COMMENT

The Growth of Cost-Shifting in Response to the Rising Cost and Importance of Computerized Data in Litigation*

I. Introduction

The first years of the twenty-first century have seen the continued emergence of computers as the medium of modern data creation and storage. The dominance of electronic documents in America has necessitated a definition of how discovery rules apply to these documents. As Dean Gonsowski, the director of litigation strategy for a Denver e-discovery services company, states, there is a “wild wild West” mentality with respect to electronic discovery efforts.1 In other words, there is a feeling that preservation of electronic documents is required, but courts have provided little guidance.2

A. Typical Situation

Imagine that your client worked for a large corporation. After working for this corporation for several years, the client began feeling threatened by harassing e-mails routinely sent to the client’s computer at work. The e-mails contained pornographic images and sexual language. These e-mails are relevant, in fact, crucial, to your client’s cause of action. The alleged e-mails were sent several years ago, however, and the corporation in question has lawfully updated its computer systems, and maintains records of correspondence on outdated “backup tapes.” To prove harassment, these documents must be requested, as they are highly unlikely to be found anywhere else. But the e-mails could be anywhere — or nowhere — on the backup tapes. Not wanting to miss anything, you request that the corporation produce all e-mails containing certain search terms over the course of your client’s employment.

Now imagine that you represent the corporation. While maintaining that no harassment took place, you want to make a good faith effort to produce any documents that are requested by the opposing party. The corporation has properly followed document retention procedures, and with a proper search,
you can prove or disprove the existence of the pornographic material. Because of the broad nature of the plaintiff’s document requests, however, the cost of conducting this search and producing the documents is significant compared to the damages requested by the plaintiff in the case. A multi-office, exhaustive search of all documents that might be relevant would cost millions of dollars. It would make good economic sense to try to settle the case, despite your belief that the case has little merit, rather than producing the documents in question.

Such was the case in Wiginton v. CB Richard Ellis, Inc.3 In Wiginton, the U.S. District Court for the Northern District of Illinois had to evaluate the nature of the discovery requests in light of the discovery rules in the Federal Rules of Civil Procedure (Federal Rules) and precedent in electronic discovery cases.4 Specifically, the court examined the viability of “cost-shifting,” that is, shifting the cost of production of inaccessible electronic data from the producing party to the requesting party.5 Its decision made an effort to comport with case law and the Federal Rules, but shows how the lack of guidance in cost-shifting cases can result in inconsistent judicial rule-crafting and confusion among parties concerning the duty to preserve and produce electronic data.

B. Electronic Discovery in General

Electronic documents have created challenges for all aspects of the discovery process, from the initial disclosures required by Federal Rule 26(a)(1)6 to the sanctions that courts impose upon parties and attorneys who obstruct another party’s access to discoverable materials.7 The phenomenon has caused Congress to reevaluate and expand the definition of “document” to include electronic data compilations.8 The question of who bears the cost in electronic discovery disputes, however, has not specifically been addressed. While the general presumption supplied by the Federal Rules is that the producing party bears the expense and burden of production, the question

4. Id. at 572.
5. Id.
6. FED. R. CIV. P. 26(a)(1). These initial disclosures include individuals with discoverable information, data that will be used to support claims, etc.
8. FED. R. CIV. P. 34 advisory committee’s note.
remains as to how courts should apply the Federal Rules to the cost of burdensome but necessary electronic discovery requests.  

Early precedent suggested that a party who chose to store documents in electronic form should bear the risk and expense of having to produce that data. More recent cases have suggested, however, that if requesting parties expect to receive files that are difficult and costly for responding parties to produce, they should be forced to bear some of the costs. These more recent cases suggest balancing tests with multiple parts to determine the necessity of cost-shifting. In 2003, the Congressional Committee on Rules of Practice and Procedure proposed changes to the Federal Rules to address more clearly electronic discovery issues. Although these proposed amendments confront several problem areas of electronic discovery, the proposed changes fail to specifically settle the issue of cost-shifting.

Because the Federal Rules do not appear likely to give guidelines for cost-shifting in electronic discovery cases any time soon, it is important to understand the federal guidelines as set forth in recent cases. A series of tests, each modified by the subsequent case, have been developed at the district court level. This comment examines these tests as applied by federal courts in light of both the Federal Rules and the recent line of case law. By considering both the current state of case law and proposed amendments to the Federal Rules, this comment will give attorneys practicing in federal court a

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14. The proposed amendments address five related areas:
   (a) early attention to issues relating to electronic discovery, including the form of production, preservation of electronically stored information, and problems of reviewing electronically stored information for privilege; (b) discovery of electronically stored information that is not reasonably accessible; (c) the assertion of privilege after production; (d) the application of Rules 33 and 34 to electronically stored information; and (e) a limit on sanctions under Rule 37 for the loss of electronically stored information as a result of the routine operation of computer systems.

   Id. at 5-6.

comprehensive survey of the standard for shifting the cost of discovery as well as tips for avoiding having to pay for the retrieval of offline electronic documents, as either a producing or requesting party.

Part II gives a general overview of electronic data, including the unique qualities of electronic data and the problems that those qualities cause, and presents a fact pattern to illustrate the typical problems associated with receiving electronic discovery requests. Part III places cost-shifting against the backdrop of the Federal Rules, and discusses how case law has applied these rules from the earliest electronic discovery cases to the commonly used tests of Rowe Entertainment, Inc. v. William Morris Agency, Inc.\(^{16}\) and Zubulake v. UBS Warburg LLC.\(^{17}\) Part IV uses Wiginton v. CB Richard Ellis, Inc.\(^{18}\) as a model electronic discovery case and analyzes the application of precedent and the Federal Rules to its facts. Part V examines the proposed changes to the Federal Rules and weighs the benefits of updating Federal Rules 26 and 34 to address cost-shifting against the current standard set forth by Rowe, Zubulake, and Wiginton. Finally, Part VI discusses document retention as a result of the cost-shifting analysis; specifically, this section considers how a responding party can avoid having to pay for the cost of deleted files while complying with document retention standards, and by contrast, how a requesting party can retrieve helpful documents without incurring the shifted costs.

II. The Complications of Electronic Discovery

A. What the Federal Rules Address

When Congress introduced the Federal Rules in 1937, there was no contemplation of electronic information.\(^{19}\) As early as 1970, however, Congress recognized that the increasing use of nonprint media posed a problem with the discovery rules.\(^{20}\) The 1970 amendment to Rule 34 of the Federal Rules suggested that the term “document” is inclusive enough to encompass changing technology.\(^{21}\) The change, contained in the advisory notes supporting Rule 34, clarified that the Rule allows for the discovery of

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17. 217 F.R.D. 309.  
19. Waxse, supra note 7, at 50.  
21. FED. R. CIV. P. 34(a) advisory committee’s note. Rule 34 deals with the production of documents for discovery purposes. As technology evolves, the scope of the definition of “document” is crucial in determining the applicability of Rule 34 to electronic data.
“electronics data compilations.” The new rule specifically provided for “writings, drawings, graphs, charts . . . and other data compilations from which information can be obtained.” Further, the amended Rule contemplated that it may be necessary for the requesting party to use the other party’s computer to disseminate the data, or even for the responding party to make printouts of the requested data.

Recent case law has suggested that when documents are produced in hard copy form, the electronic form of that data is discoverable if it exists. In fact, courts go so far to say, “[I]t is black letter law that computerized data is discoverable if relevant.” This framework, coupled with the 1970 amendment to Rule 34, gives rise to increasing discovery costs, as it now appears that a requesting party can request data in both electronic and paper form. Despite the ease with which documents can be sorted and produced in an electronic system, the sheer volume of electronically stored data can increase costs. Civil litigation between two large corporate parties can generate the equivalent of approximately one hundred million pages in discovery documents. To produce these documents in paper form would require each side to use over six thousand trees, and manual review would require thirty person-years of review by each party.

Because electronic discovery is conducted under traditional rules of procedure, the reasonableness restrictions of these rules apply to electronic media. Under Federal Rule 26(b)(2), courts may limit the extent of the use of discovery methods, even if otherwise permitted, upon determining that one of three situations exists. First, discovery may be limited when the request is “unreasonably cumulative or duplicative,” or the requested information is available from another source that is “more convenient, less burdensome, or

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22. Id.
23. FED. R. CIV. P. 34(a).
24. Id.
26. Id. at *2.
27. This is subject to the usual reasonableness restrictions. “Rule 34 permits discovery of electronically or digitally stored information provided, of course, that it meets the relevance test articulated in the rules governing pretrial discovery and there is no other proper basis for denying or restricting the discovery sought.” Cornell Research Found., Inc., v. Hewlett Packard Co., 223 F.R.D. 55, 73 (N.D.N.Y. 2003).
29. Id.
30. FED. R. CIV. P. 26(b)(2).
less expensive.\textsuperscript{31} Second, limitations can be invoked when the party seeking discovery has already had “ample opportunity by discovery in the action to obtain the information sought.”\textsuperscript{32} Third, the burden or expense of the proposed discovery cannot “outweigh its likely benefit,” taking into account factors such as the amount in controversy, the parties’ resources, and the importance of issues at stake in the litigation.\textsuperscript{33} Thus, a party who believes that the expense of discovery or the burden of production “outweighs the benefit of the discovery” should invoke a provision of Federal Rule 26(b)(2).\textsuperscript{34}

Generally, courts have held that a responding party is presumed to be able to bear the costs of discovery.\textsuperscript{35} Some scholars have pointed out that this presumption is appropriate for paper documents because the responding party has found that the utility of the document validates the cost of retention.\textsuperscript{36} The document has utility, as evidenced by its retention, and retrieval should be a duty of the responding party, “whether for its own needs or in response to a discovery request.”\textsuperscript{37} The reasons for storing electronic data, however, may be related to the low cost of storage. An electronic document may be kept simply because there “is no compelling reason to discard it.”\textsuperscript{38} A closer look at the problems associated with electronic documents reveals that responding parties have many valid reasons to believe that the exceptions given in Rule 26(b)(2) apply to their electronic documents.

\textbf{B. The Problem of Ghost-Data}

Ninety-two percent of all new documents are now stored electronically.\textsuperscript{39} Moreover, one commentator estimates that 90 to 95\% of all information is stored electronically.\textsuperscript{40} Electronic data poses a unique set of problems for producing parties because it has several qualities that are very different from its paper counterpart.

\begin{itemize}
  \item \textsuperscript{31} \textsc{FED. R. CIV. P.} 26(b)(2)(I).
  \item \textsuperscript{32} \textsc{FED. R. CIV. P.} 26(b)(2)(ii).
  \item \textsuperscript{33} \textsc{FED. R. CIV. P.} 26(b)(2)(iii).
  \item \textsuperscript{34} Stephen D. Willinger & Robin M. Wilson, \textit{Negotiating the Minefields of Electronic Discovery}, 10 \textsc{Rich. J.L. & Tech.} 52, ¶ 9 (2004), \url{http://law.richmond.edu/jolt/v10i5/article52.pdf}.
  \item \textsuperscript{35} Oppenheimer Fund, Inc. v. Sanders, 437 U.S. 340, 358 (1978).
  \item \textsuperscript{36} Willinger & Wilson, \textit{supra} note 34, at 56.
  \item \textsuperscript{37} Rowe Entm’t, Inc. v. William Morris Agency, Inc., 205 F.R.D. 421, 429 (S.D.N.Y. 2002); \textit{see also} Willinger & Wilson, \textit{supra} note 34, at 56.
  \item \textsuperscript{38} Rowe, 205 F.R.D. at 429.
  \item \textsuperscript{39} Brownstone, \textit{supra} note 28, ¶ 6.
\end{itemize}
Unlike a paper memorandum, which is read and discarded, an electronic document is often left on a computer’s hard drive even if its existence serves no further utility.\(^\text{41}\) Thus, large amounts of discoverable material may exist on a computer’s hard drive even though an equivalent paper document might have been properly destroyed in a document retention scheme.

Even after a file is deleted, “ghost-data” may exist on a computer’s hard drive.\(^\text{42}\) “Ghost-data” consists of blocks of memory that are marked for overwriting but are not actually removed from the hard drive.\(^\text{43}\) In \textit{Zubulake v. UBS Warburg LLC}, the U.S. District Court for the Southern District of New York discussed the troubling nature of these file fragments.\(^\text{44}\) The court noted, “As files are erased, their clusters are made available again as free space. Eventually, some newly created files become larger than the remaining contiguous free space. These files are then broken up and randomly placed throughout the disk.”\(^\text{45}\) Thus, parties may reasonably believe that files have been deleted only to find these files have been discovered by an opponent in litigation and have been used to obtain judgment against them. Often, ghost-data is corrupt, only good for identification purposes after significant processing.\(^\text{46}\) Ghost-data can also be quite useful, however. For example, Kenneth Starr’s team discovered the “talking points” document in Monica Lewinsky’s computer, which was a document that Ms. Lewinsky had deleted.\(^\text{47}\) The allure of finding a “smoking gun” e-mail or memo in a deleted file makes requesting the production of deleted files contained on hard drives or servers and backup tapes necessary.\(^\text{48}\) It is now well-established that despite deletion being a signal that a document is intended for destruction, a deleted computer file is discoverable.\(^\text{49}\)

In addition to the problems posed by deleted files, an opposing party in litigation will often request the production of backup tapes. These tapes are routinely updated by companies in case of a catastrophic system failure that

\(^{41}\) Rowe, 205 F.R.D. at 429 (“Information is retained not because it is expected to be used, but because there is no compelling reason to discard it.”).


\(^{43}\) Id.


\(^{45}\) Id. at 319.

\(^{46}\) Id.

\(^{47}\) Scheindlin & Rabkin, supra note 20, at 329. If this deleted memo, which essentially encouraged Monica Lewinsky to lie, was from Bill Clinton, he could then be found guilty of obstruction of justice.

\(^{48}\) Id.

\(^{49}\) \textit{Deleted Computer Files — Retrieval — Court-Appointed Expert}, \textit{FED. LITIGATOR} (West Group), Feb. 2003, at 44.
would require complete reinstallation of files. In *Zubulake I*, Judge Shira Scheindlin defined a backup tape as a “device, like a tape recorder, that reads data from and writes it onto a tape.”* These devices can store several gigabytes of information. One scholar summarized the problem posed by these backup tapes by stating:

> Although the cost of back-up tapes themselves is relatively small, the cost of restoring, reviewing, and extracting responsive information from them can run into tens of thousands of dollars. Typically, there is no directory; thus, only once back-up tapes are “restored” and the contents indexed can the underlying information be searched, extracted, and/or manipulated. Given that backed up data must not only be indexed but also decompressed, the restoration process is typically lengthy and costly.

With high restoration costs but potentially relevant and probative information, ghost-data will be the source of many electronic discovery disputes. The remainder of this section discusses general properties of electronic documents that make the documents more attractive than their paper counterparts.

C. General Properties of Electronic Documents

While ghost-data and the routine duplication of electronic documents causes headaches in searches, three properties make these documents more valuable to a party in litigation than the paper version of the same document: the existence of meta-data that reveals information about the document’s authors, the naturally informal and duplicative nature of electronic personal communication, and the ability to run topic and word searches on a large set of documents in order to find relevant information. Despite these advantages, each of these inherently make electronic data costly to produce.

1. Meta-data

Meta-data is “data about data.” When a paper document is requested under Federal Rule 34, the only information that the requesting party receives

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52. *Id.*
is information that can be inferred from the paper document. An electronic document, however, contains background information, including the author’s name, previous versions of the file, and the time at which the file was created and updated. This information can be very valuable in litigation but can also be expensive to produce.

2. Informality and Duplicity

E-mail and other forms of electronic communication, such as text messaging and instant messaging, can be prepared and sent in less time than traditional paper memorandum. Further, the very process of sending an e-mail duplicates the document, as a copy remains on the computer of both the sender and the recipient, if not the e-mail server itself. It is not surprising that electronic communication may also prove less formal than its paper counterpart. In one report, a lawsuit for sexual harassment settled after the plaintiff discovered an e-mail from the defendant company’s president ordering the head of personnel to “[g]et rid of that tight-assed bitch.”

While the duplicity of e-mail may seem to make production of electronic data less costly because of its existence in multiple places, this duplication gives rise to the possibility that a copy exists in an unexpected location. Therefore, when a requesting party insists that an e-mail exists, that party may insist on searching every available database for the e-mail in question. Depending on the age of the deleted document, the machines that contain the document as “ghost-data” may now be obsolete and either used for rudimentary purposes or disposed of entirely. Searching multiple databases is more costly, both in terms of labor required and system downtime because of the search.

3. Ease of Search

Although searching for a file on a personal computer may seem simple, when corporate servers that represent data from hundreds or thousands of
computers are involved, searching for relevant files becomes more complicated. Companies are hired to conduct discovery on network servers, and use search software to look for “key terms” that may indicate a document’s relevance to litigation. In one such investigation, the searching company used eight “terms,” finding over 17,000 pertinent documents on one of ninety-four tapes provided by the responding party. The court pointed out that one e-mail sent to one person would register as two hits, once for the recipient’s inbox and another for the sender’s outbox. After the searching company “de-duplicated” the responding files, the number of relevant files was cut in half.

III. The Beginnings of a Cost-Shifting Test

A. Roots of Electronic Discovery Cost-Shifting Disputes

As early as 1977, U.S. courts made clear “[t]hat the 1970 amendments to the Federal Rules rendered Rule 34 specifically applicable” to the production of documents discoverable in computerized form. The U.S. Court of Appeals for the Second Circuit noted that Rule 34 “appears to focus on putting the data into a form intelligible to the discoverer so he can then study or employ it.” In 1996, the U.S. District Court for the Southern District of New York held in *Anti-Monopoly, Inc. v. Hasbro, Inc.* that a requesting plaintiff would have to bear the costs of a producing defendant because of the burden of producing electronic data. The plaintiff contended that the defendant should be forced to produce the data processing records requested and, if the records were difficult to sift through, write a program to extract the information that the plaintiffs sought. The plaintiff further contended that its relative economic position demanded that the court place the $5000 burden for this discovery on the corporate defendant. The court held that these were

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60. One such document retrieval system, run by Kroll’s Ontrack and “EDV” programs, was used in *Wiginton v. CB Richard Ellis, Inc.*, 229 F.R.D. 568, 570 (N.D. Ill. 2004).
61. *Id.* at 570-71.
62. *Id.* at 571.
63. *Id.*
65. *Id.* at 642 n.7.
67. *Id.* at *2.
68. *Id.*
69. *Id.*
ineffective arguments and that the burden of retrieving the precise data sought by the plaintiff would be shifted from the defendant to the plaintiff. 

Within six months of the Hasbro decision, the U.S. District Court for the Southern District of Illinois, in In re Brand Name Prescription Drugs Antitrust Litigation, came to an opposite conclusion regarding the burden of difficult retrieval processes. In this case, the defendant asked the court to force the plaintiff to bear the cost of searching "e-mail data for names of particular individuals and . . . elimina[ing] duplicate messages." The estimated cost for this procedure was $50,000 to $70,000. In direct contrast to Hasbro, the court determined that "if a party chooses an electronic storage method, the necessity for a retrieval program or method is an ordinary and foreseeable risk." Today, a mere ten years after In re Brand Name, the suggestion that electronic storage is a "choice" sounds strange in light of the move to almost exclusively electronic storage. In fact, this decision has been criticized as inapplicable to the electronic world in which we now live. Consequently, courts responded quickly to formulate balancing tests that would adequately consider the cost and burden associated with producing electronic data.

In McPeek v. Ashcroft, the U.S. District Court for the District of Columbia attacked the In re Brand Name decision directly. The McPeek court contended that there is an emerging judicial rationale that "producing backup tapes is a cost of doing business in the computer age." The court further suggested that it is impossible to enter any office that is not using a complicated electronic data storage system. To suggest that companies have "a choice" in the storage system is simply unreasonable, the court reasoned, like using "quill pens" to store data. Thus, the McPeek court, when faced with a similar complicated and expensive data retrieval situation, examined cost-shifting options. First, the court contemplated forcing the producing

70. Id.
72. Id. at *3.
73. Id. at *1.
74. Id.
75. Id. at *2.
76. "[E]ven if this principle is unassailable in the context of paper records, it does not translate well into the realm of electronic data." Rowe Entm't, Inc. v. William Morris Agency, Inc., 205 F.R.D. 421, 429 (S.D.N.Y. 2002).
78. Id. at 33-34.
79. Id. at 33.
80. Id.
81. Id.
party to bear the entire cost of restoring the data into a form that would be searchable by the requesting party.\textsuperscript{82} The court reasoned that it is impossible to know in advance the contents of backup tapes.\textsuperscript{83} The mere possibility that the backup tapes would reveal something relevant to a claim or defense should not force the producing party to bear all of the costs, considering the cost of producing large amounts of irrelevant information.\textsuperscript{84} Second, the court considered the “market” approach, which places the entire burden of the cost of production onto the requesting party.\textsuperscript{85} The benefit of the market approach is that the requesting party would only demand what it actually needs.\textsuperscript{86} This approach, however, appears to fly in the face of the presumption that the producing party pays for production because a requesting party would not have been required to pay for a search of a paper depository.\textsuperscript{87}

The McPeek court ultimately reached a compromise between the two approaches by employing the “marginal utility” test, which later served as the foundation for the multipart tests of Rowe, Zubulake, and Wiginton. The court determined that “the more likely it is that the backup tape contains information that is relevant to a claim or defense, the fairer it is that the [producing party] search at its own expense.”\textsuperscript{88} The court also reasoned that economic considerations are important to prevent excessive expense being borne by a single party.\textsuperscript{89} Before rendering judgment, however, the court recognized that this test was developed despite a “clash of policies and . . . lack of precedential guidance.”\textsuperscript{90} Thus, the court ordered a “test run” in the form of a partial test of the materials sought by discovery to determine the likelihood that the electronic data would be relevant to the claims of the case.\textsuperscript{91}

\textbf{B. Detail Added to the Test: The Influence of Rowe’s Balancing Test}

In 2002, the U.S. District Court for the Southern District of New York began its role as the nation’s leader in the area of cost-shifting analysis.\textsuperscript{92} In

\begin{itemize}
\item \textsuperscript{82} Id.
\item \textsuperscript{83} Id.
\item \textsuperscript{84} Id.
\item \textsuperscript{85} Id. at 34.
\item \textsuperscript{86} Id.; see also Marnie H. Pulver, Note, Electronic Media Discovery: The Economic Benefit of Pay-Per-View, 21 CARDOZO L. REV. 1379 (2000).
\item \textsuperscript{87} McPeek, 202 F.R.D. at 34.
\item \textsuperscript{88} Id.
\item \textsuperscript{89} Id.; see also FED. R. CIV. P. 26(b)(2).
\item \textsuperscript{90} McPeek, 202 F.R.D. at 34.
\item \textsuperscript{91} Id.
\item \textsuperscript{92} The court is home to Judge Scheindlin, co-author of Electronic Discovery in Civil Litigation: Is Rule 34 Up to the Task?, supra note 20, and the Zubulake decisions, as well as Rowe, which was the first case to use a multipart test for cost-shifting. Anti-Monopoly, one of
Rowe Entertainment, Inc. v. William Morris Agency, Inc., the court developed an eight-part test to determine where the burden of the cost of electronic discovery should rest. This test was immediately accepted in courts across the country until modified by Zubulake in 2003.

Rowe involved plaintiff black concert promoters who claimed that they were not permitted to promote events with white bands by the defendant booking agencies and promoters. The plaintiffs made thirty-five “sweeping” discovery demands, one of which included a request for “[a]ll documents concerning market shares, market share values, market conditions, or geographic boundaries in which any . . . concert promoter operates.” The defendants responded with a motion for a protective order relieving them from the burdensome discovery request. The court determined that the plaintiffs had proven that the information requested was relevant, and that electronic documents were discoverable as if they were paper documents. That determination, however, did not end the inquiry.

The more difficult issue was the extent to which each party should pay the costs of production. Under traditional discovery rules, “the presumption is that the responding party must bear the expense of complying with discovery requests.” Nevertheless, 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. In Rowe, “the expense of locating and extracting responsive e-mails [was] substantial.” The court deemed it “appropriate to

the earliest cost-shifting e-discovery cases, was also decided in the Southern District of New York.

94. See Murphy Oil USA, Inc. v. Fluor Daniel, Inc., 52 Fed. R. Serv. 3d (West) 168, 173 (E.D. La. 2002) (“[Rowe] provides sound guidance for resolution of these issues . . . .”); see also Medtronic Sofamor Danek, Inc. v. Michelson, 229 F.R.D. 550, 553 (W.D. Tenn. 2003) (adopting a balancing test that considers the Rowe factors to help determine whether an expense is “undue”).
95. Rowe, 205 F.R.D. at 423.
96. Id. at 424 (alterations in original).
97. Id.
98. Id. at 428; see also Playboy Enters., Inc. v. Welles, 60 F. Supp. 2d 1050, 1053 (S.D. Cal. 1999).
101. Rowe, 205 F.R.D. at 428.

Here, the costs of the proposed discovery would be substantial by any definition. Even the plaintiffs project that the costs for WMA would be between $24,000 and $87,000, for Monterey between $10,000 and $15,000, for CAA between $60,000 and $70,000, and for SFX and QBQ approximately $64,000. The magnitude of
determine which, if any, of these costs 'were' ‘undue,’ thus justifying allocation of those expenses to the plaintiffs.'\textsuperscript{102}

The \textit{Rowe} court flatly rejected the applicability of either \textit{In re Brand Name}, with its presumption that the producing party bears discovery costs, or the "market" approach discussed in \textit{McPeek}, which could cause poor litigants to abandon meritorious legislation in the face of high discovery costs.\textsuperscript{103} Instead of adopting either "bright-line rule," the \textit{Rowe} court created a balancing test using the following eight factors:

\begin{enumerate}
\item the specificity of the discovery requests;
\item the likelihood of discovering critical information;
\item the availability of such information from other sources;
\item the purposes for which the responding party maintains the requested data;
\item the relative benefit to the parties of obtaining the information;
\item the total cost associated with production;
\item the relative ability of each party to control costs and its incentive to do so;
\item the resources available to each party.\textsuperscript{104}
\end{enumerate}

Although not universally embraced by other courts, these factors have been influential.\textsuperscript{105} The rationale behind each factor is important in determining why subsequent decisions adopted or rejected them.

\textit{1. The Specificity of the Requests}

The \textit{Rowe} court held that "[t]he less specific the requesting party's discovery demands, the more appropriate it is to shift the costs of production to that party."\textsuperscript{106} The court reasoned that a requesting party has the ability to narrow a discovery request, and counting a lack of specificity against the requesting party gives the requesting party an incentive to avoid broad

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\textsuperscript{101} Id. at 431.
\textsuperscript{102} Id. at 429.
\textsuperscript{103} Id.

\textsuperscript{104} Id. The court maintained that “courts have adopted a balancing approach” but did not cite any authority for the factors listed. \textit{Id}. “Each of these factors is relevant in determining whether discovery costs should be shifted in this case.” \textit{Id}.


\textsuperscript{106} \textit{Rowe}, 205 F.R.D. at 429 (citing \textit{In re Gen. Instrument Corp. Sec. Litig.}, No. 96 C 1129, 1999 WL 1072507, at *6 (N.D. Ill. Nov. 18, 1999)).
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The court noted that the plaintiff’s “nebulous” requests favored cost-shifting.108

2. The Likelihood of Discovering Relevant Information

Relying on McPeek, the Rowe court reasoned that the less likely it is for produced documents to be relevant to the matter at hand, the more unfair it is to force the producing party to pay the cost of production.109 The court held that though the plaintiff showed that there was enough likelihood that relevant material was requested to preclude a protective order, the absence of proof that the material would be “a gold mine” made the court consider its value “marginal at best.”110

3. The Availability of the Information from Other Sources

If the information sought can be obtained by the requesting party in a less burdensome manner, courts have traditionally found that the requesting party should pay the costs of obtaining the information in the form requested.111 This factor is required, as the party requesting the production would necessarily be harassing the responding party if its own burden in producing the document would be lighter than that of the responding party.112 In most electronic discovery cases, as in Rowe, the information sought will only be available on the producing party’s servers or backup tapes.113 It is difficult to imagine a scenario where the requesting party would have a lesser burden in producing an electronic document stored primarily on an opposing party’s server.114 Therefore, this factor will usually cut against cost-shifting.115

107. Id. at 430.

108. Id. The court contrasts the plaintiff’s requests with the requests in McPeek v. Ashcroft, 202 F.R.D. 31, 33 (D.D.C. 2001), where the court used its discretion to narrow the requesting party’s search.

109. Rowe, 205 F.R.D. at 430 (using McPeek’s “marginal utility” analysis); see also McPeek, 202 F.R.D. at 34.

110. Rowe, 205 F.R.D. at 430.

111. See Anti-Monopoly, Inc. v. Hasbro, Inc., No. 94 Civ.2120 (LMM) (AJP), 1996 WL 22976, at *1 (S.D.N.Y. Jan. 23, 1996) (holding “[i]f plaintiff wants the computerized information, it will have to pay defendants’ reasonable costs of creating computer programs to extract the requested data from defendants’ computers”).

112. To request documents from an opposing party that the requesting party could produce more cheaply would be contrary to economic policy. Further, as discovery exists for the purpose of allowing one party to be aware of all the facts relevant to a cause of action or defense thereto, when the requesting party’s access is less burdensome, federal discovery rules are violated, almost by definition. Fed. R. Civ. P. 26(b)(2).

113. Rowe, 205 F.R.D. at 430.

114. One possible such scenario would involve a document that is stored in difficult to produce, archived form by both parties. Because such offline documents are costly to produce,
4. The Purposes for Which the Responding Party Retains the Data

The Rowe court asserted, “A party that expects to be able to access information for business purposes will be obligated to produce that same information in discovery.” On the other hand, if the requested data is kept for backup or emergency system recovery purposes, the requesting party should not have to pay for production. The backup tapes in question in Rowe were considered emergency backups and therefore this factor favored cost-shifting.

5. Benefit to the Parties

The court reasoned that if a responding party benefits from its production of data, there is less reason to shift the cost to the requesting party. Obviously, because a party is requesting the document for use in litigation, the party believes the document will be of benefit. Nevertheless, in the rare case when producing documents will benefit the producing party, this will cut against cost-shifting. For example, if the producing party is required by law to have the offline documents in readily producible form, or would receive some pecuniary benefit because of the production, this factor may apply.

6. Total Cost Associated with Production

Of course, if the cost of production is very low, there is no compelling reason to shift costs. In Rowe, the court noted that there is no set threshold for what is considered a “substantial” cost.
7. The Ability of the Parties to Control Costs

The *Rowe* court held that “it is more efficient to place the burden on the party that will decide how expansive the discovery will be.” Such reasoning is an influence of the “market approach” rejected in *McPeek*. The theory behind this factor is that if the producing party has a high incentive to control costs but the requesting party does not, the requesting party may be the more appropriate party upon whom to allocate the cost of discovery. If the party that does not have an incentive to control costs is requesting discovery, it may have incentive to burden the producing party with requests.

8. The Resources of Each Party

The final *Rowe* factor recognizes that “the cost, even if modest in absolute terms, might outstrip the resources of one of the parties, justifying an allocation of those expenses to the other.” This ensures fairness when a party of limited resources makes a burdensome, yet necessary, electronic discovery request.

*Rowe* expanded *McPeek* to create the first systematic test for cost-shifting in electronic discovery disputes. The *Rowe* court determined that the factors tended to favor the producing party; thus, the requesting party was required to bear the majority of the production costs. While the *Rowe* test provided courts with a step-by-step analysis of electronic discovery disputes, the test faced immediate revision one year later in the *Zubulake* line of cases.

C. *Zubulake* Puts the Factors in Their Place

The Southern District of New York used the *Rowe* balancing test as the foundation for a new cost-shifting analysis. In *Zubulake v. UBS Warburg LLC*, a former employee of a large corporation sought the production of deleted e-mails to show gender discrimination by her former superiors. The *Zubulake* court criticized the *Rowe* test in its application, however, because all opinions following *Rowe* had determined that cost-shifting was appropriate. The court noted that “[i]n order to maintain the presumption that the responding party pays, the cost-shifting analysis must be neutral; close calls should be resolved in favor of the presumption.” The court feared that,

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127. *Id.* at 432.
128. *Id.* at 433.
130. *Id.* at 320.
131. *Id.*
because of the fact that electronic documents are discoverable in almost all modern litigation, a broad cost-shifting rule would undermine well-established rules of discovery.\textsuperscript{132} With large corporations moving to an almost paper-free storage environment, a test that tends to favor the shifting of costs in all electronic discovery situations may tend to discourage meritorious suits by private parties against corporations.\textsuperscript{133}

To retain the presumption that a responding party should bear the cost of production, while simultaneously providing for cost-shifting in the case of inaccessible, offline data, the \textit{Zubulake} court split the test for cost-shifting into three steps. First, the electronic data is categorized based upon the difficulty of retrieval. If the data is offline, cost-shifting may be appropriate; if not, the \textit{Rowe} analysis is completely inapplicable.\textsuperscript{134} Second, the court required the use of a “test-run” to determine the relevancy of the data requested. While the likelihood of finding relevant information is certainly important, the \textit{Zubulake} court noted that without a factual analysis, there is no way to actually determine the likelihood of the existence of this information.\textsuperscript{135} Finally, the court applied a modified \textit{Rowe} test in order to allocate the cost of discovery.\textsuperscript{136}

The \textit{Zubulake} court completely changed the circumstances under which a \textit{Rowe}-like factor test would be applied. The court placed electronic data into five different categories, from the most to least accessible: (1) active, online data;\textsuperscript{137} (2) “near-line” data;\textsuperscript{138} (3) “[o]ffline storage/archives”;\textsuperscript{139} (4) backup data;\textsuperscript{132} (5) inaccessible, offline data.\textsuperscript{132}

\begin{itemize}
  \item The extent to which the request is specifically tailored to discover relevant information;
  \item The availability of such information from other sources;
  \item The total cost of production, compared to the amount in controversy;
  \item The total cost of production, compared to the resources available to each party;
  \item The relative ability of each party to control costs and its incentive to do so;
  \item The importance of the issues at stake in the litigation; and
  \item The relative benefits to the parties of obtaining the information.
\end{itemize}

\textit{Id.}

\textsuperscript{132} \textit{Id.} at 317.
\textsuperscript{133} \textit{Id.} at 317-18.
\textsuperscript{134} \textit{Id.} at 318. “In fact, whether production of documents is unduly burdensome or expensive turns primarily on whether it is kept in an accessible or inaccessible format (a distinction that corresponds closely to the expense of production).” \textit{Id.}
\textsuperscript{135} \textit{Id.} at 323.
\textsuperscript{136} \textit{Id.} at 322. The \textit{Zubulake} court restates the factors which determine whether cost-shifting is proper as follows:

\begin{itemize}
  \item The extent to which the request is specifically tailored to discover relevant information;
  \item The availability of such information from other sources;
  \item The total cost of production, compared to the amount in controversy;
  \item The total cost of production, compared to the resources available to each party;
  \item The relative ability of each party to control costs and its incentive to do so;
  \item The importance of the issues at stake in the litigation; and
  \item The relative benefits to the parties of obtaining the information.
\end{itemize}

\textit{Id.}

\textsuperscript{137} \textit{Id.} at 318. This is where data is kept during its “active” life, where the access frequency and speed are both high. \textit{Id.}
\textsuperscript{138} This class of storage includes what the court refers to as “optical disks.” In layman’s terms, these are CD-ROM and floppy disks, as well as similar storage media. \textit{Id.} at 318-19.
\textsuperscript{139} These are optical disks, similar to CD-ROM devices, that are stored for storage
tapes;\textsuperscript{140} and (5) erased, fragmented, or damaged data.\textsuperscript{141} Only the last two of these categories were considered “inaccessible” by the \textit{Zubulake} court.\textsuperscript{142} In \textit{Zubulake}, the responding party stored e-mails in three different places: active user e-mail files, archived e-mails on optical disks, and backup data stored on tapes.\textsuperscript{143} Of the three, a cost-shifting test would only be performed on the third because for “accessible” forms of media, “it would be wholly inappropriate to even consider cost-shifting.”\textsuperscript{144} The court reasoned that if data is maintained in an “accessible and usable” format, the traditional presumption that the producing party pays for discovery applies.\textsuperscript{145} Thus, under \textit{Zubulake}, the first analysis is to consider whether cost-shifting is appropriate at all by considering the accessibility of the requested electronic discovery.

The next step is to determine whether cost-shifting is necessary. \textit{Zubulake} suggested that courts applying \textit{Rowe} largely favored cost-shifting because of assumptions made concerning the relevance of the documents that were to be discovered.\textsuperscript{146} In \textit{Rowe}, the court criticized the requesting party for not showing that the requested e-mail would, in fact, yield discoverable information related to a potential claim or defense.\textsuperscript{147} \textit{Zubulake} pointed out, however, that “such proof will rarely exist in advance of obtaining the requested discovery.”\textsuperscript{148}

The \textit{Zubulake} court then held that utilizing a “test-run,” as used in \textit{McPeek}, would be beneficial in determining the relevancy of the requested discovery.\textsuperscript{149} The court ordered the responding party to produce a small sample of the requested material to inform the cost-shifting procedure.\textsuperscript{150} The court reasoned that when the actual relevancy of a sample of discovered material is

\textsuperscript{140} Id. Backup tapes are very difficult to retrieve data from because “[t]he data on a backup tape are not organized for retrieval of individual documents or files [because] . . . the organization of the data mirrors the computer’s structure, not the human records management structure.” \textit{Id.} (footnote omitted).
\textsuperscript{141} Id. This data is “ghost data” which has been deleted from a computer or server and may only exist in parts on the disk. “Such broken-up files are said to be ‘fragmented,’ and along with damaged and erased data can only be accessed after significant processing.” \textit{Id.}
\textsuperscript{142} \textit{Id.} at 319-20.
\textsuperscript{143} \textit{Id.} at 320.
\textsuperscript{144} \textit{Id.}
\textsuperscript{145} \textit{Id.}
\textsuperscript{146} \textit{Id.} at 323.
\textsuperscript{147} \textit{Id.} at 323.
\textsuperscript{149} \textit{Zubulake I}, 217 F.R.D. at 323.
\textsuperscript{150} \textit{Zubulake I}, 217 F.R.D. at 324.
examine, the analysis of the material’s relevance is not “an exercise in speculation,” but is instead “grounded in fact.” Thus, after the results of a test are available, the parties may then argue more effectively whether cost shifting is appropriate based on the relevance of the material to the matter and the cost of production, as both cost and relevance will be more lucid.

The Zubulake court found factors one and two of Rowe’s test to be duplicative. Both Rowe factors, the specificity of the discovery requests and the likelihood of discovering critical information, address the effectiveness of the form of the requests. To replace these factors, the court created a single factor that encompasses the original two, namely “the extent to which the request is specifically tailored to discover relevant information.” The Zubulake court also added a factor to the Rowe analysis that will admittedly be rarely applied. The court noted that “if a case has the potential for broad public impact, then public policy weighs heavily in favor of permitting extensive discovery.”

The Zubulake court rejected the fourth Rowe factor, which considers the purposes for which the responding party retains the data, as unimportant. The court held that “[w]hether the data is kept for a business purpose or for disaster recovery does not affect its accessibility, which is the practical basis for calculating the cost of production.” The Zubulake modification looked to accessibility as a reason for justifying cost-shifting, finding the purpose of

151. Id. The court does point out that even this small factual showing may be too much of a burden to place upon the responding party when the cost of this production is high compared to the amount at controversy in the suit, or when the suit itself is frivolous. Id. at 324 n.77.
152. Id.
153. Id. at 321.
154. Id.
155. Id. To be fair, while Rowe’s first two factors were similar in purpose (encouraging effective and fair discovery requests), the first two Rowe factors were not as duplicative as Judge Scheindlin suggests. Each had separate goals (specificity vs. relevance). There truly is a difference between being “specifically tailored to discover relevant information” and having a high likelihood of discovering relevant information. While factor five of the Rowe test (the relative benefit of obtaining the information) makes the second Rowe factor a bit duplicative, it would be more accurate to say that Zubulake I dropped the second Rowe factor and modified the first, instead of combining the two.
156. Id. at 321.
157. For example, the court mentions examples from toxic tort class actions to constitutional questions which might have the broad appeal to justify extensive discovery. Id.
158. Id.
159. Id. Judge Scheindlin further rejected the fourth factor because “[i]t is certainly true that data kept solely for disaster recovery is often relatively inaccessible because it is stored on backup tapes. But it is important not to conflate the purpose of retention with accessibility.” Id. at 322 n.68.
the retention wholly unimportant. After all, the court reasoned, “[a] good deal of accessible, easily produced material may be kept for no apparent business purpose. Such evidence is no less discoverable than paper documents that serve no current purpose and exist only because a party failed to discard them.”

The Zubulake court modified the sixth factor to relate the total cost of the production to the amount in controversy. If the amount in controversy is low compared to the cost of producing information, a settlement would be preferable to producing the documents. In Zubulake, the cost of producing the documents was estimated at over $180,000, while the amount in controversy, at lowest estimate, was almost $2 million. This disparity was high enough to suggest that requiring the producing party to pay the costs might be appropriate. The Zubulake court tweaked the seventh factor in the same manner as the sixth by relating the total cost of production to the resources of the party. The higher the cost of production, the more likely that disparity between the resources of the parties would favor one party or another in the cost-shifting analysis.

Finally, Zubulake suggested that the multifactor test should be applied, but in a particular manner not employed by other courts using Rowe. The Zubulake court first contended that the factors given should be used as a guide, not a checklist; therefore, each factor should not be weighted equally. The first two factors in the new Zubulake test, which are most reflective of the fairness of cost-shifting, are given the most weight. The next most important group of factors are those relating to cost and financial resources. Finally, the court considered the rare situation in which the issues at stake in the litigation are of significant public importance, finishing its inquiry by

160. If the data is readily accessible, there is generally no need for cost-shifting. Id. at 317-20.
161. Id. at 322 n.68.
162. Id. at 321.
164. Id. at 288.
166. Id. at 322.
167. Id.
168. Id. at 324 (“1. The extent to which the request is specifically tailored to discover relevant information; 2. The availability of such information from other sources”). If the request is overbroad or the materials are available from a more accessible source, the presumption that the responding party bears the cost of discovery can be more easily cast aside.
169. Id.
considering the even rarer situation in which the producing party benefits from producing the information.\textsuperscript{170}

The cost-shifting determination is not to be made in favor of the party that the majority of the factors favor, but rather the court is to evaluate cost-shifting in light of its purpose.\textsuperscript{171} The purpose of cost-shifting is to avoid an “undue burden or expense” on the producing party; thus, the central issue that should be examined in a cost-shifting analysis is the importance of “the sought-after evidence in comparison to the cost of production.”\textsuperscript{172}

In its analysis of the \emph{Rowe} factors, \emph{Zubulake} noted the degree to which a factor favored or disfavored cost-shifting.\textsuperscript{173} In contrast, \emph{Rowe} never examined the degree to which each of its factors favored cost-shifting, only whether each did or did not favor cost-shifting.\textsuperscript{174} The \emph{Zubulake} court determined that some fractional amount of the cost should be shifted.

The application of the new \emph{Zubulake} test suggested that under these circumstances, the producing party should bear most of the cost of production.\textsuperscript{175} Shifting the cost too much would chill the rights of litigants to pursue meritorious claims. However, because the success of the search was somewhat speculative, any cost that could be fairly assigned to the requesting party was appropriate and ensured that the producing party’s expenses would not be unduly burdensome. According to the court, 25\% assignment to the requesting party met these goals in this case.\textsuperscript{176}

\textbf{IV. Still Wiggling: The Application of Zubulake in Wiginton v. CB Richard Ellis, Inc.}

After \emph{Zubulake}, some began to believe that the shortcomings of the Federal Rules in failing to address cost-shifting in electronic discovery were “greatly exaggerated.”\textsuperscript{177} On the other hand, a White Paper prepared by Lawyers for
Civil Justice directly called for specific amendments to the Federal Rules to address cost-shifting. The report praised the Zubulake decision for being “sophisticated” and “discretionary,” absent the “reference in the rules that directs the court” in the cost-shifting analysis. The paper conceded that “[s]uch thorough and painstaking analysis may be necessary and appropriate in certain cases,” but maintained that it “is no substitute for a clear, direct and straightforward procedural rule on the subject.”

Because of the common occurrence of electronic discovery and cost-shifting disputes, the wait for an interpretation of Zubulake was not a long one. In many ways, Wiginton v. CB Richard Ellis, Inc. provided the perfect test for Zubulake’s new cost-shifting analysis. First, Wiginton was decided in the U.S. District Court for the Northern District of Illinois, far from the direct influence of the Southern District of New York. Second, the facts were very familiar. The plaintiff contended that the defendant had engaged in a widespread practice of sexual harassment; thus, the plaintiff needed to access deleted e-mails and other files to find pornographic materials that were allegedly being distributed electronically. Third, the cost to produce the materials requested from inaccessible backup tapes was substantial, causing the defendant to have reason to fight the discovery requests. The court discussed the history of cost-shifting decisions before modifying Zubulake and Rowe in its own analysis.

The Wiginton court only addressed the factors of Zubulake, ignoring its three-step analysis of whether cost-shifting is possible in the first place. This may not, however, signal a complete rejection of the Zubulake framework. Wiginton addressed the first step, determining whether the data is inaccessible, in a footnote that mentioned the similarity of these backup tapes to those in Zubulake. The Court further rendered unnecessary Zubulake’s second step because a “test-run” of the discovery material had already been performed by the producing party. The court’s analysis was

179. Id. at 9.
180. Id.
181. The Zubulake decisions were made by influential Judge Shira Scheindlin of New York’s Southern District. The Rowe and Hasbro cases were also decided in this district. See supra note 92 and accompanying text.
183. Id. at 575.
184. Id.
185. Id. at 571-73.
186. Id. at 572 n.6.
187. Id. at 569-71. A “review set” was examined by Kroll, Inc., a company specializing in
limited to the Rowe and Zubulake factors for determining the degree of cost-shifting. Therefore, although the court did not apply the full Zubulake test, neither did it reject the preliminary three-step analysis. If the court intended to adopt the Zubulake test and not simply use it as a guide, it is surprising that the court chose to apply Zubulake without explicitly addressing this most significant feature of the Zubulake opinion.

Wiginton applied the specificity factor in much the same way as the courts in Zubulake and Rowe. Before determining whether the likelihood of finding relevant information favored or disfavored cost-shifting, however, the court examined the second factor, the availability of this information from other sources. The court found the typical result — that e-mails sent internally and deleted on machines were only available on backup tapes that were difficult to examine. Instead of weighing factors one and two individually, the court looked at the totality of the two, labeling them as the “Marginal Utility Test.” The court compared the test run responsive rate in Zubulake to that conducted by an independent data recovery company, Kroll, Inc., in the case at hand. The responsive rate in Zubulake was over ten times higher. Because “the search also revealed a significant number of unresponsive documents,” the court determined that “the marginal utility test weighs slightly in favor of cost-shifting.”

Wiginton’s cost factors were used in the manner introduced by Zubulake, considering the ratio of discovery costs to the potential recovery and the resources of the parties, and examining the incentive of the parties to control costs. Wiginton adopted but dismissed the new factor introduced by Zubulake, the public significance of the issues at stake in the litigation, as both

188. Id. at 575.
189. Id. at 574. This very fact-specific analysis was made easier by the fact that a “test-run” had previously been ordered. The court determined that 4.5% of the e-mails were “responsive,” meeting search criteria, meaning that they “may” be relevant to the matter.
190. Id.
191. Id.
192. Id. This was a clear nod to the test introduced in McPeek, from which these two factors were taken in Rowe. See Rowe Entm’t, Inc. v. William Morris Agency, Inc., 205 F.R.D. 421, 429-30 (S.D.N.Y. 2002).
193. Wiginton, 229 F.R.D. at 574.
194. Id. The responsive rate in Zubulake was 55.8%, while in Wiginton, only 4.5%. Id.
195. Wiginton, 229 F.R.D. at 575.
196. Id. at 575-76. The third factor (amount in controversy compared to cost of production) cut in favor of cost-shifting, the fourth (amount in controversy compared to resources) cut against it, and the fifth (ability to control costs) weighs slightly in favor of cost-shifting.
parties agreed that the factor was neutral. The court also judged the final factor, the benefit to the parties of production, to be neutral.

Wiginton added its own eighth factor to the cost-shifting analysis, using the Federal Rules to justify its decision. The court maintained that “the importance of the requested discovery in resolving the issues at stake in the litigation” must be added. At first glance, this factor seems to duplicate the first factor, which considers the relevance of the information to be discovered. The court pointed out, however, that the requested discovery may be relevant, but not necessarily needed. The court noted that “[a]s there is reason to believe that the requested discovery would assist in resolving the issues at stake in this case, but because there is also other evidence to support Plaintiffs’ claims, we find that this factor weighs slightly in favor of cost-shifting.” If the court had merely suggested that the requested discovery would only marginally assist in resolving the issues, this new factor would seem to favor cost-shifting. But instead, the court held that the requested discovery assisted in resolving the litigation while citing “other evidence to support” as reason to shift the burden.

In its holding, the court simply listed the degree to which each of the factors that weighed for or against cost-shifting. The court determined that the requesting party was responsible for 75% of the costs, while the responding

197. *Id.* at 576. The importance of the litigation will only change the cost shifting analysis in rare instances. Zubulake v. UBS Warburg LLC (*Zubulake III*), 216 F.R.D. 280, 289 (S.D.N.Y. 2003) (“[D]iscrimination in the workplace . . . is hardly unique.”).


199. *Id.* at 576-77 (citing Fed. R. Civ. P. 26(b)(2)(iii)) (stating that “the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties’ resources, the importance of the issues at stake in the litigation, and the importance of the requested discovery in resolving the issues”) (emphasis added).

200. *Id.* at 576.

201. *Id.* at 576-77.

202. *Id.* at 577.


204. The court ultimately held: Factors 1 and 2, the most important factors, weigh slightly in favor of cost-shifting to Plaintiffs. For the cost factors: factor 3 weighs in favor of cost-shifting; factor 4 weighs against cost-shifting; and factor 5 weighs slightly in favor of cost-shifting. Factor 6 is neutral; factor 7 weighs slightly in favor of cost-shifting; and factor 8 is neutral.

*Id.* It is difficult to list the results of the analysis without sounding like the factors are being used as a “checklist,” which *Zubulake* warned against, instead of a mere “guide.” *Zubulake v. UBS Warburg LLC (*Zubulake I*), 217 F.R.D. 309, 322-23 (S.D.N.Y. 2003).
party was responsible for the remaining 25%. The analysis as a whole “favor[ed] cost shifting,” but the court looked to the presumption that the producing party bears the cost of discovery in allocating a quarter of the cost to the defendant.

Table: Comparison of the Cost-shifting Tests

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<td>Date of Opinion</td>
<td>January 2002</td>
<td>May 2003</td>
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<td><strong>ROWE FACTORS</strong></td>
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<td>Zubulake</td>
<td>Wiginton</td>
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<td>Specificity of Discovery</td>
<td>“Factor One,”</td>
<td>Combined with</td>
<td>Following Zubulake</td>
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<td>Requests</td>
<td>considered very relevant</td>
<td>“Factor Two,” considered one of two “most important” factors</td>
<td>Zubulake</td>
</tr>
<tr>
<td>Likelihood of a Successful</td>
<td>“Factor Two,”</td>
<td>See above.</td>
<td>See above.</td>
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<td>Search</td>
<td>also very relevant as part of “Marginal Utility Test”</td>
<td></td>
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<tr>
<td>Availability of Information</td>
<td>“Factor Three”</td>
<td>Accepted. Considered one of two “most important” factors</td>
<td>Following Zubulake</td>
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<tr>
<td>from Other Sources</td>
<td>will normally favor requesting party</td>
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206. *Id.* It appears that this conclusion could be reached by simply assigning values to each of the factors. Assume, for the sake of argument, that each factor which “slightly favors” one side or another is worth one point, and each factor which “favors” it is worth two. Also assume that the factors which the court considers “most important” (factors one and two) are worth double points. Using this analysis, six points are allocated for cost shifting to two against. Thus, using this formula, one arrives at the same conclusion as the court.
211. *Id.*
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<tr>
<td>Purposes for Which the Producing Party Keeps the Information</td>
<td>“Factor Four,” documents kept for legitimate business purposes less likely to require cost-shifting.</td>
<td>Factor rejected because the purpose does not affect the accessibility of the document.</td>
<td>Not mentioned.</td>
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<td>Relative Benefit to the Parties of Obtaining the Information</td>
<td>“Factor Five,” when responding party benefits from production, cost-shifting is less likely.</td>
<td>Followed <em>Rowe</em>. Considered relatively unimportant.</td>
<td>Followed <em>Zubulake</em>.</td>
</tr>
<tr>
<td>Total Cost Associated with Production</td>
<td>“Factor Six,” no cause to cost-shift if cost is not substantial.</td>
<td>Modified to consider the relative cost compared with the amount in controversy.</td>
<td>Followed <em>Zubulake</em>.</td>
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<td>Incentive and Ability of Parties to Control Costs</td>
<td>“Factor Seven,” places the burden on the party with the incentive to control costs.</td>
<td>Followed <em>Rowe</em>.</td>
<td>Followed <em>Rowe</em> and <em>Zubulake</em>.</td>
</tr>
<tr>
<td>Resources Available to Each Party</td>
<td>“Factor Eight,” if costs would strip the resources of a party, courts can allocate accordingly.</td>
<td>Modified to consider the cost of discovery compared with the resources available.</td>
<td>Followed <em>Zubulake</em>.</td>
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V. Amendment of the Federal Rules of Civil Procedure

In its preface to Proposed Amendments to the Federal Rules, the Congressional Advisory Committee on Rules of Civil Procedure noted the emerging case law concerning general electronic discovery, and raised several specific concerns. First, as discussed earlier, the case law is not consistent. Further, the committee noted that because discovery disputes are rarely granted appellate review, there is no way to develop binding

229. A test-run did take place, ordered by the court, and its results are discussed. Wiginton, 229 F.R.D. at 570-71. However, the court did not state whether this analysis was done as a result of Zubulake’s requirement to provide a factual basis for the application of the factors. Zubulake I, 217 F.R.D. at 323-24.
231. Wiginton, 229 F.R.D. at 576.
232. Id. at 576-77.
233. Proposed Amendments, supra note 13, at 3. The committee did not specify the case law, and due to the committee’s failure to directly address cost-shifting, it is unlikely that Rowe and Zubulake are the objects of this commentary. However, the problems that plague discovery case law in general is shared by cost-shifting specifically, as cost-shifting is merely a subset of the larger realm of e-discovery.
234. See discussion infra Parts III, V.
235. Proposed Amendments, supra note 13, at 3.
authority. Despite the “well drafted” flexibility of the Federal Rules, changes in technology are quickly requiring courts to adapt rules to address electronic discovery. Because different jurisdictions are applying varying standards, and because of the inadequacy of the Federal Rules in their current state, the committee advocated addressing electronic discovery by amending Federal Rules 26 and 34. The committee recognized that delay in providing adequate federal assistance for dealing with electronic discovery would likely “result in a proliferation of local rules” and “frustrate the ability to achieve the national standard the Civil Rules were intended to provide in the areas they address.”

The Proposed Amendments to the Federal Rules addressed several areas with implications for cost-shifting. The Proposed Amendments considered early problems of electronic discovery, including the form of production, preservation of electronically stored information, and problems related to reviewing possibly privileged information. In order to address these problems, the committee first addressed the “quick peek” approach to determining the relevancy of requested material. Second, the committee proposed a clarification of Federal Rule 26(b)(2), which defines what types of information are “not readily accessible.” Because this definition specifically triggers the Zubulake analysis, these proposed changes may also affect and clarify cost-shifting analysis. The third area the committee addressed was the applicability of Rule 34 to electronic information. The following subparts address these three concerns individually.

A. The Quick Peek Approach to Discovery

McPeek introduced a “quick peek” method of examining electronically discovered documents to determine relevance. Before a database is fully searched, a “test run” will be ordered in advance of a decision regarding cost-
This logic was followed in Zubulake for the purpose of economic efficiency. Of course, “quick peek” analysis increases the risk of waiver of privilege, as producing parties may not be able to predict which documents will be flagged by a preliminary search. Parties now attempt to agree to protocols that reduce the risk of waiver, and the Proposed Amendments to the Federal Rules explicitly allows for a “claw back” arrangement, which would allow documents to be produced electronically without a prior privilege agreement. If a produced document was found by the producing party to include privileged information, the producing party would not have waived the privilege and could retract that particular document. These agreements allow parties to reduce the very high cost of privilege review in electronic discovery.

Though the amendment would not address cost-shifting directly, its result tends to compliment the Zubulake and Wiginton tests. The “quick peek” would become even cheaper for a producing party that believes a requesting party’s discovery demands are irrelevant. A requesting party could use the agreement to pacify a producing party that fiercely guards their computer database for fear of waiving privilege.

A Lawyers for Civil Justice report has criticized the “quick peek” approach, suggesting that the provision would “accelerate the pressure to make production without reasonable and adequate review.” Many commentators would require reviewing attorneys to make reasonable efforts to review material or else risk waiver of privilege in order to keep attorneys from succumbing to economic pressure to lazily rely on a presumption that privilege will not be waived. Judge Scheindlin noted in Zubulake that parties may “forego privilege review altogether in favor of an agreement to return inadvertently produced privileged documents.” Certainly, the sheer volume of data commonplace in simple litigation and the uncertainty of electronic data make detailed review impossible. The “quick peek” method

244. \textit{Id.}
248. \textit{Id.} at 8-10. The Committee notes the problems associated with meta-data and ghost data in privilege review. \textit{Id.}
250. \textit{Id.} at 9-10.
would ease the burden upon producing parties and make production less cost-prohibitive.

**B. Clarification of Federal Rule 26(b)(2)**

Federal Rule 26(b)(2) limits discovery of electronic data if such information is viewed as burdensome. Zubulake suggests that the broad nature of all discovery has been consistently weighed against the cost-consciousness of Federal Rule 26(b)(2). In the context of electronic discovery, only certain classes of data, those that cause “undue burden or expense” are candidates for cost-shifting. As a result, the Proposed Amendment to this subsection limits the scope of electronic discovery in cases where information is “not reasonably accessible”:

A party need not provide discovery of electronically stored information that the party identifies as not reasonably accessible. On motion by the requesting party, the responding party must show that the information is not reasonably accessible. If that showing is made, the court may order discovery of the information for good cause and may specify terms and conditions for such discovery.

The language of the Proposed Amendment suggests that if a producing party believes that the information sought is not accessible through reasonable efforts, the party will not have to produce that information if it can show the inaccessible nature of the data and the court determines that no good cause for production exists. The Committee Note to this proposal suggests a definition for “reasonably accessible.” The Committee Note uses a methodology much like Zubulake’s five classes of electronic data in defining reasonably accessible data.

Whether given information is “reasonably accessible” may depend on a variety of circumstances. One referent would be whether the party itself routinely accesses or uses the information. If the party routinely uses the information — sometimes called “active data” — the information would ordinarily be considered reasonably accessible. The fact that the party does not routinely

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254. Id.
255. Id. at 318.
256. PROPOSED AMENDMENTS, supra note 13, at 26 (proposed amendment to Fed. R. Civ. P. 26(b)(2)).
257. Id.
258. Id at 32-33.
access the information does not necessarily mean that access requires substantial effort or cost.\textsuperscript{260}

This discussion of active data mirrors the discussion in \textit{Zubulake} and reinforces \textit{Zubulake}’s mandate that only offline data merits a cost-shifting analysis.\textsuperscript{261}

The Committee Note provides examples of information that may not be readily accessible. Information “deleted in a way that makes it inaccessible without resort to expensive . . . forensic techniques” or data “retained in obsolete systems” that is no longer used and is costly to retrieve would not ordinarily be considered accessible.\textsuperscript{262} The Committee Note provides some caution, however, suggesting that if the responding party has actually accessed the information, the rule may not apply — even if the party incurred significant expense in accessing the data.\textsuperscript{263}

This change would seem to render the \textit{Zubulake} test obsolete in all situations except when the court orders discovery for good cause.\textsuperscript{264} \textit{Zubulake} and the proposed rule agree that when data is either “active” or accessible without a substantial burden, no exceptions apply that would limit or preclude discovery altogether.\textsuperscript{265} The Committee Note suggests that “the good-cause analysis would balance the requesting party’s need for the information and the burden on the responding party.”\textsuperscript{266} This analysis appears very similar to the marginal utility test introduced in \textit{McPeek}.\textsuperscript{267} The Committee Note also suggests that sharing of expenses may be associated with these more expensive forms of production.\textsuperscript{268} The \textit{McPeek}, \textit{Zubulake}, and \textit{Rowe} cases are cited with approval as case law that has “already begun to develop principles for making such determinations.”\textsuperscript{269}

Unfortunately, when the totality of the changes to Federal Rule 26(b)(2) are considered, they do little to clarify the process of determining a method for cost-shifting. The proposal itself codifies \textit{Zubulake}’s suggestion that only

\begin{itemize}
\item \textsuperscript{260} \textit{PROPOSED AMENDMENTS, supra} note 13, at 32.
\item \textsuperscript{261} \textit{Zubulake I}, 217 F.R.D. at 318-20.
\item \textsuperscript{262} \textit{PROPOSED AMENDMENTS, supra} note 13, at 31.
\item \textsuperscript{263} \textit{Id.} at 32.
\item \textsuperscript{264} \textit{Id.} at 33-34 (proposed amendment to \textit{Fed. R. Civ. P. 26(b)(2)}).
\item \textsuperscript{265} \textit{Zubulake I}, 217 F.R.D. at 318-20.
\item \textsuperscript{266} \textit{PROPOSED AMENDMENTS, supra} note 13, at 34.
\item \textsuperscript{267} \textit{McPeek v. Ashcroft}, 202 F.R.D. 31, 34 (D.D.C. 2001). The \textit{McPeek} test also suggested that as the relevence of discoverable information decreases, the less just it becomes for a party to bear its cost of production. \textit{Id.}
\item \textsuperscript{268} \textit{PROPOSED AMENDMENTS, supra} note 13, at 34 (quoting \textit{MANUAL FOR COMPLEX LITIGATION (FOURTH) § 11.446 (2004)}).
\item \textsuperscript{269} \textit{Id.}
\end{itemize}
inaccessible electronic data should be subject to restrictions. If the data sought is successfully classified as inaccessible, the court will apply a balancing test to determine the need to discover it nonetheless. The Committee Note neither suggests a bright-line rule nor declares which of the three tests cited may be most appropriate, instead mentioning that “[c]ourts will adapt the principles of Rule 26(b)(2) to the specific circumstances of each case.” The Committee Note specified its interest in whether the change gives “sufficient guidance to litigants, lawyers and judges” on the limits of electronic discovery, “including allocating the costs of such discovery.” Concerning the test to be used, however, it is difficult to ascertain what guidance, if any, the Proposed Amendment gives.

C. How Federal Rule 34 Defines “Documents”

The Advisory Committee noted that although the 1970 Amendment to Federal Rule 34 authorized discovery of “data compilations,” electronically stored data that is both important and discoverable may often not be contemplated by the Rule. Thus, the Proposed Amendment to Federal Rule 34 would require document requests to be framed in such a way to specify whether documents or electronically stored information, or both, is sought. The Proposed Amendment allows a requesting party to request to “inspect, copy, test or sample” electronically stored information or specified documents. The new version also expands the type of forms in which this electronic information may be found to include images and sound recordings, and also allows for discovery of compilations “in any medium.” The Committee Note insists that “Rule [34](a)(1) is intended to be broad enough to cover all current types of computer-based information, and flexible enough to encompass future changes and developments.” Therefore, while older versions of the Federal Rules have specified that electronic tapes and phonorecords contained discoverable information, the Amendment contemplates the inclusion of future technology. While most courts interpret the range of electronic data to be covered by the present version of Rule 34, the Committee Note seeks to avoid the scenario where a responding

271. PROPOSED AMENDMENTS, supra note 13, at 34.
272. Id. at 12.
273. Id. at 48.
274. Id. at 49-50.
275. Id. at 44 (proposed amendment to Fed. R. Civ. P. 34(a)(1)).
276. Id. at 45.
277. Id. at 49.
278. FED. R. CIV. P. 34(a)(1).
part avoids reviewing and producing electronic data simply because a production request does not specify electronic data.\textsuperscript{279} The Amendment clears up uncertainty regarding sampling and testing of electronic data.\textsuperscript{280} Thus, searches can be defined to find other discoverable information. Again, this change seems to benefit responding parties by providing them actual notice of the scope of document requests.

The proposed change to Rule 34 also mentions that the form in which the requested data is produced may be specified in requests.\textsuperscript{281} If no specific form is given, a responding party is to produce the information in its “ordinarily maintained” form, or in a form that is searchable electronically.\textsuperscript{282} This method is functionally analogous to the option to request labeled and organized hard-copy materials because it enhances the ability of the party seeking production to locate relevant information.\textsuperscript{283} Objections to production of electronic documents may include objections to the form of production, and will again be governed by Federal Rule 26(b)(2).\textsuperscript{284}

\textbf{D. Effectiveness of the Proposed Amendments to the Federal Rules}

The proposed changes to the Federal Rules effectively address the unique problems associated with electronic data. Specifically, the “quick peek” approach to limiting waiver allows courts to follow the mechanisms outlined in \textit{Zubulake} without parties having to undertake lengthy and expensive privilege reviews of an entire computer system before the “test run” to determine relevance.\textsuperscript{285} The changes to Federal Rule 26(b)(2) codify the case law of \textit{Zubulake} regarding the kinds of electronic data that may be considered burdensome to produce.\textsuperscript{286} The changes to Federal Rule 34 eliminate confusion between parties regarding what is required in response to a request for production. However, the comments accompanying the proposed Amendments do nothing to address the precise method that should be used to shift costs if a court determines that production is necessary despite inaccessibility.\textsuperscript{287} Thus, the proposed changes do nothing to stipulate a standard for federal courts in shifting costs in cases like \textit{Wiginton}.

\begin{enumerate}
\item \textsuperscript{279} PROPOSED AMENDMENTS, supra note 13, at 16.
\item \textsuperscript{280} Id. at 49.
\item \textsuperscript{281} Id. at 46 (proposed amendment to Fed. R. Civ. P. 34(b)).
\item \textsuperscript{282} Id. at 47 (proposed amendment to Fed. R. Civ. P. 34(b)(ii)).
\item \textsuperscript{283} Id. at 50.
\item \textsuperscript{284} Id. at 16.
\item \textsuperscript{285} Zubulake v. UBS Warburg LLC (\textit{Zubulake I}), 217 F.R.D. 309, 320 (S.D.N.Y. 2003).
\item \textsuperscript{286} Id.
\item \textsuperscript{287} PROPOSED AMENDMENTS, supra note 13, at 34.
\end{enumerate}
VI. What Should We Do? Recommendations in Light of Electronic Discovery

A. Recommendations to Requesting Parties

A party requesting documents that require expensive production techniques will want to avoid incurring cost through cost-shifting analysis. Fortunately, the requesting party has the benefit of the presumption that a producing party bears the costs of its own production.288

In light of the three-step Zubulake analysis, the easiest way to avoid costs being shifted to the requesting party is to request documents that are known to be online.289 If the requested documents are on the producing party’s hard drives, storage media such as CD-ROM or floppy media, or some modern archival disks, the data is considered online.290 Fortunately for requesting parties, as the cost of data storage continues to decrease and the physical space required for storage also decreases, most types of archives will be considered online.291

If the documents needed are not available in the online storage of a producing party, a requesting party may still avoid having the costs shifted. It is of great importance that the requesting party ensure its requests are not considered as an undue burden.292 The two most important Zubulake factors that will be examined for minimizing cost-shifting when requesting offline documents are the tailoring of the requests to discover relevant documents and the availability of the documents from another source.293

The Zubulake analysis requires some factual basis for the administration of the cost-shifting factors.294 In Zubulake, the “test-run” using the requesting party’s search criteria produced sixty-seven “highly relevant” documents from a search group of 600.295 The court then specifically discussed six e-mails that were “striking,” and specifically addressed some of the issues presented in the

289. Zubulake I, 217 F.R.D. at 318. “In fact, whether production of documents is unduly burdensome or expensive turns primarily on whether it is kept in an accessible or inaccessible format.” Id.
290. Id. at 319-20.
291. The cost of storage on computer hard drives has decreased from one dollar per kilobyte in 1994 to six cents per kilobyte in mid-1998 to one cent the end of 2000. The cost in 2004 was near one-tenth of a cent. Historical Notes About the Costs of Hard Drive Storage Space (Apr. 2004), http://www.alts.net/ns1625/winchest.html.
292. The tests of Zubulake and Rowe are crafted to ensure that Fed. R. Civ. P. 26(b)(2) is upheld.
293. Zubulake I, 217 F.R.D. at 323.
294. Id.
The produced e-mails also contained new information, which could not have been found without the search. The success of the test-run regarding the utility of the information was determined to favor keeping the burden on the producing party, even though none of the documents produced would prove the requesting party’s case. The marginal utility was potentially high, and as the producing party is required to prove that cost-shifting is warranted, this potential was effective. These factors weighed against cost-shifting.

The success of a requesting party with the marginal utility in Zubulake should be contrasted with Wiginton. In Wiginton, the court determined that between 1.5% and 6% of the documents were responsive. The court expressed the opinion that far less than 4% of the documents were actually relevant. Despite the fact that the documents were only available from the producing party, the large percentage of unresponsive documents in the “test-run” favored cost-shifting.

Documents were not available from another source in either Zubulake or Wiginton, but the language of both cases makes clear that evidence that the electronic documents are otherwise available would cut very strongly in favor of cost-shifting. Thus, even with the knowledge that an opposing party has offline documents that would normally be subject to discovery, these documents should not be requested if there is a less burdensome manner of retrieving them.

A party requesting discovery should also compare the cost of discovery to the value of the litigation. While it may be tempting to make a discovery request that is so expensive that settlement becomes more attractive for the producing party, it is this very situation that the cost-shifting factors seek to avoid. In Zubulake, the very high document recovery cost of over $150,000 was not considered “significantly disproportionate” from the potentially

296. Id. at 285-86.
297. Id. at 286-87.
298. Id. at 287.
299. Id.
300. Id.
302. Id. at 575.
303. Id.
304. This is clear from the second Zubulake factor. Zubulake III, 216 F.R.D. at 287; see also Wiginton, 229 F.R.D. at 575.
multimillion dollar value of the lawsuit.\textsuperscript{306} Thus, even this very high cost weighed against cost-shifting.\textsuperscript{307}

In \textit{Wiginton}, the potential recovery of the requesting party was in some question.\textsuperscript{308} The requesting party estimated that the cost of discovery would reach near $250,000.\textsuperscript{309} This value favored cost-shifting, as the potential recovery was not significantly higher than this discovery cost. Further, if the requesting party required that the search be expanded to all of the producing party’s offices, the cost of discovery could extend into the millions of dollars.\textsuperscript{310}

The only possible excuse for making a discovery request when the cost of discovery is very high compared to the amount in controversy is when the other cost factors strongly favor the requesting party. For instance, if the requesting party has very limited resources and the producing party has nearly unlimited resources, policy could require that the cost remain on the responding party to avoid a chilling effect on lawsuits in such situations.\textsuperscript{311}

In making requests for electronic documents, a requesting party should tailor its requests to avoid the appearance that the party is simply “fishing for information” or making a burdensome request to produce a settlement. Either a lack of specificity or an undue burden will likely result in a large portion of the cost of discovery being shifted to the requesting party. Further, if a court ordered “test-run” is clearly unresponsive, as was the case in \textit{Wiginton}, it may be better to withdraw the request for documents instead of bearing as much as 75\% of the cost of discovery.\textsuperscript{312}

\textbf{B. Recommendations to Producing Parties}

Producing parties have a much more difficult task, as they face both the presumption that the producing party pays for discovery and the possibility of sanctions if they intentionally obstruct the production of documents.

The first step for any producing party facing extensive electronic document requests is to determine if the documents are offline. While searching organized, optical storage devices or storage disks such as CD-ROM or DVD-

\begin{itemize}
\item \textsuperscript{306} \textit{Zubulake III}, 216 F.R.D. at 288.
\item \textsuperscript{307} \textit{Id.}
\item \textsuperscript{308} \textit{Wiginton}, 229 F.R.D. at 575. There were five named plaintiffs, and they contended that if a class of plaintiffs were certified, the recovery would extend into the tens of millions of dollars. \textit{Id.} The court was unwilling to speculate about the certification of the class action. \textit{Id.}
\item \textsuperscript{309} \textit{Id.}
\item \textsuperscript{310} \textit{Id.}
\item \textsuperscript{311} \textit{Zubulake I}, 217 F.R.D. at 318.
\item \textsuperscript{312} \textit{Wiginton}, 229 F.R.D. at 577. In this case, a highly unresponsive test-run led to a large amount of the discovery costs being shifted to the requesting party, despite other factors that weighed against cost-shifting.
\end{itemize}
ROM drives may be time consuming, these media are designed for storage of documents, and under *Zubulake* are categorized as “online” or “near-line” data. Unless the data exists in either backup tape format or is represented by deleted file fragments, the cost-shifting analysis is irrelevant.

While the analysis of cost-shifting may provide the impression that corporations should store old documents in inaccessible archives to avoid having to pay for retrieval, a much simpler solution is to store all documents on an easily searchable server, and delete old documents consistently and permanently. With the decreasing cost of storage space, it is not expensive to store information in easily retrievable databases that require very little search time. Storing all data online allows for quick reference for business purposes and low cost in case production is compelled. Because deleted “ghost” data is discoverable, responding to document requests by answering that the information is “deleted” is not sufficient. Instead, a company may choose to employ new e-mail and document archival software, which will categorize and sort files based on search terms, while discarding and completely wiping outdated, irrelevant documents.

Great care should be taken when deleting documents. If litigation is contemplated regarding the documents in question, document destruction programs must be stopped with respect to that document, even if a complaint has not been filed. The *Zubulake* court did not mandate that all document destruction programs should end when litigation is contemplated, but rather only those programs which could destroy a relevant document. The only exception is that a company may continue to delete inaccessible backup tapes that are kept only for the purpose of emergency system restoration, in accordance with a consistent destruction program.

The consequences of failing to preserve electronic documents properly, especially when the documents are intentionally deleted, are harsh.

314. *Id.* at 319. The difference between an “optical archive” and a “backup tape” is one of organization. *Id.* While archival systems are designed to be searched, backup tapes are organized like a computer hard drive with no menu — the data is simply an image on the surface of the tape, and no directory for searching exists. *Id.*
315. *Id.* at 318.
317. A number of services now exist, including DataArchiver from CommVault, Email Xaminer from Legato, and others.
319. *Id.*
320. *Id.* at 218.
321. *Zubulake v. UBS Warburg LLC (Zubulake V)*, 229 F.R.D. 422 (S.D.N.Y. 2004). “In sum, counsel has a duty to effectively communicate to her client its discovery obligations so that
all relevant information is discovered, retained, and produced. In particular, once the duty to preserve attaches, counsel must identify sources of discoverable information.” *Id.* at 439.

322. *Id.* at 436.

323. *Id.* at 437.

324. *Id.*

325. *Id.* at 432.

326. *Id.*

327. In January 1995, the cost of a megabyte of hard drive space was approximately one dollar. In mid-2004, nine megabytes of space cost one cent. Historical Notes about the Cost of Hard Drive Space, supra note 291.

328. Another 500-fold drop in the cost of disk space and nearly two gigabytes (1 billion bytes) would cost one cent. The total amount of printed material in the world is approximately equal to 200 petabytes, or 200 million gigabytes. Therefore, by 2015, even if the depreciation of hard drive cost slows by half, it will only cost $2 million to store the information of every paper document in human history. *Id.*

329. *Zubulake* has become the standard, cited with approval in cases, including *Wiginton*, in four separate jurisdictions during the fourteen months following the decision. See Quinby v. WestLB AG, No. 04CIV.7406(WHP)(HBP), 2005 WL 3453908 (S.D.N.Y. Dec. 15, 2005);
discovery analogous to traditional discovery, which presumes that costs rest on the responding party while protecting that party from unduly burdensome requests. Both requesting and responding parties must consider cost-shifting when faced with discovery that involves inaccessible data.

Electronic documents are difficult to destroy, and often less formal than their paper counterparts. As a result, these documents will often contain unique evidence essential to litigation. Carefully framed document requests are essential when an individual seeks inaccessible data from a corporate party. Likewise, those with large archives of stored data should properly preserve documents and make efforts to completely destroy irrelevant material when it is proper to do so. Often, a court’s decision regarding the allocation of costs in this very expensive discovery will induce settlement, and thus determine the outcome of the litigation itself.

Ross Chaffin

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