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# A MODEST PROPOSAL FOR HUMAN LIMITATIONS ON CYBERDISCOVERY

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## NOTE FROM THE EDITOR:

In December 2010, the Federalist Society heard from a number of federal judges and civil procedure experts about amendments to the Federal Rules of Civil Procedure, including the process that would be undertaken to amend the rules and some proposed amendments that might be offered. Based on the comments and perspectives received, the Federalist Society determined that it could add value to the broader discussion over amending the rules by asking experts to flag issues or perceived problems with the rules as they currently exist, and to identify the range of solutions that are being offered to address these problems. This back-and-forth culminated in four papers, one of which follows. A version of these papers will appear in the *Florida Law Review*, and they are published here with permission.

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### I. INTRODUCTION

Show my Civil Procedure students a video on electronically stored information (“ESI”) created by Jason Baron and Ralph Losey.<sup>1</sup> The video, set to the type of pulsating electronic music normally heard prior to kickoff, sets forth a series of factoids about ESI. There will soon be more bytes of ESI than stars in the universe, it would take six million years to read each web page in the known universe, and we are awash in billions and trillions of e-mails, tweets, text messages and Google searches.<sup>2</sup> The video refers to studies showing that most of this information is never produced—and often not even thought of—in the discovery process.<sup>3</sup> It points out that the most common forms of retrieval, such as Boolean key word searches, find a relatively small percentage of “relevant” documents.<sup>4</sup> For Baron and Losey, the “near future” is that litigants cannot “afford the whole truth,” but they suggest (with, I hope and suspect, tongues in cheek) that the “far future” is discovery conducted by artificial intelligence agents. The answer to the challenges of E-discovery, in other words, is the creation of E-lawyers.

The video is an engaging and well done representative of an emerging genre in the litigation literature which I prefer to call Electronic Gothic. It tends, unintentionally or otherwise, to frighten litigants and lawyers about the irresistible world of litigation holds, search protocols, document retention, preservation of records, recovery of lost materials, data mining, metadata, and iterative multi-phase discovery. The vehicle is often tales about sanctions for the loss or destruction of information that a party did not know it had, was (at least subjectively) unaware that it was obligated to keep, or had inadvertently deleted.

Law firms have formed E-discovery groups, and lawyers have fashioned careers as “E-discovery attorneys.” One such lawyer admonishes law students to embrace their “inner geek,” saying that, “if you did not go to law school to work with computers and data bases, then you might want to rethink being a litigator . . . .”<sup>5</sup> Another prominent expert on the discovery of ESI pointed out that lawyers tend to be drawn to the profession from a certain acuity in “liberal arts logical analysis”—i.e., the verbal and analytic skills that have traditionally been at the heart of the lawyerly craft. The profession, he suggested, needs to remake itself.

E-discovery is certainly here to stay because, absent a disaster that sends civilization to the stone ages, the digitalization of life is here to stay. The complexity of managing ESI in litigation is almost certain to grow as what we can create and where we can send it grows increasingly robust. While some of these advances may aid in the management of E-discovery, it seems a safe bet, as Losey and Baron suggest, that the location and production of ESI is going to get much harder before it gets appreciably easier. But, I want to suggest, the answer—even in the near term—is not to lament our inability to get at the “whole truth” and dream of robo-lawyers. Whether or not Losey and Baron are right in suggesting that we cannot afford “the whole truth,” it is beyond doubt that ESI cannot be treated like paper in discovery.

But it is less obvious that much of the “truth” is really lost. The idea, undergirding much of discovery practice, that any information anywhere that might conceivably be helpful on any issue ought to be available for perusal is a notion that only lawyers could love. Other professions—doctors, design engineers, research scientists—have long had to accept the idea that a certain quantity of information will have to be “enough” and that one must somehow live with the ensuing uncertainty. Lawyers cannot now—and never have been able to—do otherwise. But something in the notion of open discovery, self interest (more discovery is more work), and the human fear of “missing something”<sup>6</sup> seem to have made lawyers peculiarly resistant to this idea.<sup>7</sup>

While the growth of ESI is irresistible, it faces an unmovable limiting principle. However voluminous and dynamic electronic information may become, human beings remain blissfully limited in their capacity to process information. As long as litigation remains concerned with the endeavors of mortals, the percentage of nonduplicative ESI that is in fact relevant to the “whole truth” is likely to remain rather limited. Aided by modern technology, human beings may come to create information that is dynamic and voluminous by increasingly committing all random thoughts to writings digitally retained. But only so much of it can ever be used. Consequently, it is likely not possible that all—or even a substantial part of it—will be relevant to whatever human activity has become the object of litigation and necessary for a fair and just resolution of the underlying controversy.

The development of E-discovery principles and rules have been an effort to balance cost against the value of the information utilizing the traditional tools of judicial management of

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discovery, i.e., ad hoc and factually intensive balancing. This will continue to be necessary. But I want to suggest another paradigm. As ESI multiplies, organizations will have to find ways to retain and have access to that information which is necessary to conduct business, i.e., to sell and design things, to hire and fire people, and to do all the other things that happen in the real world and become the subject of litigation.

There ought to be, at minimum, a strong presumption that the retention and retrieval policies created to manage this information outside the litigation process are likely to catch almost all the information that is relevant within it.<sup>8</sup> Although this concept has found its way into the 2006 amendments to the Federal Rules and pertinent case law, there is more work to be done.

## II. ESI IS DIFFERENT

### A. *The Challenges of ESI*

As noted above, the digitalization of life has threatened to overwhelm the process of relatively unfettered party directed discovery. The challenges presented by the discovery of electronically stored information may not be entirely “new,” but they are “more.”<sup>9</sup> The electronic revolution has resulted in a substantial—indeed geometric—increase in matters committed to writing. What may have been communicated by phone or in person or not communicated at all may now be expressed in e-mails, text messages, tweets, etc. Efforts to retrieve information or records of the transmission of these communications that, in the past, were unlikely to have even been created are now memorialized in the records of search engines and the “metadata” of information systems.<sup>10</sup> Human interactions and communications are now increasingly recorded somewhere. As two commentators recently observed:

Information inflation reflects the fact that civilization has entered a new phase. Human beings are now integrated into reality quite differently than before. They can instantaneously write to millions. They engage in real time writing of instant messages, wikis, blogs and avatars. Consequently, the flux of writing has grown exponentially, with resulting impact on cultural evolution. All this affects litigation. Vast quantities of new writing forms challenge the legal profession to exercise novel skills.<sup>11</sup>

This is the temptation of E-discovery: the notion that “somewhere” in that mass of information “someone” may have written “something” that will be relevant to the issues in litigation.

Not only are more records created, they are far more likely to remain in existence not only “somewhere” but often in multiple places. The storage of electronic information, while expensive, is easier and less expensive than the retention of what have traditionally been much smaller quantities of paper records. These stored records can, moreover, often be searched electronically to identify some subset of at least potentially relevant materials. This, too, creates opportunities to find “something” that might advance a litigant’s cause.

But there are other aspects of ESI that confound these opportunities. Electronic data is dynamic. It can be altered—sometimes automatically and unintentionally—through the

normal operation of the system that created it. Because there is a cost—both in dollars and system efficiencies—to retaining it, it may be automatically deleted or “overwritten.” While its deletion may not be irrevocable, it may make it relatively inaccessible, i.e., it can be recovered only at great cost and effort. An electronic document can, moreover, be repeatedly duplicated and transmitted to numerous recipients. Thus, it can be found in numerous “places”—not all of which are self-evident. The advent of “cloud computing” and applications like Google documents (or the simple fact that home computers may be put to business and professional use) raises the likelihood that certain documents may reside “out” of the responding organization.

We can go on. As the volume of information metastasizes, it overwhelms the capacity of human beings—and traditional electronic search methods—to review. ESI will generally have associated “metadata” that may provide information about when documents were created, altered, and transmitted. Deciphering that data—and even the documents themselves—may require an understanding—or even the use—of the system on which they were created. Because ESI may be automatically deleted or altered, the onset of litigation (or the apprehension of its potential) may require intervention to suspend those processes. Although notions of preserving relevant evidence—or sanctioning parties for spoliation—are not new, implementing these “litigation holds” is complicated and expensive,<sup>12</sup> requiring an understanding of just where diffuse forms of information can be found and predicting what may be relevant to litigation in which the claims and defenses may be nascent, ill-defined and imperfectly understood.

Finally, efforts to locate, preserve, and retrieve ESI are less transparent and straightforward than simply searching paper records. They require the application of expertise and can often result in complicated disputes about what can and cannot be readily obtained and lead to satellite litigation and “discovery about discovery.” This substantially increases the cost of discovery management and disputes. It requires software, consultants, and, as noted earlier, attorneys specially versed in the nature of the game.

### B. *Responding to the Challenges*

Of course, these problems have not gone unnoticed and unaddressed. In 2004, a group of prominent jurists, practitioners, and academics announced (and then subsequently revised) the Sedona Principles.<sup>13</sup> These fourteen principles seek to balance the need for discovery of ESI against its cost and unique challenges. They create a duty to preserve information but not one that requires a party to take “every conceivable step” or preserve “deleted, shadowed fragmented or residual” information absent a showing of special need and relevance.” In ordering discovery, courts should balance “cost, burden and need” considering the “nature of the litigation and amount of controversy.” The primary (but apparently not exclusive) focus of E-discovery should be on “active data and information as opposed to disaster recovery back-up tapes and other sources that are not reasonably accessible.” “Cost shifting” from the “responding” to the “requesting” party can happen on satisfaction of a multi-factor test. One commentator recently extolled the “enduring relevance” of the Principles.





for judges of special masters to become involved in more than a fraction of cases. Management of the process by the parties works best if there are rules that effectively provide relatively clear direction or both sides have comparable incentives driving them within a realm of “reasonable behavior.” In cases in which both parties are more or less equally subject to the costs and burdens of electronic discovery, each side can expect the other to be as aggressive or reasonable as it has been. This form of mutually assured destruction may discipline the parties and temper the discovery “arms race.” But, in cases of asymmetrical information, i.e., those in which the bulk of information (particularly ESI) resides with one party, incentives diverge. Where the burden of responding to discovery is largely borne by one side, there are fewer incentives to self discipline.

Even when we do move to judicial management, judges must assess such claims or evaluate the burden, need, and proportionality of proposed discovery with incomplete knowledge of the claims and defenses. Although the rule requires parties to meet and confer and a mantra of the E-discovery industry is to call for “collaborative” discovery, parties famously disagree about the value of their cases and the extent of the burden that they are asking another to assume. However they agree on the principle of proportionality, that agreement is swamped by radically different perceptions of the amount at stake and the likelihood of recovery.

#### *D. The Implications of Inadequacy*

If the only implication of this were to increase the costs of discovery, it would be bad enough. But increasing the cost of litigation, particularly in the context of a system with at least some form of notice pleading, changes the dynamics of the litigation process and the calculus surrounding the management of litigation risk. The ability to assert a colorable claim, i.e., one that can survive a motion to dismiss and trigger the process of discovery, is an asset. Because it costs something—often quite a lot—to make such a claim go away—and litigation risk can rarely be dismissed—whatever increases the cost of the process increases the value of that asset. This materially alters the settlement calculus.

### III. ANOTHER RESPONSE

#### *A. A Modest Presumption*

The rules ought to be amended to strengthen the presumption, begun with the 2006 amendments, that adherence to retention and retrieval policies adopted outside the context of litigation and consistently applied ought to be the measure of a party’s obligation to maintain and produce ESI. The idea, not unrelated to Rule 34’s longstanding option to produce records as they are kept in the ordinary course of business, is rooted in the idea that most organizations formulate such policies in good faith and, in fact, probably cannot know in advance whether the retention of information will “hurt” or “help” their litigation prospects. How much ESI to keep, where to keep it, and how to get at it are generally determined by the need to have access to information necessary to do business. Policies are presumably adopted in a way that will permit access to records that one needs to address the design and performance of products, the management of employees, and other aspects of the business

that are likely to become the subject of litigation. If that is the case, most all relevant information will remain accessible under such generally applicable and neutrally framed policies.

To be sure, the current Federal Rules *permit* courts to limit E-discovery to documents resident in these systems, and, at least on its face, Fed. R. Civ. P. 26(b) creates a presumption against the discovery of ESI that is not reasonably accessible. But it may be well to make clear that, absent extraordinary circumstances, a party is required to produce only that ESI resident in the active systems maintained by it in the ordinary course of business. What I am suggesting is a bit of a paradigm shift. Perhaps we need be less concerned with whether the discovery of ESI falls beyond a pale of acceptable burden and cost and more concerned with whether the information sought can be found within a set of sources most likely to contain relevant records and can be accessed in a way that a party’s normal records management system permits.

An example of such an approach is reflected in an amendment to Rule 26 proposed by certain defense bar organizations in a white paper presented in a recent conference on civil litigation at Duke University Law School, specifying that certain categories of ESI that are not available in the ordinary course of business need not be produced:

#### (B) Specific Limitations on Electronically Stored Information.

(i) A party need not provide discovery of the following categories of electronically stored information from sources, absent a showing by the receiving party of substantial need and good cause, subject to the proportionality assessment pursuant to Rule 26(b)(2)(C):

(a) deleted, slack, fragmented, or other data only accessible by forensics;

(b) random access memory (RAM), temp files, or other ephemeral data that are difficult to preserve without disabling the operating system;

(c) on-line access data such as temporary internet files, history, cache, cookies, and the like;

(d) data in metadata fields that are frequently updated automatically, such as last-opened dates;

(e) information whose retrieval cannot be accomplished without substantial additional programming, or without transforming it into another form before search and retrieval can be achieved;

(f) backup data that are substantially duplicative of data that are more accessible elsewhere;

(g) physically damaged media;

(h) legacy data remaining from obsolete systems that is unintelligible on successor systems; or

(i) any other data that are not available to the producing party in the ordinary course of business and that the party identifies as not reasonably accessible because of undue burden or cost and that on motion to compel discovery or for a protective order, if any, the party from whom discovery of such information

is sought shows is not reasonably accessible because of undue burden or cost.<sup>22</sup>

The proposed amendment provides additional guidance for both parties and courts and, importantly, roots that guidance in deference to systems established to conduct business. It retains current language requiring that, under certain circumstances, a party seeking to withhold information that might otherwise be discoverable must demonstrate that it is not reasonably accessible due to undue burden and cost. However, it makes clear that certain specified sources of information need not be searched or produced without such a showing, including information whose retrieval would require substantial additional programming or transformation or which cannot be obtained in the ordinary course of business. Although the proposed amendment does not unambiguously establish “active” ESI under a generally applicable retention policy as the entire universe for E-discovery, the recognition that most relevant documents are likely to be found within records retained and accessible under such policies informs its restrictions on the scope of discovery.

This will not obviate the need for litigation holds. The fact of litigation or its reasonable anticipation may affect the need to retain ESI, and parties ought to remain under an obligation to preserve potential ESI once litigation has been commenced or can be reasonably anticipated. An amendment proposed by the white paper delivered at Duke calls for parallel restrictions on the type of ESI that must be preserved, once again providing more particular guidance that reflects a judgment about where potentially relevant information is most likely to be found:

(2) Specific Limitations on Electronically Stored Information

Absent court order demonstrating that the requesting party has (1) a substantial need for discovery of the electronically stored information requested and (2) preservation is subject to the limitations of Rule 26(h)(1), a party need not preserve the following categories of electronically stored information:

- (A) deleted, slack, fragmented, or other data only accessible for forensics;
- (B) random access memory (RAM), temp files, or other ephemeral data that are difficult to preserve without disabling the operating system;
- (C) on-line access data such as temporary internet files, history, cache, cookies, and the like;
- (D) data in metadata fields that are frequently updated automatically, such as last-opened dates;
- (E) information whose retrieval cannot be accomplished without substantial additional programming, or without transferring it into another form before search and retrieval can be achieved;
- (F) backup data that are substantially duplicative of data that are more accessible elsewhere;
- (G) physically damaged media;

(H) legacy data remaining from obsolete systems that is unintelligible on successor systems; or

(I) any other data that are not available to the producing party in the ordinary course of business.

It is certainly possible that the exclusion of these sources of information from preservation and production will eliminate some information that might be relevant to litigation. It is less clear that they will render the results less accurate.

The amendments proposed at Duke also modify Rule 37(e) to make clear that sanctions may not be imposed for the failure to preserve ESI in the absence of a finding of willful conduct. This expansion of the rule’s safe harbor provision furthers the emphasis on normally followed retention and retrieval procedures. The difficulty, however, is that sanctions for failure to preserve documents generally contain some presumption that the lost information would have helped the requesting party or hurt whomever has failed to produce it. But, in the absence of some finding of willfulness, that presumption is unwarranted. Although a responding party might certainly be required to restore the cost of recovering lost ESI, further sanctions as a consequence of negligence are problematic at least in the absence of some information about whether lost ESI would have helped or hurt the responding party.

*B. Cost Allocation*

The amendments proposed by the defense bar do some additional useful things such as limiting the number of document requests and the sources that can be searched.<sup>23</sup> Nevertheless, limitation of the universe of ESI that must be preserved and produced won’t resolve all of the special challenges presented by E-discovery. Even active data systems maintained by parties in the ordinary course of business may produce enormous quantities of information. Presumably, parties will create methods of retrieving pertinent information for business purposes that balance the needs of that information with the cost of retrieval. Those systems ought to be treated as presumptively sufficient.

But most regularly maintained data bases are subject to some form of keyword or other electronic search that will, even without duplicates, result in mass quantities of information that will be exceeding expensive—or even stretch human capacities—to review. Perhaps the best solution to this problem is to place the cost of discovery with the requesting party. Internalization of externalized costs is generally thought to lead to greater rather than lesser efficiency. Perhaps the best way to ensure that the cost of discovery is proportional to what is at stake is to ask whether the party seeking it—the one who is presumably in the best position to know—is willing to pay for it.

A full consideration of this idea is beyond the scope of this paper. While this may be thought to burden the ability of less wealthy litigants to pursue a claim, the investment of substantial resources into litigation on behalf of nonwealthy parties thought by counsel to have a meritorious claim is quite common in a variety of contexts and has not materially impeded the pursuit of claims.

Although these costs would presumably be taxable upon resolution of the case on the merits, very few cases are resolved on the merits. To be sure, the fact that the cost of discovery is potentially taxable would affect the settlement calculus and indirectly discipline discovery. But a more direct impact would require these costs to be paid at the time that they are incurred. While this might lead to pretrial satellite litigation over the reasonableness of those costs, this seems more manageable and predictable than the more amorphous standards that currently control. It would involve the rather straightforward question of what undertaking a particular task has or will cost and not an assessment of whether, at some point in the future after underdeveloped issues become clear, it will have been “worth it.”

#### IV. CONCLUSION

I close with a story from my young days as a lawyer. Rising to begin the introduction of my rebuttal case in a trial to the bench, the judge looked down at me and said, “Now Mr. Esenberg, you do what you need to do. But first ask yourself if anything you are about to do proves anything that hasn’t been proven four times already, because I’m ready to rule.” I sat down, learning an important lesson of trial advocacy: When to stop.

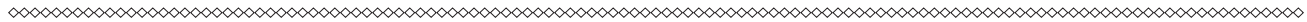
“When to stop” E-discovery is a difficult question. My modest suggestion is that lawyers take their cue from the ways in which such information is managed in the “real world.” The electronic revolution has enabled many wonderful things, but, in litigation and elsewhere, we ought not to allow our desire for the perfect to become the enemy of the good.

#### Endnotes

- 1 Jason R. Baron and Ralph E. Losey, *E-discovery: Did You Know?*, available at [http://www.youtube.com/watch?v=bWbJWcsPp1M&feature=player\\_embedded](http://www.youtube.com/watch?v=bWbJWcsPp1M&feature=player_embedded).
- 2 *Id.*
- 3 *Id.*
- 4 *Id.*
- 5 Alison A. Grounds, *Aspatore*, 2010 WL 3251514, at 14 (Aug. 2010).
- 6 Because ESI results in more human communication being recorded, it fuels the dream of the “smoking gun,” i.e., the idea that, in a fit of candor, ill temper, or frustration, someone will write something that becomes “money” for the requesting party. It is unclear, however, that the ability to get at random thoughts that were previously unrecorded actually results in more accurate litigation outcomes.
- 7 See, e.g., WHITE PAPER: RESHAPING THE RULES OF CIVIL PROCEDURE FOR THE 21ST CENTURY: THE NEED FOR CLEAR, CONCISE AND MEANINGFUL AMENDMENTS TO KEY RULES OF CIVIL PROCEDURE 30 (submitted to the 2010 Conference on Civil Litigation, Duke Law School, May 10-11, 2010 on behalf of Lawyers for Civil Justice, DRI, Federation of Defense & Corporate Counsel, International Association of Defense Counsel) (May 2, 2010) (“Many attorneys believe that zealous advocacy requires extensive discovery.”).
- 8 Some suggest that normal record management systems should be either driven by—or framed with—E-discovery in mind. See, e.g., Steven C. Bennett, *Records Management: The Next Frontier in e-Discovery?*, 41 TEX. TECH. L. REV. 519 (2009); Alison A. Grounds, *Evolving Technology and Strategies in the Area of e-Discovery*, *Aspatore*, 2010 WL 3251514, at \* 12 (Aug. 19, 2010) (“I am seeing a trend where the makers of electronic records management systems are understanding that there needs to be an e-discovery component in their

systems . . . .”); *Capitol Records Inc. v. MP3 Tunes, LLC*, 261 F.R.D. 44 (S.D.N.Y. 2009) (“The day undoubtedly will come when burden arguments based on a large organization’s lack of internal ediscovery software will be received about as well as the contention that a party should be spared from retrieving paper documents because it had filed them sequentially, but in no apparent groupings, in an effort to avoid the added expense of file folders or indices.”). My suggestion here is that it ought to be business necessity—and not the needs of litigation—that should drive records management.

- 9 One commentator notes that “E-discovery expenses of \$3,000,000 in just five months are fairly commonplace.” Ralph C. Losey, *Lawyers Behaving Badly: Understanding Unprofessional Conduct and Discovery*, 60 MERCER L. REV. 983, 1000 (2002) (citing *Kentucky Speedway, LLC v. Nascar, Inc.*, 2006 WL 5097354 (E.D. Ky. 2006)).
- 10 “Metadata” may identify who created the document, the date it was created and when it was opened or edited. Jessica DeBono, *Preventing and Reducing Costs and Burdens Associated with E-discovery. The 2006 Amendments to the Federal Rules of Civil Procedure*, 59 MERCER L. REV. 963, 968 (2008).
- 11 George L. Paul & Jason R. Baron, *Information Inflation: Can the Legal System Adapt?* 13 RICH. J. L. & TECH. 10, 67-68 (2007).
- 12 One commentator describes the process as follows:  
A litigation hold consists of several components that must be implemented in a timely manner. The time element is extremely important when dealing with electronically stored information because such information can be destroyed or modified in the usual course of a company’s business and a computer system’s routine operations. A litigation hold must be customized to the anticipated litigation, depending on the nature and scope of the claims; however, a number of different procedures and records should be included in most cases. First, notice of the litigation hold should be provided to all relevant employees to preserve information. Second, a plan establishing how relevant electronically stored information will be retrieved and preserved must be created. Third, notice (and records of such notice) directing record custodians to suspend the destruction of relevant information should be maintained. Fourth, a record identifying what evidence has been preserved should be created. Fifth, monitoring procedures to ensure employees are utilizing the litigation hold should be implemented. Sixth, notification (and records of such notification) regarding the termination of the hold when litigation is no longer anticipated should be maintained.  
DeBono, *supra* note 10, at 987-88 (footnotes omitted).
- 13 THE SEDONA PRINCIPLES: BEST PRACTICES RECOMMENDATIONS & PRINCIPLES FOR ADDRESSING ELECTRONIC DOCUMENT PRODUCTION (2d ed., 2007), AVAILABLE AT <http://www.thesedonaconference.org>; *id.* at Principle 12 (providing that “[u]nless it is material to resolving the dispute, there is no obligation to preserve and produce metadata absent agreement of the parties or order of the court”).
- 14 *Zubulake v. UBS Warburg*, 217 FRD 309, 311 (S.D.N.Y. 2003) (*Zubulake I*).
- 15 *Zubulake I*, 217 F.R.D. at 320-24. The factors are: 1. The extent to which the request is specifically tailored to discover relevant information; 2. The availability of such information from other sources; 3. The total cost of production, compared to the amount in controversy; 4. The total cost of production, compared to the resources available to each party; 5. The relative ability of each party to control costs and its incentive to do so; 6. The importance of the issues at stake in the litigation; 7. The relative benefits to the parties obtaining the information. Not much is excluded.
- 16 *Zubulake v. UBS Warburg*, 216 F.R.D. 280 (S.D.N.Y. 2003) (*Zubulake III*).
- 17 *Zubulake v. UBS Warburg*, 220 F.R.D. 212, 218 (S.D.N.Y. 2003) (*Zubulake IV*). An exception applies if the company can identify employee documents that are stored on backup tapes. If that is the case, the tapes should be preserved if the information contained on those tapes is not otherwise available. *Id.*
- 18 *Zubulake v. UBS Warburg*, \_\_\_ F.R.D. \_\_\_, 433-34 (S.D.N.Y. 2004) (*Zubulake V*).
- 19 *Pension Comm. of Univ. of Montreal Pension Plan v. Bank of Am. Secs.*



LLC, 2010 WL 184312 (S.D.N.Y. Jan. 15, 2010).

20 Thomas Y. Allman, *The “Two-Tiered” Approach to E-Discovery: Has Rule 26(b)(2)(B) Fulfilled Its Promise?*, 14 RICH. J. L. & TECH. (2008).

21 *Symposium on Ethics and Professionalism in the Digital Age, Transcript—Morning Session*, 60 MERCER L. REV. 863, 8967 (2009) (Judge notes that “the role of the judge is in the process of extraordinary transformation because of e-discovery.”).

22 WHITE PAPER, *supra* note 7, at 25.

23 I am old enough to have been a seasoned litigator when courts began to limit—and rather arbitrarily at that—the number of interrogatories and both the number and length of depositions. How, we wondered, could the search for Truth be continued? It turns out we managed quite well.

