

**Electronic Discovery:
Accomplishing It Effectively**

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Electronic Discovery: Accomplishing It Effectively

Electronic discovery is not limited to “big document” cases. Rather, it now occurs in a wide range of cases. It is a rare client that does not use computers in the course of conducting business. If you are facing litigation where either party uses computers or email in running their affairs, you have entered the world of electronic discovery. This paper will walk you through the basics of electronic discovery, supplying the necessary background information to understand the issues surrounding electronic discovery and discussing practical strategies you can apply to conduct effective discovery.

BACKGROUND

Electronic discovery is receiving more and more attention recently, both from the legal profession, and from the media. However, electronic discovery – the pursuit of evidence existing in some electronic form – is nothing new. It has been over 30 years since Federal Rule of Civil Procedure 34 was amended to include “data compilations” in its description of discoverable documents. Since that time, the courts have consistently confirmed the rather unambiguous language of the Federal Rules, thus cementing the tenet that that electronic evidence is discoverable.¹

So why the big jump in interest recently? The recent flurry of attention being given to electronic discovery issues is a direct reflection of the rapidly increasing importance of electronic documents in our day-to-day lives. With the discoverability of electronic evidence well established, lawyers and their clients are now exploring the practical implications of this reality in a world where the volume of potentially discoverable electronic documents continues to grow exponentially.

Just as advances in technology have changed the way we do business, so have these same advances changed the way lawyers conduct discovery. With over 93 percent of today’s corporate documents being electronic, and many of those never being printed to paper, electronic discovery is largely replacing hard copy discovery. Electronic discovery presents challenges not experienced in hard copy discovery, both because of the dynamic nature of electronic documents, and because of the incredible volume of data that exists electronically.

Perhaps the most notable difference between electronic documents and hard copy is the volume. The ease with which one can create, duplicate, distribute, and store electronic documents means the volume of relevant electronic material a party has is usually much greater than the volume of

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There are serious practical implications for the discoverability of electronic documents.

¹ See, e.g., *In re Brand Name Prescription Drugs Antitrust Litigation*, 1995 WL 360526 (N.D. Ill. June 15, 1995); *Anti-Monopoly, Inc. v. Hasbro, Inc.*, 1995 WL 649934, at *2 (S.D.N.Y. Nov. 3, 1995); *Bills v. Kennecott Corp.*, 108 F.R.D. 459, 461 (D. Utah 1985); *Linnen v. A.H. Robins Co., Inc.*, 1999 WL 462015, at *6 (Mass. Super. June 16, 1999).

hard copy material. Cheap storage is a major culprit here. A standard compact disk can hold approximately 325,000 pages of documents – or about 100 banker’s boxes of material. A typical desktop computer may have a 20 to 40 Gigabyte hard drive – representing a storage capacity of 10 to 20 million pages! Twenty million printed pages would fill roughly 6,000 banker’s boxes, requiring a warehouse to store them all. In the world of electronic documents, however, this warehouse fits neatly on your desktop. Given the tremendous storage capacity available, the average computer user has little incentive to purge and delete files.

Another important characteristic of electronic documents is their dynamic nature. They are easily created, and easily altered. As a result, the realm of electronic documents has introduced new forms of evidence that simply did not exist in the traditional hard-copy document realm. For example, phone conversations that often involved no discoverable documentation have largely been replaced by electronically memorialized communications such as email and instant messaging transcripts. In addition, deleted documents, draft documents that were never printed to paper, unsent emails, and documents that were never saved may still exist on a user’s hard drive. Finally, electronic documents contain a wealth of information that “disappears” when the document is converted to hard copy. Examples include hidden comments viewable only in the electronic version of a document, or the metadata attached to an electronic document, which reveals information such as when the document was last edited, and by whom.

The flexibility and transferability that make electronic documents so popular creates a number of complications for electronic discovery. Because electronic documents are so easily manipulated, duplicated, and transferred, there are many more potential locations and sources of responsive material. When a custodian has documents spread among several sources, such as the hard drives of desktop computers, file servers, laptops, floppy disks or CD-ROMs, finding and collecting all potentially responsive documents can be a challenge. Not only may it take more time to identify all the storage places for the documents, but also it may take considerable resources to gather these documents into a usable format. For example, retrieval of data from backup media may require special programming both to restore, and to convert, the data into a form that can be read by an opposing party. Frequently, the hardware required to upload old backup tapes may be obsolete and/or impossible to obtain. As a result, collection of deleted or other residual data from a hard drive or other storage media may require the services of a computer forensics expert.

The complexities of electronic discovery have led to the creation of an entire industry of consultants and specialists aimed at assisting parties with electronic discovery issues. These services include the use of computer

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forensics experts to assist in recovering material previously thought to have been deleted or lost, and to assist in restoring to usable format documents contained in outdated formats, *e.g.*, old backup tapes or email systems. There are also numerous vendors who provide third party hosting of a party's online documents in a repository. Even the courts routinely look for expert assistance, in the form of special discovery masters or neutral experts.²

From a practitioner's standpoint, electronic discovery can be both a blessing and a curse. The cost of duplication, shipping, and storage for documents produced in electronic form is much less than when produced in paper form. In addition, technology begets technology. Some of the disadvantages created by the volume of electronic material are offset by the ability to quickly search and sort documents electronically. Advanced technology allows one to further manage electronic documents by identifying and suppressing duplicate files. In addition, loading documents into your litigation support system is much less expensive and time consuming if the documents already exist in electronic format. On the other hand, even with the development of technologies to assist in electronic data management, the incredible increase in volume experienced by many clients causes more than its fair share of problems.

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² See Manual for Complex Litigation (Third) § 21.446 at p. 81.

Planning Electronic Discovery

Every sound litigation plan should include a strategy for responding to discovery requests. The strategy can be broken roughly into five categories: preservation, collection, review, protection, and production.

The first two categories, preservation and collection, have many overlapping issues. Although the actual, physical collection of documents or data may occur long after the duty to preserve documents kicks in, much of the preliminary work you undertake for preservation of documents serves a dual purpose, and will be crucial to your document collection efforts as well.

Preservation and collection issues require you to become familiar with your client's computer systems and computer usage. You will need this knowledge to ensure you are preserving all relevant documents, to ensure that you are collecting all necessary documents, and to respond to the court's and the opposition's questions regarding the same. Towards this end, you should develop a working relationship with your client's IT department. The IT department generally will be the best source for information on various aspects of your client's technology architecture, including: hardware; storage devices; operating systems; software; email system; backup practices; system maintenance; and routine purges. It is crucial that the information you obtain about the relevant computer systems is accurate, especially if you are using this information as the basis for representations to the court or your opponent.³

Become familiar with your client's computer systems and computer usage, and develop a working relationship with your client's IT department.

PRESERVING RELEVANT DOCUMENTS

A party is obligated to preserve all potentially relevant documents as soon as they are aware of actual or threatened litigation. When such a situation arises, immediately work to establish a document preservation protocol for your client. There are a few basic steps that need to be taken promptly.

The first step is to issue a "document preservation notice" to all employees who may be a source of relevant documents. It is important to get the notice right the first time. As a practical matter, you will want to avoid issuing "follow up" document preservation notices, as this will suggest to your adversary that the original notice may not have been adequate, or that potentially relevant documents may have been destroyed in the interim between the two notices. Give clear instructions about what needs to be preserved, describing in broad terms the subject areas of interest, and relevant time frames. The goal is to make sure no relevant documents are destroyed, so err on the side of being over-inclusive. The use of broad

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³ See, e.g., *Linnen v. A.H. Robins Co., Inc.*, 1999 WL 462015 (Mass. Super. June 16, 1999); *GTFM, Inc. v. Wal-Mart Stores*, 2000 WL 1693615 (S.D.N.Y. Nov. 9, 2000); see also *Crown-Life Ins. Co. v. Craig*, 995 F.2d 1376 (7th Cir. 1993).

categories has the additional benefit of making the preservation notice easier to follow, as it saves the custodian from having to perform a detailed analysis to determine if a document must be preserved. Issuing the notice is only the first step – note that there will be an ongoing need to follow up to ensure that your document preservation notice is understood and is being observed.⁴

Identify the key players and computer systems that may store relevant material, and choose reasonable and appropriate means to preserve the material.

Second, identify the key players and computer systems that may store relevant material, and choose reasonable and appropriate means to preserve the material. It is crucial that you include the IT department in this process. Inform the IT department about the need to preserve relevant electronic evidence, and work with them to determine if there is a need to halt any of the client's routine, scheduled protocols for data management, such as recycling of backup tapes or routine purges. This point underscores the importance of understanding the client's computer systems and their protocols for electronic data management. Many of the procedures for data management may be programmed to occur automatically. If data is inadvertently destroyed, your client may be held accountable for failing to take proactive measures to identify and modify protocols that jeopardize relevant data.⁵

Ideally, you will be able to implement a document preservation notice without much disruption of your client's established document management practices. For example, your client will usually be allowed to continue routine recycling of backup tapes as long as adequate measures have been taken to protect relevant data.⁶ Keep in mind, however, that the protection of relevant data trumps the interest of minimizing the impact on your client.⁷ Following good document retention practices is critical to avoid the suggestion that images of hard drives must be taken and maintained, or that the recycling of backup tapes be halted. Both have huge consequences in terms of increased cost and burden, and are rarely actually required by the litigation.

Keep a record of your document preservation and collection efforts.

A final consideration from the onset of litigation is to keep a record of your document preservation and collection efforts. This record will serve two major purposes. First, it will help you organize your preservation and collections efforts. Second, it will enable you to defend your client against sanctions and spoliation claims. Your record should include relevant information about document preservation notices: copies of all notices;

⁴ For an example of what can go wrong when this is not done, see *Danis v. USN Communications, Inc.*, 2000 WL 1694325 (N.D. Ill. Oct. 23, 2000).

⁵ *Procter & Gamble Co. v. Haugen*, 179 F.R.D. 622 (D. Utah 1998); *Symantec Corp. v. McAfee Assoc., Inc.*, 1998 WL 740798 (N.D. Cal. June 9, 1998); *In re Cheyenne Software, Inc.*, 1997 WL 714891 (E.D.N.Y. Aug. 18, 1997); *New York Nat'l Org. for Women v. Cuomo*, 1998 WL 395320, at *2-3 (S.D.N.Y. July 14, 1998).

⁶ *Murphy Oil USA, Inc. v. Fluor Daniel, Inc.*, 2002 WL 246439 (E.D. La. Feb. 19, 2002).

⁷ *Danis v. USN Communications, Inc.*, 2000 WL 1694325 (N.D. Ill. Oct. 23, 2000); *Wm. T. Thompson Co. v. General Nutrition Corp., Inc.*, 593 F.Supp. 1443 (C.D. Cal. 1984).

records of when they were sent, and to whom; and when persons subject to document retention notices were released from their retention obligation, and why. The record should also reflect your collection efforts. This should include copies of any questionnaires or interview summaries that are prepared regarding employees' records, as well as a log of the persons from whom documents were collected, and when. Less intuitive, but equally important, is a log of persons considered but eliminated from the collection group, including the reasons why they were eliminated.

COLLECTING RELEVANT DOCUMENTS

An initial step in both the collection and the preservation process is to determine the scope and sources of your client's electronic documents. One of the first questions you should consider is the types of documents your client has that may be responsive.

TYPES OF DATA

There are many types of data. It can be helpful to think of them as falling roughly into three categories: primary, secondary, and tertiary. For each of these categories, consider what your client has, why it may be relevant, and what would be involved in collecting and reviewing it.

Primary data is comprised of email and other "active data" in your client's possession, such as word processing files, spreadsheets, presentations, and databases.⁸ Active data can be thought of as everything electronic that is currently available for use – the documents the client keeps readily available and accessible on hard drives, servers, etc. These primary data items will make up the vast majority of electronic discovery in most cases. Because these documents are stored so as to be readily accessible for day-to-day use by the client, collection is usually straightforward and inexpensive.

Secondary data consists of less accessible data such as system backup data and archival or legacy data. Secondary data is typically not intended for everyday use. For example, system backup data is information periodically saved for purposes of disaster recovery. Similarly, archival and legacy data is not intended for everyday use, but rather is information that has been transferred from a computer's hard disk to a tape or disk, often in compressed form, for long-term storage. This data is generally kept for historical reference, and is often difficult or expensive to retrieve. Because the cost of backup tape restoration, retrieval, and translation may be very high, the burden and expense involved in the recovery process may outweigh the probative value of the material to be recovered.

There are many types of data – for each, consider what your client has, why it may be relevant, and what would be involved in collecting and reviewing it.

⁸ *Ex parte Wal-Mart, Inc.*, 809 So.2d 818 (Ala. 2001).

Tertiary data includes data that exists despite no active effort to maintain or save it. In fact, many of the items we think of as tertiary are items that persist in spite of a willful intention to dispose of them. The most common example of tertiary data is remnants of files that were either never saved, or were actively deleted. Deleting an electronic document merely renames the file and marks the file space as being available for overwriting if that particular space on the hard drive is needed in the future. Until it is overwritten by new data, the “deleted” document, or at least some portions of it, still exists.⁹ Because recovery of tertiary data generally requires the assistance of a forensics expert, a party that demands deleted material will often be required to absorb some or all of the cost.¹⁰ An obvious exception would be in instances where the request is necessary due to willful violation of a preservation order.¹¹

LOCATING POTENTIALLY RESPONSIVE DOCUMENTS

After you have identified the types of documents that may be relevant, you need to identify where these documents are located. This is a two-fold process. First is the matter of identifying the potential custodians, or *who* has the documents. Second is the question of the actual, physical disposition of the documents – *i.e.*, where, physically, do the documents reside? Physical disposition relates on one hand to the specific types of hardware holding the documents – *e.g.*, servers, hard drives, laptops, CDs, PDAs, ZIP disks, JAZ disks, etc. On the other hand, it also includes the specific, geographic location of that hardware – *e.g.*, employee Joe Smith’s home office, the client’s warehouse in Miami, etc.

Once you have made initial determinations regarding the nature and location of potentially relevant documents, you should consider whether you have a need for forensic or other expert advice. This is often unnecessary because, in the majority of cases, the parties can find everything they need for discovery in easily accessible locations (*i.e.*, within the universe of primary documents). One standard exception is in cases where there is crucial archaic or deleted data that needs to be recovered. Another situation that may warrant retaining an expert is where you intend to object to discovery requests on the basis of undue burden or cost. In such situations, you may want a supporting affidavit from an expert.

The next step in document collection is to formulate a collection protocol. In most cases, the actual physical collection of electronic documents is a fairly straightforward process. However, there are a few key points to keep in

Identify who has the relevant documents, on what type of media those documents are stored, and where this media resides.

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⁹ One way of permanently deleting a document may be through using a defragmentation utility. See *RKI, Inc. v. Grimes*, 177 F.Supp.2d 859 (N.D. Ill. 2001).

¹⁰ See *Simon Prop. Group L.P. v. mySimon, Inc.*, 194 F.R.D. 639 (S.D. Ind. 2000). See also *Playboy Ent., Inc. v. Welles*, 60 F.Supp.2d 1050 (S.D. Cal. 1999).

¹¹ See, *e.g.*, *Illinois Tool Works, Inc. v. Metro Mark Products, Ltd.*, 43 F.Supp.2d 951 (N.D. Ill. 1999).

mind. One is to incorporate custodian interviews or questionnaires as a part of the collection process if possible. Custodian interviews can be used to ensure all sources and custodians of relevant documents have been identified. They can also make the collection more efficient, by focusing your collection efforts. If you are able to discuss with custodians where and how they store their documents, you may be able to eliminate certain locations as potential collection sources. An auxiliary benefit of interviews is that they can provide a head start on identifying issues you may need to consider when reviewing the documents. Even a brief discussion with a custodian can give you valuable background information on pertinent issues such as product codenames, sensitive information contained in the custodian's files, and work product issues. Always track the information gathered through this process, in addition to tracking who was collected from, and when.

Incorporate custodian interviews or questionnaires as a part of the collection process if possible.

Another aspect of establishing a collection protocol is to include a description of the guidelines and procedures followed in collecting the documents. On a technical level, it is important to make sure the party doing the collecting understands the need to maintain the integrity of the electronic data. As noted earlier, electronic documents are easily alterable. To avoid potential claims of evidence spoliation, be aware of the ways that electronic documents may be altered. Turning on a computer system; using automatic update fields; recycling backup tapes; system maintenance activities; saving new data; or installing new software may all inadvertently cause documents to be altered. The format in which you will collect the documents, as well as the step-by-step procedures used in the collection, should be included in your collection guidelines.

Make sure the party doing the collection follows procedures to maintain the integrity of the electronic data.

Finally, a subtle but important aspect of collection is to avoid disruption to the client and custodians to the extent possible. Again, this will require you to coordinate with your client's IT department. You and the client may decide that someone from your firm should collect the documents. However, it may be simpler and less disruptive to have one of your client's IT staff, working under your instruction, collect the client's files. Depending on the configuration of your client's computer systems, the IT department will often be able to collect most of the relevant material remotely, *i.e.*, without physically touching the custodian's computer. To the extent you must have someone access a custodian's computer directly, it is advisable to schedule this around the custodian's schedule. Not only will this save your client lost work time, but also it lowers the risk of collection errors or omissions that may result if the collection takes place in a hurried fashion.

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REVIEWING AND PROTECTING CLIENT DOCUMENTS

In a typical case, the most time-consuming and expensive aspect of electronic discovery is the review of the documents. Review is crucial for

two main purposes: to identify the specific documents responsive to the opponent's requests for production, and to protect your client's documents.

As part of establishing your plan of attack for the review, you will want to consider the volume and complexity of the review. This will help you determine the time and resources required to complete the review. This information, in turn, can be used to determine if you have the resources to conduct the review in-house; or whether you will need the assistance of vendors or specialized discovery co-counsel. At an even more basic level, an initial indication of the resources required to complete the review may influence your overall litigation strategy. For example, a simple cost analysis comparing the value of the case to the potential cost of discovery will be important to determining how aggressively you should pursue settlement.

Where discovery threatens to be prohibitively expensive, you will want to try to control discovery costs by limiting review where possible. There are several steps you can take to limit review: filing objections to overbroad requests; negotiating scope with opposing counsel (*e.g.*, identifying a limited number of custodians, agreeing on search terms to narrow the universe of document to be reviewed, etc.); or moving for a protective order if necessary.¹²

The manner in which you conduct the review will also affect costs. One advantage of electronic discovery is that it avails itself well to the use of technology. Whenever possible, take advantage of technology to make your review more efficient, and to locate responsive documents more quickly. First of all, be aware that it will virtually always be less expensive to review the documents in their electronic form, as opposed to printing the documents prior to review. Simple technologies such as running search terms on a universe of documents can help to control the volume and, subsequently, the cost, of review. More advanced technologies include the use of duplicate suppression and document mapping. Duplicate suppression technologies can be used to identify and suppress up front the duplicative documents existing within the documents you have collected. This technology is especially useful when applied to email, because of the highly repetitive nature and typically wide distribution of email. Document mapping is an example of cutting edge technology that allows an attorney to streamline review by organizing documents graphically. By grouping similar documents together graphically, document mapping technologies facilitate

Whenever possible, take advantage of technology to make your review more efficient.

¹² FRCP 26(b)(2) identifies limitations on the scope of discovery:

The frequency or extent of use of the discovery methods otherwise permitted under these rules and by any local rule shall be limited by the court if it determines that: (i) the discovery sought is unreasonably cumulative or duplicative, or is obtainable from some other source that is more convenient, less burdensome, or less expensive; (ii) the party seeking discovery has had ample opportunity by discovery in the action to obtain the information sought; (iii) the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in the litigation, and the importance of the proposed discovery in resolving the issues.

quick and efficient review of the documents. Electronic discovery is a dynamic and burgeoning area – make an effort to stay educated about new technologies that may enable you to reduce costs and better serve your clients.

Remember to consider the dual purpose of review when designing your review process. Naturally you need to design the review to find the documents responsive to the opposing party's discovery requests effectively. However, as an advocate for your client, it is equally important that your review be designed to segregate out those responsive documents that either should not be produced at all (*e.g.*, because they are the subject of attorney-client privilege), or should only be produced subject to protective order (*e.g.*, highly confidential trade secret information, highly sensitive personal information). Structure your review process to account for all the above needs.

How you structure your review will vary from case to case. For complex cases, it may be helpful to structure the review in tiers. One possible structure is a three-tiered review consisting of an initial review; secondary, refined review; and a specialized privilege review. Use the initial review to make a first cut at identifying potentially responsive documents, earmarking those documents that may be attorney-client privileged or work product. The secondary, refined review can be used to make more detailed decisions on responsiveness, as well as applying protective order designations. A specialized privilege review can be used to further review the documents earmarked as potentially subject to attorney-client privileged and/or work product claims. Where a valid claim exists, the document or portions of the document will be withheld from production, and a privilege log will be created to protect these documents from discovery.

Be creative in developing a structure that serves your client's interests, while still fulfilling your discovery obligations. For example, specialized privilege review can be both time-consuming and costly. If you are working with a short discovery deadline, or if your opponent has demanded you turn over backup tapes for their inspection, you may not be able to conduct an adequate privilege review. In such a situation, you may want to use searches to cull privileged material from responsive set. In addition, you may be able to enter a stipulation with your opponent, or obtain an order from the court, that the inadvertent disclosure of privileged or otherwise protected electronic information does not constitute a waiver of the protection. The key is to tailor the structure of your document review process to the specific needs of the case.

Regardless of the complexity or structure of the review, thorough tracking and documentation is essential. By tracking what was collected, from whom, what was reviewed, and when it was produced, you can ensure you

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have fulfilled your obligation to make a reasonable effort to identify and produce all relevant documents. In addition, you will be in a position to defend yourself against motions to compel or other challenges to your production.

PRODUCTION

The final aspect of your strategy for responding to electronic discovery requests is production. In addition to reaching an agreement regarding the schedule and deadlines for production, is the issue of the format in which the documents will be produced. The most obvious distinction is whether the production will be in hard copy, or in electronic format. If production in electronic format is considered, you will need to decide between the various electronic formats, such as native format, or electronically imaged formats (e.g., PDF or TIFF images).

There are advantages and disadvantages to each production format option. The standard practice for many firms and businesses is to collect and review documents, emails, databases in their electronic form, and then print out the relevant documents into hard copy for production. For many litigators, hard copy is preferable from a usability standpoint. Working with printed documents is often easier than working with documents on a computer screen, particularly when you want to make notations, flag important sections, or flip back and forth within a document or between documents. However, it is becoming increasingly common for parties to eschew hard copy production in favor of producing and receiving documents in electronic form. Electronic formats are generally more easily sorted and retrieved than hard copy documents.¹³ A huge advantage with electronic documents is that their text is searchable, so long as the document is in native electronic format, or in an image that has been OCR'ed (optical character recognition). Another advantage of electronic format over hard copy is that loading documents into a litigation support database typically requires that the documents be in electronic format. By agreeing to production in electronic format, parties can avoid the considerable expense of scanning and imaging required to convert hard copy back into electronic form. Of course, keep in mind that if you plan to load documents into a litigation support database, you will need to consider what electronic format is optimal for that litigation support system.

If the parties agree that documents will be produced electronically, it is important to specify which electronic format is desired, recognizing that there are significant differences between the different electronic document

Establish a schedule and a format for your production.

It is becoming increasingly common for parties to eschew hard copy production in favor of producing and receiving documents in electronic form.

¹³ See e.g., *Lombardo v. Broadway Stores, Inc.*, 2002 WL 86810, *8 (Cal. Ct. App. Jan.22, 2002) ("The computerized records had evidentiary unique value distinct from the hard copy records: They made the information accessible."); see also *Timpken Co. v. United States*, 659 F.Supp. 239 (C.I.T. 1987) (granting plaintiff's request for access to computer tapes where plaintiff argued that a keypuncher would require roughly 7,500 hours to create a computer tape containing the information set forth in 15,000 pages of computer printouts).

formats. Native format documents contain information that may be lost during the conversion to PDF or TIFF format, such as metadata, and hidden or embedded data. Metadata is the data automatically tracked by a software program regarding the properties of the document, such as the date the document was created, when the document was modified, the identity of the author and subsequent editors, etc. Hidden data or embedded data consists of user-created information that is hidden from immediate view, but is easily accessed in the native document. Some common examples of hidden and embedded data are: hidden or filtered rows or columns in a spreadsheet, formulas used for calculations within spreadsheets, tracked edits in word processing documents, and comments inserted in word processing documents or spreadsheets. If such data is crucial to issues in the case, access to native format documents may be warranted.

In most cases, however, the benefits of producing and receiving documents in native format are easily overshadowed by the drawbacks. From a standpoint of data authenticity, native documents create risks because they are so easily altered. In addition, production of native files also substantially increases the cost of review, as it requires review of the hidden comments or other information that may contain privileged information, but is rarely relevant to any issues in the case. When privileged information is found, native documents present a further complication – they cannot be redacted for production of non-privileged portions of the document. Native files cannot be assigned Bates numbers or protective order designations on the page-by-page level required for litigation purposes. The ability to manage documents without Bates numbers in any significant litigation quickly becomes an impossible task. In reality, most litigators and vendors don't have a clue how to effectively review and manage hundreds of thousands of documents produced in native format.

Before proposing a format for production, it is important to consider the pros and cons carefully. Remember that discovery is a two-way street. Any request or objection you make is likely to be turned back at you. If you think creatively, you can protect your client's interests while taking advantage of the substantial cost savings made possible by producing and/or receiving documents in electronic format. One option is to provide documents in PDF or TIFF images that can be readily loaded into numerous existing databases with an agreement to provide the native document in those limited circumstances where they are actually relevant.

If hidden or embedded data is crucial to issues in a case, access to native format documents may be warranted. However, in most cases, the drawbacks of native format production greatly outweigh the benefits.

Requesting Electronic Production from the Opposition

Just as every sound litigation plan must include a strategy for responding to discovery requests, it also requires similar attention be given to how you will obtain the documents and information you need from the opposing party. Making and responding to discovery requests are essentially two sides of the same coin. As a result, many of the issues and considerations discussed above in relation to responding to discovery requests apply similarly to making requests. One difference is that, as the requesting party, you will often find yourself assuming a watchdog role. This role brings up a few distinctions and additional issues that warrant discussion.

LEARNING ABOUT YOUR OPPONENT'S DOCUMENTS

Just as you need to be familiar with your client's computer systems and computer usage to respond to discovery, knowing about your opponent's systems and usage can be invaluable in crafting your discovery requests. It also may be crucial in enabling you to effectively protect your client's interests by ensuring the opposition is preserving, collecting and producing the relevant information. The Federal Rules provide a few resources you can use to gather information about the opposing party's electronic documents. For example, much of the information you need regarding the custodians and locations of documents should be disclosed by the other party during Rule 26(a)(1) disclosures. You can also address electronic discovery issues during the Rule 26(f) meet and confer.¹⁴ Finally, you can conduct Rule 30(b)(6) depositions to uncover important information about electronic evidence controlled by your opponent. Depositions taken early in the case may provide information needed to craft document requests, while depositions later on may provide a means to test your opponent's compliance with discovery obligations.

Knowing about your opponent's computer systems and computer usage can be invaluable in crafting your discovery requests.

PRESERVATION AND RECOVERY OF RELEVANT EVIDENCE

A first step in making discovery requests is to ensure that your opponent is on notice of the need to preserve all potentially relevant documents. One very concrete action you can take is to send a preservation of evidence letter to your adversary.

There are several elements to include in your preservation letter. Identify the individuals, by name or by position within the organization, who may

The Federal Rules of Civil Procedure provide several means by which you can gather information regarding the opposing party's electronic documents.

¹⁴ Indeed, a few federal courts require that parties address electronic discovery issues in preparation for their Rule 26(f) conference. See, e.g., Local Rule 26.1(d) of the United States District Court for the District of Wyoming; Local Rule 26.1 of the United States District Court for the Eastern and Western Districts of Arkansas. See Appendix C for a current listing of rules addressing electronic discovery issues that have been adopted by federal and state courts.

possess relevant electronic evidence. Describe the types of evidence to be preserved, both in terms of the subject matter and in terms of the possible locations of the evidence. Where possible, describe the material to be preserved with specificity, but be sure to also include a general description of the types of information to be preserved, in case the universe of relevant evidence is larger than your initial impression of it. Where not clearly obvious on its face, explain generally why the evidence is relevant to the case. Finally, ask that the evidence be located immediately and preserved.

Preservation of evidence letters can reduce the risk that your opposing party will destroy relevant documents. It provides the party with clear notice that it may have relevant evidence, and reminds it of the duty to preserve all relevant evidence, a duty that arises as soon as litigation is reasonably foreseeable. In situations where litigation has not been filed, the receipt of a preservation of evidence letter eliminates any argument that litigation was not yet reasonably foreseeable. Even in situations where litigation has already been filed, so that the opposing party is clearly on notice of a dispute, preservation letters can be helpful in preventing the opposing party from destroying documents and later claiming ignorance about what should have been saved, or claiming ignorance as to the significance of a particular piece of evidence.

The preservation of evidence letter should be considered a routine element of conducting discovery. It serves as an excellent precaution against innocent and/or inadvertent destruction of evidence. In addition, it may be useful in preventing the opposing party from willfully destroying evidence.

Where willful destruction of evidence is a real risk in your case, be prepared to take action beyond issuing the preservation of evidence letter. If you have cause to think that the opposing party is apt to alter or destroy relevant electronic evidence, it may be prudent to obtain an order to preserve evidence, or an order permitting the seizure of computers and storage media. If you can show that the risk of destruction is particularly high, *i.e.*, showing facts demonstrating that the adverse party has the opportunity to conceal or destroy evidence, and demonstrating that the party is likely to take the opportunity for deceptive conduct, *ex parte* relief may be possible.¹⁵

Despite the precautions you take, you may discover that relevant evidence has been altered or deleted, either innocently or maliciously. Where the altered or deleted files are likely to contain information that is both relevant and probative, you may want to consult with a computer forensics expert to recover the missing evidence. Because of the expense and disruption to business routinely involved in forensic recovery, you should be prepared to

Preservation of evidence letters can lessen the risk of the opposing party destroying relevant documents.

A forensics expert may be able to recover deleted or altered data. How the expense is allocated may depend upon the circumstances surrounding how the data was lost.

¹⁵ *Sega Enterprises, Ltd. v. MAPHIA*, 948 F. Supp. 923, 927 (N.D. Cal. 1996); *Linnen v. A.H. Robins Co.*, 1999 WL 462015 (Mass. Super. June 16, 1999); *Smith v. Texaco Inc.*, 951 F.Supp. 109 (E.D. Tex. 1997); *First Technology Safety Systems, Inc. v. Depinet*, 11 F.3d 641, 651 (6th Cir. 1993); *Adobe Systems, Inc. v. South Sun Products, Inc.*, 187 F.R.D. 636 (S.D.Cal. 1999); *Gates Rubber Co. v. Bando Chem. Indus.*, 167 F.R.D. 90 (D. Colo. 1996).

explain to the court why the recovery of the evidence is necessary, *e.g.*, because of its potential for relevance, and the inability to obtain the information from a different source. Even if the court allows the recovery, the expense will often be borne by the requesting party. Where the destruction is malicious, the offending party is more likely to be held responsible for the expense of recovering data using forensics.¹⁶ If the destruction is in violation of a court preservation order or specific discovery requests, the consequences may be more severe, including monetary sanctions or default judgments.¹⁷

TWO-WAY STREET RULE

A final word of caution regarding making discovery requests is to emphasize the “two-way street” rule. While discussed previously in terms of production, it applies to virtually all aspects of the discovery process. Think of it as a macabre variation of the Golden Rule: what you do unto others, will likely be done to you. Be careful in making requests or demands that you would not want to have made upon you, or with which it would be difficult or impossible for you to comply.

Conclusion

Electronic discovery is now a fact of everyday life in the world of litigation. The principles guiding discovery remain constant regardless of whether you are handling paper documents or electronic documents. However, the practices you follow to complete discovery need to account for the unique nature of electronic documents, and the new challenges that accompany them. By considering both the pitfalls and advantages presented by electronic documents, you can design an effective electronic discovery strategy that accommodates both the paper and the electronic realms.

¹⁶ *Illinois Tool Works, Inc. v. Metro Mark Products, Ltd.*, 43 F.Supp.2d 951 (N.D. Ill. 1999).

¹⁷ *Wm. T. Thompson Co. v. General Nutrition Corp., Inc.*, 593 F.Supp. 1443 (C.D. Cal. 1984).

Appendix A:
Table of Cases

Discussed in Appendix B	Case Citation	Nature of Case	Electronic Data Involved	E-Discovery Issue	Motion for Protective Order	Motion to Compel	Motion for Sanctions	TRO or Prelim. Injunction	Discoverability	Data Preservation	Spoliation	Privilege or Work Product	Lack of Cooperation, Inaccurate Representations	Cost-Shifting	Electronic v. Paper / Format of Production	Computer Experts	Deleted Data Recovery	Backup Tapes	Mirror Image of Hard Drive	Inspection	Rule 30(b)(6) Deposition
X	<i>Adobe Sys., Inc. v. South Sun Products, Inc.</i> , 187 F.R.D. 636 (S.D.Cal. 1999)	Software manufacturers alleged software piracy against wholesale jeweler	Software, hard drives	Plaintiffs' application for <i>ex parte</i> restraining order denied				X		X							X		X	X	
X	<i>In re Air Crash Disaster at Detroit Metro. Airport</i> , 130 F.R.D. 634 (E.D. Mich. 1989)	Litigation regarding airplane crash	Nine-track computer tape of flight simulator runs	Aircraft manufacturer required to produce on computer-readable tape flight simulation run program and data previously produced in hard copy form		X									X						
X	<i>Alexander v. FBI</i> , 186 F.R.D. 78 (D.D.C. 1998)	Suit for Privacy Act violations in connection with FBI's release of certain files to individuals in White House	Examination of hard drive, deleted files	Examination of former official's hard drive and servers allowed in order to determine whether responsive documents that were not produced actually exist		X	X			X							X			X	
X	<i>Alexander v. FBI</i> , 188 F.R.D. 111 (D.D.C. 1998)	Suit for Privacy Act violations in connection with FBI's release of certain files to individuals in White House	Archived e-mail and deleted files, backup tapes	Defendant not required to completely restore all e-mail and deleted files; plaintiffs to pursue discussion with defendants regarding targeted and appropriately worded searches of backed-up and archived e-mail and deleted hard drives for a limited number of individuals; scope of plaintiffs' F.R.C.P. 30(b)(6) notice narrowed	X	X											X	X			X
	<i>Am. Bankers Ins. Co. of Fla. v. Caruth</i> , 786 S.W.2d 427 (Tex. App. 1990)	Insurance coverage	Database	Entry of default judgment on issue of liability and imposition of other discovery sanctions against insurer for failure to produce computer data and other discovery abuses was not an abuse of discretion			X						X								

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	<i>In re Amsted Ind., Inc. ERISA Litigation</i> , 2002 WL 31844956 (N.D. Ill. Dec. 18, 2002)	ESOP plan participants sued employer and ESOP for breach of fiduciary duty and other wrongs	Email and other computerized data	Plaintiffs' motion to retrieve email granted; defendants required to re-search backup tapes using broader subject matter and time period, and to search email folders of any relevant individual in same manner		X												X			
X	<i>Anti-Monopoly, Inc. v. Hasbro, Inc.</i> , 1995 WL 649934 (S.D.N.Y., Nov. 3, 1995)	Antitrust	Computerized sales and price information	Parties directed to discuss issue further in light of court's ruling that production of information in hard copy form does not preclude party from receiving same information in electronic form, and that producing party can be required to design computer program to extract data		X			X					X	X						
X	<i>Antioch Co. v. Scrapbook Borders, Inc.</i> , 210 F.R.D. 645 (D. Minn. 2002)	Copyright infringement and unfair competition	Deleted files on hard drives	Plaintiff's motion for expedited discovery, entry of a preservation order and to appoint neutral computer forensics expert to take mirror image of defendants' hard drives granted, even though no discovery had yet been propounded; court set forth protocol for production		X		X	X	X		X		X		X	X		X		
X	<i>Armstrong v. Executive Office of the President</i> , 1 F.3d 1274 (D.C. Cir. 1993)	Researchers and nonprofits challenged proposed destruction of federal records	E-mail, metadata	E-mail communications constitute records under Federal Records Act, and must be managed and preserved as such; merely retaining hard copy printouts was insufficient											X						
	<i>Benton v. Allstate Ins. Co.</i> , 2001 WL 210685 (C.D. Cal. Feb. 26, 2001)	Insureds sued insurer for breach of covenant of good faith and fair dealing and related torts	Insurer's claims-handling computer system	Plaintiff's <i>ex parte</i> motion to continue summary judgment and for additional discovery of defendant's computer system denied where prior F.R.C.P. 56(f) continuance granted and no showing made of specific evidence expected to be elicited																	

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	<i>Bertsch v. Duemeland</i> , 639 N.W.2d 455 (N.D. 2002)	Tortious interference, misappropriation of trade secrets, defamation	Hard drives (to locate e-mail)	Plaintiff denied access to hard drives of computers acquired by defendant after alleged torts took place		X														X	
X	<i>Bills v. Kennecott Corp.</i> , 108 F.R.D. 459 (D. Utah 1985)	Age discrimination	Computer printout	Defendant's motion to require plaintiff to pay costs associated with defendant's generation of computer printout denied	X				X					X	X						
	<i>Black & Veatch Int'l Co. v. Foster Wheeler Energy Corp.</i> , 211 F.R.D. 641 (D.Kan. 2002)	Construction litigation	Software program and input files used to make design calculations	Plaintiff failed to comply with court order by making various misrepresentations about whether all original input files were produced and whether software program changed over time it was used; sanction in form of attorneys' fees and costs warranted			X					X									
	<i>Bovis Lend Lease, LMB, Inc. v. Seasons Contracting Corp.</i> , 2002 WL 31729693 (S.D.N.Y. Dec. 5, 2002)	Insurance coverage	Email	Various emails among claims handlers, supervisors, in-house counsel and outside counsel were protected from discovery by either attorney-client privilege, work product doctrine, or both; however, voluntary production of certain emails waived protections; inadvertent disclosure may waive protections if reasonable precautions were not taken to guard against inadvertent disclosure		X						X									
X	<i>In re Brand Name Prescription Drugs Antitrust Litig.</i> , 1995 WL 360526 (N.D. Ill. June 15, 1995)	Antitrust class action	E-mail data stored on backup tapes	Defendant required to produce e-mail at its own expense; plaintiffs to pay \$.21 per page for e-mail selected for copying; parties to meet and confer on limitations to scope of e-mail search		X								X				X			

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	<i>Braxton v. Farmer's Ins. Group</i> , 209 F.R.D. 651 (N.D. Ala. 2002)	Class action alleging that insurer violated Fair Credit Reporting Act	E-mail and documents in electronic format	Non-party subpoena issued by plaintiff to insurance agents for e-mail and electronic documents touching on, relating to or concerning use of consumer credit reports in setting homeowners' insurance premiums quashed as unduly burdensome, in absence of showing that defendant's production of such materials was inadequate	X																
X	<i>In re Bristol-Meyers Squibb Sec. Litig.</i> , 205 F.R.D. 437 (D.N.J. 2002)	Securities fraud	Electronically scanned documents; drug application information in electronic form	Plaintiffs not required to pay for certain paper copies since defendants failed to disclose pursuant to F.R.C.P. 26(a)(1)(B) that they were in electronic form; plaintiff required to make scanned versions of documents available notwithstanding paper production; defendants required to pay nominal cost of copying CDs but not required to share in plaintiffs' scanning costs in light of paper production costs already incurred		X						X	X	X							
X	<i>Byers v. Ill. State Police</i> , 53 Fed.R.Serv.3d 740 (N.D. Ill. 2002)	Sex discrimination and retaliation, denial of equal protection and free speech	E-mail from backup tapes	Motion to compel granted to extent plaintiffs bear part of expense		X			X					X				X			
	<i>Byrne v. Byrne</i> , 650 N.Y.S.2d 499 (1996)	Divorce proceeding	Financial data stored on laptop provided by husband's employer	Wife's acts of removing laptop from family home and delivering it to her attorney for safekeeping were not wrongful; court established protocol for inspection and production						X		X				X			X	X	
	<i>In re Carbon Dioxide Ind. Antitrust Litigation</i> , 155 F.R.D. 209 (M.D. Fla. 1993)	Antitrust class action	Information re data, hardware, software of each defendant	F.R.C.P. 30(b)(6) depositions re computer systems and data allowed to precede merits discovery																	X

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	<i>Carlton Group, Ltd. v. Tobin</i> , 2003 WL 21782650, fn. 8 (S.D.N.Y. July 31, 2003)	Financial services company sued former employees for conspiring to steal confidential and proprietary information and unfair competition	Client databases and other proprietary information	Court granted ex parte application for TRO and related relief in order to locate and recover stolen information, and ordered return of laptops and "bit stream copying" of defendants' computers to preserve deleted data				X		X						X	X		X		
	<i>Centurion Indus., Inc. v. Warren Steurer & Assoc.'s.</i> , 665 F.2d 323 (10th Cir. 1981)	Patent infringement	Software trade secrets of third party	Subpoena seeking non-party's software trade secrets enforced		X			X												
	<i>Century ML-Cable Corp. v. Carrillo</i> , 43 F.Supp.2d 176 (D.P.R. 1998)	Cable TV provider sued businessman for cable TV theft	Laptop	Default judgment entered against defendant and attorneys' fees awarded to plaintiff, pursuant to FRCP 37, for defendant's willful and intentional destruction of laptop presumably containing crucial evidence of defendant's decoder key modification programs, sale records and customer lists			X	X		X	X		X								
X	<i>In re Cheyenne Software, Inc.</i> , 1997 WL 714891 (E.D.N.Y. Aug. 18, 1997)	Securities fraud	E-mail, electronic documents	Defendants to bear cost of downloading and printing up to 10,000 additional pages of e-mail responsive to key word searches requested by plaintiff; monetary sanctions imposed on defendants for destroying documents on computer hard drives			X	X		X	X				X						
	<i>In re CI Host, Inc.</i> , 92 S.W.3d 514 (Tex. 2002)	Class action against web host alleging contract breach, negligence and violation of Deceptive Trade Practices Act	Backup tapes	Because defendant failed to support its objections re production of backup tapes as required by Tex. R. Civ. P. 193.4, trial court did not abuse discretion in ordering production.				X		X								X			

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	<i>Ciba-Geigy Corp. v. Sandoz, Ltd.</i> , 916 F.Supp. 404 (D.N.J. 1995)	Environmental litigation	Memorandum selected from litigation database	Production of documents from litigation database without first conducting privilege review constituted inexcusable neglect and waived attorney-client privilege; inadvertent disclosure clause in governing protective order did not apply	X							X										
	<i>Columbia Valley Reg'l Med. Center v. Bannert</i> , 112 S.W. 3d 193 (Tex.Ct. App. 2003)	Former employee sued former employer and managers for libel	Word document	Reversing jury verdict of over \$1.5 million in compensatory and punitive damages, court found evidence not legally sufficient to support finding that manager authored offending memorandum; computer experts testified regarding creation of memo and history of revisions and locations of copies												X		X			X	
	<i>Commodity Futures Trading Comm. V. DBS Capital, Inc.</i> , 2003 WL 22023896 (N.D. Cal. Apr. 1, 2003)	Alleged violations of Commodity Exchange Act	Electronically stored data	<i>Ex parte</i> application for order prohibiting defendants from disposing of assets or directly or indirectly destroying any documents related to the business or personal finances of defendants; immediate expedited discovery (inspection and copying of books and records) also allowed																		
	<i>Computer Assoc. Int'l v. Am. Fundware, Inc.</i> , 133 F.R.D. 166 (D. Colo. 1990)	Copyright infringement, unfair competition, breach of computer software agreement	Source code	Defendant's destruction of source code warranted default judgment on issue of liability			X			X	X											
	<i>Computer Assoc. Int'l v. Quest Software, Inc.</i> , 2003 WL 21277129 (N.D.Ill. June 3, 2003)	Copyright infringement, misappropriation of trade secrets	Hard drives	Applying the <i>Rowe</i> balancing test, court denied responding party's motion to require requesting party to pay costs associated with computerized privilege review	X							X		X					X			

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X	<i>Concord Boat Corp. v. Brunswick Corp.</i> , 1997 WL 33352759 (E.D. Ark. Aug. 29, 1997)	Antitrust and contract claims	Email stored on backup tapes	Motion for an adverse inference/spoilation instruction based on defendant's alleged destruction of email denied; court also denied motion to compel restoration of defendant's available backup tapes in order to search for deleted email		X	X			X	X						X	X			
	<i>Crown-Life Ins. Co. v. Craig</i> , 995 F.2d 1376 (7th Cir. 1993)	Insurer sued former general agent and agent counterclaimed for renewal commissions owed	Database containing raw data regarding policies sold by agents	Insurer's willful failure to comply with discovery orders and failure to produce database warranted evidentiary preclusion order amounting to entry of default judgment on agent's counterclaim			X		X				X								
	<i>Daewoo Electronics Co. v. United States</i> , 650 F.Supp. 1003 (Ct. Int'l Trade 1986)	Proceeding to review Dept. of Commerce's review of antidumping duty order regarding television sets	Data sets	Zenith's motion to compel granted, requiring production of SAS data sets, constituting final refined forms of data used to compute final results, in usable form		X	X						X								
X	<i>Danis v. USN Communications, Inc.</i> , 53 Fed.R.Serv.3d 828 (N.D. Ill. 2000)	Class action alleging securities law violations	Electronically stored finance, accounting and sales documents and data	Magistrate recommended that defendant CEO be sanctioned \$10,000 for document preservation failings, and jury be instructed regarding missing documents			X	X		X	X		X					X			
	<i>Deloach v. Philip Morris Co.</i> , 206 F.R.D. 568 (M.D.N.C. 2002)	Antitrust	Computerized transaction data	Where defendant withheld computerized data and defense expert subsequently used data in rebuttal report, court allowed plaintiffs the opportunity to respond to defendants' rebuttal expert report, and ruled that defendants would not be allowed opportunity to reply to plaintiffs' response to the withheld information			X														

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X	<i>Dodge, Warren & Peters Ins. Services, Inc. v. Riley</i> , 130 Cal.Rptr.2d 385 (Cal. Ct. App. 2003)	Insurance brokerage firm sued former employees for misappropriation of trade secrets and related torts	All forms of electronic evidence	Preliminary injunction requiring preservation of electronic evidence upheld; defendants prohibited from destroying any electronic storage media and required to allow a court-appointed expert (1) to copy all of it, (2) to recover lost or deleted files, and (3) to perform automated searches of evidence under guidelines agreed to by parties or set by court	X		X		X			X		X		X	X		X			
	<i>Dow Chem. Co. v. Allen</i> , 672 F.2d 1262 (7th Cir. 1982)	Herbicide cancellation proceeding	Research data regarding toxicity studies of third party	Subpoena seeking non-party's research data not enforced		X																
	<i>eSpeed, Inc. v. Chicago Bd. Of Trade</i> , 2002 WL 827099 (S.D.N.Y. May 1, 2002)	Patent infringement	Email	Various emails analyzed for privilege; production ordered		X						X										
	<i>Ex Parte Wal-Mart, Inc.</i> , 809 So.2d 818 (Ala. 2001)	Negligence, premises liability	"Run" from computer database	"Run" from database to be narrowed to retrieve only similar incidents		X			X													
X	<i>Fanelli v. Centenary College</i> , 211 F.R.D. 268 (D.N.J. 2002)	Wrongful termination, contract breach	Videotaped deposition	Employee's alleged anxiety regarding videotaped deposition was not "good cause" for protective order prohibiting videotaping of deposition	X																	
X	<i>Fennell v. First Step Designs, Ltd.</i> , 83 F.3d 526 (1st Cir. 1996)	Wrongful termination (retaliatory discharge)	Inspection of original document as it resided on hard drive (metadata)	Plaintiff's F.R.C.P. 56(f) motion for additional discovery to determine whether key document had been back-dated denied, defendants' summary judgment granted												X				X		

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	<i>First Techn. Safety Sys., Inc. v. Depinet</i> , 11 F.3d 641 (6th Cir. 1993)	Crash test dummy manufacturer sued competitor for unfair competition, copyright infringement, misappropriation of trade secrets and related torts	Computer programs and printouts	<i>Ex parte</i> order permitting plaintiff and its counsel, with U.S. Marshal, to enter defendants' business premises and inventory and impound computer records and copy and inventory business records was abuse of discretion				X														
	<i>First USA Bank, N.A. v. Paypal, Inc.</i> , 2003 WL 22071558 (Fed. Cir. Aug. 21, 2003)	Patent infringement	Laptop	Former CEO of defendant subpoenaed and ordered to appear for deposition and produce his laptop computer for forensic inspection pursuant to court's approved search protocol; CEO's appeal of the nonfinal interlocutory order was dismissed		X													X	X		
	<i>Fullerton v. Prudential Ins. Co.</i> , 194 F.R.D. 100 (S.D.N.Y. 2000)	Employment discrimination	Email	Defendant's voluntary production of documents (including emails) protected by attorney-client privilege and work product doctrine waived protections		X						X										
	<i>In re Gabapentin Patent Litigation</i> , 214 F.R.D. 178 (D.N.J. 2003)	Patent infringement	Email	Forwarding or copying email or other documents that are prepared by non-lawyers for business purposes to a lawyer does not transform such email or documents into work product		X						X										

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	<i>Gambale v. Deutsche Bank Ag</i> , 2002 WL 31655326 (S.D.N.Y. Nov. 21, 2002)		Email and electronic files	Magistrate ordered defendants to provide an affidavit explaining steps taken to search paper and electronic files for responsive documents and feasibility and cost of retrieving certain emails. Plaintiff would then have option of consenting to protocol set forth in <i>Rowe Entertainment</i> as modified by <i>Murphy Oil</i> , or arguing for different protocol by conferring with adversary and submitting a joint letter outlining parties' respective positions on issue		X																
X	<i>Gates Rubber Co. v. Bando Chem. Ind., Ltd.</i> , 167 F.R.D. 90 (D. Colo. 1996)	Manufacturer of industrial belts sued former employees and competitor for misappropriation of trade secrets	Computer programs; hard drives; deleted files	On multiple motions for sanctions, court sanctioned defendant for employee's deletion of word processing files and defendant's subsequent inadequate effort to retrieve deleted files			X	X		X	X					X	X		X	X		
X	<i>In re Gen. Instrument Corp. Sec. Litig.</i> , 1999 WL 1072507 (N.D.Ill. Nov. 18, 1999)	Securities class action	Email stored on backup tapes	Although email could be retrieved from backup tapes "without undue expense," court found burden outweighed benefit where volume of email was potentially very large and document review would distract defense counsel's energies from other aspects of litigation, e.g., expert discovery and trial prep		X												X				

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	<i>Giardina v. Lockheed Martin Corp.</i> , 2002 WL 1338826 (E.D. La. Mar. 14, 2003)	Employment discrimination	Information re all non-work related internet sites accessed on certain of employer's computers during relevant period	Magistrate's order granting plaintiff's motion to compel discovery and awarding attorneys' fees upheld; employer required to provide available data and also respond by stating the steps taken to obtain non-work related internet sites accessed during the dates requested, including detailed explanation of efforts to obtain information and reasons its efforts were not successful if it was unable to obtain the data to fully respond to interrogatory		X																
	<i>In re Grand Jury Subpoena Dated June 30, 2003</i> , 2003 WL 21959755 (N.Y. Sup. July 29, 2003)	Grand jury proceedings investigating homicide	Laptop	DA's application to compel witnesses to answer questions granted: attorney/client privilege did not preclude attorneys representing individuals connected to events surrounding homicide from answering questions about laptop that was instrumentality of crime		X						X									X	
	<i>In re Grand Jury Subpoena Duces Tecum Dated Nov. 15, 1993</i> , 846 F.Supp. 11 (S.D.N.Y. 1994)	Grand jury proceedings	Computer hard drives and floppy diskettes	Grand jury subpoena demanding production of all computer hard drives and disks of specified individuals (as opposed to specified categories of information) quashed because unreasonably broad					X												X	
	<i>Gorgen Co. v. Brecht</i> , 2002 WL 977467 (Minn. Ct. App. May 14, 2002)	Misappropriation of trade secrets	Electronic documents	Order granting <i>ex parte</i> TRO before complaint was filed, and which prohibited defendants from destroying or altering electronic documents pertaining to complaint, was abuse of discretion				X		X												
X	<i>GTFM, Inc. v. Wal-Mart Stores</i> , 2000 WL 1693615 (S.D.N.Y. Nov. 9, 2000)	Trademark infringement	Computerized information re purchase of goods bearing plaintiffs' trademarks	Plaintiffs' motion for on-site inspection of computer records granted; defendant's misrepresentations about computer capabilities warranted monetary sanctions		X	X						X			X					X	

Discussed in Appendix B	Case Citation	Nature of Case	Electronic Data Involved	E-Discovery Issue	Motion for Protective Order	Motion to Compel	Motion for Sanctions	TRO or Prelim. Injunction	Discoverability	Data Preservation	Spoliation	Privilege or Work Product	Lack of Cooperation, Inaccurate Representations	Cost-Shifting	Electronic v. Paper / Format of Production	Computer Experts	Deleted Data Recovery	Backup Tapes	Mirror Image of Hard Drive	Inspection	Rule 30(b)(6) Deposition
	<i>Hayes v. Compass Group USA, Inc.</i> , 202 F.R.D. 363 (D. Conn. 2001)	Age discrimination	Discrimination claims records	Defendants required to produce information on all age discrimination claims brought during relevant time frame for which defendants have computer search capabilities; defendants not required to manually search files created prior to installation of computerized case management system	X																
	<i>Hildreth Mfg., LLC v. Semco, Inc.</i> , 785 N.E.2d 774 (Ohio Ct. App. 2003)	Misappropriation of trade secrets and related torts	Computer hard drives	Failure to preserve computer hard drives did not warrant sanctions where there was no reasonable possibility that the missing hard drives (which were obtained after protective order was issued) contained evidence of the theft of trade secret information	X		X	X		X	X								X		
	<i>IBM v. Comdisco, Inc.</i> , 1992 WL 52143 (Del. Super. Mar. 11, 1992)	Tort claims arising from breach of lease of computer system	Privileged e-mail	Motion to compel production of e-mail inadvertently produced by plaintiffs denied as to portion of e-mail reflecting confidential legal advice, but granted as to portion of e-mail intended to be disclosed outside circle of confidentiality		X						X									
	<i>Ill. Tool Works, Inc. v. Metro Mark Products, Ltd.</i> , 43 F.Supp.2d 951 (N.D. Ill. 1999)	Misappropriation of trade secrets	Hard drive, deleted files, electronically stored invoices	Defendant's failure to preserve integrity of computer (dropping it repeatedly, disconnecting internal cables) and failure to produce responsive electronic material warranted monetary sanctions			X	X		X	X		X			X	X			X	
	<i>Ingenix, Inc. v. Lagalante</i> , 2002 WL 506812 (E.D. La. Mar. 28, 2002)	Employer sued former employee for misappropriation of trade secrets and related torts	E-mail, laptop, documents, slide presentations	TRO granted prohibiting defendant from soliciting business from customers who were subject of computer data				X								X	X			X	

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	<i>Itzenon v. Hartford Life & Accident Ins. Co.</i> , 2000 WL 1507422 (E.D. Pa. Oct. 10, 2000)	ERISA action to recover death benefits under employee benefit plan	Database re insurance claims	Discovery deadline extended and defendant ordered to "use every practicable means" to identify specified claims files	X	X	X														
	<i>Jackson v. Microsoft Corp.</i> , 211 F.R.D. 423 (W.D. Wash. 2002)	Employment discrimination	CDs and laptop computer hard drive	Plaintiff's misconduct and discovery abuse (including obtaining email and proprietary information of employer, paying for such material, copying and using material to prepare case, and engaging in elaborate series of lies during depositions and evidentiary hearings re same) warranted dismissal with prejudice			X				X		X			X	X		X		
	<i>Jimenez v. Madison Area Technical Coll.</i> , 321 F.3d 652 (7th Cir. 2003)	Employment discrimination based on race, sex and ethnic origin	Email	No abuse of discretion to dismiss suit with prejudice and impose sanctions against plaintiff under Rule 11, where it was determined that plaintiff had relied on falsified email and letters to support her discrimination claims			X														
X	<i>Jones v. Goord</i> , 2002 WL 1007614 (S.D.N.Y. May 16, 2002)	Class action challenging state's program for housing two prisoners in cell originally designed for one	Electronic databases	Plaintiffs' motion to compel production of databases used by prison system to track various types of information re prisoners denied; even if databases were relevant and not privileged, burden of proposed discovery far outweighed its likely benefit		X									X	X					
	<i>Kadant v. Seeley Machine, Inc.</i> , 244 F.Supp.2d 19 (N.D.N.Y. 2003)	Trademark infringement	Computer data	Plaintiff's motion for preliminary injunction granted; defendants enjoined from destroying, erasing or altering any of its computer-stored information that concerns any of plaintiff's claims against them				X		X											

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	<i>Katt v. Titan Acquisitions, Inc.</i> , 244 F.Supp.2d 841 (M.D. 2003)	Securities class action	Electronic evidence	Despite dismissal of all of plaintiffs' claims and entry of final judgment on the merits, court retained ancillary jurisdiction over plaintiffs' motion for sanctions for spoliation of evidence for purpose of holding a hearing before ruling on the motion			X				X										
	<i>Kaufman v. Kinko's, Inc.</i> , 2002 WL 32123851 (Del. Ch. Apr. 16, 2002) (unpublished)	Valuation dispute arising as result of two merger agreements	Email stored on backup tapes	Motion to compel defendant to produce email from backup tapes granted notwithstanding fact that restoration and retrieval costs may approach \$100,000; court stated: "Upon installing a data storage system, it must be assumed that at some point in the future one may need to retrieve the information previously stored. That there may be deficiencies in the retrieval system (or inconvenience and cost associated with the actual retrieval) cannot be sufficient to defeat an otherwise good faith request to examine relevant information . . ."		X					X							X			
X	<i>Keir v. Unumprovident Corp.</i> , 2003 WL 21997747 (S.D.N.Y. Aug. 22, 2003)	ERISA action	Email	Court found that defendant was not sufficiently diligent in complying promptly with court's preservation order and backup tapes containing email covering certain period were inadvertently overwritten; however, it was premature to estimate the ultimate prejudice to plaintiffs				X		X	X		X			X	X	X			
	<i>Kleiner v. Burns</i> , 48 Fed.R.Serv.3d 644 (D. Kan. 2000)	Copyright infringement (posting of copyrighted photographs on web site)	All forms of computerized data	Motion to compel disclosure of all relevant computerized data under former Rule 26(a)(1) granted		X	X		X												

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	<i>Kormendi v. Computer Assoc. Int'l, Inc.</i> , 2002 WL 31385832 (S.D.N.Y. Oct. 21, 2002)	Employment discrimination	Email	Defendant ordered to produce all email messages mentioning plaintiff for certain time period; plaintiff to pay the cost of the email search		X								X							
X	<i>Kucala Enter., Ltd. v. Auto Wax Co., Inc.</i> , 2003 WL 21230605 (N.D.Ill. May 27, 2003)	Patent infringement	Computer hard drive	Magistrate recommended that competitor's suit against patent holder be dismissed with prejudice as sanction for egregious discovery abuse, which included use of computer program called "Evidence Eliminator" to delete documents from his computer in advance of court-ordered inspection			X				X		X				X			X	
	<i>Lakewood Eng'g & Mfg. Co. v. Lasko Products, Inc.</i> , 2003 WL 1220254 (N.D. Ill. Mar. 14, 2003)	Patent infringement	Email and other documents in electronic form	Although plaintiff's production of relevant email and other documents in electronic form after the close of discovery demonstrated lack of good faith effort to produce all requested discovery in timely manner, sanctions were not warranted		X	X														
	<i>Landmark Legal Found. v. EPA</i> , 2003 WL 21715677 (D.D.C. Jul. 24, 2003)	FOIA action	Hard drives and email stored on backup tapes	EPA's motion for summary judgment granted on grounds that EPA had conducted a reasonable search in response to FOIA request				X		X	X		X				X	X			
	<i>Landmark Legal Found. v. EPA</i> , 2003 WL 21715678 (D.D.C. Jul. 24, 2003)	FOIA action	Hard drives and email stored on backup tapes	EPA violated preliminary injunction that prohibited destruction of potentially responsive documents by reformatting hard drives and erasing or overwriting backup tapes containing potentially responsive email; EPA held in civil contempt and ordered to pay plaintiff's reasonable attorneys' fees incurred as a result of EPA's contumacious conduct			X	X		X	X		X				X	X			

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	<i>Lexis-Nexis v. Beer</i> , 41 F.Supp.2d 950 (D. Minn. 1999)	Employer sued former employee for misappropriation of trade secrets and related torts	Database containing sales and customer information, e-mail, laptop, zip disk	Court granted monetary sanctions against defendant for violating TRO by failing to return proprietary information and data to plaintiff			X			X	X		X			X	X				X
X	<i>Liafail, Inc. v. Learning 2000, Inc.</i> , 2002 WL 31954396 (D.Del. Dec. 23, 2002)	Contract breach, deceptive trade practices, trademark infringement	Files stored on laptop computers	Because record was unclear, court would not impose sanctions immediately but would first afford plaintiff an opportunity to correct or clarify discovery record by producing requested documents or identifying Bates numbers of documents already produced. If plaintiff failed to comply, sanction in form of adverse inference jury instruction would be imposed.			X			X	X		X			X	X				
X	<i>Linnen v. A.H. Robbins Co.</i> , 1999 WL 462015 (Mass. Super. June 16, 1999)	Personal injury litigation re diet-related pharmaceutical products	E-mail stored on backup tapes	Sanctions of all fees and costs associated with e-mail discovery issue imposed on defendant; parties to submit proposed spoliation instruction to be given to jury; decision on plaintiffs' motion to compel production of e-mail from backup tapes reserved pending outcome of discovery process underway in related case, where defendant agreed to restore a sampling of tapes possibly containing relevant material		X	X		X	X	X		X	X				X			X
X	<i>Lombardo v. Broadway Stores, Inc.</i> , 2002 WL 86810 (Cal. Ct. App. Jan.22, 2002)	Employee sued employer for failure to pay accrued vacation benefits	Computerized payroll records	Sanction for spoliation of electronic records affirmed, defendant required to recompile computer records from five million hard copy records and pay plaintiff's attorney fees relating to issue			X			X	X		X		X						
	<i>Mathias v. Jacobs</i> , 197 F.R.D. 29 (S.D.N.Y. 2000), vacated 167 F.Supp.2d 606 (S.D.N.Y. 2001)	Action seeking monetary damages and specific performance of stock option agreement	Hard copy material loaded onto Palm Pilot	Plaintiff's failure to preserve computer printouts and telephone lists loaded onto Palm Pilot warranted monetary sanctions			X			X	X		X								

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	<i>McCurdy Group, LLC v. Am. Biomedical Group, Inc.</i> , 2001 WL 536974 (10th Cir. May 21, 2001)	Breach of contract and quantum meruit claim	Computer and disc drives	Defendant's skepticism that plaintiff had not produced copies of all responsive documents did not entitle defendant to conduct physical inspection of plaintiff's hard drives		X														X	
X	<i>McNally Tunneling Corp. v. City of Evanston</i> , 2001 WL 1568879 (N.D. Ill. Dec.10, 2001)	Contract breach (municipal sewer project)	E-mail and computerized schedules and cost summaries	Defendant's motion to compel electronic production of material previously produced in paper form denied		X									X						
X	<i>McPeek v. Ashcroft</i> , 202 F.R.D. 31 (D.D.C. 2001)	Employee sued for retaliation against him after he reported sexual harassment	E-mail stored on backup tapes	Defendant required to perform backup restoration of e-mails of supervisor for one-year period from key event		X								X				X			
X	<i>McPeek v. Ashcroft</i> , 212 F.R.D. 33 (D.D.C. 2003)	Employee sued for retaliation against him after he reported sexual harassment	Backup tapes	Based on results of searches of certain backup tapes, court determined that additional searches were not warranted, with one exception		X												X			
X	<i>Medtronic Sofamor Danek, Inc. v. Michelson</i> , 2003 WL 21468573 (W.D.Tenn. May 13, 2003)	Trade secret, patent and trade information in the field of spinal fusion medical technology	996 backup tapes	Court applied <i>Rowe</i> balancing test to shift portion of electronic discovery costs to requesting party, established electronic discovery protocol and appointed discovery master to oversee parties' electronic discovery		X								X				X			
X	<i>Metropolitan Opera Ass'n, Inc. v. Local 100</i> , 212 F.R.D. 178 (S.D.N.Y. 2003)	Opera company sued union alleging that union distributed false, misleading, defamatory leaflets in attempt to organize workers.	E-mail and electronic documents; hard drives	Myriad discovery abuses by defendant warranted most severe sanction of judgment in plaintiff's favor on issue of liability, as well as additional sanctions in the form of attorneys' fees necessitated by discovery abuse. Among other things, defendants failed to produce email and electronic documents and failed to preserve computer hard drives.			X			X	X		X				X				

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X	<i>Momah v. Albert Einstein Med. Center</i> , 164 F.R.D. 412 (E.D. Pa. 1996)	Wrongful termination (discrimination based on race/national origin)	Metadata: copy of "list files" screen showing details (date created and date last edited) re files on computer of individual defendant	Plaintiff's motion to compel copy of "list files" screen granted where plaintiff demonstrated need to determine whether key documents were back-dated		X																
	<i>MPCT Solutions Corp. v. Methe</i> , 1999 WL 495115 (N.D. Ill. July 2, 1999)	Enforcement of non-competition agreement	Laptop	Sanctions in form of preliminary injunction preventing defendant from contacting MPCT clients granted, after defendant violated preservation order by deleting documents from laptop and defragmenting hard drive, thus preventing the recovery of deleted data			X	X		X	X						X					
	<i>Murlas Living Trust v. Mobil Oil Corp.</i> , 1995 WL 124186 (N.D. Ill. Mar. 20, 1999)	Lessor sued for contract breach and related claims stemming from leaking underground storage tank	Database re facilities with leaking underground storage tanks	Defendant not required to produce entire database; defendant ordered to re-search database for information relevant to subject property and produce any information found		X			X													
X	<i>Murphy Oil USA, Inc. v. Fluor Daniel, Inc.</i> , 52 Fed.R.Serv.3d 168 (E.D. La. 2002)	Breach of contract for repair and maintenance work at refinery	E-mail stored on backup tapes	Plaintiff's motion to compel production of e-mail from backup tapes granted, but plaintiff to bear cost of production; defendant to bear costs associated with privilege review; court established protocols for production		X						X		X		X	X					
X	<i>Nartron Corp. v. Gen. Motors Corp.</i> , 2003 WL 1985261 (Mich. Ct. App. Apr. 29, 2003)	Manufacturer of component part sued GMC to recover R & D costs after GMC notified it was discontinuing use of part	Computerized R & D payroll information (databases, backup tapes)	After 4-day evidentiary hearing on alleged discovery abuses by plaintiff (e.g., delays in responding to discovery requests; attenuated and piecemeal production of altered/partially deleted database) court dismissed plaintiff's claims as discovery sanction			X				X		X			X						

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	<i>Nat'l Assoc. of Radiation Survivors v. Turnage</i> , 115 F.R.D. 543 (N.D. Cal. 1987)	Class action brought by veterans for alleged exposure to radiation during service with armed forces	Two V.A. computer systems/databases	Failure to produce computer data and other discovery abuses warranted imposition of monetary sanctions and appointment of special master for purpose of monitoring defendant's compliance with discovery			X			X	X		X								
X	<i>Nat'l Union Elec. Corp. v. Matsushita Elec. Ind. Co.</i> , 494 F.Supp. 1257 (E.D. Pa. 1980)	Antitrust	Sales data	Plaintiff required to create and produce computer-readable tape containing sales data previously produced in hard copy form, where defendants agreed to pay costs of operation		X								X	X						
X	<i>N.Y. Nat'l Org. for Women v. Cuomo</i> , 1998 WL 395320 (S.D.N.Y. July 14, 1998)	Class action alleging that Division of Human Rights violated plaintiffs' rights by failing to timely adjudicate discrimination claims	E-mail, databases and information saved by employees on personal computers	Destruction of electronic material at end of Cuomo administration did not warrant sanctions where no bad faith or prejudice demonstrated			X			X	X										
	<i>Oppenheimer Fund, Inc. v. Sanders</i> , 437 U.S. 340 (1978)	Securities fraud class action	Computer tapes	Requiring defendant to bear expense of identifying class members was abuse of discretion where cost of effort, which included manually sorting records, keypunching and creation of software programs, would be same for plaintiff and no special circumstances existed										X							
	<i>Pennar Software Corp. v. Fortune 500 Sys., Ltd.</i> , 51 Fed.R.Serv.3d 279 (N.D.Cal. 2001)	Breach of contract and related claims	Web site pages; log files and backup tapes of nonparty web hosting company	Defendant's discovery abuses and deletion of web site pages and other electronic information warranted entry of order enjoining spoliation and imposing monetary sanctions against defendant			X	X		X	X		X				X				

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	<i>In re Pharmatrak, Inc. Privacy Litigation</i> , 220 F.Supp.2d 4 (D. Mass. 2002)	Class action alleging that defendants secretly intercepted and accessed plaintiffs' personal information and browsing habits through unlawful use of cookies and other devices	Inspection of computer servers	Brief reference to scheduling order conference during which court authorized plaintiffs to examine a defendant's computer servers																X	
	<i>Pioneer Hi-Bred Int'l, Inc. v. Monsanto Co.</i> , 2001 WL 170410 (E.D. Mo. Jan. 2, 2001)	Dispute over development and license agreement re genetically engineered corn	Email and other computerized data	After jury trial resulted in defense verdict, court ruled on defendant's outstanding motion for sanctions; pursuant to F.R.C.P. 37 and its inherent authority, court ordered plaintiff to pay defendant's total counsel fees, expenses and costs incurred in the litigation amounting to \$8,211,287 as sanction for plaintiff's egregious discovery misconduct			X						X								
X	<i>Playboy Ent., Inc. v. Welles</i> , 60 F.Supp.2d 1050 (S.D. Cal. 1999)	Magazine publisher sued former "Playmate of the Year" for trademark violations and unfair competition	Deleted e-mail	Plaintiff entitled to discover, at its own expense, deleted e-mail contained on defendant's computer hard drive; court appointed neutral expert and established protocol for discovery		X						X				X	X		X	X	

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	<i>Positive Software Solutions, Inc. v. New Century Mortgage Corp.</i> , 259 F.Supp.2d 561 (N.D. Tex. 2003)	Copyright infringement	Backups and images of servers, software and email	Court entered preservation order requiring preservation of all extant backups or images of all servers or personal computers that now or previously contained disputed software; court denied motion to compel imaging of all media potential containing software or electronic evidence relevant to the claims in the suit, and all images of defendants' computer storage facilities, drives and servers taken to date, as overbroad		X				X								X	X		
	<i>Premier Homes & Land Corp. v. Cheswell, Inc.</i> , 240 F.Supp.2d 97 (D.Mass. 2002)	Alleged breach of lease agreement	Hard drives and other storage devices	In related action, court granted defendant's <i>ex parte</i> application to allow its consultants to create mirror images of plaintiff's computer hard drives, backup tapes and other storage media, in light of allegation that critical document and email were fabricated				X		X						X		X	X		
	<i>Procter & Gamble Co. v. Haugen</i> , 179 F.R.D. 622 (D. Utah 1998)	Business sued competitors for defamation and unfair competition	E-mail, databases (scope of key word search)	Plaintiff sanctioned for failing to preserve or search e-mail of certain persons; key word search to be narrowed			X			X	X										
	<i>In re Propulsid Products Liab. Litig.</i> , 2003 WL 22174137 (E.D. La. Sep. 9, 2003)	Product liability	Electronic production of documents	Court ruled on third party's motion for reimbursement under FRCP 45 and allowed only copying charges and costs of assembling and reviewing documents for privilege; court had earlier narrowed scope of subpoena to hard copy documents only											X						
X	<i>Residential Funding Corp. v. DeGeorge Fin. Corp.</i> , 306 F.3d 99 (2d Cir. 2002)	Breach of contract	E-mail stored on backup tapes	District court applied wrong legal standard in denying defendant's motion for sanctions; court had broad discretion to fashion sanction for plaintiff's breach of discovery obligations in failing to produce e-mails in time for trial			X						X			X		X			

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	<i>Rhone-Poulenc Rorer, Inc. v. Home Indem. Co.</i> , 1991 WL 111040 (E.D. Pa. June 17, 1991)		Insurance information from claim files	Court rejected insurers' contentions that requested discovery was impossible insofar as they were grounded in the particular manner in which defendants maintain their records and computer systems; cost of discovery to be borne by insurers, but plaintiffs to pay costs of copying documents selected		X			X					X								
	<i>RKI, Inc. v. Grimes</i> , 177 F.Supp.2d 859 (N.D. Ill. 2001)	Manufacturer sued former employee and competitor for misappropriation of trade secrets and related torts	Software and databases containing sales and customer information	TRO required defendants to return confidential information to plaintiff, emergency motion to compel granted, requiring defendants to appear for deposition and produce computers for inspection by plaintiff's computer forensics expert		X		X		X	X		X			X	X				X	
X	<i>Rowe Entm't, Inc. v. The William Morris Agency, Inc.</i> , 205 F.R.D. 421 (S.D.N.Y. 2002)	Concert promoters sued booking agencies and other promoters for discriminatory and anti-competitive practices	E-mail from backup tapes and hard drives	Defendants' motion for protective order denied, but plaintiff would be required to bear costs of producing e-mails from backup tapes and hard drives; defendants required to bear cost of own privilege review. Court set forth 8-factor balancing test to determine whether cost-shifting is appropriate and established protocol for production.	X				X			X		X		X		X				
	<i>Rowe Entm't, Inc. v. The William Morris Agency, Inc.</i> , 2002 WL 975713 (S.D.N.Y. May 9, 2002)	Concert promoters sued booking agencies and other promoters for discriminatory and anti-competitive practices	E-mail stored on backup tapes and hard drives	District judge upheld magistrate's decision	X									X				X				

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	<i>Santiago v. Miles</i> , 121 F.R.D. 636 (W.D.N.Y. 1988)	Inmates sued for intentional discrimination in assignment of housing, programs, and administration of discipline	Computer printouts showing analysis of work locations and ethnicity of inmates	Motion to compel production of computer printouts denied as to those constituting work product, granted as to those that were not prepared in anticipation of litigation		X						X										
X	<i>Sattar v. Motorola, Inc.</i> , 138 F.3d 1164 (7th Cir. 1998)	Employee sued former employer and supervisors for religious discrimination	E-mail	No abuse of discretion in denying motion to compel production of e-mail in hardcopy form		X							X	X								
	<i>Sec. & Exch. Comm. v. Phoenix Telcom, LLC</i> , 239 F.Supp.2d 1292 (N.D.Ga. 2000)	SEC sought injunction to bar further violations of securities laws	Electronic data compilations	Preliminary injunction granted; among other things, defendants enjoined from destroying relevant documents, including electronic data compilations of any sort				X		X												
	<i>Sega Enterprises, Ltd. v. MAPHIA</i> , 948 F. Supp. 923, 927 (N.D. Cal. 1996)	Copyright and trademark infringement, unfair competition	Hard drives and memory devices (video game software)	Plaintiff obtained <i>ex parte</i> TRO and seizure order to seize computers and hardware, copy memory, and delete pirated software before returning items to defendant				X												X		
	<i>Sheppard v. River Valley Fitness One, LP</i> , 203 F.R.D. 56 (D.N.H. 2001)	Sexual harassment	Computer records	Defense counsel's failure to produce computer records and to retain all drafts reflected lack of diligence rather than intentional effort to abuse discovery process; testimony of witness barred and \$500 awarded as sanctions		X				X		X										
X	<i>Simon Prop. Group L.P. v. mySimon, Inc.</i> , 194 F.R.D. 639 (S.D. Ind. 2000)	Trademark infringement	Deleted computer files	Plaintiff entitled to attempt, at its own expense, to recover deleted computer files from defendant's computers; court set forth protocol to govern process		X			X			X		X		X	X			X		
	<i>Smith v. Texaco Inc.</i> , 951 F.Supp. 109 (E.D. Tex. 1997)	Employee sued employer for race discrimination	Unspecified human resources records, payroll records	Defendant's motion to dissolve TRO requiring preservation of documents and electronic data denied				X		X					X							

Discussed in Appendix B	Case Citation	Nature of Case	Electronic Data Involved	E-Discovery Issue	Motion for Protective Order	Motion to Compel	Motion for Sanctions	TRO or Prelim. Injunction	Discoverability	Data Preservation	Spoliation	Privilege or Work Product	Lack of Cooperation, Inaccurate Representations	Cost-Shifting	Electronic v. Paper / Format of Production	Computer Experts	Deleted Data Recovery	Backup Tapes	Mirror Image of Hard Drive	Inspection	Rule 30(b)(6) Deposition
	<i>Southern Diagnostic Assoc. v. Bencosme</i> , 833 So.2d 801 (Fla. Dist. Ct. App. 2002)	Insurance bad faith	Computer system; records of payments to physicians	Appellate court granted writ and quashed trial court's order granting party's motion for leave to inspect non-party's computer system; remanded with directions to trial court to craft a narrowly tailored order that sets parameters and limitations on the inspection		X														X	
	<i>Stallings v. Daniels</i> , 2003 WL 21791751 (N.C. App. Aug. 5, 2003) (Unpublished)	Suit to compel disclosure of public records	Backup tape containing sound recording of a hearing in a separate lawsuit	Appellate court reversed trial court's dismissal of suit; backup tape of plaintiff's earlier court proceeding was public record under state statute and defendants were required to permit plaintiff to examine and inspect the backup tape					X									X			
X	<i>Stallings-Daniel v. The N. Trust Co.</i> , 52 Fed.R.Serv.3d 1406 (N.D. Ill. 2002)	Employment discrimination	E-mail	Plaintiff's request to conduct "electronic discovery" of defendant's e-mail system denied											X						
	<i>Star Tribune v. Minn. Twins Partnership</i> , 659 N.W.2d 287 (Minn. Ct. App. 2003)	Media companies brought motion to intervene and modify protective order in third party litigation, seeking access to materials produced in discovery	CD-ROM containing 9,000 documents	Court's rejection of media's assertion of a legally protected interest in discovery documents produced by parties in litigation and covered by protective order was not abuse of discretion	X																
	<i>Stark v. PPM America, Inc.</i> , 2003 WL 21223268 (N.D.Ill. May 23, 2003)	Petition for attorneys' fees and non-taxable costs under fee-shifting provision of ERISA	Emails	Court denied successful defendant's petition for costs associated with its outside vendor's compilation, search and production of 50,000 emails on grounds that such costs were not listed as recoverable costs in 28 USC § 1920										X							

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	<i>State v. City of Clearwater</i> , 2003 WL 22097478 (Fla. Sept. 11, 2003)	Suit by newspaper to access city employees' emails under public records law; issue was certified to Florida Supreme Court as "question of great public importance"	Personal email stored on government-owned computers	City employees' personal email not subject to disclosure under public records law because it fell outside the state's statutory definition of public records; mere placement of such email on government-owned computer system does not transform such email into a "public record"					X													
X	<i>Storch v. Ipco Safety Prod. Co. of Pa., Inc.</i> , 1997 WL 401589 (E.D. Pa. July 16, 1997)	Employment action (Family Medical Leave Act)	Computerized sales data	Plaintiff's motion to compel production of plaintiff's sales information on computer disks granted		X									X							
	<i>Strasser v. Yalamanchi</i> , 669 So.2d 1142 (Fla. Dist. Ct. App. 1996)	Breach of contract suit between former partners	Inspection of computer system to search for financial information	Order allowing plaintiff unrestricted access to defendant's computer system quashed	X							X	X			X	X				X	
	<i>Strasser v. Yalamanchi</i> , 783 So.2d 1087 (Fla. Dist. Ct. App. 2001)	Breach of contract suit between former partners	Computer hard drive	Plaintiff permitted to introduce at trial evidence of defendant's discovery misconduct						X	X		X								X	
	<i>Stricklen v. Federal Aviation Admin.</i> , 32 F.3d 572 (9th Cir. 1994)	Petition for review of order of NTSB revoking pilot's airline transport certificate	Tapes containing radar data	Negative inference not warranted in NTSB board proceeding where computer tapes containing radar data were destroyed pursuant to FAA policy and without notice that pilot would raise issue of near-miss						X	X							X				
	<i>Superior Consultant Co. v. Bailey</i> , 2000 WL 1279161 (E.D. Mich. Aug. 22, 2000)	Employer sued former employee for breach of employment contract, tortious interference, misappropriation of trade secrets	Databases containing sales and customer information	Preliminary injunction granted in part, prohibiting defendants from using or disclosing plaintiff's trade secrets and ordering parties not to destroy, alter or conceal any relevant data				X		X									X			

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	<i>Symantec Corp. v. McAfee Assoc., Inc.</i> , 1998 WL 740798 (N.D. Cal. June 9, 1998)	Copyright infringement; plaintiff also alleged that defendant obtained private customer sales information from plaintiff's former sales representative	Database containing customer sales information	Unopposed motion for preliminary injunction granted, enjoining defendant from distributing customer sales information and recalling and impounding customer sales information database				X		X												
	<i>Symantec Corp. v. McAfee Assoc., Inc.</i> , 1998 WL 740807 (N.D. Cal. Aug. 14, 1998)	Copyright infringement	Source code, image copies of hard drives	Plaintiff's motion to modify scheduling order to allow additional electronic discovery denied because plaintiff failed to exercise reasonable diligence																	X	
	<i>Theofel v. Farey-Jones</i> , 341 F.3d 978 (9th Cir. 2003)	Violation of federal electronic privacy and computer fraud statutes	Email stored by Internet Service Provider	Defendant's subpoena to ISP of plaintiff, which sought all copies of all email sent or received by anyone at plaintiff with no limitation as to time or scope, was "massively overbroad," "patently unlawful," and violated federal rules; besides warranting sanctions in underlying suit, subpoena was grounds for separate action by employees of plaintiff against defendant for violation of federal Stored Communications Act and Computer Fraud and Abuse Act, and state law			X						X									
	<i>3M v. Pribyl</i> , 259 F.3d 587, 606 n.5 (7th Cir. 2001)	Manufacturer sued former employees and their new competing company for misappropriation of trade secrets	Hard drive	Negative inference instruction warranted where six gigabytes of music were downloaded onto hard drive the night before the computer was to be turned over for inspection			X			X	X									X		

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	<i>Times Publ'g Co. v. City of Clearwater</i> , 830 So.2d 844 (Fla. Dist. Ct. App. 2002)	Newspaper sued city to release as public record all email sent from or received by two city employees	Email	Email stored in government computers does not automatically become public records by virtue of that storage; private or personal email fell outside the statutory definition of "public records"		X			X													
	<i>Timpken Co. v. United States</i> , 659 F.Supp. 239 (Ct. Int'l Trade 1987)	Challenge of decision to deny plaintiff access to computer tapes in trade investigation	Computer tapes containing costs and sales data	Defendant ordered to provide copies of computer tapes containing data previously provided in hard copy form											X							
	<i>Toledo Fair Hous. Ctr. v. Nationwide Mut. Ins. Co.</i> , 703 N.E.2d 340 (Ohio 1996)	Minority homeowners brought civil rights action alleging that insurer engaged in redlining to avoid minority neighborhoods	Insurer's databases and computer-generated reports	Insurer required to create programs to retrieve and put in usable form information from its databases at its own expense; request for computer-generated reports to be narrowed		X			X					X								
	<i>Toftely v. Qwest Comm. Corp.</i> , 2003 WL 1908022 (Minn. App. Apr. 22, 2003)	Discharged employee appealed denial of unemployment benefits	E-mail containing tracer	Qwest general counsel emailed managers regarding pending SEC investigation and need to preserve documents; email contained a "tracer" that gave notice whenever someone forwarded the email outside the Qwest network. Qwest discharged all employees who forwarded the email to outsiders on grounds of employment misconduct; denial of unemployment benefits affirmed.						X												

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	<i>TPS, Inc. v. United States Dept. of Defense</i> , 330 F.3d 1191 (9th Cir. 2003)	FOIA action	Two electronic files in "zipped" format	Reversing summary judgment for DOD, court stated that relevant inquiry as to whether an agency must provide information in requested format is whether, in general, a requested format is one that is "readily reproducible" by the agency, benchmarked against the agency's "normal business as usual approach" with respect to reproducing data in the ordinary course of the agency's business (not just in context of FOIA requests)											X							
X	<i>Trigon Ins. Co. v. United States</i> , 204 F.R.D. 277 (E.D. Va. 2001)	Taxpayer suit for refund	E-mail between experts and consultants, draft expert reports	Sanctions for spoliation of evidence granted			X			X	X		X			X	X					
X	<i>In re Triton Energy Ltd. Sec. Litig.</i> , 2002 WL 32114464 (E.D. Tex. Mar. 7, 2002)	Securities litigation	Emails and electronic documents	Court appointed a forensic computer specialist to retrieve information from defendant's computer storage systems by conducting non-destructive testing to determine what documents and electronic data, if any, were destroyed that bear significantly on the claims and defenses in the lawsuit; court appointed special master to review any information retrieved		X				X	X					X	X					
X	<i>Tulip Computers Int'l B.V. v. Dell Computer Corp.</i> , 52 Fed.R.Serv.3d 1420 (D.Del. 2002)	Patent infringement	Data warehouse; databases; e-mail from hard drives	Defendant ordered to provide e-mail to plaintiff's expert for key word search; defendant to provide information re production, preservation and destruction of documents which F.R.C.P. 30(b)(6) witness could not provide		X				X			X			X				X	X	
	<i>TVT Records, Inc. v. Island Def Jam Music Group</i> , 2003 WL 749801 (S.D.N.Y. Mar. 5, 2003)	Tortious interference	Email	Various documents, including emails, analyzed for privilege; production ordered as to some		X						X										

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	<i>In re Tyco Int'l, Ltd. Sec. Litig.</i> , 2000 WL 33654141 (D.N.H. July 27, 2000)	Securities fraud	Unspecified electronic data of third parties	Plaintiffs allowed to serve appropriately-worded subpoenas on certain third parties for limited purpose of giving notice of action and placing them under duty to preserve relevant evidence						X											
	<i>United States v. IBM</i> , 76 F.R.D. 97 (S.D.N.Y. 1977)		Tapes, files, programs, reports, input and output files	Defendant required to produce computerized information; conduct of defendant and technical and complex nature of production warranted appointment of examiner pursuant to F.R.C.P. 53 to report to the court what materials the defendant possesses and whether defendant produced such material		X						X									
	<i>United States v. Keystone Sanitation Co.</i> , 885 F.Supp. 672 (M.D. Pa. 1994)	Environmental litigation	E-mail	Inadvertent disclosure of defense attorney's e-mails regarding defendants' disposition of assets constituted subject matter waiver of attorney-client privilege because precautions taken to avoid such disclosure were not reasonable, defendants ordered to produce unredacted attorney billing memoranda		X						X									
	<i>United States v. Koch Ind., Inc.</i> , 197 F.R.D. 463 (N.D. Okl. 1998)	Action under False Claims Act	Computer tapes	Defendant was negligent in failing to determine which computer tapes in tape library contained information relevant to imminent and ongoing litigation and in failing to communicate clear guidelines regarding preservation of information to data processing personnel and tape librarian; no adverse inference, but plaintiff could inform jury about destruction of tapes and impact on plaintiff's proof			X			X	X										

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	<i>United States v. Rigas</i> , 2003 WL 22203721 (S.D.N.Y. Sep. 22, 2003)	Criminal charges of conspiracy, bank fraud, wire fraud and securities fraud	Privileged documents on computer hard drive	Court ruled that no work product waiver occurred when entire computer network account of USAO paralegal was inadvertently copied onto working copy of hard drive held by prosecution as evidence and made available to defense; defense motion to retain privileged documents denied								X							X			
	<i>United States v. Sungard Data Systems</i> , 173 F.Supp.2d 20 (D.D.C. 2001)	Antitrust	Electronic documents	Motion to preclude in-house counsel from having access to confidential information produced by competitors denied; court established detailed protective order for handling of confidential information	X																	
X	<i>United States Fid. & Guar. Co. v. Braspetro Oil Serv. Co.</i> , 53 Fed.R.Serv.3d 60 (S.D.N.Y. 2002)	Discovery dispute re waiver of privilege with respect to materials provided to experts; substantive claims of parties not discussed)	60 CD-ROMS containing databases, documents and privilege material; indexes and search tools	Defendants required to produce all materials made available to experts		X						X										
	<i>US Greenfiber v. Brooks</i> , 2002 WL 31834009 (W.D. La. Oct. 25, 2002)	Employer sued former employee for breach of fiduciary duty and related torts	Emails and computer records	Preliminary injunction prohibiting former employee from using or disclosing any of employer's business information and directing her to return employer's property, equipment, documents and business and quality control records (including computer records)				X					X									
	<i>Vitalo v. Cabot Corp.</i> , 212 F.R.D. 472 (E.D. Pa. 2002)	Personal injury arising from emissions from beryllium plant	Air modeling information and draft reports sent via email	Plaintiffs required to produce air modeling information and draft reports prepared by colleague of expert witnesses, which were considered by experts in forming their opinions		X																

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	<i>Wm. T. Thompson Co. v. Gen. Nutrition Corp., Inc.</i> , 593 F.Supp. 1443 (C.D. Cal. 1984)	Antitrust	Sales and inventory data	Defendant's discovery abuse and destruction of evidence warranted monetary sanctions and default judgment			X			X	X		X									
	<i>Williams v. DuPont</i> , 119 F.R.D. 648 (W.D. Ky. 1987)	Consolidated Title VII action brought by individual and EEOC	Database on disk	Employer entitled to discover, at its own expense, copies of database on computer disk, code books and user manual created by EEOC from information discovered from employer to allow for effective cross-examination of EEOC's expert	X	X						X		X	X							
	<i>Williams v. Saint-Gobain Corp.</i> , 53 Fed.R.Serv.3d 360 (W.D.N.Y. 2002)	Wrongful termination (age discrimination)	Email	Defendant's production of email five days before trial was to begin did not warrant sanctions, where emails were not produced previously because defendant had changed email systems (thus rendering all previous emails irretrievable) and where email was produced as soon as it was discovered during trial prep of witness			X															
	<i>Wilson v. Sundstrand Corp.</i> , 2003 WL 21961359 (N.D. Ill. Aug. 18, 2003)	Airline crash litigation	Email	As sanction for discovery abuse and tardy production of "smoking gun" email, court precluded defendant from opposing the admission in evidence of various emails and records, and ordered defendant to pay plaintiffs' reasonable attorneys' fees incurred in connection with motion and various discovery			X						X									
	<i>Wright v. AmSouth Bancorporation</i> , 320 F.3d 1198 (11th Cir. 2003)	Age discrimination	Word processing files	Motion to compel discovery of "computer diskette or tape copy of all word processing files created, modified and/or access by, or on behalf" of five employees over 2 1/2 year period denied as overbroad and unduly burdensome		X																

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	<i>York v. Hartford Underwriters Ins. Co.</i> , 2002 WL 31465306 (N.D. Okla. Nov. 4, 2002)	Insurance bad faith	"Colossus" computer software program used by insurance industry to evaluate claims	Defendant required to produce documents regarding use of software program and designate Rule 30(b)(6) witness to testify about defendant's use of software program; defendant allowed to submit protective order to safeguard divulgence of such information to third parties	X				X												X
	<i>Zhou v. Pittsburgh State Univ.</i> , 2003 WL 1905988 (D. Kan. Feb. 5, 2003)	Employment discrimination	Computerized payroll records	Motion to compel production of computer-generated salary data granted; court further ordered parties to preserve all relevant evidence including all data compilations, computerized data and other electronically-recorded information		X				X					X						
	<i>Zonaras v. Gen. Motors Corp.</i> , 1996 WL 1671236 (S.D. Ohio Oct. 17, 1996)	Product liability	Crash test data	Defendant ordered to produce crash test data, but plaintiff to share in cost		X								X							
X	<i>Zubulake v. UBS Warburg, LLC</i> , 2003 WL 21087884 (S.D.N.Y. May 13, 2003)	Employment discrimination	Email stored on 94 backup tapes	Former employee entitled to discovery of deleted email stored on backup tapes; defendant ordered to produce responsive emails from sample of 5 backup tapes selected by plaintiff and report back to court, at which time court would consider issue of cost-shifting; court set forth three-step analysis and enumerated seven factors it would consider in conducting cost-shifting analysis		X								X				X			
X	<i>Zubulake v. UBS Warburg, LLC</i> , 216 F.R.D. 280 (S.D.N.Y. 2003)	Employment discrimination	Email stored on backup tapes	Applying its seven-factor test, court ordered former employee to pay 25 percent of costs associated with defendant's restoration of backup tapes containing relevant email		X								X				X			

Appendix B: Case Summaries

(LAST UPDATED 9-30-2003)



***Adobe Sys., Inc. v. South Sun Prods., Inc.*, 187 F.R.D. 636 (S.D. Cal. 1999)**

Software makers sued for copyright infringement, alleging that the defendant had purchased single copies of certain software packages and installed software on multiple computers. On the same day the complaint was filed, plaintiffs sought an *ex parte* preservation order, arguing that the defendant could easily remove evidence of infringement by deleting software from its computers. The court observed:

[I]n every civil action there is a possibility that a defendant will destroy or conceal evidence once it receives notice that an action has been commenced. Once notified, a defendant can erase its computer disks, burn, shred, or hide incriminating documents, and intimidate or coach potential witnesses. This opportunity presents itself to defendants in all civil cases, from high stakes technology disputes to routine personal injury and small claims actions. The extraordinary remedy of *ex parte* injunctive relief cannot be justified by merely pointing to the obvious opportunity every defendant possesses to engage in such unlawful deceptive conduct. Rather, a plaintiff must present specific facts showing that the defendant it seeks to enjoin will likely conceal, destroy, or alter evidence if it receives notice of the action.

187 F.R.D. at 641. Finding that the plaintiffs had failed to make out the requisite showing, the court denied plaintiffs' *ex parte* application.



***In re Air Crash Disaster at Detroit Metro. Airport*, 130 F.R.D. 634 (E.D. Mich. 1989)**

Defendant aircraft manufacturer produced flight simulator material in hard copy form, and defendant Northwest Airlines moved to compel production of the program and data on computer-readable nine-track magnetic tape. Northwest argued that, without a tape, its expert would be forced to load the material manually onto a nine-track tape, check the input for accuracy, and spend substantial time debugging the program. The manufacturer argued that it no longer possessed the requested nine-track computer tape. The court adopted the reasoning of *Nat'l Union Elec. Corp. v. Matsushita Elec. Ind. Co.*, 494 F.Supp. 1257 (E.D. Pa. 1980), and ordered the manufacturer to duplicate the program and data onto a tape as requested. It did however, require Northwest to pay all reasonable and necessary costs associated with the operation. 130 F.R.D. at 636.




***Alexander v. FBI*, 188 F.R.D. 111 (D.D.C. 1998)**

Plaintiffs sued for Privacy Act violations in connection with the FBI's release of certain files to individuals in the White House. Plaintiffs sought restoration and production of email and deleted files from backup tapes and hard drives. The government moved for protective order and submitted declarations of two employees within its Information Systems and Technology Division, which addressed the feasibility and burdensomeness of the request. Plaintiffs countered with an unpersuasive declaration of a consultant who failed to provide any educational background or information qualifying him to comment on the system of computers and email specific to the defendant. The court rejected plaintiff's request that all deleted files and emails be restored, and directed the

parties to meet and confer about “targeted and appropriately worded searches of backed-up and archived email and deleted hard drives for a limited number of individuals.” 188 F.R.D. at 117.

 **Alexander v. FBI, 186 F.R.D. 78 (D.D.C. 1998)**

Former government official involved in the “Filegate” investigation testified in deposition that he deleted material from his computer when he changed positions within his department. The court noted that, despite official’s claims that he printed out relevant material before deleting it, “cause for concern should exist when an upper-level government employee completely deletes his hard drive when this hard drive may have information relevant to an on-going criminal investigation, let alone the instant case.” 186 F.R.D. at 96. The court found the official’s acts to be “highly unusual and suspect,” and ordered an examination of the official’s hard drive and server. *Id.* It ordered the government to compare documents retrieved against those already produced to determine whether there were any discrepancies between the two sets. In the case of any discrepancy, the documents were to be delivered to the court for an *in camera* inspection and further consideration.

 **Anti-Monopoly, Inc. v. Hasbro, Inc., 1995 WL 649934 (S.D.N.Y., Nov. 3, 1995)**

Defendants resisted a motion to compel production of computerized data on grounds that they would have to “create” the information in electronic format. They stated that certain reports would be produced in hard copy form only, since they were no longer available in electronic form. The court stated:

The law is clear that data in computerized form is discoverable even if paper ‘hard copies’ of the information have been produced, and that the producing party can be required to design a computer program to extract the data from its computerized business records, subject to the Court’s discretion as to the allocation of the costs of designing such a computer program.

1995 WL 649934, at *1. The court stated that the issue would be moot if the reports truly no longer existed in electronic form. However, the defendants must represent “not just that the reports are not available electronically but that it is not possible to electronically re-create the reports by running a specially-written computer program over existing computerized data.” *Id.* at *3 n.1.

The court decided that it did not have sufficient information as to plaintiff’s need for electronic invoices in light of other available discovery data or of the real costs (in time and money) to defendants to create a program to collect the invoice data. It ruled that the parties should discuss the issue further, and commented that further court rulings may depend on plaintiff’s willingness to pay defendants’ costs in creating the required computer program. *Id.* at *3.

 **Antioch Co. v. Scrapbook Borders, Inc., 210 F.R.D. 645 (D. Minn. 2002)**

Plaintiff sued former consultant and competing company for copyright infringement and unfair competition. Prior to any pretrial conference or entry of a scheduling order, and before any formal discovery had commenced, plaintiff moved for the entry of a preservation order, expedited discovery, and the appointment of a neutral computer forensics expert for the purposes of copying defendants’ hard drives. The basis for all three motions was the plaintiff’s belief that the defendants may destroy, inadvertently or intentionally, relevant documents. 210 F.R.D. at 649. The defendants had appeared *pro se*, and plaintiff noted that they might not appreciate their duty to preserve evidence under the rules of procedure. Plaintiff also presented some evidence that the defendants might be going out of business in the near future.

The court entered a preservation order, which the defendants did not oppose, and ruled that expedited discovery was appropriate in part to ensure that computer records were preserved. *Id.* at 650. The court also granted plaintiff's motion to appoint a neutral computer forensics expert to make copies of defendants' hard drives and retrieve deleted data. It noted that plaintiff had proffered "some evidence that the Defendants use e-mail as a form of communication for their business," and that the defendants had not denied that use. *Id.* at 651. The court also highlighted the affidavit of plaintiff's expert, in which he testified that "data which is deleted from a computer is retained on the hard drive, but is constantly being overwritten by new data, through the normal use of the computer equipment." *Id.* From these submissions, the court concluded:

Defendants may have relevant information, on their computer equipment, which is being lost through normal use of the computer, and which might be relevant to Plaintiff's claims, or Defendants' defenses. This information may be in the form of stored or deleted computer files, programs, or e-mails, on the Defendants' computer equipment.

Id. at 652. In its discussion of legal precedents, the court noted that "it is a well accepted proposition that deleted computer files, whether they be e-mails or otherwise, are discoverable." *Id.* Without discussing any specific evidence alleged to have been deleted, and apparently not requiring any such particularized showing from plaintiff, the court concluded that deleted information on defendants' computer equipment "may well be both relevant and discoverable." *Id.* It ruled that the plaintiff "should be able to attempt to resurrect data which has been deleted from the Defendant's computer equipment," and granted the motion to appoint an expert. *Id.* The court's order applied only to deleted information on defendants' computer equipment; the defendants remained responsible for producing computer information otherwise accessible from their computers. *Id.* at 653 n.7. The plaintiff would bear the cost of recovering the deleted computer data. *Id.* at 652 n.6.

The court went on to fashion a protocol based on those employed in *Playboy Ent., Inc. v. Welles*, 60 F.Supp.2d 1050 (S.D. Cal. 1999) and *Simon Prop. Group L.P. v. mySimon, Inc.*, 194 F.R.D. 639 (S.D. Ind. 2000). The plaintiff would select an expert in the field of computer forensics, and defendants would make their computer equipment available to the expert at defendants' place of business at a mutually agreeable time. The expert was to use his best efforts to avoid unnecessarily disrupting defendants' business operations. Only the expert and expert's employees would be allowed to inspect or handle the equipment, and they would maintain the information in the strictest confidence. Within 10 days of the inspection and copying, the expert would prepare a report as to what computer equipment was produced and the actions taken by the expert with respect to each piece of equipment; the expert would maintain the chain of custody for any copies or images. *Id.* at 653.

The expert would then produce two copies of the data retrieved from the hard drives, one for the court and one for the defendants. "Thereafter, once [plaintiff] propounds any discovery requests, the Defendants will sift through the data provided by the Expert to locate any relevant documents." *Id.* The court directed the parties to meet and confer on an appropriate time for the expert to access defendants' computer equipment.



***Armstrong v. Executive Office of the President*, 1 F.3d 1274 (D.C. Cir. 1993)**

Researchers and nonprofit organizations challenged the proposed destruction of federal records (email communications). The court held that substantive email communications constituted "records" under

the Federal Records Act, and that, “since there are often fundamental and meaningful differences in content between the paper and electronic versions of these documents,” the electronic versions do not lose their status as records when printed out in hard copy. 1 F.3d at 1287. As such, they must be managed and preserved in accordance with the Act.

In so holding, the court rejected the argument that the electronic emails were mere “extra copies” of the printed versions. It pointed out that “important information present in the e-mail system, such as who sent a document, who received it, and when that person received it, will not always appear on the computer screen and so will not be preserved on the paper print-out.” *Id.* at 1284. “Without the missing information, the paper print-outs – akin to traditional memoranda with the ‘to’ and ‘from’ cut off and even the ‘received’ stamp pruned away – are dismembered documents indeed.” *Id.* at 1285. The court found that the FRA does not “grant agencies the discretion to automatically lop off a predesignated part of a whole series of documents that qualify as records.” *Id.* at 1286. It concluded that the practice of retaining “only the amputated paper print-outs” was “flatly inconsistent with Congress’ evident concern with preserving a *complete* record of government activity for historical and other uses.” *Id.* at 1285 (emphasis in original).



***Bills v. Kennecott Corp.*, 108 F.R.D. 459 (D. Utah 1985)**

In age discrimination suit, plaintiffs sought production of documents containing detailed information about numerous employees. In order to supply the data to plaintiffs in usable form, defendant offered to supply either a computer tape or printout of the data at plaintiffs’ choice, but only on the condition that plaintiffs would pay the cost to generate the information. Defendant produced the material in hard copy, as requested by plaintiffs, and sought an order requiring plaintiffs to remit \$5,411.25. 108 F.R.D. at 460.

The court concluded that defendant’s computer-stored information was discoverable, and observed: “It is now axiomatic that electronically stored information is discoverable under Rule 34 . . . if otherwise meets the relevancy standard prescribed by the rules, although there may be issues in particular cases as to the form of what must be produced.” *Id.* at 461. It continued:

From the largest corporations to the smallest families, people are using computers to cut costs, improve production, enhance communications, store countless data and improve capabilities in every aspect of human and technological development. Computers have become so commonplace that most court battles now involve discovery of some type of computer-stored information. . . .

Improvements in technology which advantage almost everyone have become commonplace and widespread, and because we live in a society which emphasizes both computer technology and litigation, the mix of computers in lawsuits is ever increasing. Accordingly, parties requested to produce computer stored data will have to shoulder the burden of showing “undue” expense or burden before courts should shift the costs to the requesting party. . . .

The question must be resolved on a case-by-case basis. However, certain propositions will be applicable in virtually all cases, namely, that information stored in computers should be as freely discoverable as information not stored in computers, so parties requesting discovery should not be prejudiced thereby; and the party

responding is usually in the best and most economical position to call up its own computer stored data.

Id. at 462-64. Denying defendant's motion to shift the cost of the production to plaintiffs, the court highlighted several factors it found persuasive: (1) the amount of money involved was not excessive or inordinate; (2) the relative expense and burden in obtaining the data would be substantially greater to the requesting party as compared with the responding party; (3) the amount of money required to obtain the data as set forth by defendant would be a substantial burden to the plaintiffs; and (4) the responding party was benefited in its case to some degree by producing the data in question. *Id.* at 464.



***In re Brand Name Prescription Drugs Antitrust Litig.*, 1995 WL 360526 (N.D. Ill. June 15, 1995)**

Plaintiffs moved to compel production of email stored on defendant's backup tapes. Claiming to have 30 million pages of email data stored on the subject tapes, the defendant resisted the motion on burdensomeness and other grounds. Defendant estimated that it would cost \$50,000 to \$70,000 to compile, format, search and retrieve responsive email. 1995 WL 360526, at *1. The court stated that the mere fact that the production of computerized data will result in a substantial expense is not a sufficient justification for imposing the costs of production on the requesting party. It observed that, besides considering whether the expense is inordinate and excessive, a court may also consider whether the relative expense and burden in obtaining the data would be greater to the requesting party as compared to the responding party, and whether the responding party will benefit to some degree in producing the data in question. It opined:

In the context of the retrieval and production of computer-stored information issues of "undue burden" become complicated. On the one hand, it seems unfair to force a party to bear the lofty expense attendant to creating a special computer program for extracting data responsive to a discovery request. On the other hand, if a party chooses an electronic storage method, the necessity for a retrieval program or method is an ordinary and foreseeable risk.

Id. at *2. The court agreed with the responding party that the estimated retrieval cost of \$50,000 to \$70,000 was expensive, but concluded that it was not a burden that the class plaintiffs should bear, particularly where "the costliness of the discovery procedure involved is . . . a product of the defendant's record-keeping scheme over which the [plaintiffs have] no control." *Id.* (citations omitted). It further noted that the defendant had essentially admitted that part of the burden attendant to searching its files resulted from the limitations of the software the defendant was using. Declining to shift the cost to plaintiffs, the court did require plaintiffs to pay \$.21 per page for email that the plaintiffs select for copying. The court further required, "for the purpose of containing costs," that the parties consult with each other and agree upon meaningful limitations on the scope of any email search. *Id.* at *3.



***In re Bristol-Meyers Squibb Sec. Litig.*, 205 F.R.D. 437 (D.N.J. 2002)**

"The issues presented here raise the increasingly common problem of fair allocation of costs associated with discovery in the age of electronic information." 205 F.R.D. at 439. Plaintiffs had agreed to pay \$.10 per page for copying documents which defendants estimated to number around 500,000 pages. Defendants subsequently produced over three million pages of documents, for which

they sought over \$300,000 in copying charges. Defendants had failed to disclose that some of the material produced existed in electronic form. Later, when plaintiffs discovered that defendants had scanned the paper documents onto disk, plaintiffs demanded that the defendants produce the disks. In response, defendants demanded another \$200,000 from plaintiffs, representing one-half of defendants' cost of scanning the documents.

Defendants sought an order requiring plaintiffs to reimburse defendants for their portion of the production costs. Plaintiffs countered that defendants should produce all the documents in electronic form, and that plaintiffs should pay nothing. The court ordered the plaintiffs to pay for the paper production, but only at the cheaper \$.08 per page rate actually incurred by plaintiffs. *Id.* at 441. Further, because defendants failed to disclose, pursuant to Fed. R. Civ. P. 26(a)(1)(B), that certain material was in electronic form, the plaintiffs would not have to pay copying costs relating to those materials. Finally, the court required plaintiffs to pay the nominal costs of copying the compact disks containing the digital information. It found that defendants had intended to fully fund the scanning process themselves for their own use in the litigation, and had made the conscious choice of making paper copies for the plaintiffs without having first given the plaintiffs the option. It stated that, while defendants were not required to present such a choice to their adversaries, they could not “*have [their] cake and eat it too!*” *Id.* at 443 (footnote omitted). The court stated, for future reference, that had the defendants not produced paper discovery first, thereby requiring the plaintiffs to incur considerable expense, a greater contribution for the scanning costs might have been appropriate. *Id.* at 444.

The court also discussed the attorney conference required by Fed. R. Civ. P. 26(f):

In the electronic age, this *meet and confer* should include a discussion on whether each side possesses information in electronic form, whether they intend to produce such material, whether each other's software is compatible, whether there exists any privilege issue requiring redaction, and how to allocate costs involved with each of the foregoing.

Id. at 443-44 (emphasis in original). It observed:

As the eve of electronic case filing (ECF) is upon us, in this and most other Districts, the production of electronic information should be at the forefront of any discussion of issues involving discovery and trial, including the fair and economical allocation of costs. Of course, in some instances, paper, rather than electronic, production may still be the preferable method of discovery.

Id. at 444.



***Byers v. Ill. State Police*, 2002 WL 1264004, 53 Fed.R.Serv.3d 740 (N.D. Ill. 2002)**

Plaintiffs in sex discrimination suit moved to compel defendants to produce email stored on backup tapes created daily over an eight-year period. Based on the cost of the proposed search and plaintiffs' failure to establish that the search would likely uncover relevant information, the court concluded that plaintiffs were entitled to the archived emails only if they were willing to pay for part of the cost of production. 2002 WL 1264004, at *12. The court thus granted plaintiffs' motion to the extent they would bear the cost of licensing the email program no longer in use by the defendant but required to read much of the requested email. The defendant would continue to bear the expense of its review for

responsive documents and for privileged or confidential material. *Id.* It was expected that requiring plaintiffs to share in the cost would provide them an incentive to narrow their requests.



***In re Cheyenne Software, Inc.*, 1997 WL 714891 (E.D.N.Y. Aug. 18, 1997)**

Plaintiff moved for various discovery sanctions. Plaintiff demonstrated that defendants had failed to review potentially responsive email that had been previously provided to the SEC. The court ruled that defendants would be required to bear the cost of downloading and printing up to 10,000 additional pages of email responsive to key word searches requested by plaintiff. 1997 WL 714891, at *1.

Plaintiff also showed that defendants had destroyed documents stored in computer hard drives of various personnel, and sought discovery sanctions. Defendants argued that they could not “freeze” their business by maintaining all hard drives inviolate, but rather must erase and reformat their computer hard drives as people leave and as business needs dictate. *Id.* Defendants (including both inside and outside counsel) had undertaken various efforts to identify and preserve hard copies of relevant electronic files before the hard drives were erased. *Id.* at *2. The court noted that defendants could have preserved the documents by copying information from the drives to other relatively inexpensive electronic storage media. Prejudice was not clearly established however, since plaintiff could not identify with specificity any information that was unavailable. Monetary sanctions against the defendants were awarded: \$5,000 to be paid to the court and \$10,000 in attorneys’ fees to be paid to the plaintiffs as the reasonable expense of the motion. *Id.*



***Concord Boat Corp. v. Brunswick Corp.*, 1997 WL 33352759 (E.D. Ark. Aug. 29, 1997)**

For approximately a year, parties attempted to resolve issues concerning defendant’s electronic information. The court instituted a “spot-checking” procedure to help determine the adequacy of all parties’ production. Based on results of that procedure, plaintiff moved for an adverse inference/spoliation instruction based on defendant’s alleged destruction of email. The court determined that, although some responsive information was lost through employees’ practice of deleting email not needed for a business purpose, “it would be speculative to say that the lost information would have a significant impact on the body of proof in this case.” 1997 WL 33352759, at *3.

The court further denied plaintiff’s motion to compel the restoration and production of email from backup tapes. The defendant described the procedure to restore the backup tapes: defendant would have to duplicate its computing environment as it existed at the time the backup tapes were made on a separate computer system; the tapes would then be restored to this separate system and a “one-for-one comparison” would need to be made between messages contained on the restored tape and those on the current system. Although the defendant had not yet attempted to estimate the cost of the discovery, it was “obvious” to the court that recreating the computing environment at the time the backup tape was created would involve significant cost. *Id.* at *9. Further, it found the potential gains to be “questionable,” since the backup information available predated the current system only by 14 days (due to defendant’s two-week backup tape recycling schedule). “Similarly, even if earlier back up tapes containing ‘snapshots’ of the system were in existence, the potential limited gains from a search of such tapes would be outweighed by the substantial burden and expense of conducting such a search.” *Id.* Accordingly, the court ruled that the defendant would not be required to restore and search any available backup tapes which might contain deleted email.



***Danis v. USN Communications, Inc.*, 2000 WL 1694325, 53 Fed.R.Serv.3d 828 (N.D. Ill. 2000)**

After a protracted discovery dispute in which the parties collectively spent over \$1.5 million litigating the issue of sanctions, the court determined that the defendants had failed to take adequate steps to preserve potentially relevant documents. Stating that “[t]he buck must stop somewhere,” it held the CEO of the company responsible because he was directed by the board to see that documents were preserved, and because he was on the scene with the ability to follow through and see that the job was completed. 2000 WL 1694325, at *41. The magistrate recommended the imposition of a \$10,000 fine “to impress upon him the importance of the preservation duties that he failed to properly discharge and to deter others from taking that obligation lightly.” *Id.* at *51. The magistrate also recommended that the jury be instructed that plaintiff sought production of certain missing documents (finance and accounting documents), but that USN did not produce them.

The facts of the case provide valuable instruction about a corporation’s duty to preserve documents. At a board meeting the evening litigation was filed, outside counsel emphasized, “in vivid terms,” that document preservation must be a top priority. *Id.* at *12. The board directed management to take steps to preserve documents. Shortly thereafter, a high level staff meeting was held during which preservation of documents was discussed. However, little else was done. The court described the CEO’s failings: (1) He did not direct that USN implement a written, comprehensive document preservation policy, either in general or with specific reference to the lawsuit; (2) he did not instruct that any email or other written communication be sent to staff to ensure that they were aware of the lawsuit and the need to preserve documents; (3) he did not meet with the department heads after the staff meeting to follow up to see what they had done to implement the document preservation directive; (4) although he had a day-to-day presence at USN and readily could have inquired into what was being done to preserve documents, he did not do so; (5) he “exhibited extraordinarily poor judgment” by delegating the responsibility completely to “an in-house attorney with no litigation experience whatsoever, and with no experience in putting together a document preservation program”; (6) he and in-house counsel failed to consult with outside counsel about how to implement a document preservation program. *Id.* at 14.

The court similarly criticized the efforts (or lack of effort) of in-house counsel: (1) he did nothing to ensure that all USN employees who handed documents that might be relevant were aware of the lawsuit and the need to preserve documents; (2) he held no meetings with employees below the managerial level; (3) he did not issue any written communications to anyone on the subject; (4) he did nothing to determine whether the managers who attended the staff meeting followed his direction of communicating to their respective departments the need to preserve documents, or if they did so, in a way that sufficiently impressed upon them the urgency of the task; (5) he did not review the pre-existing practices at USN relating to document preservation for terminated employees and closed offices, to determine whether these practices were still suitable in light of the need to preserve documents related to the litigation; and (6) he failed to take steps to determine whether his expectation that people who were intending to discard potentially relevant documents would contact him for further clarification was being met. *Id.*

The court also criticized the lack of follow up by the company’s outside directors:

The court suspects that if the outside directors had instructed [the CEO] to pursue an advantageous corporate opportunity, they would have taken an 'active' role to follow up to see what had been done. They should have done the same thing with respect to the less pleasant task of document preservation.

Id. at *16. However, the court concluded that the outside directors could reasonably rely on the CEO following a board level directive to implement a preservation program, and thus they were not at fault for the CEO's failure to do so.



***Dodge, Warren & Peters Ins. Services, Inc. v. Riley*, 130 Cal.Rptr.2d 385 (Cal. Ct. App. 2003)**

Insurance brokerage firm sued former employees who, before forming their own firm, copied and removed documents maintained in files and computer storage media for their own future use. Plaintiff filed an *ex parte* application seeking to "freeze" defendants' electronically stored data so that it would be available for future discovery, if appropriate, claiming that even defendants' innocent use of the media could result in the destruction of potential evidence. 130 Cal.Rptr.2d at 388. Plaintiff had already served defendants with request for production, seeking to obtain the computer and other electronic storage media that were the subject of the injunction.

After continuing the hearing to allow the defendants to file a motion for a protective order, the court heard argument regarding both the preliminary injunction and the protective order. Ultimately, it denied defendants' motion for protective order and granted the preliminary injunction. *Id.* at 389. The injunction prohibited defendants from destroying, deleting or secreting from discovery any of their electronic storage media, and required the defendants to allow a court-appointed expert: (1) to copy all of defendants' electronic storage media, including computer hard drives and discs, (2) to recover lost or deleted files, and (3) to perform automated searches of that evidence under guidelines agreed to by the parties or established by the court.

The preliminary injunction was affirmed on appeal. The court discussed the two factors that trial courts weigh when determining whether to issue a preliminary injunction: (1) how likely is it that the moving party will prevail on the merits, and (2) the relative harm the parties will suffer in the interim due to the issuance or non-issuance of the injunction. It stated that the first point "concerns whether there is evidence in the computer and other electronic storage media that [plaintiff] will be able to discover." *Id.* at 390. It noted that the record showed that in addition to photocopying thousands of documents, defendants copied many of plaintiff's computer files onto discs and took them offsite for later use at the new agency, and that the defendants had admitted to taking voluminous files from plaintiff. It further noted that "the computers may also contain other evidence supportive of Dodge's causes of action." *Id.* at 391. It concluded that the trial judge had not abused its discretion in determining that the defendants' computers and electronic storage media contained information that the plaintiff would have a right to discover.

On the issue of irreparable harm, the court stated that "the record indicates that Dodge could irretrievably lose evidence that otherwise would have been available to it." *Id.* The court stated it was unconvinced that the availability of sanctions for misuse of the discovery statutes established an adequate remedy at law for the preservation of evidence. It concluded that no other remedy would provide adequate relief, and that, on the other hand, the harm to defendants would be negligible:

The media would be copied in Defendants' presence and after working hours so as to not interrupt their ability to conduct business. No damage to or loss of information would result from the copying. The copied material would be unavailable to anyone except upon agreement of the parties or order of the court. Thus, concerns over privacy and privilege were minimized to the point of nonexistence. Further, the reasonable cost to Defendants to review the copied files for irrelevant and privileged documents was to be borne by Dodge, subject to reallocation by the trial court.

Id.



***Fanelli v. Centenary College*, 211 F.R.D. 268 (D.N.J. Nov. 27, 2002)**

In wrongful termination case, plaintiff sought protective order preventing former employer from videotaping her deposition. She argued that her discomfort at being videotaped would result in an aggravation of certain psychiatric symptoms and would result in stress, which would in turn result in her giving less than her best testimony. Defendant argued that good cause had not been demonstrated. The court denied the motion for protective order.

It stated that courts have long held that “the use of videotaped testimony should be encouraged and not impeded because it permits the jury to make credibility evaluations not available when a transcript is read by another.” 211 F.R.D. at 270 (citations omitted). The court dismissed plaintiff’s claims of anxiety, remarking that, although plaintiff’s expert stated that some symptoms of plaintiff’s illness may be made worse with increases in anxiety and that videotaping will increase her anxiety, “it can also be fairly said that any anxiety Plaintiff may experience was triggered by her filing this lawsuit.” 211 F.R.D. at 271. It continued: “In the Court’s view, permitting claims of anxiety in litigation to measure up to *good cause* would assure that little or nothing would ever be accomplished in conducting discovery and preparing for trial.”

Conversely, the trial court noted the benefits of videotaped deposition discovery:

The wave of the future clearly lies in the use of electronic technology both in discovery and courtroom presentation. In a few years, it will be commonplace to use videotape instead of a cold transcript for purposes of impeachment of critical witnesses. Efficient and relatively inexpensive software . . . continue to be available on the market. Incorporating a video deposition into such software to impeach the witness at trial will ordinarily be less time consuming and more effective than fumbling back and forth referring the witness to lines and pages in a transcript.

In addition, the Court believes that videotaped discovery depositions may also lead to settlement sooner rather than later. Critical assessment of the strengths and weaknesses of a witness’ expected trial testimony by viewing the deposition may provide invaluable insight into how a jury might view the particular testimony. In the Court’s humble opinion, videotaping discovery depositions has the potential of greatly assisting the “just, speedy, and inexpensive determination” of every case as required by Fed. R. Civ. P. 1.

Id. (citations omitted).



***Fennell v. First Step Designs, Ltd.*, 83 F.3d 526 (1st Cir. 1996)**

In wrongful termination suit, defendant moved for summary judgment after the close of discovery. Plaintiff sought to continue the motion under Fed. R. Civ. P. 56(f) and requested additional discovery. At issue was a critical document exonerating defendant, which plaintiff claimed had been fabricated or backdated. In response to plaintiff's Rule 56(f) motion, defendant provided a disk containing a copy of the document, and presented expert testimony that there was no way to determine its creation date from defendant's computer system. Plaintiff's expert proposed that the original date of creation or earlier modification could be determined by a review of the file as it resided on defendant's hard drive, rather than the disk provided. The court held a hearing on plaintiff's request for discovery of defendant's hard drive, and directed the parties to submit their proposed protocols for the discovery. After reviewing the protocols, and without holding another conference, the court decided that its earlier decision to consider further discovery had been ill-advised, denied any further discovery and granted defendant's motion for summary judgment.

On appeal, the court held that the district court acted within its discretion in disallowing further Rule 56(f) discovery. It agreed that plaintiff had not demonstrated a particularized likelihood of discovering appropriate information, as she did not sufficiently "set forth a plausible basis for believing that specified facts, susceptible of collection within a reasonable time frame, probably exist." 83 F.3d at 533. Further, it found that the lack of detail in plaintiff's protocol cast even more doubt on the soundness of the technical basis for the discovery venture. The court concluded: "While there may be cases where discovery of word processing files on a computer hard drive might well be warranted, [plaintiff] has not met her burden of demonstrating that the district court abused its discretion in denying that opportunity here." *Id.* at 534.

For another employment case involving allegations of back-dating, see *Momah v. Albert Einstein Med. Center*, 164 F.R.D. 412 (E.D. Pa. 1996). There, the court granted plaintiff's request for a "copy of the computer list files screen for documents relating to Dr. Momah in Dr. Levy's computer system." The computer list screen listed "each document created by name or number, as well as the size of the document, the date on which it was created and the date on which it was last edited." 164 F.R.D. at 418. The plaintiff claimed that a defendant had admitted to incorrectly dating a disciplinary memorandum relating to the plaintiff, and argued that he needed the information so that he could verify when certain documents relating to his discharge were created. The court concluded that it was a close question, but allowed the plaintiff access to the computer list screen, since evidence of back-dating could serve to cast doubt on the stated reasons for plaintiff's termination. *Id.* The case is distinguishable from *Fennell* in that discovery had not closed, the request for additional discovery was not based on Fed. R. Civ. P. 56(f), and the request would not require an intrusive on-site inspection of the defendant's computer. See also *Stallings-Daniel v. The N. Trust Co.*, 2002 WL 385566 (N.D. Ill. Mar. 12, 2002) (denying plaintiff's request for "electronic discovery" in employment litigation), discussed *infra*.



***Gates Rubber Co. v. Bando Chem. Ind., Ltd.*, 167 F.R.D. 90 (D. Colo. 1996)**

Based on evidence obtained during discovery that defendant had destroyed computer files, plaintiff was granted expedited discovery and a site inspection order for the purpose of locating and copying materials, including all computer records, that it wished to preserve. However, plaintiff's computer technicians lost or failed to recapture important information because of an inadequate effort. Among other things, one technician unnecessarily copied Norton's Unerase program to the hard drive, thereby

overwriting 7 to 8 percent of the hard drive before commencing his efforts to copy the contents. 167 F.R.D. at 112. The defendant pointed out that plaintiff's technician should have done an image backup of the hard drive, which would have collected every piece of information on the hard drive, and noted that the technology was available although rarely used. The court agreed with the proposition that, because the plaintiff was collecting evidence for judicial purposes, it "had a duty to utilize the method which would yield the most complete and accurate results." *Id.* Plaintiff's failure to obtain an image backup of the computer, combined with other factors, justified awarding sanctions against plaintiff in the amount of ten percent of the total amount of fees and costs incurred by defendant in the sanctions proceedings.



***In re Gen. Instrument Corp. Sec. Litig.*, 1999 WL 1072507 (N.D.Ill. Nov. 18, 1999)**

Court denied plaintiffs' motion to compel production of email from backup tapes, despite also finding that restoration of tapes could be done without undue expense.

The court finds that the burden on defendants would be significant. It does appear to the court that the requested documents could be retrieved from the backup tapes without undue expense. Nevertheless, the technical matter of retrieving the documents from the backup tapes would be just the start of the process. Defense counsel would then have to read each e-mail, assess whether the e-mail was responsive, and then determine whether the e-mail contained privileged information. Given that the volume of e-mail at issue here is potentially very large, the court finds that the burden of reviewing the requested documents would be heavy. The court further notes that expert discovery is beginning. Forcing defense counsel to engage in document review would necessarily distract their energies from the other parts of this ongoing litigation.

In weighing the burden of the requested discovery against its likely benefit, the court finds that the burden outweighs the benefit and that the plaintiffs' motion should therefore be denied.

1999 WL 1072507, at *6. The court emphasized that the plaintiffs had not identified any specific factual issue for which they believed the requested documents would be necessary. It also noted that plaintiffs had already indicated to the court that they were done with discovery. The court indicated it would be willing to reconsider the plaintiffs' request if the plaintiffs indicated the specific factual issue or issue for which they in good faith reasonably believe the requested documents are necessary. *Id.*



***GTFM, Inc. v. Wal-Mart Stores*, 2000 WL 1693615 (S.D.N.Y. Nov. 9, 2000)**

At a conference with the court, defense counsel made inaccurate representations about defendant's computer system capabilities, stating there was no way to cull certain data. About a year later, plaintiffs deposed a vice-president in the defendant's MIS department and discovered that the defendant's computers were, in fact, capable of providing the information sought by plaintiffs. The court determined that, "[w]hether or not defendant's counsel intentionally misled plaintiffs, counsel's inquiries about defendant's computer capacity were certainly deficient." It stated that the vice-president was "an obvious person with whom defendant's counsel should have reviewed the computer capabilities." As sanctions, the court ordered the defendant to pay all plaintiffs' expenses and legal fees unnecessarily expended due to defendant's failure to make an accurate disclosure of its computer capabilities.



Jones v. Goord, 2002 WL 1007614 (S.D.N.Y. May 16, 2002)

Prisoners brought class action suit challenging state's program of housing two prisoners in a cell originally designed for one prisoner, arguing that the practice increased disease transmission and violence among the prisoners. After more than three years of discovery, plaintiffs sought the production of six different electronic databases. The databases contained a vast amount of information and enabled the state to track the location of prisoners in the system, record and recover unusual incident reports and disciplinary records, monitor prisoners' medical problems, track prisoners with certain medical problems, and record the pharmaceuticals required by prisoners. Plaintiffs' assertions about the kinds of analyses they wished to perform, the security issues involved, and the practicalities of reproducing the material and utilizing it for the desired purposes were supported only by affidavits of counsel. Plaintiffs provided no evidentiary support from any statistical expert concerning the kinds of hypotheses that could be tested, or what statistical methodology might produce reliable results; further, there was no affidavit from an information technology expert regarding how the databases might be put in usable form or maintained in a secure manner. 2002 WL 1007614, at *4.

In response, the state argued that the databases were not useful in the manner plaintiffs suggested because the data contained in them were already available to plaintiffs in hard copy form, previously produced to them at great public expense, and because the databases involved, which were constructed for different purposes using different software and user interfaces for different users within the prison system, could not simply be downloaded and massaged as easily as plaintiffs claimed. *Id.* at *4. The state argued that reproduction of the databases would be a burdensome and technically complex task, since, in order to be usable, the data would have to be accompanied by extensive technical commentary and decoding to permit any unfamiliar user to understand the systems, integrate the different databases involved, and extract from them data in a form that could facilitate the comparisons and statistical tests contemplated by plaintiffs. The state further argued that neither the existing protective order nor any conceivable protective measures could adequately address the security concerns presented, because: (1) the very structure of the databases and the necessary technical specifications that would have to accompany them in order to permit plaintiffs' experts to make any productive use of them, would disclose features of the correctional computer systems that (if disseminated) would render the system more vulnerable to hacking; (2) although much of the information contained in the databases had already been produced in hard copy, information in electronic form "is far easier to steal and transmit than the extensive paper records already in plaintiffs' hands"; (3) information could not practically be redacted from the databases and would create risks to the physical security and privacy of guards and other staff. *Id.* at *5.

The court denied plaintiffs' motion to compel. It concluded that the state had made a compelling showing that the burden of the proposed discovery far outweighed its likely benefit for resolving the issues before the court. It found that the burden of production was "extremely serious," and that "providing plaintiffs with any meaningful access to aspects of this system is not a matter of duplicating discs and handing over copies." *Id.* at 10-11. It also found that the data was "highly sensitive," and that disclosure of the codes and documentation required to utilize the databases would reveal the techniques used to record and store data, which was a highly confidential matter in itself.

The court found that the benefits suggested by plaintiffs were elusive: "On the present record, plaintiffs can only be characterized as demanding a huge volume of sensitive data, in a form that may or may not be usable for any productive purpose, on the vague hope that it will prove useful when subjected to

future message by unspecified experts.” *Id.* at *13. The court further concluded that the discovery request was belated, and that the plaintiffs had, and let pass, ample opportunity to obtain the requested information earlier in the discovery process:

The parties have spent years, significant sums, and exhaustive efforts on discovering and analyzing a mountain of paper – a project that, plaintiffs now claim at the eleventh hour before expiration of the n-th discovery deadline, was largely useless, or at least superseded, because the production of electronic data instead would have accomplished the same thing and more. Plaintiffs may not have identified the specific databases by name until a deposition in December 2001 laid out the details of the DOCS computer system, but they have been aware through discovery that DOCS, like any modern enterprise, keeps its records in computerized form. . . . [M]any of the reports and records that defendants have disclosed in hard-copy form have self-evidently been produced as printouts from computer files.

Nothing prevented plaintiffs from seeking, either informally . . . or formally by interrogatory, further information about the computer databases available from DOCS. Nothing prevented plaintiffs from discussing with their adversaries in a timely fashion, before the expenditure of hundreds of thousands of dollars on conventional document discovery, whether the mountain of paper was really necessary, or whether a cooperative effort to explore electronic discovery possibilities could have led to a mutually beneficial agreement. Nothing prevented plaintiffs from retaining experts to advise them as to what kinds of electronic data would likely be found in the DOCS computer system, what kinds of data would be necessary to evaluate plaintiffs’ claims, and what kinds of security precautions could be presented to the State to satisfy its legitimate interests and induce agreement to cooperate in providing data. Nothing in the record suggest that any such efforts were made, or, indeed, that plaintiffs took any step to seek discovery of any electronic data until after their adversaries had expended exorbitant sums of public money on conventional discovery, and until the ultimate deadline for completing fact discovery, after seven years of litigation, was at last at hand.

Id. at 16.

As to these last points made by the court, the case provides an excellent example of why parties should think about and discuss electronic discovery issues at the very outset of litigation, before large expenditures are made to produce “mountains” of paper documents also available in electronic form.



***Keir v. Unumprovident Corp.*, 2003 WL 21997747 (S.D.N.Y. Aug. 22, 2003)**

In ERISA action, parties engaged in two months of discovery, an evidentiary hearing, briefing and oral argument to address defendant’s failure to preserve backup tapes containing email from six particular days. Third party IBM provided email, file server and electronic data related disaster recovery services to the defendant. The defendant had approximately 888 computer servers supported by tape libraries at five locations; IBM employees worked at several of defendant’s offices to backup email and other electronic data. The opinion constitutes the court’s findings of fact regarding the alleged discovery violation. Among other things, the court noted the following deficiencies in defendant’s efforts:

- ☞ Persons tasked with preservation effort prior to entry of preservation order had insufficient expertise to discuss the project in a meaningful way. Neither took steps to obtain sufficiently informed advice on the issues involved, and there was insufficient supervision of their efforts.

- ☞ Defendant allowed its in-house “enterprise security architect” responsible for preservation effort to make critical decisions about how much and what email should be preserved pursuant to defendant’s legal obligations, and, in the end, his decisions were based on inaccurate information. 2003 WL 21997747, at *7.
- ☞ It was doubtful that supervisor and “director of ‘enterprise security architecture’” issued an instruction to in-house enterprise security architect to preserve all data, as she claimed. Supervisor’s recollection of what she actually said shifted considerably under questioning, and “in a culture where practically everything was document,” there was no email or written communication from supervisor to legal department, employee or anyone else confirming the instruction, and nothing from the employee indicating that he had received the instruction or taken any action on it.
- ☞ Even if supervisor had given instruction, it would have been far too vague to effect any process directed at saving the six days of email.
- ☞ Defendant failed to timely notify IBM of the need to preserve email: the first instructions to IBM, given in an effort to preserve the six days of email, were given on January 13 – over two weeks after entry of the court’s preservation order and over two months after suit was filed.

The court faulted the defendant for not being as diligent as it should have been in complying promptly with the preservation order. *Id.* at *13. However, the court concluded that it was premature to estimate the ultimate prejudice to plaintiffs, since a portion of the email was expected to be recovered, and, to the extent that email from the six days had been printed out, it would be recovered in separate measures undertaken to secure paper files of key employees. In a footnote, the court remarked that it would be prudent to appoint an independent expert to opine on whether all that needs to be done to retrieve the email for the six days is being done. *Id.*



***Kucala Enter., Ltd. V. Auto Wax Co., Inc.*, 2003 WL 21230605 (N.D. Ill. May 28, 2003)**

Competitor sought declaratory judgment that defendant’s patent for a particular type of automobile detailing clay was invalid. Defendant sought discovery relating to plaintiff’s manufacturing process, and the court ordered the production to be via computer files or hard copy. Defendant repeatedly failed to respond to the request for inspection, and the court granted defendant’s second and third motions to compel. When the plaintiff’s computer was finally inspected by defendant’s computer specialist, it was discovered that software called “Evidence Eliminator” had been installed on the computer. The software had been accessed at least three times, the last of which occurred at 4 a.m. the morning of the inspection. The computer specialist determined that thousands of files were deleted and overwritten by the program in the days leading up to the inspection. 2003 WL 21230605 at *1.

Plaintiff testified that he purchased and downloaded the software from the website <http://www.evidence-eliminator.com>. He admitted that he ran the software on another computer, and threw away a third computer because it “crashed” and was no longer of any use to him. He testified that, prior to purchasing Evidence Eliminator, he started “cleaning up his hard drive,” or deleting documents, which he deemed irrelevant from his computer. He testified that, contrary to his attorney’s advice, he deleted documents because he was afraid that the defendant would not honor the protective order that was in place. *Id.* at *3.

On the defendant's motion for sanctions, the magistrate judge recommended that dismissal of the lawsuit, with prejudice, was warranted by plaintiff's discovery abuses. The court stated that it was not convinced that plaintiff did not act willfully and with the purpose of destroying evidence: "Any reasonable person can deduce, if not from the name of the product itself, then by reading the website, that Evidence Eliminator is a product used to circumvent discovery." *Id.* at *5. Although the court had no evidence that the software actually deleted relevant information, it was clear that over 14,000 files had been deleted. "The possibility that relevant documents were included in that mass deletion is something this Court cannot overlook – especially given the nature of the Evidence Eliminator software and [plaintiff] being advised by counsel not to use it." The possible prejudice to the defendant was "enormous, or perhaps inconsequential." *Id.* at *6.

The court concluded that the plaintiff had engaged in egregious conduct by his flagrant disregard of a court order requiring him to allow inspection of his computer and his utter lack of respect for the litigation process. It recommended that the appropriate sanction to impose upon plaintiff was the dismissal of his suit, with prejudice, and ordering him to pay defendant's attorneys' fees and costs associated with the motion. The magistrate specified that attorneys' fees should be calculated from the time that plaintiff first ran the Evidence Eliminator program on his computer, up to and including the time the parties appeared before the court for hearing on the motion. *Id.* at *8.



***Liafail, Inc. v. Learning 2000, Inc.*, 2002 WL 31954396 (D. Del. Dec. 23, 2002)**

In action for contract breach and trademark infringement, and pursuant to Fed. R. Civ. P. 26(a)(1), Liafail identified its national sales manager as likely to have discoverable information; the sales manager was a former sales manager of defendant ("L2K"). In response to L2K's discovery requests, the sales manager gave Liafail the L2K-issued laptop that he had used while gaining knowledge of the day-to-day operations of L2K. Upon receiving the laptop, Liafail allegedly purged all the files from the computer, and allegedly made no attempt to preserve the sales manager's files by copying them onto another hard drive, disk or other medium before their destruction. Subsequently, L2K was able to reconstruct some, but not all, of the purged files, and maintained that all of the retrieved files were relevant to the litigation and in many cases, were highly incriminating.

L2K alleged that it discovered additional evidence of spoliation during a deposition in which the witness admitted that he "trashed" two laptops by dropping them, and that the information on both laptops was destroyed. 2002 WL 31954396, at *2.

In response, Liafail contended that all of the relevant information was removed from the laptop computers and had been produced or made available to L2K.

The court determined that, based on the record before it, it was unclear what had been produced and what still needed to be produced. *Id.* at *3. It would not immediately sanction Liafail; rather, it would first afford Liafail the opportunity to correct or clarify the discovery record by producing the requested documents which it claimed were available, or identify the Bates numbers of documents which it claimed had already been produced. The court held that, "should Liafail choose not to heed the court's order and produce the documents of which it claims to have possession, the court will order sanctions against it in the form of an adverse inference jury instruction." *Id.*



***Linnen v. A.H. Robbins Co.*, 1999 WL 462015 (Mass. Super. June 16, 1999)**

Plaintiffs moved to compel the production of email restored from defendant's backup tapes. The estimated cost of restoration of the tapes and retrieval of responsive email ranged between \$300,000 to over \$1.4 million. The court noted:

While the court certainly recognizes the significant cost associated with restoring and producing responsive communications from these tapes, it agrees . . . that this is one of the risks taken on by companies which have made the decision to avail themselves of the computer technology now available to the business world. To permit a corporation such as [defendant] to reap the business benefits of such technology and simultaneously use that technology as a shield in litigation would lead to incongruous and unfair results.

1999 WL 462015, at *6 (citation omitted). The court concluded that the sensible course of action would be to await the outcome of the discovery process that was then underway in a related Federal Court Multi-District Litigation. There, defendant had agreed to restore a sampling of the tapes and to bear the initial costs associated with the restoration.

In addition, the court imposed monetary sanctions on defendant for various discovery abuses. In light of defendant's uncooperative conduct in relation to the email discovery issue, the court determined that it was appropriate to require defendant to bear all plaintiff's costs and fees associated with the issue. The court further agreed that a jury instruction on spoliation was appropriate, and directed the parties to submit proposed instructions prior to trial. The basis for the instruction was defendant's failure to preserve potentially relevant backup tapes. The court observed: "The recycling of the back-up tapes is, under normal circumstances, a widely accepted business practice as, in the absence of a disaster which necessitates the use of the computer tapes, there is no need to keep them for an indefinite period of time." *Id.* at *10. However, defendant's customary recycling of back-up tapes for the electronic mail system should have been suspended at least while the *ex parte* preservation order was in effect, and after receipt of plaintiffs' document requests.



***Lombardo v. Broadway Stores, Inc.*, 2002 WL 86810 (Cal. Ct. App. Jan.22, 2002)**

During the course of discovery, defendant repeatedly failed to provide substantive responses to interrogatories or produce certain categories of documents. Finally, more than a year after defendant had agreed to produce computerized payroll data, it revealed that certain computerized records had been "lost, misplaced or destroyed." 2002 WL 81810, at *2. Plaintiffs moved for sanctions. The court rejected defendant's argument that hard copy payroll documents were the same as the computerized data, observing that the hard copy may have contained the same information, but that information was not equally accessible. "The computerized records had evidentiary unique value distinct from the hard copy records: They made the information accessible." *Id.* at *8. The plaintiff estimated it would cost around \$5 million to manually extract all of the necessary and pertinent information from five million pages of records; the defendant agreed to spend \$100,000 to have an abbreviated recompilation of the data done. The court affirmed an award of \$31,250 in sanctions, representing plaintiff's attorneys' fees spent in trying to secure defendant's compliance with its discovery obligations.



***McNally Tunneling Corp. v. City of Evanston*, 2001 WL 1568879 (N.D. Ill. Dec.10, 2001)**

In litigation arising from delays in a municipal sewer project, defendant sought electronic production of email, computerized schedules and cost summaries which had already been produced in hard copy

form. The court found that defendant had failed to meet its burden of establishing that paper copies of the computer files were insufficient, and denied the motion. The court was not impressed by defendant's vague assertion that "the electronic version of McNally's schedules will better allow the City and its consultants to understand the reasons for the delays encountered by McNally on this project." 2001 WL 1568879, at *4. It further stated that its own research had uncovered "an apparent split of authority on whether a party is entitled to both hard-copy and electronic versions of computer files," citing *Williams v. Owens-Illinois, Inc.*, 665 F.2d 918 (9th Cir. 1982) and *Anti-Monopoly v. Hasbro*, 1995 WL 649934 (S.D.N.Y. Nov. 3, 1995), and noted that neither party had cited or discussed those or any other cases. *Id.* In response to defendant's speculation that the hard-copies may be incomplete, the court ordered the plaintiff "to supplement the hard-copy versions of its computer files to ensure that it had produced all of the information contained in those files to [the city]." *Id.* at *5.



McPeek v. Ashcroft, 202 F.R.D. 31 (D.D.C. 2001)

In employment discrimination suit, plaintiff requested that the Department of Justice search its computer backup system for evidence of retaliation. The court stated that there was no controlling authority for the proposition that restoring all backup tapes is necessary in every case. It observed:

[M]aking the producing party pay for all costs of restoration as a cost of its "choice" to use computers creates a disincentive for the requesting party to demand anything less than all of the tapes. American lawyers engaged in discovery have never been accused of asking for too little. To the contrary, like the Rolling Stones, they hope that if they ask for what they want, they will get what they need. They hardly need any more encouragement to demand as much as they can from their opponent.

202 F.R.D. at 33. The court described problems with the converse solution of making the requesting party pay for the discovery, and concluded that the fairer approach borrows, by analogy, from the principle of marginal utility. It opined that economic considerations must be pertinent if the court is to remain faithful to its responsibility to prevent undue burden and expense. It cautioned:

If the likelihood of finding something was the only criterion, there is a risk that someone will have to spend hundreds of thousands of dollars to produce a single e-mail. That is an awfully expensive needle to justify searching a haystack. It must be recalled that ordering the producing party to restore backup tapes upon a likelihood that they will contain relevant information in every case gives the plaintiff a gigantic club with which to beat his opponent into settlement.

The court "decided to take small steps and perform, as it were, a test run." *Id.* at 34. The government was ordered to perform a backup restoration of the emails attributable to a supervisor's computer during a one-year period, and search the restored emails for any document responsive to plaintiff's requests. Upon completion of the search, the government was to file a comprehensive, sworn certification of the time and money spent and the results of the search. At that time, the court would permit the parties an opportunity to argue why the results and the expense do or do not justify any further search of backup tapes.



McPeek v. Ashcroft, 212 F.R.D. 33 (D.D.C. 2003)

After initial search of certain backup tapes was conducted, the parties offered the court differing views of the success of the search and the need for additional searches. The court reiterated its opinion that

whether a search of backup tapes is appropriate involves an assessment of the likelihood that they will contain data (word processing documents and emails) that will produce information that is relevant to the lawsuit. It stated that, “[g]iven the truly random nature of the collection of data on backup tapes, only two approaches suggest themselves.” 212 F.R.D. at 35. The first would be to search all tapes insofar as they exist for the periods of time that plaintiff seeks; the second would be to search backup tapes generated contemporaneously with the events complained of. In choosing the latter approach, the court stated:

The likelihood of finding relevant data has to be a function of the application of the common sense principle that people generate data referring to an event, whether e-mail or word processing documents, contemporaneous with that event, using the word ‘contemporaneous’ as a rough guide. Conversely, it is unlikely that people, working in an office, generate data about an event that is not contemporaneous unless they have been charged with the responsibility to investigate that event or create some form of history about it.

Id. Applying these principles, the court determined that only one tape warranted a further search. *Id.* at 36.



***Medtronic Sofamor Danek, Inc. v. Michelson*, 2003 WL 21468573 (W.D. Tenn. May 13, 2003)**

In case involving trade secrets, patents and trade information in the field of spinal fusion medical technology, defendant moved for production of 996 network backup tapes containing, among other things, electronic mail, plus an estimated 300 gigabytes of other electronic data not in a backed-up format. The parties did not seriously dispute the relevance of the material sought, and hard-copy printouts of representative emails indicated that the backup tapes may contain discoverable material, although neither party was able to estimate how much.

The court applied the *Rowe Entertainment* balancing test, and determined that cost-shifting was warranted. Further, given the amount of electronic data at issue, the court concluded that the appointment of a special master to oversee discovery was appropriate, and that the special master should be a technology or computer expert. It then set forth a detailed discovery protocol.

The court ordered plaintiff to isolate the 300 gb of electronic data already identified and, using the vendor of its choice, conduct a keyword search. Plaintiff was to produce a complete list of the files identified by the search, along with a list identifying the software application reasonably required to read each type of file. The court stated that plaintiff may then conduct additional searches designed to identify privileged information, and that plaintiff would bear the cost of designing and running any privilege searches. The court then set forth a plan for dividing the electronic files into groups, and conducting privilege review and production of responsive, non-privileged documents on a rolling basis. Notably, the court ordered that responsive, non-privileged files be provided to defendant for review in their native electronic formats (rather than as image files).

The court set forth a similarly detailed plan for the restoration and review of 124 sample backup tapes, and stated that plaintiff would bear 60 percent of the costs associated with restoring, initially searching, and de-duplicating the data to this point in the process. Defendant was ordered to bear 40 percent of the costs to this point. Plaintiff would bear the full cost of privilege searching, including designing and conducting the privilege keyword searches.

In the event that the defendant wished to restore and have searches performed on any additional backup tapes, he would pay the entire cost of restoring the backup tapes, extracting the data, searching the extracted data and de-duplicating the data. Defendant would be responsible for providing any software application necessary to the review. Plaintiff would then review the selected files for relevance and privilege. For any data produced that was created within a specified time frame, defendant would bear the full cost of plaintiff's relevance and privilege review; for data produced that was created during alternate timeframe, defendant would bear full cost of relevance review and 50 percent of the privilege review.



***Metropolitan Opera Association, Inc. v. Local 100*, 212 F.R.D. 178 (S.D.N.Y. 2003)**

Similar to *Danis v. USN Communications, Inc.*, 2000 WL 1694325 (N.D. Ill. Oct. 23, 2000), this case chronicles the myriad failings and misrepresentations of defense counsel regarding discovery obligations. Ultimately, the court granted the plaintiff's motion for judgment as to liability against defendants and for additional sanctions in the form of attorneys' fees necessitated by the discovery abuse. Like the *Danis* case, this case provides a roadmap of what not to do in discovery. Some of the more egregious abuses highlighted by the court include the following:

- ☞ In response to plaintiff's counsel's continuing assertions of lack of an adequate document search and demonstrations of non-production, defense counsel repeatedly represented to the court that all responsive documents had been produced when, in fact, a thorough search had never been made and counsel had no basis for so representing.
- ☞ Defense counsel knew the defendant's files were in disarray and that it had no document retention policy, but failed to cause a retention policy to be adopted to prevent destruction of responsive documents, both paper and electronic.
- ☞ Shortly after plaintiff's counsel announced they might seek permission to have a forensic computer expert examine defendant's computers in an attempt to retrieve deleted emails, defendant replaced those computers without notice.
- ☞ Counsel failed to explain to the non-lawyer in charge of the document production, *inter alia*, that a document included a draft or other non-identical copy and included documents in electronic form.
- ☞ The non-lawyer defendant put in charge of document production failed to speak to all persons who might have relevant documents, never followed up with people he did speak to and failed to contact all of defendant's ISP's to attempt to retrieve deleted emails, as counsel represented to the court that he would.
- ☞ No lawyer ever doubled back to inquire of the employee in charge of document production whether he conducted a search and what steps he took to assure complete production.
- ☞ In the face of plaintiff's counsel's constant assertions that no adequate document search had been conducted and responsive documents had not been produced, defense counsel failed to inquire of several important witnesses until the night before their depositions.
- ☞ Defense counsel lied to the court about a witness' vacation schedule in order to delay the witness' court-ordered deposition.



***Murphy Oil USA, Inc. v. Fluor Daniel, Inc.*, 2002 WL 246439, 52 Fed.R.Serv.3d 168 (E.D. La. 2002)**

Plaintiff sought the production of email from 93 backup tapes. Defendant offered expert testimony that the process would cost over \$6.2 million and take over six months to retrieve the material, not including the time required to review the material for responsiveness and privilege. 2002 WL 246439, at *2. Plaintiff offered no expert testimony on the subject. The court concluded that, in the absence of any evidence from the plaintiff, it must accept the defendant's estimate. *Id.* at *6. Applying the eight-factor

test used in *Rowe Entm't, Inc. v. The William Morris Agency, Inc.*, 205 F.R.D. 421 (S.D.N.Y. 2002), the court ruled that the magnitude of the expense, considered with other factors, weighed in favor of shifting the cost of the discovery to the plaintiff.

Interesting, the two alternative protocols set by the court required that the recovered email be produced in hard copy form with Bates numbers. *Id.* at *8-9. There was no argument or discussion about whether production ought to be in electronic form.



***Nartron Corp. v. Gen. Motors Corp.*, 2003 WL 1985261 (Mich. Ct. App. Apr. 29, 2003)**

In contract breach action, plaintiff claimed that GMC prematurely discontinued use of component part, which plaintiff had developed based on GMC's projections of large volume purchases over an extended period of time. Plaintiff sought damages for research and development costs associated with the component part; consequently, evidence of plaintiff's R & D payroll was a primary focus of discovery.

Defendants claimed that the hard copy timesheets used by plaintiff's experts were unreliable and that there was evidence that they were backdated. Defendants alleged that plaintiff decided to use the fabricated timesheets and then hid, altered or destroyed any corroborating or contradictory evidence such as computer data, engineering logs and budgets. Defendants further complained that plaintiff had failed to comply with discovery requests for an "original" FoxPro backup tape.

After defendant's motion for summary judgment was granted as to certain claims, the court held four-day evidentiary hearing on plaintiff's alleged discovery abuses. The first two days consisted of testimony and an in-court computer demonstration from defendant's accounting and computer expert who made three points: (1) that the computer data produced did not match the hard copy timesheets, (2) that important data had been intentionally altered or removed from the backup tape, and (3) that the missing data and or alteration could not be attributed to computer crashes. A court-appointed expert arrived at similar conclusions. And, although plaintiff had ample opportunity to do so, plaintiff did not call any witnesses to provide a legitimate explanation for the missing data.

Ultimately, the trial court granted defendant's motion for dismissal of plaintiff's remaining claims as a sanction for plaintiff's violations of discovery orders. On appeal, the court found that the lower court's factual findings were supported by the record and were not clearly erroneous, and held that it was within the trial court's discretion to impose the sanction of dismissal for plaintiff's various discovery abuses. 2003 WL 1985261 at *7.



***Nat'l Union Elec. Corp. v. Matsushita Elec. Ind. Co.*, 494 F.Supp. 1257 (E.D. Pa. 1980)**

Defendant moved to require plaintiff's computer experts to create a computer-readable computer tape containing sales data that had been produced in answers to interrogatories. Although the defendant could themselves create the tape, it would require two months and "many thousands of dollars." 494 F.Supp. at 1258. Plaintiffs, on the other hand, could create the tape simply by rerunning the program and directing it to extract the data to tape, rather than printing the data on paper. The defendants offered to pay the cost of the operation.

Granting the motion, the court reasoned:

While a printout might be "reasonably usable" within the meaning of Rule 34, the production of a party's data in a form which is directly readable by the adverse party's computers is the preferred alternative, according to the Manual for Complex Litigation.

Although there may be some differences between requiring the production of existing tapes and requiring a party to so program the computer as to produce data in computer-readable as opposed to printout form, we find it to be a distinction without a difference, at least in the circumstances of this case . . .

It may well be that . . . the framers of the Federal Rules of Civil Procedure could not foresee the computer age. However, we know we now live in an era when much of the data which our society desires to retain is stored in computer discs. This process will escalate in years to come; we suspect that by the year 2000 virtually all data will be stored in some form of computer memory. To interpret the Federal Rules which, after all, are to be construed to “secure the just, speedy, and inexpensive determination of every action,” in a manner which would preclude the production of material such as is requested here, would eventually defeat their purpose.

Id. at 1262-63 (citation omitted).



***N.Y. Nat'l Org. for Women v. Cuomo*, 1998 WL 395320 (S.D.N.Y. July 14, 1998)**

Potentially relevant material was lost when, at the end of the Cuomo administration, computer databases containing letters and reports sent to the governor, outgoing letters, internal memoranda, monthly summary reports and electronic mail, along with information saved by individual employees on personal computers, were deleted. The court criticized defense counsel for treating its duty to preserve evidence cavalierly, but imposed no sanctions because there was no bad faith and no prejudice shown: “In essence, [plaintiffs] argue that the defendants’ conduct deprived them of a pond in which they would like to have gone on a fishing expedition. That is not a showing of prejudice.” 1998 WL 395320, at *2-3.



***Playboy Ent., Inc. v. Welles*, 60 F.Supp.2d 1050 (S.D. Cal. 1999)**

After a third party produced email communications between itself and defendant, plaintiff followed up with defense counsel to inquire why the emails had not been produced by defendant. During the meet and confer discussions, plaintiff learned that defendant had a custom and practice of deleting emails shortly after she sent or received them, regardless of their content. Plaintiff sought access to defendant’s hard drive for the purpose of recovering emails that may be relevant to the litigation.

The court found that it was likely that relevant information was stored on the hard drive of defendant’s computer, since she used her email system for business (and personal) communications. 60 F.Supp.2d at 1053. The court required plaintiff to pay the costs associated with the information recovery, and set forth a protocol to protect defendant’s privacy and attorney-client privilege. In order to minimize the interruption to defendant’s business, the court ordered that the work be coordinated to accommodate defendant’s schedule as much as possible.

The court’s protocol required the following:

- ☞ Plaintiff to submit a declaration from its expert demonstrating that recovering some deleted email was just as likely as not recovering any deleted email, and that no damage would result to defendant’s computer.
- ☞ Assuming expert declaration was sufficient, court to appoint a computer expert specializing in the field of electronic discovery to create a mirror image of defendant’s hard drive. Parties to meet and confer to agree upon the designation of the expert; if no agreement reached, parties to submit suggested experts and the court to choose.

- ☞ Court appointed computer specialist to serve as an officer of the court. To the extent it has access to information protected by the attorney-client privilege, such “disclosure” will not result in a waiver of the attorney-client privilege; plaintiff barred from arguing same. Computer specialist to sign protective order. Any communications between plaintiff’s counsel and computer specialist as to payment to be produced to defense counsel.
- ☞ Parties to agree on date and time to access defendant’s computer. Plaintiff to defer to defendant’s personal schedule in selecting date. Only defendant and her counsel may be present during hard drive recovery.
- ☞ Mirror image created to be given to defense counsel, who will print and review any retrieved documents and produce responsive documents or, if withholding a document, record such in a privilege log.
- ☞ Defense counsel to maintain mirror image disk and copies of all documents retrieved throughout the course of litigation. To the extent that documents cannot be retrieved, or only partial documents are capable of being retrieved, defense counsel to submit a declaration together with a written expert report explaining the limits of retrieval achieved.

Id. at 1054-55.



***Residential Funding Corp. v. DeGeorge Fin. Corp.*, 306 F.3d 99 (2d Cir. 2002)**

The litigation involved cross claims for, among other things, breach of contract stemming from events occurring in late 1998. At a discovery planning conference, the parties agreed that discovery would be completed by August 1, 2001, and the case would be ready for trial by September 1, 2001. Defendant’s discovery requests sought the production of email; plaintiff raised no objection to the requests and agreed to “work diligently” to produce the responsive email. 306 F.3d at 102.

Subsequently, plaintiff encountered difficulties in retrieving the email from backup tapes. Throughout the summer, plaintiff made a series of inaccurate or misleading representations about the status of the production and when the email would be produced. On several occasions plaintiff indicated it had retained, or was going to retain, an outside vendor to assist with the recovery of email. When defendant offered to attempt the recovery through its own experts, the plaintiff refused to provide the tapes. When plaintiff eventually did produce email, none were from the critical factual time period. Plaintiff explained the void by stating that responsive email either did not exist or was not accessible.

Ultimately, the plaintiff agreed to produce the backup tapes so that the defendant could search for email from the critical time period. Three days before trial was to begin, plaintiff finally produced the tapes, but refused to provide information about the tapes’ technical characteristics. Only after defendant brought the matter before the court did plaintiff agree to provide the information. Within four days of obtaining the tapes, the defendant’s vendor had located almost a million emails on the November and December 1998 tapes. Of the 4,000 emails that were printed, approximately 30 emails were responsive, though none appeared to be damaging to the plaintiff. *Id.* at 104-5.

Defendant moved for sanctions and asked the judge to instruct the jury that it should presume the emails during the critical time period, which were not produced, would have disproved plaintiff’s theory of the case. The trial court denied defendant’s motion, concluding that it had not established that the plaintiff had acted with bad faith or gross negligence. The court found that plaintiff’s decision to use an outside vendor to retrieve the emails rather than turn over the backup tapes was “neither implausible nor unreasonable.” *Id.* at 105. Further, although she recognized that plaintiff’s subsequent conduct “suggests a somewhat purposeful[] sluggishness on [plaintiff’s] part,” the trial judge found that

plaintiff's acts "would not have resulted in the unavailability of the evidence absent the 'compressed timeline both parties were operating under.'" *Id.* at 105-6

On appeal, the court vacated the order denying defendant's motion for sanctions, finding that the district court had applied the wrong legal standard. It remanded with instructions for a renewed hearing on the matter. Stating the correct legal standard to be applied, the court held:

- (1) where, as here, the nature of the alleged breach of a discovery obligation is the non-production of evidence, a District Court has broad discretion in fashioning an appropriate sanction, including the discretion to delay the start of a trial (at the expense of the party that breached its obligation), to declare a mistrial if trial has already commenced, or to proceed with a trial with an adverse inference instruction;
- (2) discovery sanctions, including an adverse inference instruction, may be imposed where a party has breached a discovery obligation not only through bad faith or gross negligence, but also through ordinary negligence;
- (3) a judge's finding that a party acted with gross negligence or in bad faith with respect to discovery obligations is ordinarily sufficient to support a finding that the missing or destroyed evidence would have been harmful to that party, even if the destruction or unavailability of the evidence was not caused by the acts constituting bad faith or gross negligence; and
- (4) in the instant case, the District Court applied the wrong standard in deciding [defendant's] motion for sanctions.

Id. at 101. The court also questioned a number of the district court's factual findings. It noted that the plaintiff had offered conflicting testimony about the precise timing of plaintiff's decision to hire an outside vendor, and the actual hiring of the vendor. The court questioned the reasonableness of plaintiff's continued reliance on the outside vendor throughout months of apparently fruitless attempts to retrieve the critical emails, in light of the ability of defendant's vendors to retrieve those emails in just four days. The court also noted that the record contained a number of careless, if not misleading, statements by the plaintiff to defendant and to the court regarding the effort to retrieve the email. Finally, the court observed:

[W]e are uncertain whether the District Court appreciated that as a discovery deadline or trial draws near, discovery conduct that might have been considered "merely" discourteous at an earlier point in the litigation may well breach a party's duties to its opponent and to the court. In the circumstances presented here – i.e., trial was imminent and [plaintiff] had repeatedly missed deadlines to produce the e-mails – [plaintiff] was under an obligation to be *as cooperative as possible*. Viewed in that light, [plaintiff's] "purposefully sluggish" acts – particularly its as-yet-unexplained refusal to answer basic technical questions about the tape until prompted to do so by the District Court – may well have constituted sanctionable misconduct in their own right.

Id. at 112 (emphasis in original).




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

Plaintiffs sought the production of email from backup tapes and hard drives, and defendants moved for a protective order. The court denied defendant's motion, but shifted the cost of the production to the plaintiffs. In doing so, the court utilized a balancing test that considered eight different factors:

- ① The specificity of the discovery requests. "Where a party multiplies litigation costs by seeking expansive rather than targeted discovery, that party should bear the expense." 205 F.R.D. at 430.
- ① The likelihood of discovering critical information. "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 [responding party] search at its own expense. The less likely it is, the more unjust it would be to make [that party] search at its own expense. The difference is "at the margin."” *Id.* at 430, quoting *McPeck*, 202 F.R.D. at 34.
- ① The availability of such information from other sources. If equivalent information already been made available, or is accessible in a different format at less expense, it may justify denying the requested discovery or shifting the costs to the requesting party.
- ① The purposes for which the responding party maintains the requested data. If a party maintains electronic data for the purpose of utilizing it in connection with current activities, it may be expected to respond to discovery requests at its own expense. A party that expects to be able to access information for its own business purposes will be obligated to produce that same information in discovery. "Conversely, however, a party that happens to retain vestigial data for no current business purposes, but only in case of an emergency or simply because it has neglected to discard it, should not be put to the expense of producing it." *Id.* at 430-31.
- ① The relative benefit to the parties of obtaining the information. Where the responding party itself benefits from the production, there is less rationale for shifting costs to the requesting party. Benefits may inure in two forms: First, the process of production may have collateral benefits for the responding party's business, such as a search program used in discovery that could be useful in the regular activities of the business. Second, the review and production of records may benefit the responding party in the context of the litigation.
- ① The total cost associated with production. If the total cost of the requested discovery is not substantial, then there is no cause to deviate from the presumption that the responding party will bear the expense.
- ① The relative ability of each party to control costs and the incentive to do so. Where the discovery process is going to be incremental, it is more efficient to place the burden on the party that will decide how expansive the discovery will be. It may be the case that the requesting party will be able to calibrate its discovery based on the information obtained from an initial sampling. If so, that party would be in the best position to decide whether further searches would be justified. In such a case, this consideration would weigh in favor of shifting the costs to the requesting party.
- ① The resources available to each party. The ability of each party to bear the costs of discovery may be an appropriate consideration. "In some cases, 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." *Id.* at 432.

The court determined that the "sanctity" of the defendants' documents could be adequately preserved at little cost by enforcement of the confidentiality order and by following the court's protocol for the review and production of electronic materials. Among other things, the protocol provided that the defendants' emails would be reviewed on an "attorneys'-eyes-only" basis, and that the review of attorney-client documents would not be deemed a waiver of the privilege. *Id.* at 432.

The magistrate's decision was upheld by the district judge in *Rowe Entm't, Inc. v. The William Morris Agency, Inc.*, 2002 WL 975713 (S.D.N.Y. May 9, 2002).

 ***Sattar v. Motorola, Inc.*, 138 F.3d 1164 (7th Cir. 1998)**

Defendant produced email on four-inch magnetic tapes which plaintiff, lacking the necessary equipment and software, was unable to read. Plaintiff moved to compel the production of the email in hard copy form (some 210,000 pages). The court denied the motion to compel, concluding that a more reasonable accommodation was some combination of downloading the data from the tapes to conventional computer disks or a hard drive, or loaning plaintiff a copy of the necessary software, or offering plaintiff on-site access to the system. If these options failed, the court indicated it would require the parties to share equally in the copying costs. Ultimately, the defendant provided plaintiff a hard drive onto which it transferred the requested email data.

 ***Simon Prop. Group L.P. v. mySimon, Inc.*, 194 F.R.D. 639 (S.D. Ind. 2000)**

Although the factual record on plaintiff's motion to compel was "extremely sparse," the court found that plaintiff had shown "some troubling discrepancies with respect to defendant's document production." 194 F.R.D. at 641. The court ruled that the plaintiff was entitled to attempt – at its own expense – the task of recovering deleted computer files from computers used by four key players, whether at home or at work. *Id.*

The challenge, as stated by the court, was to arrange for this effort to be undertaken without undue burdens on defendant, in terms of its business, its relationships with its attorneys, and the privacy of its founders. The court concluded that the basic structure adopted by *Playboy Ent., Inc. v. Welles*, 60 F.Supp.2d 1050 (S.D. Cal. 1999) offered the best approach, tailored as follows:

- ~ Plaintiff to select and pay an expert to create a mirror image or snapshot of hard drives in question. Defendants may object to the selection of the expert.
- ~ Although paid by the plaintiff, expert to be appointed by court to carry out inspection and copying as an officer of the court. Expert and any assistants to sign the protective order in the case. Because expert to serve as an officer of the court, disclosure of a communication to the expert would not be deemed a waiver of the attorney-client privilege or any other privilege.
- ~ Expert to use his or her expertise to recover and provide in a reasonably convenient form to defendant's counsel all available word-processing documents, emails, presentations, spreadsheets and similar files. To the extent possible, expert to provide to defense counsel available information showing when any recovered "deleted" files were deleted, and available information about the deletion and contents of any unrecoverable deleted files.
- ~ After receiving the records, defense counsel to review them for privilege and responsiveness, and supplement defendant's responses to discovery requests as appropriate.
- ~ Expert to retain until the end of the litigation the mirror image copies of the hard drives and a copy of all files provided to defense counsel. At end of the litigation, expert to destroy the records and confirm such destruction to the satisfaction of defendants.


Id. at 641-44.

 ***Stallings-Daniel v. The N. Trust Co.*, 2002 WL 385566, 52 Fed.R.Serv.3d 1406 (N.D. Ill. 2002)**

Employment discrimination plaintiff sought reconsideration of court's order denying her use of an expert "to conduct so-called 'electronic discovery' of [defendant's] e-mail system." 2002 WL 385566, at *1. Materials had been produced by the defendant in hard copy form. The court described plaintiff's requested discovery as follows:

Plaintiff wishes to conduct electronic discovery on four specific documents: promotion lists, an e-mail concerning a performance review update discussion between the plaintiff and her supervisor, a memo discussing plaintiff's reaction to the update discussion, and the 'predicate' for that memo, by which we assume the plaintiff means the request from another of plaintiff's supervisors for information about plaintiff's review.

The court denied plaintiff's request, concluding that none of the evidence supported her speculations about missing or altered documents. "Nothing in the documents produced justifies an intrusive and wholly speculative electronic investigation into defendant's e-mail files." *Id.*

 ***Storch v. Ipco Safety Prod. Co. of Pa.*, 1997 WL 401589 (E.D. Pa. July 16, 1997)**

Plaintiff sought production of a disk containing sales data that had been produced in hard copy form, arguing that the electronic version was needed in order to run an analysis of the information. Otherwise, she stated, she would incur between \$10,000 and \$20,000 in data encoding fees to properly format the information. The defendant merely argued that it was still investigating its ability to provide the information in computerized form. The court held: "[I]n this age of high-technology where much of our information is transmitted by computer and computer disks, it is not unreasonable for the defendant to produce the information on computer disk for the plaintiff." 1997 WL 401589, at *2. Finding that the defendant had not provided sufficient reasons why it could not provide the information in the form requested, the court ordered it to provide the relevant sales data on disk.

 ***Trigon Ins. Co. v. United States*, 204 F.R.D. 277 (E.D. Va. 2001)**

In taxpayer suit, government retained a litigation consultant ("AGE") and a number of testifying experts. (One testifying expert was an owner of AGE; and all of the testifying experts coordinated their work through AGE.) During discovery proceedings on the defendant's *Daubert* motion, it became apparent that a substantial amount of potential evidence had been destroyed. Many of the draft reports and communications among the testifying experts and AGE had been deleted as a result of AGE's document retention policy and the individual practices of the testifying experts. In light of this, the court ordered the government to hire an independent computer forensics expert to report on the retrievability of the documents allegedly deleted. It further ordered that the government's testifying experts be deposed regarding the destruction of documents. The parties were to report to the court the results of the forensic expert's work and the depositions. 204 F.R.D. at 281.

Although AGE contended that recovery of the deleted materials was not possible, the forensic expert retrieved hundreds of communications and many draft reports. *Id.* However, very little material was recovered with respect to one expert, Dr. Feldstein. *Id.* at 290. Fragments of emails were recovered, however, and they showed that Feldstein's report was written in some part by AGE. One fragment of an email from Feldstein to AGE read:

This is very rough. Just to get started. Feel free to totally change it in any way you think best. In a report these points might have to be dropped, changed, expanded, the format changed, etc. I have no concern with it being changed.

Id. Another recovered message sent by AGE to Feldstein asked him to review AGE's draft of Feldstein's report, and directed: "PLEASE DO NOT WORK ON THE END OF YOUR REPORT YET BECAUSE WE ARE DOING SO." *Id.*

The court stated that the recovered communications raise serious doubts about whether Dr. Feldstein's opinions were his own, and found that the plaintiff had been substantially prejudiced in its ability to cross-examine Dr. Feldstein. The court also noted that:

[T]he communication between AGE and Dr. Feldstein raise serious questions whether the same *modus operandi* has been pursued by AGE with the other experts, which cannot be shown now because Deloitte & Touche was unable to recover all of the spoliated evidence for each expert. Thus, the evidence relating to Dr. Feldstein also is a harbinger of prejudice that could taint all of the expert evidence to be offered by the United States.

The court determined that it would appropriate to draw adverse inferences respecting the substantive testimony and credibility of the experts at trial, and stated that would be done based on the evidence presented at trial. The court foreclosed any further participation by AGE in any aspect with the preparation and presentation of expert testimony for the government, and also concluded that the plaintiff was entitled to recover attorneys fees and costs incurred as a result of the spoliation of evidence.



***In re Triton Energy Ltd. Sec. Litig.*, 2002 WL 32114464 (E.D. Tex. Mar. 7, 2002)**

Plaintiffs complained that hundreds if not thousands of documents were produced after key depositions were taken, or on the eve of the depositions. Plaintiffs requested (1) that defendant be required to provide a log of all documents withheld from plaintiffs on any grounds; (2) that defendant produce a written certification to the court describing the efforts, if any, it has undertaken to comply with the court's previous orders regarding the preservation and production of evidence and their obligations under the Private Securities Litigation Reform Act; and (3) that plaintiffs be given access to defendant's computer storage systems (including servers and hard drives) and those of all present and former members of the board of directors, and allow non-destructive testing of these systems to determine what documents and emails, if any, have been deleted and what, if any, of this information bears significantly on the subject matter of the lawsuit.

In support of its request, plaintiffs submitted deposition testimony of three former directors who each stated that they had not been asked by defense counsel to retain or produce any documents, along with deposition testimony of other executives and employees to the same effect.

The court granted plaintiffs' first request only to the extent the documents were withheld on a claim of privilege, and denied the second request.

With respect to the third request, the court stated that it has not found any authority specifically addressing the issue of whether defendant had a duty to instruct its outside directors to preserve documents. However, it opined that "it would have been prudent and within the spirit of the law for [defendant] to instruct its officers and directors to preserve and produce any documents in their possession, custody or control." *Id.* at *6. Like the situation in *Danis v. USN Communications, Inc.*, 2000 WL 1694325 (N.D. Ill. 2000), "it is clear that as a result of the failure to implement a suitable document preservation plan, to communicate that plan effectively to [outside directors], and to follow up to insure that the directive was being followed, there were holes in the document preservation plan through which discoverable materials may have been lost." *Id.* (quoting *Danis*, at *43).

The court rejected plaintiffs' suggestion of allowing them unfettered access to defendant's hard drives since it would potentially violate privacy interests and privileges. In an effort to alleviate such concerns, the court stated it would appoint a special master to assist. The court would also appoint a forensic computer specialist to retrieve information from defendant's computer storage systems and those of certain present and former officers and directors. The computer specialist would conduct non-destructive testing of the systems to determine what documents and emails, if any, have been deleted. The special master would then review and determine what documents and electronic data, if any, were destroyed that bear significantly on the claims and defenses in the litigation. Based on the special master's report, the court would then determine whether the defendant complied with its disclosure obligations and whether a sanctions hearing would be necessary.



***Tulip Computers Int'l B.V. v. Dell Computer Corp.*, 2002 WL 818061, 52 Fed.R.Serv.3d 1420 (D.Del. 2002)**

Plaintiff brought a motion to compel and a motion for sanctions based on numerous discovery disputes relating to hard copy and electronic material. Plaintiff complained that, among other things, defendant had failed to produce any email or electronic documents for any senior employees. Defendant argued that it had circulated plaintiff's document requests to over 300 employees, and all responsive documents had been produced. 2002 WL 818061, at *4. Granting plaintiff's request for additional email discovery, the court explained:

The history of Dell's failures to cooperate in the discovery process – and its sweeping but inaccurate positions that Tulip would never find certain documents that Tulip, through persistence and diligence, later uncovered – counsel in favor of awarding Tulip some relief that allows them to ascertain for themselves whether Dell's representations that all responsive documents have been produced are accurate. Moreover, counsel for Dell could not represent to the court that it has thoroughly searched these e-mail records for responsive information.

Id. at *7. The court adopted the protocol suggested by plaintiff, and ordered defendant to provide email of selected executives in electronic form to plaintiff's computer expert. The expert would then search the email using the parties' agreed-upon search terms, and provide defendant a list of the emails retrieved. Defendant would then produce the email subject to its own review for privilege and confidentiality designations. *Id.*

Plaintiff also complained about defendant's conduct with respect to discovery of defendant's databases. Defendant initially stated it did not have the ability to conduct plaintiff's requested search, but agreed to make the database available to plaintiff's expert. Later discussions with the data warehouse manager revealed that the information plaintiff had been requesting for nearly a year was, in fact, available, and existing search queries could have been used to cull the requested information from the database system. The court criticized defendant for its inaccurate representations, stating that defendant's conduct in discovery "indicates either a failure to take its discovery obligations with the required degree of seriousness and diligence or an extreme lack of knowledge and control over its own files and procedures." *Id.* at *6.

Lastly, plaintiff contended that defendant had failed to adequately prepare a knowledgeable Rule 30(b)(6) witness to give testimony on issues relating to the production, preservation and destruction of

documents. The court directed defendant to work diligently to ensure that plaintiff receives the information, either through deposition, the production of documents, or interrogatories. It concluded that, while defendant's conduct was not deserving of sanctions, defendant would be responsible for the costs of another deposition if it were required. *Id.* at *8.



***United States Fid. & Guar. Co. v. Braspetro Oil Serv. Co.*, 2002 WL 15652, 53 Fed.R.Serv.3d 60 (S.D.N.Y. 2002)**

Plaintiffs sought production of privileged documents, on the grounds that defendants had made all of the documents on their privilege log available to their experts, thereby waiving all privilege with respect to those documents, as well as subjecting the documents to the requirements of expert discovery under Fed. R. Civ. P. 26(a)(s). The court found that the defendants made available the full contents of some 60 CD-ROMs to at least two testifying experts. The court stated it could only conclude, under the circumstances, that the defendants voluntarily relinquished whatever confidentiality attached to the contents of those disks, and thereby waived the attorney-client privilege with respect to everything on the disks. 2002 WL 15652, at *5. Ordering the defendants to produce all materials provided to their experts, the court explained that the order extended to everything on defendant's privilege logs, and included all documents, privileged or not, furnished in hard copy or electronic form, as well as all indexes and search tools furnished therewith. *Id.* at *9.



***Zubulake v. UBS Warburg LLC*, 2003 WL 21087884 (S.D.N.Y. May 13, 2003)**

Plaintiff in employment discrimination suit contended that key evidence was located in various emails exchanged among defendant's employees that existed only on backup tapes and perhaps other archived media. According to defendant, restoration of the emails would cost approximately \$175,000, exclusive of attorney review time. Plaintiff moved for an order compelling the defendant to produce the email at its own expense.

The court opined that 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)." 2003 WL 21087884, at *7. It elaborated:

In the world of paper documents, for example, a document is accessible if it is readily available in a usable format and reasonably indexed. Examples of inaccessible paper documents could include (a) documents in storage in a difficult to reach place; (b) documents converted to microfiche and not easily readable; or (c) documents kept haphazardly, with no indexing system, in quantities that make page-by-page searches impracticable. But in the world of electronic documents, thanks to search engines, any data that is retained in a machine readable format is typically accessible.

Id. It concluded that, whether electronic data is accessible or inaccessible turns largely on the media on which it is stored. It described five categories of electronic documents: (1) active, online data, including hard drives; (2) near-line data, including optic disks; (3) offline storage/archives, which are removable optical disk or magnetic tape media; (4) backup tapes; and (5) erased, fragmented or damaged data. The court stated that, of these, the first three are typically identified as accessible, and the later two as inaccessible. It stated that the difference between the two is easy to appreciate:

Information deemed "accessible" is stored in a readily usable format. Although the time it takes to actually access the data ranges from milliseconds to days, the data does not need to be restored or otherwise manipulated to be usable. "Inaccessible"

data, on the other hand, is not readily usable. Backup tapes must be restored . . . fragmented data must be de-fragmented, and erased data must be reconstructed, all before the data is usable. That makes such data inaccessible.

Id. at *8

Because some of the email sought by plaintiff was stored on backup tapes and therefore inaccessible, the court found it appropriate to *consider* cost-shifting. It discussed the *Rowe Entertainment* balancing test, and concluded that it needed modification. It stated that the amount in controversy and the importance of the issues at stake in the litigation needed to be added to the analysis; conversely, it stated that two of the *Rowe* factors should be eliminated: “the specificity of the discovery request,” because it is already a part of the relevance consideration, and “the purpose for which the responding party maintains the requested data,” because this is typically unimportant. Thus, the court created a new seven-factor test:

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; and
7. The relative benefits to the parties of obtaining the information.

Id. at *11. The court further opined that the factors should not be weighted equally, but in descending order of importance. It stated that the first two factors, which essentially comprise the marginal utility test, are the most important.

The court further observed that a factual basis is required to support the analysis, and that such proof “will rarely exist in advance of obtaining the requested discovery.” *Id.* at 12. Thus, it concluded that requiring the responding party to restore and produce responsive documents from a small sample of backup tapes will inform the cost-shifting analysis.

When based on an actual sample, the marginal utility test will not be an exercise in speculation – there will be tangible evidence of what the backup tapes may have to offer. There will also be tangible evidence of the time and cost required to restore the backup tapes, which in turn will inform the second group of cost-shifting factors. Thus, by requiring a sample restoration of backup tapes, the entire cost-shifting analysis can be grounded in fact rather than guesswork.

Id. Thus, the court held that deciding disputes regarding the scope and cost of discovery of electronic data requires a three-step analysis: First, it is necessary to thoroughly understand the responding party’s computer system. For data that is in an accessible format, the usual rules of discovery apply, and the responding party should pay the costs of producing responsive data. Cost-shifting should be considered only when data is relatively inaccessible, such as in backup tapes. Second, because the cost-shifting analysis is so fact-intensive, it is necessary to determine what data may be found on the inaccessible media. Requiring the responding party to restore and produce responsive documents

from a small sample of the requested backup tapes is a sensible approach in most cases. Third, and last, the court should analyze the seven factors in descending order of importance.

Applying this reasoning to the facts of the case, the court ordered the defendant to produce, at its expense, responsive emails from any five backup tapes selected by the plaintiff. It further directed the defendant to prepare an affidavit detailing the results of its search, as well as the time and money spent. The court stated that, after it received such information, it would conduct the cost-shifting analysis.



Zubulake v. UBS Warburg LLC, 2003 WL 21714957 (S.D.N.Y. July 24, 2003)

After reviewing the results of the sample restoration, plaintiff moved for an order compelling defendant to produce all remaining backup emails at its expense. The sample restoration netted approximately 600 responsive emails, costing defendant \$19,003 for restoration, attorney review and paralegal work associated with the production. The defendant asked that the cost of any further production – estimated to be \$273,649 (including \$165,955 to restore and search the tapes and \$107,695 in attorney and paralegal review costs) – be shifted to plaintiff.

The court applied its seven-factor test, and determined that cost-shifting was appropriate, although the defendant should pay the majority of costs. It determined that plaintiff should bear 25 percent of only the costs of restoration and searching:

As a general rule, where cost-shifting is appropriate, only the costs of restoration and searching should be shifted. Restoration, of course, is the act of making inaccessible material accessible. That “special purpose” or “extraordinary step” should be the subject of cost-shifting. Search costs should also be shifted because they are so intertwined with the restoration process; a vendor like Pinkerton will not only develop and refine the search script, but also necessarily execute the search as it conducts the restoration. However, the responding party should *always* bear the cost of reviewing and producing electronic data once it has been converted to an accessible form.

2003 WL 21714957, at *8 (footnotes omitted). It stated that there are two reasons why this is so: first, the producing party has the exclusive ability to control the cost of reviewing the documents by choosing the attorneys who will do the work. Further, the producing party unilaterally decides on the review protocol. Second, cost-shifting is only appropriate for inaccessible data; once data is restored to an accessible format, the usual rules of discovery should apply.

Appendix C: Court Rules

(LAST UPDATED 9-30-2003)

United States District Court for the Eastern & Western Districts of Arkansas, Local Rule 26.1

United States District Court for the District of New Jersey, PROPOSED Local Civil Rule 26.1(d)

United States District Court for the District of Wyoming, Local Rule 26.1(d)

California Code of Civil Procedure Section 2017

Illinois Supreme Court Rules 201 and 214

Mississippi Rule of Civil Procedure 26(b)(5)

Texas Rule of Civil Procedure 196.4



United States District Court for the Eastern and Western Districts of Arkansas, Local Rule 26.1: Outline for Fed. R. Civ. P. 26(f) Report

The Fed.R.Civ.P. 26(f) report filed with the court must contain the parties' views and proposals regarding the following:

- (1) Any changes in timing, form, or requirements of mandatory disclosures under Fed.R.Civ.P. 26 (a).
- (2) Date when mandatory disclosures were or will be made.
- (3) Subjects on which discovery may be needed.
- (4) Whether any party will likely be requested to disclose or produce information from electronic or computer-based media. If so:
 - (a) whether disclosure or production will be limited to data reasonably available to the parties in the ordinary course of business;
 - (b) the anticipated scope, cost and time required for disclosure or production of data beyond what is reasonably available to the parties in the ordinary course of business;
 - (c) the format and media agreed to by the parties for the production of such Data as well as agreed procedures for such production;
 - (d) whether reasonable measures have been taken to preserve potentially discoverable data from alteration or destruction in the ordinary course of business or otherwise;
 - (e) other problems which the parties anticipate may arise in connection With electronic or computer-based discovery.
- (5) Date by which discovery should be completed.
- (6) Any needed changes in limitations imposed by the Federal Rules of Civil Procedure.
- (7) Any Orders, e.g. protective orders, which should be entered.
- (8) Any objections to initial disclosures on the ground that mandatory disclosures are not appropriate in the circumstances of the action.
- (9) Any objections to the proposed trial date.
- (10) Proposed deadline for joining other parties and amending the pleadings.
- (11) Proposed deadline for completing discovery. (Note: In the typical case, the deadline for completing discovery should be no later than sixty (60) days before trial.)
- (12) Proposed deadline for filing motions. (Note: In the typical case, the deadline for filing motions should be no later than sixty (60) days before trial.)



United States District Court for the District of New Jersey, PROPOSED Local Civil Rule 26.1(d): Discovery of Digital Information Including Computer-Based Information

(1) Duty to Investigate and Disclose. Prior to a Fed. R. Civ. P. 26(f) conference, counsel shall review with the client the client's information management systems including computer-based and other digital systems, in order to understand how information is stored and how it can be retrieved. To determine what must be disclosed pursuant to Fed. R. Civ. P. 26(a) (1), counsel shall further review with the client the client's information files, including currently maintained computer files as well as historical, archival, back-up, and legacy computer files, whether in current or historic media or formats, such as digital evidence which may be used to support claims or defenses. Counsel shall also identify a person or persons with knowledge about the client's information management systems, including computer-based and other digital systems, with the ability to facilitate, through counsel, reasonably anticipated discovery.

(2) Duty to Notify. A party seeking discovery of computer-based or other digital information shall notify the opposing party as soon as possible, but no later than the Fed. R. Civ. P. 26(f) conference, and identify as clearly as possible the categories of information which may be sought. A party may supplement its request for computer-based and other digital information as soon as possible upon receipt of new information relating to digital evidence.

(3) Duty to Meet and Confer. During the Fed. R. Civ. P. 26(f) conference, the parties shall confer and attempt to agree on computer-based and other digital discovery matters, including the following:

(a) Preservation and production of digital information: procedures to deal with inadvertent production of privileged information; whether restoration of deleted digital information may be necessary; whether back up or historic legacy data is within the scope of discovery; and the media, format, and procedures for producing digital information;

(b) Who will bear the costs of preservation, production, and restoration (if necessary) of any digital discovery



United States District Court for the District of Wyoming, Local Civil Rule 26.1(d): Discovery

(d) Rule 26(f) Meeting of Counsel; Initial Disclosure Exchange. The Court will set an initial pretrial conference no sooner than thirty-five (35) days after the last pleading pursuant to Fed.R.Civ.P. 7 or a dispositive motion is filed with the Court.

(1) Counsel must meet and confer in person or by telephone in accordance with Fed.R.Civ.P.26(f) no later than twenty (20) days after the last pleading pursuant to Fed.R.Civ.P. 7 or a dispositive motion is filed with the Court. (See Appendix D)

(2) Counsel on behalf of the parties must exchange the initial disclosures (self-executing routine discovery) pursuant to Local Rule 26.1(c)(1) above, no later than thirty (30) days after the last pleading filed pursuant to Fed.R.Civ.P. 7 or a dispositive motion is filed with the Court.

(3) Prior to a Fed.R.Civ.P. 26(f) conference, counsel should carefully investigate their client's information management system so that they are knowledgeable as to its operation, including how information is stored and how it can be retrieved. Likewise, counsel shall reasonably review the

client's computer files to ascertain the contents thereof, including archival and legacy data (outdated formats or media), and disclose in initial discovery (self-executing routine discovery) the computer based evidence which may be used to support claims or defenses.

(A) Duty to Notify. A party seeking discovery of computer-based information shall notify the opposing party immediately, but no later than the Fed.R.Civ.P. 26(f) conference of that fact and identify as clearly as possible the categories of information which may be sought.

(B) Duty to Meet and Confer. The parties shall meet and confer regarding the following matters during the Fed.R.Civ.P. 26(f) conference:

(i) Computer-based information (in general). Counsel shall attempt to agree on steps the parties will take to segregate and preserve computer-based information in order to avoid accusations of spoliation;

(ii) E-mail information. Counsel shall attempt to agree as to the scope of e-mail discovery and attempt to agree upon an e-mail search protocol. This should include an agreement regarding inadvertent production of privileged e-mail messages.

(iii) Deleted information. Counsel shall confer and attempt to agree whether or not restoration of deleted information may be necessary, the extent to which restoration of deleted information is needed, and who will bear the costs of restoration; and

(iv) Back-up data. Counsel shall attempt to agree whether or not back-up data may be necessary, the extent to which back-up data is needed and who will bear the cost of obtaining back-up data.

(4) Counsel may either submit a written report or report orally on their discovery plan at the initial pretrial conference.



California Code of Civil Procedure Section 2017

(a) Unless otherwise limited by order of the court in accordance with this article, any party may obtain discovery regarding any matter, not privileged, that is relevant to the subject matter involved in the pending action or to the determination of any motion made in that action, if the matter either is itself admissible in evidence or appears reasonably calculated to lead to the discovery of admissible evidence. Discovery may relate to the claim or defense of the party seeking discovery or of any other party to the action. Discovery may be obtained of the identity and location of persons having knowledge of any discoverable matter, as well as of the existence, description, nature, custody, condition, and location of any document, tangible thing, or land or other property.

* * *

(c) The court shall limit the scope of discovery if it determines that the burden, expense, or intrusiveness of that discovery clearly outweighs the likelihood that the information sought will lead to the discovery of admissible evidence. The court may make this determination pursuant to a motion for protective order by a party or other affected person. This motion shall be accompanied by a declaration stating facts showing a good faith attempt at an informal resolution of each issue presented by the motion.

The court shall impose a monetary sanction under Section 2023 against any party, person, or attorney who unsuccessfully makes or opposes a motion for a protective order, unless it finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

* * *

(e) (1) Pursuant to noticed motion, a court may enter orders for the use of technology in conducting discovery in cases designated as complex pursuant to Section 19 of the Judicial

Administration Standards, cases ordered to be coordinated pursuant to Chapter 3 (commencing with Section 404) of Title 4 of Part 2, or exceptional cases exempt from case disposition time goals pursuant to Article 5 (commencing with Section 68600) of Chapter 2 of Title 8 of the Government Code, or cases assigned to Plan 3 pursuant to paragraph (3) of subdivision (b) of Section 2105 of the California Rules of Court. In other cases, the parties may stipulate to the entry of orders for the use of technology in conducting discovery.

(2) An order authorizing that discovery may be made only upon the express findings of the court or stipulation of the parties that the procedures adopted in the order meet all of the following criteria:

(A) They promote cost-effective and efficient discovery or motions relating thereto.

(B) They do not impose or require undue expenditures of time or money.

(C) They do not create an undue economic burden or hardship on any person.

(D) They promote open competition among vendors and providers of services in order to facilitate the highest quality service at the lowest reasonable cost to the litigants.

(E) They do not require parties or counsel to purchase exceptional or unnecessary services, hardware, or software.

(3) Pursuant to these orders, discovery may be conducted and maintained in electronic media and by electronic communication. The court may enter orders prescribing procedures relating to the use of electronic technology in conducting discovery, including orders for the service of requests for discovery and responses, service and presentation of motions, production, storage, and access to information in electronic form, and the conduct of discovery in electronic media. The Judicial Council may promulgate rules, standards, and guidelines relating to electronic discovery and the use of such discovery data and documents in court proceedings.

(4) Nothing in this subdivision shall diminish the rights and duties of the parties regarding discovery, privileges, procedural rights, or substantive law.

(5) If a service provider is to be used and compensated by the parties, the court shall appoint the person or organization agreed upon by the parties and approve the contract agreed upon by the parties and the service provider. If the parties do not agree on the selection, each party shall submit to the court up to three nominees for appointment together with a contract acceptable to the nominee and the court shall appoint a service provider from among the nominees. The court may condition this appointment on the acceptance of modifications in the terms of the contract. If no nominations are received from any of the parties, the court shall appoint one or more service providers. Pursuant to noticed motion at any time and upon a showing of good cause, the court may order the removal of the service provider or vacate any agreement between the parties and the service provider, or both, effective as of the date of the order. The continued service of the service provider shall be subject to review periodically, as agreed by the parties and the service provider, or annually if they do not agree. Any disputes involving the contract or the duties, rights, and obligations of the parties or service providers may be determined on noticed motion in the action.

(6) Subject to these findings and the purpose of permitting and encouraging cost-effective and efficient discovery, "technology," as used in this section, includes, but is not limited to, telephone, e-mail, CD-ROM, Internet web sites, electronic documents, electronic document depositories, Internet depositions and storage, videoconferencing, and other electronic technology that may be used to improve communication and the discovery process.

(7) Nothing in this subdivision shall be construed to modify the requirement for use of a stenographic court reporter as provided in paragraph (1) of subdivision (l) of Section 2025. The rules, standards, and guidelines adopted pursuant to this subdivision shall be consistent with the

requirement of paragraph (1) of subdivision (l) of Section 2025 that deposition testimony be taken stenographically unless the parties agree or the court orders otherwise.

(8) Nothing in this subdivision shall be construed to modify or affect in any way the process used for the selection of a stenographic court reporter.



Illinois Supreme Court Rules 201 and 214

Rule 201: General Discovery Provisions

* * *

(b) Scope of Discovery.

(1) *Full Disclosure Required.* Except as provided in these rules, a party may obtain by discovery full disclosure regarding any matter relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking disclosure or of any other party, including the existence, description, nature, custody, condition, and location of any documents or tangible things, and the identity and location of persons having knowledge of relevant facts. The word "documents," as used in these rules, includes, but is not limited to, papers, photographs, films, recordings, memoranda, books, records, accounts, communications and all retrievable information in computer storage. . . .

Excerpt from Committee Comments, June 1, 1995:

The definition of "documents" in subparagraph (b)(1) has been expanded to include "all retrievable information in computer storage." This amendment recognizes the increasing reliability on computer technology and thus obligates a party to produce on paper those relevant materials which have been stored electronically.

Rule 214: Discovery of Documents, Objects, and Tangible Things – Inspection of Real Estate

Any party may by written request direct any other party to produce for inspection, copying, reproduction photographing, testing or sampling specified documents, objects or tangible things, or to permit access to real estate for the purpose of making surface or subsurface inspections or surveys or photographs, or tests or taking samples, or to disclose information calculated to lead to the discovery of the whereabouts of any of these items, whenever the nature, contents, or condition of such documents, objects, tangible things, or real estate is relevant to the subject matter of the action. The request shall specify a reasonable time, which shall not be less than 28 days except by agreement or by order of court, and the place and manner of making the inspection and performing the related acts. One copy of the request shall be served on all other parties entitled to notice. A party served with the written request shall (1) produce the requested documents as they are kept in the usual course of business or organized and labeled to correspond with the categories in the request, and all retrievable information in computer storage in printed form or (2) serve upon the party so requesting written objections on the ground that the request is improper in whole or in part. If written objections to a part of the request are made, the remainder of the request shall be complied with. Any objection to the request or the refusal to respond shall be heard by the court upon prompt notice and motion of the party submitting the request. If the party claims that the item is not in his or her possession or control or that he or she does not have information calculated to lead to the discovery of its whereabouts, the party may be ordered to submit to examination in open court or by deposition regarding such claim. The party

producing documents shall furnish an affidavit stating whether the production is complete in accordance with the request. . . .

Excerpt from Committee Comments, June 1, 1995:

The first paragraph has also been amended to require a party to include in that party's production response all responsive information in computer storage in printed form. This change is intended to prevent parties producing information from computer storage on storage disks or in any other manner which tends to frustrate the party requesting discovery from being able to access the information produced.

Rule 201(b) has also been amended to include in the definition of "documents" all retrievable information in computer storage, so that there can be no question but that a producing party must search its computer storage when responding to a request to produce documents pursuant to this rule. . . .



Mississippi Rule of Civil Procedure 26: General Provisions Governing Discovery

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(b) Scope of Discovery. Unless otherwise limited by order of the court in accordance with these rules, the scope of discovery is as follows:

* * *

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



Texas Rule of Civil Procedure 196.4: Electronic or Magnetic Data

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