TFH), MDL No. 1285, 2001 U.S. Dist. LEXIS 11536 (D.D.C. Apr. 23, 2001) (providing the special master's original analysis of the discovery dispute).

533. *Vitamins Antitrust Litig.*, 2001 U.S. Dist. LEXIS 8904, at *50.

534. *Id.* at *53-54.

535. *See* Wright, *supra* note 530.

> to the constitution of evidence with a view to foreign judicial or administrative proceedings or in connection therewith.[536]

Indeed, the French blocking statute "imposes criminal liability," exposing violators to fines and even imprisonment.[537] Many of these "blocking statutes" were in fact enacted simply to thwart discovery requests from United States entities or courts.[538] These include Canada's Business Records Protection Act and statutes created "in response to the United States Federal Maritime Commission's investigation of anticompetitive practices of international shipping conferences in the 1960s."[539]

Foreign nations' secrecy laws may also hinder discovery efforts in American courts.[540] Secrecy laws commonly protect the "disclosure of bank customer and corporate data."[541] These laws afford significant protection to European entities in litigation.[542] These laws include Article 45 of the Swiss Bank Law, the German Bank Secrecy privilege, and secrecy laws such as those seen in China.[543]

These privacy laws also create choice of law issues for American companies in litigation.[544] The Federal Rules of Civil Procedure at times intersect with the Hague Convention on Taking of Evidence Abroad in Civil or Commercial Matters (the "Hague Convention").[545] Both govern discovery of international data in American courts. The Hague Convention covers forty-four nations, but the Convention applies only between national parties.[546] It "provides for [the] compulsion of evidence by letters of request, and for the taking of depositions before consuls and court-appointed commissioners."[547] In the American courts, parties requesting Hague Convention procedures to be used over the Federal Rules of Civil Procedure bear

536. Davila, *supra* note 522, ¶ 20 (quoting CODE PÉNAL [C. PÉNAL] No. 80-538 (Fr.))

537. Courtney Ingraffia Barton, *Framing the International E-Discovery Issues: Data Across the Globe*, THE DISCOVERY STANDARD, http://law.lexisnexis.com/litigation-news/articles/article.aspx?groupid=eQSqfLggRQQ=&article=U3VI5IA+t4c= (last visited Jan. 31, 2011).

538. Davila, *supra* note 522, ¶¶ 20, 23.

539. *See id.* ¶¶ 21-22.

540. *Id.* ¶¶ 24-28.

541. *Id.* ¶ 24.

542. *Id.* ¶¶ 24-28.

543. *See, e.g.*, Richmark Corp. v. Timber Falling Consultants, 959 F.2d 1468, 1479 (9th Cir. 1992) (concluding that a Chinese corporation could not rely on China's state secrecy law to shield it from sanctions when it failed to raise the secrecy statute until defending the motion for sanctions).

544. Davila, *supra* note 522, ¶¶ 29-30.

545. *Id.*

546. *Id.* ¶ 32.

547. *Id.*

the burden of persuasion.[548]

Although international barriers to e-discovery are prevalent in most other areas of the world, the United Kingdom employs a scheme similar to the United States.[549] Part 31 of the Civil Procedure Rules concerns disclosure and inspection of documents.[550] The "Practice Direction" portion of the rule deals directly with electronic disclosure.[551] Although this section does not consider the cost of e-discovery specifically, it does suggest a reasonableness balancing of the burden of electronic disclosure in subsection 2A.4. The subsection reads:

> The factors that may be relevant in deciding the reasonableness of a search for electronic documents include (but are not limited to) the following:
>
> (a) The number of documents involved.
>
> (b) The nature and complexity of the proceedings.
>
> (c) The ease and expense of retrieval of any particular document. This includes:
>
> > (i) The accessibility of electronic documents or data including e-mail communications on computer systems, servers, back-up systems and other electronic devices or media that may contain such documents taking into account alterations or developments in hardware or software systems used by the disclosing party and/or available to enable access to such documents.
> >
> > (ii) The location of relevant electronic documents, data, computer systems, servers, back-up systems and other electronic devices or media that may contain such documents.
> >
> > (iii) The likelihood of locating relevant data.
> >
> > (iv) The cost of recovering any electronic documents.
> >
> > (v) The cost of disclosing and providing inspection of any relevant electronic documents.
> >
> > (vi) The likelihood that electronic documents will be materially altered in the course of recovery, disclosure or inspection.
>
> (d) The significance of any document which is likely to be located

548. *Id.* ¶ 33; *see also* Thomas J. Shaw, *Ediscovery in Asia/Pacific: U.S. Litigation Exposure for Asian Companies*, AIIM, http://www.aiim.org/infonomics/ediscovery-in-asia-pacific-who-has-jurisdiction.aspx (last visited Nov. 7, 2010) (discussing how non-U.S. companies take Hague Convention rules and discovery costs into account when analyzing risk of being sued in the United States).

549. *See generally* JACKSON, *supra* note 516, at 365-475.

550. *Id.* at 366.

551. *Id.*

during the search.[552]

The rules also suggest in subsection 2A.5 that "[i]t may be reasonable to search some or all of the parties' electronic storage systems," and that it may also be reasonable to complete a keyword search of an entire system, even if it would not be reasonable to review every document included in the system.[553] In effect, these directions encourage the use of electronic disclosure in discovery when balanced using a reasonableness analysis.[554]

Recently, Lord Justice Jackson of the Judiciary of England and Wales published a *Review of Civil Litigation Costs*.[555] This comprehensive report on all aspects of Civil Litigation Costs in England and Wales speaks specifically to the debilitating costs of electronic discovery/disclosure. Lord Justice Jackson argues that this balancing and recommended use of electronic disclosure, as discussed in the Rules, has not become a widespread practice. Often, he says, the Practice Directions of the Rules are ignored.

The courts in the United Kingdom have only recently begun to deal with the major problem of electronic disclosure—cost. In October 2008, *Digicel (St. Lucia) Ltd. v. Cable & Wireless PLC* was decided, offering some guidance to legal practitioners on how to cope with mounting electronic disclosure costs.[556] In *Digicel*, the defendants had already spent over £2.175 million on discovery, and were being ordered to spend more.[557] Leading up to the hearing, the defendants' solicitors had spent over 6,700 hours searching multiple international databases.[558] The Court ordered the defendants' solicitors to meet with the claimants' solicitors under Court scrutiny to discuss the continuing disclosure requests.[559] Since the defendants' solicitors had failed to heed the requirements of the Practice Directions and meet with the claimant solicitors early in the litigation regarding electronic disclosure requirements, they now would likely have to repeat much of the work they had already done at their client's expense.[560]

552. *Id*.

553. *Id.*

554. *See id.*

555. RUPERT JACKSON, REVIEW OF CIVIL LITIGATION COSTS: FINAL REPORT (Dec. 2009), *available at* http://www.judiciary.gov.uk/NR/rdonlyres/8EB9F3F3-9C4A-4139-8A93-56F09672EB6A/0/jacksonfinalreport140110.pdf.

556. Digicel (St. Lucia) Ltd. v Cable & Wireless PLC [2008] EWHC 2522 (Ch) (appeal taken from Eng.), *available at* http://www.bailii.org/ew/cases/EWHC/Ch/2008/2522.html.

557. *Id.* ¶ 25.

558. *Id*.

559. *Id.* ¶ 70.

560. *Id.* ¶ 47.

Digicel is a cautionary reminder to British solicitors to work with opposing counsel early on in developing disclosure plans that can be submitted to the Court when disagreements arise. Lord Justice Jackson explains that the cost of electronic discovery must be negotiated by the parties at the outset of the litigation and will be the subject of thorough investigation and reasonableness balancing.[561] He goes on to compare the English practices of electronic disclosure to those of Australia.[562] Australia, he points out, has recently adopted a Practice Note on January 29, 2009, which sets out a code to be followed in analyzing how much electronic disclosure is necessary of a party and suggests initial meetings with opposing counsel, just as the English rules do.[563]

CONCLUSION

Equal cost-sharing between the requesting party and the producing party is the fairest and most efficient way to address the skyrocketing and debilitating costs of e-discovery. Under an equal cost sharing regime, requesting parties would bear some of the burden of their production, and would therefore have an inherent incentive—independent of judicial intervention and discretion—to control the scope of their requests and to work with the producing party to develop keywords, search protocols, and to locate accessible sources of requested information. Equal cost sharing thus mitigates the harshness of a rule that would require the requesting party to pay for production while still assisting impecunious plaintiffs in their pursuit of justice. More importantly, if the discovery is to remain a cooperative process, equal cost sharing ensures that both sides to a lawsuit have a built-in incentive to cooperate in a civil litigation system that relies so heavily on cooperation between litigants. Placing the entire cost of production on producing parties means that producers have no incentive to persevere in locating difficult-to-retrieve but relevant data in their information systems, and requesting parties have no incentive to take costs into account in making production demands. The result is to entirely exclude from the judicial system a class of litigants unable to afford such heavy discovery costs.

Our civil justice system is on an unsustainable trajectory. Equal cost sharing is the kind of fundamental reform that can truly stem the ever-expanding cost, scope, and duration of discovery, thereby ensuring that the courts are indeed open to everyone and will decide

561. JACKSON, *supra* note 555, at 40-43.

562. *See id*. at 434-37.

563. *Id.* at 435.

cases on their merits rather than on who can impose the highest discovery costs on their litigation opponents.