Taking a Byte Out of Discovery: How the Properties of Electronically Stored Information Have Shaped E-Discovery Rules

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INTRODUCTION

The December 1, 2006, amendments to the Federal Rules of Civil Procedure were not the first time that the Rules were revised to address computerized information. Although the term “electronically stored information” is new to the 2006 amendments, computer files had been a proper subject of discovery at least as far back as 1970, when the term “data compilations” was added to the Rules. After 1970, Rule 34, for example, provided that a party may request the production of documents or “other data compilations from which information can be obtained, translated, if necessary, by respondent through detection devices into reasonably usable form.” Prior to 2006, courts unequivocally had accepted that discovery of electronically stored information was no different in principle than discovery of traditional paper materials. The 2006 e-discovery amendments to the Rules did not change that principle.

So, if the Rules already encompassed computer files under the term “data compilations,” then why did the Judicial Conference’s Advisory Committee for the Federal Rules of Civil Procedure recommend and the U.S. Supreme Court promulgate amendments to the Rules to address specifically discovery of “electronically stored information” in 2006? Clearly some characteristics of electronic materials make them different from traditional paper sources of discovery. What is it about “elec-
tronically stored information” that required wholesale amendment of the Rules and changes to the discovery responsibilities of litigants?

In this article, rather than analyze the 2006 Rules changes through textual interpretation of the amendments, we instead focus on “electronically stored information” itself, and how the “form” of electronically stored information has informed the “functional” Rules. In other words, we explore how the properties of electronically stored information have shaped both the 2006 amendments to the Rules and courts’ interpretation of the law of electronic discovery. We believe that only by understanding the fundamental properties of “electronically stored information” can businesses understand their e-discovery responsibilities under the new Federal Rules of Civil Procedure and find the practices that will best protect them in the event of litigation.

When looking critically at electronically stored information, certain properties (properties that this article designates the four “P’s” of electronically stored information—electronically stored information is pervasive, problematic, prolific, and permanent) immediately come to the fore.

In Part I, we address the pervasiveness of electronically stored information in modern business and how this pervasiveness has impacted discovery. As commerce has moved into cyberspace, both courts and the Federal Rules shifted their focus towards electronic materials, and litigants now must carefully plan e-discovery. In addition, as electronic materials have become pervasive in the field, electronically stored information has also come to encompass and include more attorney work-product and attorney-client communications, requiring that parties address and plan for issues related to the inadvertent production of privileged materials during litigation.

Part II of this article will look at how discovery of electronically stored information is problematic. As electronically stored information has become pervasive, its very prevalence and plentiful nature has created problems for litigants requesting electronic materials or responding to e-discovery requests. Courts and the federal rules therefore have established norms requiring production only of “reasonably accessible” electronically stored information and frequently requiring requesting parties to shoulder a portion of the financial burden in e-discovery.

Part III of this article will address the prolific nature of electronically stored information—namely that electronically stored information comes in a multitude of forms and increasingly can be sought and produced in numerous ways. With businesses using electronically stored information in so many diverse forms, both courts and the Federal Rules have adapted discovery responsibilities to address the prolific nature of
electronic materials, establishing default rules for the form of production of electronically stored information.

Finally, in Part IV, we discuss the permanent nature of electronically stored information, and how the permanence of electronic materials has led to elaborate rules regarding spoliation. Because electronically stored information can be made permanent, litigating parties now have responsibilities to preserve electronically stored information when litigation is reasonably anticipated. However, maintaining permanent electronically stored information can be prohibitively expensive—companies must therefore establish clear electronic retention policies to retain necessary information and delete nonessential electronically stored information, with the ability to suspend that policy when necessary during litigation.

I. PERVASIVENESS—PLANNING E-DISCOVERY AND ANTICIPATING PROBLEMS WITH PRIVILEGE

Companies now almost universally rely upon electronically stored information such as computer programs and e-mail to track, conduct, and organize the essential functions of their business. In 1999, it was estimated that 93% of all information was being generated in digital form, and the percentage of business information stored electronically is much higher today and still growing. According to Professor Patricia Brumfield Fry, “[t]he entire sales cycle, from bid solicitation, purchase order and acceptance, through shipment and delivery of goods and payment for them, can be effected without the need to produce a single piece of paper. A record of the transaction, from inception through closure, may be stored electronically in a reliable, enduring manner.” Revisions to the Uniform Commercial Code and Uniform Electronic Transactions Act similarly have accelerated the universal adoption of electronically stored information in business, by recognizing electronic commerce and giving electronic signatures and records legal effect and authority.

As electronically stored information has increased in pervasiveness as a tool of modern business, its ubiquity has created problems for litigants engaged in discovery. Two pervasiveness problems have been particularly prominent: (1) managing the overwhelming volume and variety of forms in which electronically stored information may exist, and (2) addressing inadvertent production of privileged materials that may be hidden in the massive volume of electronic data that may contain relevant information.

First, the pervasiveness of electronically stored information has required courts, litigants, and the Rules to be cognizant of the pitfalls uniquely associated with electronic materials when planning and managing litigation. While many equate electronically stored information
with e-mail correspondence, electronically stored information actually encompasses more than the contents of an e-mail inbox. Discoverable electronically stored information can include computer hard drives, magnetic tapes, computer disks, digital tapes, microfilm, and other types of electronic data storage devices. The list of discoverable electronically stored information sources is virtually limitless—financial data and spreadsheets contained in Excel files, Web site materials, PowerPoint presentations to a company’s board of directors, proprietary databases tracking customer data or product information, Blackberrys, portable drives and media, voice mail messages, backup tapes, and even employee home computers used in part for business purposes all come under the purview of e-discovery.

Even with advances in data mining software, production of electronic materials found in so many storage media can be burdensome and costly, requiring the retention of computer consultants and technicians to search electronic storage media for all materials relating to a certain litigation subject. As Mark D. Robins has noted, “the process of discovering and preserving computer evidence can be time consuming and costly, depending upon the size of the computer systems involved and the scope of the discovery sought…. [and] the disruptions posed by such discovery are at least potentially greater than those presented by ordinary discovery (although not necessarily so).…. Furthermore, devoting litigatory resources to the discovery of computer-related evidence can slow down and drive up the expense of litigation, particularly if the parties get bogged down in contentious disputes.”

To manage discovery of the surplus of electronically stored information in modern litigation, the 2006 amendments to the Rules have adopted an approach focused on early planning and disclosure regarding electronic materials. Rules 16(b) and 26(f) direct parties to discuss issues relating to the preservation and production of electronically stored information at their initial planning meeting as well as any scheduling and planning conferences during the course of a lawsuit; the amendments clearly hope that discussion, planning, and cooperation between litigants in regards to e-discovery will result in minimized costs, maximum discovery of relevant information, and conservation of judicial resources. Similarly, Rule 26(a)(1)(B) adds electronically stored information to the materials a party must disclose at the outset of a case when those electronic materials support the party’s claims or defenses. Early notification of the types of electronic materials a party is planning on using to support its claims or defenses allows its opponent to focus its own discovery requests on those same sources, potentially saving time and resources in the pursuit of relevant e-discovery.
In addition to requiring more careful management of the complexities of e-discovery, the pervasiveness of electronically stored information has also increased the potential for inadvertent production of privileged materials. Electronically stored information is voluminous, and when parties have to sift through such large volumes of electronic materials, there is an increased likelihood that attorney-client privileged communications or attorney work product will be produced. As the Committee Notes to the 2006 Amendment to Rule 26(b)(5)(B) note, “[w]hen the review is of electronically stored information, the risk of waiver, and the time and effort required to avoid it, can increase substantially because of the volume of electronically stored information and the difficulty in ensuring that all information to be produced has in fact been reviewed.”

Rule 26(b)(5)(B) represents a response to the risk of inadvertent disclosure of privileged materials brought about by the pervasiveness of electronically stored information. Under Rule 26(b)(5)(B), when a party discovers that it may have inadvertently produced privileged materials, that party “may notify any party that received the information of the [privilege] claim and the basis for it,” and the recipient of the materials must “return, sequester, or destroy the specified information… and may not use or disclose the information until the claim is resolved.” The receiving party also has the right to have the court determine under seal whether the materials are indeed privileged.

The approach of Rule 26(b)(5)(B) is to safeguard litigating parties from the danger of accidentally producing privileged materials in the course of extensive electronic discovery productions by (1) encouraging cooperation and communication between litigants, and (2) restricting the use of allegedly privileged materials a producing party believes were inadvertently produced until a court has an opportunity to pass judgment. Like the amendments to Rules 16(b), 26(f), and 26(a)(1)(B), the amendment to Rule 26(b)(5)(B) is a common sense approach to addressing the problems caused by the pervasiveness of electronically stored information in modern litigation.

II. PROBLEMATIC—“REASONABLY ACCESSIBLE” ELECTRONICALLY STORED INFORMATION AND THE DIVISION OF PRODUCTION COSTS

Aside from the issues posed by the pervasiveness of electronically stored information, electronic materials can be problematic in terms of access for production, with a producing party potentially facing excessive costs to produce archived materials. Not all materials stored within a computer or on a computer server are accessible with equal ease. For example, while e-mails received yesterday may be readily available in
an e-mail inbox, e-mails received five years ago and archived by a computer system may be much more difficult for a litigant to retrieve and produce. In certain cases, the retrieval of electronic data from sources such as network servers and back-up tapes can require specialized skills and techniques, and a “cottage industry of companies assisting with the production and retrieval of electronic data litigation has recently arisen.”11

The numerous locations where electronic data can be stored, its ability to be modified countless times by multiple users, and its permanence and resistance to permanent deletion (as we shall see in Part IV, infra) can make electronic discovery costly, complicated, and time-consuming.12

The problematic characteristics of electronically stored information can be best illustrated by comparing e-discovery to paper discovery. In discovery of paper documents, the producing party’s task is straightforward: search through all of the company’s paper files, identify any paper files that are responsive and nonprivileged, and produce those to the requesting party. Because of the complex archiving processes employed by computers, network servers, and back-up tape systems, litigants confronted with a discovery request for electronically stored materials must answer a preliminary question before commencing their search for responsive materials: just how far does my search for discoverable material need to extend into the virtually limitless electronic storage of my computer network and archiving system?

The scope of electronically stored information that a party must search in response to e-discovery requests and the allocation of costs for producing hard-to-retrieve electronically stored information have been the subject of many disputes in reported cases. Prior to the 2006 amendments to the Rules, some courts refused to treat electronically stored information differently from paper files and were unsympathetic when parties attempted to avoid producing relevant electronically stored information based solely on the difficulty or expense involved in retrieving it. In one case, In re Brand Name Prescription Drugs Antitrust Litigation,13 a court recognized that the search of 30 million pages of e-mail stored on back-up tapes by a party in order to respond to discovery requests would be expensive, but nonetheless ordered that the production had to proceed because the party’s choice to employ an electronic-storage system made the potential need for retrieval in litigation and otherwise an “ordinary and foreseeable risk.”14

In 2003, the Honorable Judge Shira A. Scheindlin of the U.S. District Court for the Southern District of New York adopted a less draconian and more balanced approach to establishing the scope of a producing party’s e-discovery responsibilities in Zubulake v. UBS Warburg LLC (Zubulake I).15 In Zubulake I, Judge Scheindlin looked to seven criteria to decide
whether a producing party must produce electronically stored information that was archived on back-up tapes and thus burdensome to produce:

1. The extent to which the request is specifically tailored to discover relevant information; 2. The availability of such information from other sources; 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 part 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.16

The 2006 amendments to the Rules substantially adopted Zubulake I’s balanced approach to addressing the problematic scope of a producing party’s responsibilities to search and produce electronic materials. Under Rule 26(b)(2)(B), electronically stored information is categorized into two classes—(1) electronically stored information that is “reasonably accessible,” which a producing party must search and produce, and (2) electronically stored information that is “not reasonably accessible because of undue burden or cost.” The latter “not reasonably accessible” category of electronic information must be identified by the producing party, but the producing party is not required to produce it unless the requesting litigant “shows good cause” that the electronic materials are relevant and valuable to the litigation.17 Furthermore, even if the court requires the producing party to produce such materials, the court may “specify conditions for the discovery,” such as sampling of the electronic data or other cost-limiting tactics.

The allocations of costs for producing problematic electronically stored information also have evolved over time. Prior to 2006, courts used a number of approaches, with some adhering to the common-law presumption that a party must bear the costs of responding to all discovery requests,18 other courts requiring the requesting party to bear part or all of the costs,19 and still other courts cutting back the scope of requested discovery before making a producing party bear the cost of complying with the remaining discovery requests.20 Many courts adopted a balancing test. For example, after employing the seven-factor test described in Zubulake I and ordering that some backup tapes be produced, Judge Scheindlin in Zubulake III allocated 75% of the costs of restoring all the backup tapes to the producing party on the grounds that the discovery request was reasonably tailored to discover relevant evidence that was not otherwise available but allocated the remaining 25% of the costs to the requesting party on the grounds that the requesting party had not shown there was indispensable evidence on the backup tapes.21
The 2006 amendment to Rule 26(b)(2)(B) adopted Judge Scheindlin’s balancing approach with respect to cost sharing for electronic discovery, stating that courts may “specify conditions for the discovery” including cost sharing between the producing and requesting party. Indeed, since December 1, 2006, courts have used their power to apportion costs as a basis for ordering discovery into “not reasonably accessible” electronically stored information. For example, in Parkdale America, LLC v. Travelers Cas. and Sur. Co. of America, Inc., the court ordered plaintiffs to retrieve and review emails for responsiveness and privilege, despite a cost of $20,000 to do so, because “the Court’s ability to apportion costs between the parties in appropriate cases” meant that there was no undue burden or cost for plaintiffs to do so. By adopting Rule 26’s approach to the production and cost allocation of “not reasonably accessible” electronic materials, courts and the Rules have addressed the problematic characteristic of electronically stored materials in a fashion that balances the need to discover relevant information with the cost and time concerns inherent in weeding thru electronic materials.

III. PROLIFIC—FORMS OF PRODUCING AND REQUESTING ELECTRONICALLY STORED INFORMATION

In addition to being pervasive and problematic, electronically stored information is prolific, in that electronic data comes in a vast number of different forms. Electronic materials are maintained and can be produced in a number of fashions and forms. For example, e-mail can exist in multiple iterations and multiple locations within a business, such as on network servers, the hard drives of message recipients and senders, back-up tapes, home or laptop computers used to access e-mail remotely, and also in hard-copy form when messages were printed. As Ian C. Bal-lon has noted specifically with regard to e-mail, the prolific nature of electronically stored information is partially the result of the fact that a single file (or e-mail message) may appear as multiple separate documents if it has been forwarded to third parties, saved to multiple computers or network folders, or printed by multiple users.

The prolific nature of electronic data forms a key part of electronically stored information’s utility to businesses. Businesses can update sales databases and product information in real time, keeping everyone in the business constantly updated regardless of how remote they are from the business’ central location. Multiple employees can edit and manipulate the same data in different ways simultaneously, while financial data maintained in Excel spreadsheets can be sorted, manipulated, and even turned into visual graphs or pie charts as business users see fit.
These prolific uses and forms of electronic data are simply absent in paper materials.

While useful in the business world, the prolific nature of electronically stored information presents daunting challenges in discovery, where decisions as to how to request or produce electronic materials can be crucial. What forms of electronically stored information are most useful for a requesting party? Conversely, what is the easiest or preferable form for producing prolific electronically stored information in response to a discovery request?

To address the prolific forms that electronically stored information comes in, the 2006 amendments to the Rules established a series of default rules and options regarding the form of producing electronic materials. First, Rule 34(b)(2)(E)(ii) states that if a discovery “request does not specify a form for producing electronically stored information, a party must produce it in a form or forms which it is ordinarily maintained or in a reasonably usable form or forms.” That default rule promotes efficiency (since it may be easiest to produce electronically stored information in the form the producing party normally keeps it in) and eliminates any confusion as to how a producing party should produce electronic materials when no form is specified. Rule 34(b)(2)(E)(ii) also has the added bonus of offering guidelines to courts in assessing whether a request for electronic information in a particular form is excessively burdensome—the more idiosyncratic and dissimilar a discovery request is to the form electronic data is normally kept in, the less likely a judge is to require production of the data in that form.

Second, Rule 34(b)(1)(C) affords the requesting party the right to “specify the form or forms in which electronically stored information is to be produced.” Requesting parties, therefore, can use the prolific nature of electronic discovery to their advantage, by requesting data in a native-format retaining metadata (including edits to the electronic file, the identity and times in which the file was accessed, and/or hidden fields in files such as Excel spreadsheets) and in a form that is searchable, easily reproduced, and thus conducive for litigation planning and use. The power to specify the form of electronically stored information is limited, however—Rule 34(b)(2)(D) provides responding parties the chance to object to a request for electronically stored information in a particular form, subject to court review (although the producing party must specify an alternate production form for the electronic materials).

Finally, prior to the 2006 amendments courts struggled with requests to produce documents in multiple forms, with cases coming out in different directions. For example, in Northern Crossarm Co., Inc. v. Chemical Specialties, Inc.,23 the court denied a request that defendant produce
65,000 e-mails in electronic form after the defendant provided those same e-mails in paper.26 By contrast, in In re Honeywell International, Inc. Securities Litigation,27 the court granted a motion to compel a non-party accountant to produce electronic versions of certain documents, even though the accountant had produced hard copies, because the hard copies did not represent how the documents were kept in the normal course of business.28

Rule 34(b)(2)(E)(iii) should resolve the confusion. Under Rule 34(b)(2)(E)(iii), a party “need not produce the same electronically stored information in more than one form,” and thus redundant, repetitive, and costly production of electronically stored information in multiple forms promises now, thankfully, to be a relic of the past. Thanks to the 2006 amendments, Rule 34 resolves the challenges that electronically stored information’s prolific nature presents and provides litigants with more clarity as to the form of production, the power to request electronic data in its most useful and probative form, and efficiency in preventing production in multiple forms.

IV. PERMANENT—PREVENTING SPOILATION AND CREATING A RETENTION PLAN FOR ELECTRONICALLY STORED INFORMATION

Finally, one of the most important—and troublesome—characteristics of electronically stored information is that it is permanent. Many e-mail systems routinely back-up their data, and because deletion merely marks a file for overwriting but does not immediately remove the data from the storage medium, computer-based materials and documents may exist on a computer system long after their authors believe that they are gone. In addition, many companies employ shared server systems for electronic files and e-mails (which themselves are routinely backed-up on a daily, weekly, or monthly basis), meaning that deletion from one computer does not permanently delete a file from the company’s overall computer server system. Even when electronic data is destroyed (every time a back-up tape is reused, for example), some operating systems create logs showing the usage of the system and record what files have been on a system in the past, creating new permanent electronic evidence of the deletion of a file.

While the permanence of electronically stored information offers numerous benefits for companies in terms of the ability to access and analyze old data, or protection of the company’s records from disaster through remote back-up servers, the permanent nature of electronically stored information also creates pitfalls for companies in litigation and discovery. Because electronically stored information can be saved,
stored, and archived, electronic data is theoretically permanent and, in principle, could be available forever for discovery in litigation. However, in practice, archiving and retaining the pervasive amount of electronically stored information generated by businesses each day is cost-prohibitive, time-consuming, and simply impractical.

The theoretical permanence of electronically stored information creates havoc in terms of spoliation—the destruction of discoverable evidence in violation of a duty to preserve that evidence. Spoliation is a serious issue in litigation, because under Rule 37(b) courts may impose any variety of sanctions, including outcome-determinative sanctions, against a party who fails to comply with discovery or who destroys relevant documents or information. How then can a litigant avoid the consequences of spoliation, or the implication that spoliation has occurred in connection with its electronically stored information, when computer systems routinely reuse back-up tapes or overwrite temporary files?

The Rules and courts have addressed that question by guiding companies and litigants towards two prophylactic best practices: (1) having a clear electronic document retention policy in the ordinary course of business, and (2) the ability to suspend or alter that retention policy to preserve discoverable data when litigation is reasonably anticipated. While the question of when litigation is “reasonably anticipated” is one of fierce academic debate, a company’s duty to have a clear retention/destruction policy for electronic data that can be modified for litigation discovery purposes has been clearly established by courts and the Rules.

Prior to the 2006 amendments, Judge Scheindlin summarized a party’s obligation not to destroy evidence by noting that “[o]nce a party reasonably anticipates litigation, it must suspend its routine document retention/destruction policy and put in place a ‘litigation hold’ to ensure the preservation of relevant documents.” According to Judge Scheindlin, the “litigation hold” need not extend to “inaccessible backup tapes” used only for disaster recovery, but should include such tapes if they are “actively used for litigation retrieval,” or if the producing party could reasonably identify tapes “storing the documents of ‘key players’ to the existing or threatened litigation.” Thus, provided that a party employed an electronic document retention policy and could suspend it when litigation occurred, it would be difficult (albeit not impossible, depending on the factual circumstances) for a requesting party to prove that spoliation had occurred merely because it was discovered that relevant electronic data was deleted—if the materials were deleted pursuant to the document retention policy prior to litigation being “reasonably anticipated,” there is a strong presumption that the deletion of the materials was in “good faith” and not sanctionable as spoliation.
The 2006 amendments to Rule 37(f) codified Judge Scheindlin’s analysis. Rule 37(f) now states that “[a]bsent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system.” By limiting a court’s ability to impose sanctions for the “good-faith” loss of electronic data, Rule 37(f) recognizes that electronic information, while theoretically permanent and capable of being preserved for discovery, is in practice routinely deleted and lost in the operation of an electronic data retention system. Under Rule 37(f), parties that employ electronic information retention/deletion policies have little to fear in regards to spoliation from the “good faith” operation from that system, provided that they suspend the system and preserve information when litigation is reasonably anticipated.

CONCLUSION

Electronically stored information and technological improvements in computer systems have provided many benefits to businesses. The pervasive and prolific nature of electronic data has made real-time tracking and updating of business data possible, increasing efficiency and communication within a business and positively impacting productivity, while simultaneously offering flexibility in understanding and presenting data. Even though electronic data can be problematic and require spending on technology and personnel to ensure its upkeep, electronic data’s permanence has given businesses the ability to steadily track performance and product information, increasing institutional knowledge and allowing businesses to better plan for the future.

These same traits of electronically stored information—its pervasiveness, its problematic nature, its prolific forms, and its permanence—have, however, caused problems in litigation and discovery. The 2006 amendments to the Federal Rules of Civil Procedure addressed these characteristics of electronic data, clarifying the responsibilities of litigants and ensuring that e-discovery, while difficult, will nonetheless be as efficient and productive as possible.

NOTES

1. The views expressed in this article are those of the authors alone and do not necessarily reflect the views of Jenner & Block LLP or any other attorneys of that firm. The authors gratefully acknowledge the assistance of Suzanne J. Prysak, Christopher M. O’Connor, and Rachel A. Jeris on prior research that influenced this article.


6. U.C.C. § 1-201(31) (2004); UETA §2(13) (1999). Rather than use the term “electronically stored information,” both the UCC and UETA use “record” to denote information stored in any storage medium, electronic or otherwise.

7. In addition to the proliferation of storage media containing electronic materials, the multiple forms in which electronically stored information can be produced creates a separate issue. That topic is discussed in Part II, infra.


10. Robins, Computers and the Discovery of Evidence—A New Dimension to Civil Procedure, 17 J. Marshall J. Computer & Info. L. 411, 452 (1999); see also Gates Rubber Co. v. Bando Chemical Industries, Ltd., 167 F.R.D. 90 (D. Colo. 1996) (imposing sanctions on plaintiff after several years and several million dollars were wasted by plaintiff’s use of a “Site Inspection Order” to hire technicians to inspect defendants’ facilities and hard drives in a failed attempt to prove defendants had intentionally undertaken a campaign to destroy documents and evidence related to the case).


17. The Committee Notes to Rule 26(b)(2) adopt a seven-criteria test that is almost identical to the Zubulake I seven-factor test to determine whether “good cause” exists to require production of not reasonably accessible electronically stored information: (1) the specificity of the discovery request; (2) the quantity of information available from other and more easily accessed sources; (3) the failure to produce relevant information that seems likely to have existed but is no longer available on more easily accessed
sources; (4) the likelihood of finding relevant, responsive information that cannot be obtained from other, more easily accessed sources; (5) predictions as to the importance and usefulness of the further information; (6) the importance of the issues at stake in the litigation; and (7) the parties’ resources.


23. Parkdale, 2007 WL 4165247 at *12. Plaintiffs were required to produce and review the e-mails in question, but were to confer with defendants to reach an agreement to apportion costs. Parkdale, 2007 WL 4165247 at *14.


26. See also Williams v. Owens-Illinois, Inc., 665 F.2d 918, 27 Fair Empl. Prac. Cas. (BNA) 1273, 28 Fair Empl. Prac. Cas. (BNA) 1820, 28 Empl. Prac. Dec. (CCH) P 32404, 33 Fed. R. Serv. 2d 424 (9th Cir. 1982), opinion modified on denial of reh’g, Williams v. Owens-Illinois, Inc., 1982 WL 308873 (9th Cir. 1982) (refusing to allow discovery of computer tapes when discovery was only sought to verify the accuracy of data provided in paper form by defendant); McNally Tunneling Corp. v. City of Evanston, Illinois, 2001 WL 1568879 (N.D. Ill. 2001) (denial of a motion to compel production of e-mail and computer files where hard-copy versions had been produced); Malone v. Ford Motor Co., 29 Va. Cir. 456, 1992 WL 885097 at *3 (1992) (denial of a motion to compel production of an electronic searchable database where hard copies were already available).


28. See also U.S. v. Davey, 543 F.2d 996, 76-2 U.S. Tax Cas. (CCH) P 9724, 38 A.F.T.R.2d 76-5889 (2d Cir. 1976) (IRS was entitled to production of computer tapes and did not have to rely on sworn assertion of defendant that a computer print-out accurately reproduced the records on those tapes); Momah v. Albert Einstein Medical Center, 164 F.R.D. 412, 417 (E.D. Pa. 1996) (plaintiff could obtain discovery into computer storage media to demonstrate that hard copy documents had been anteated); Zhou v. Pittsburgh State University, 2003 WL 1905988 (D. Kan. 2003) (granting a motion to compel the production of salary data in electronic form, even though typewritten documents containing that information had already been produced).


32. See Zubulake v. UBS Warburg LLC, 220 F.R.D. 212, 218, 92 Fair Empl. Prac. Cas. (BNA) 1539 (S.D. N.Y. 2003) (Zubulake IV) (“Once a party reasonably anticipates litigation, it must suspend its routine document retention/destruction policy and put in place a “litigation hold” to ensure the preservation of relevant documents”).


34. In a later decision, Judge Scheindlin enunciated further steps that counsel and clients must take to preserve evidence and avoid an implication of spoliation, including: (1) periodically reissuing the “litigation hold” to employees; (2) communicating the preservation duty directly to “key players”; (3) instructing employees to keep electronic copies of active files and to preserve back-up copies; and (4) monitoring compliance. Zubulake v. UBS Warburg LLC, 229 F.R.D. 422, 433-35, 94 Fair Empl. Prac. Cas. (BNA) 1, 85 Empl. Prac. Dec. (CCH) P 41728 (S.D. N.Y. 2004) (Zubulake V).