Recommended E-Discovery Practices for Federal Criminal Justice Act Cases
by Douglass Mitchell and Sean Broderick

I. INTRODUCTION

Federal litigation across the country is experiencing an explosion of electronic data. Thanks to the computer revolution, the world has moved from being primarily paper based to one where most information is created and stored electronically. Criminal cases are not immune to this paradigm shift. As many attorneys who represent indigent criminal defendants are currently experiencing, the amount of data associated with any given case continues to grow in size and complexity each year, making the management and review of evidence, which includes

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paper, scanned documents, electronically stored information (ESI)\(^3\), audio files, video files and a variety of other data, a significant challenge in federal criminal cases.

To provide a concrete example of the consequences of expanding technology in litigation, in a recent multi-defendant Criminal Justice Act (CJA) case, the court-appointed attorneys had to develop ways to organize, review and analyze initial discovery that consisted of 240,000 images on 19 DVDs and CD Roms, an additional 185 banker boxes of paper documents (approximately 460,000 pages), and 30 forensic images of computers, servers and thumb drives which held approximately 4.3 terabytes of data. To put the 4.3 terabytes of data into context, this is the equivalent of 215,000,000 pages or 86,000 banker boxes of documents.\(^4\) This initial set of discovery did not include third party information directly relevant to counsels’ defense, which totaled an additional 750,000 pages. As is evident, the challenge of processing, organizing, reviewing, and analyzing this volume of information is enormous.

Though the amount of data involved in this instance is extreme for a CJA case, many CJA cases now contain relevant information which originally came from a computer system, resulting in a significant increase in the volume of information which has to be reviewed and analyzed. Consider that many individuals and small businesses have at least one computer and other associated electronic media, if not more. This means that a small business which formerly relied on a four-drawer file cabinet of paper records, now maintains the equivalent of two thousand four-drawer file cabinets full of such records in the form of ESI.\(^5\)

There are no magic bullets for addressing large volume paper and ESI cases. However, practices arising from the experiences of civil litigators and criminal practitioners who have successfully addressed the twin problems of handling enormous amounts of data and digesting information contained in various and diverse computer file formats can be of assistance to

\[^3\] ESI is any electronically stored information, regardless of the media or whether it is in the original format in which it was created, as opposed to stored in hard copy (i.e. on paper). Examples of ESI include e-mail, spreadsheets, word processing documents, text or instant messaging, audio, video or any content in a digital format.

\[^4\] According to the Electronic Discovery Reference Model, generally accepted averages employed in the electronic discovery industry estimate that a terabyte of data contains approximately 50,000,000 pages of paper, or 20,000 banker boxes of documents. "Processing -- Metrics," \text{http://www.edrm.net/wiki/index.php/Processing--Metrics}, (last visited December 9, 2009).

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federal defender organizations (FDO) or CJA panel attorneys who finds themselves involved in such a case. The purpose of this article is to provide recommendations on handling electronic discovery in an effective and efficient manner, so that quality representation can be provided in these cases. The list in Section II provides a broad overview of principles and practices that have proven to be useful in managing large electronic discovery cases.

Notwithstanding onslaughts of information of the magnitude mentioned, it can be tempting for practitioners to fall back on the same familiar, “tried and true” discovery management techniques that serve so well in cases involving a handful of bankers boxes of paper documents. For better or worse, “tried and true” is no longer “true” and is not an option in modern-day litigation. Besides the issue of volume, today’s cases often involve information that is never put to paper. As people who have worked with electronic discovery can attest, electronic files often contain additional information that is not “visible” if you simply hit “print” and read the document. Document creation and modification dates, author, history of changes made in the document, or the identify of individuals blind copied on an email are but a few examples of potentially relevant information that form part of an electronic document but not its printed counterpart. All of us have seen emails that contain comments which never would have been included in a formal, printed memo - unguarded comments that can be invaluable to your client’s position. However, sometimes even innocuous emails become important when viewed in the context of the “electronic discussion” contained in the email database. Because emails are typically part of a large database of linked, organized and searchable records, it can be unwieldy, if not impossible, to accurately recreate electronic discussions in paper form and in that medium the context of the electronic discussion can be missed. Being unaware of, or avoiding, treasure troves of electronic information found in ESI can seriously compromise the quality of representation afforded to indigent defendants. This is why use of the proper technology, human resources, and discovery management practices are critical.

II. RECOMMENDED LITIGATION SUPPORT PRACTICES

In our experience with many complex civil and criminal cases involving large volumes of paper and/or electronic discovery, the following principles and practices lead to efficient and effective management of the discovery and enhanced representation of the client.

1. **Understand Your Case Early.** Gain an understanding of the allegations and facts of the case; talk to your client very early about who he or she communicated with, including co-defendants, co-conspirators, victims, and third-party witnesses; identify the methods

6 As of 1999, 93 percent of all information in the United States was generated in digital form, and only .01% of information was stored in paper format, School of Information, University of California at Berkeley, _How Much Information?_, 2003.
they used to communicate; identify any computer systems used in connection with the alleged criminal activity, even if only for email; if possible, obtain sample documents from the relevant computer systems to begin understanding vocabulary and types of documents so as to determine what type of discovery to expect, and what third party information you may want to obtain.

2. **Learn How To Staff Your Case.** Many criminal defense attorneys may not be accustomed to using the services of a paralegal, let alone a litigation support specialist. Understand that you may need to have some combination of litigation support personnel, paralegals, contract attorneys, investigators, and computer forensic experts as part of your team. It is critical that counsel understand the team members’ roles and be able to explain to the court (and the team members) why they are needed in a specific case, how they are going to be used, and how it will be more cost-effective for the team members to perform certain tasks than for counsel to do so.

3. **Identify or Retain a Litigation Support Specialist to Manage the Discovery/Evidence Early in the Case.** As soon as you are aware the case will involve either (i) ESI or (ii) a large volume of imaged documents, identify and retain a competent litigation support specialist. The earlier the better. Do not choose your sister’s best friend’s boyfriend who worked in CompUSA’s tech support department until it closed. Make sure it is someone who is qualified and who has a proven track record for dealing with the kinds and quantities of discovery involved in the case. Besides knowing technology, you want someone who understands litigation, basic legal concepts, and how to effectively use computer programs specifically designed or modified for litigation purposes. While there are sometimes concerns about using experts or services from distant locations, geography is less of an issue in a digital litigation world because information can be transmitted so readily from one location to another; so consider using experienced and competent litigation support service providers from outside your district if necessary.

4. **Consider Early Case Assessment (ECA) Tools.** One of the most talked about new technologies in litigation support is Early Case Assessment technology. Still early in its development, ECA tools and techniques come in a variety of forms, including web-based tools that allow for a thorough front-end look at the volume of ESI before the ESI is filtered, processed and uploaded to a review tool. Theoretically, these tools are able to distinguish and cull out documents by specific dates, names contained therein, types of emails (such as advertisements), and otherwise sort out materials that are irrelevant to the prosecution or defense case. There are two significant advantages derived from this type of tool: (a) early in the case, it can reduce, sometimes by large percentages, the volume of material that may need to be reviewed; and (b) the defense team can start to find relevant documents early in the case, as opposed to late in the review process.
5. **Select Appropriate Review Tools.** With help from your litigation support specialist, select discovery review tools that are appropriate for the volume of discovery in your case, the number of co-defendants, and the format of the discovery. Within the criminal defense context, review usually means the process of examining and evaluating documents and ESI for inculpatory and/or exculpatory information. Typically this is an on-line review where the data is accessed on a stand-alone personal computer (PC), on a PC through a local network, or on a PC through an outside vendor using the internet. The review process can be facilitated by specialized tools that provide features such as collaborative access of multiple reviewers, varying security and access levels for different users, search and retrieval, and document coding (which is explained more fully below).

6. **Use Requests for Proposal (RFP) to Get Good Pricing.** The best way to get the services you want at a competitive price is to use a RFP. By developing a RFP, you will better understand what the scope of work is in your case and increase the likelihood that you will get what you want from the system selected. By providing a customized RFP to prospective vendors, you will be able to compare bids among vendors so that you are not comparing apples to oranges. In the best case scenario, the RFP identifies the features and functions counsel believe will help them efficiently and effectively review, search, organize, and analyze the voluminous discovery in a case, while at the same time reducing overall defense costs.

7. **Understand the Cost/Benefit Analysis.** Because budgeting for the case may be overseen by the court, you may be required to explain or justify your litigation support requests, both in terms of why the Government should be compelled to provide discovery in particular formats and why certain computerized tools and human resources are necessary for Sixth Amendment purposes, as well as how using the tools and personnel will be cost effective. With help from your litigation support specialist, gain an understanding of how to explain and justify any court-supervised requests in budgetary and Sixth Amendment terms.

   a. **Write Funding Requests as a Legal Claim.** Since electronic discovery cases are frequently going to require more resources than have been required in criminal defense cases in the past, some courts may balk at the costs. One way for attorneys to think about addressing this issue is to draft their requests like a legal claim, explaining how funding this request is necessary in order to effectively represent the client. However, simply stating that the requested resources are “constitutionally necessary” or citing “Strickland v. Washington” is insufficient. The request will have to be specific about how and why the resources and processes are necessary and how your representation will suffer without them.
8. **Get Agreement on, or Advocate for, Discovery Exchange Protocols.** With help from your litigation support specialist, identify and communicate to the court the protocols that should be used for exchanging discovery throughout the case. By determining the format(s) you want the government to produce the discovery, the easier it will be for you to process, review and analyze the information that you ultimately receive. If possible, do this before the Government produces any discovery to you. Define protocols for both paper-based discovery and ESI. Be able to explain why the requested protocols are necessary, as well as how they will save time and money as compared with the Government’s or the court’s proposed protocols.

9. **Identify Your Case Theories, Issues and Defenses Early.** Identifying these will drive your subjective coding (also known as document review within the civil world). Subjective coding, usually performed by attorneys or paralegals, is the coding of a document using legal interpretation, such as identification of a possible legal issue, as the data that fills a field. The coding helps to determine the framework of your review and workflow process, which are especially important in large, complex electronic discovery cases because of the enormity of information that must be reviewed and analyzed. Don’t be fooled into thinking that the technology by itself will bail you out at the end. The technology is only as good as the combination of its functionality and its effective use by knowledgeable and skilled people. In these cases, one must be organized and focused in order to be prepared properly for trial.

10. **Define Discovery Processing Procedures.** With help from your litigation support specialist, identify and define the processes and procedures you will use to manage the discovery received from the Government or third-parties, including the loading of the data into the review tools selected for the case. Identify the processing procedures for both ESI and paper-based discovery. This should include an understanding of the types of data (including electronic images of paper-based discovery, OCR, unitization),

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7 This contrasts with objective or bibliographic coding, which uses information that is readily apparent from the face of the document, such as date, document type, author, addresses, recipients, and names mentioned in a document to create data fields. NOTE: The language used to describe the various technical terms in this article is derived largely from *The Sedona Glossary: E-Discovery and Digital Information Management* (Second Edition), December 2007 ([www.thesedonaconference.org](http://www.thesedonaconference.org)). An excellent resource, The Sedona Conference is a nonprofit, research and educational institute dedicated to the advanced study of law and policy. In addition to the glossary, there are many useful materials about electronic discovery principles and practices on its web site.

8 OCR stands for Optical Character Recognition. It is the conversion of a scanned document into searchable text. The reliability of OCR text is dependent upon the quality of the
metadata\textsuperscript{10}, and native files\textsuperscript{11}) that will be captured during processing and made available in the review tool. Understand what data you need and why. If using more than one review or analytic tool, you should identify any issues that may arise from transferring captured data from one tool to another.

11. **Consider Coding.** With help from your litigation support specialist, decide whether you are going to objectively and/or subjectively code the discovery. Make this decision early. Make this decision before you actually receive discovery from the Government. Understand how the processing technologies identified with your litigation support specialist aid the coding process. Also, if you have need to subjectively code a very large volume of documents, consider using a company that specializes in providing temporary attorneys and paralegals for document review projects. Understand the differences printed copy and the conversion accuracy of the software.

\textsuperscript{9} The assembly of individually scanned pages into documents. Physical unitization utilizes actual objects such as staples, paper clips and folders to determine pages that belong together as documents for archival and retrieval purposes. Logical unitization is the process of human review of each individual page in an image collection using logical cues to determine pages that belong together as documents. This process should also capture document relationships, such as parent and child attachments (i.e. a FBI 302 report with attachments).

\textsuperscript{10} Metadata is data typically stored electronically that describes characteristics of ESI, found in different places in different forms. Metadata can describe how, when and by whom ESI was created, accessed, collected, or modified, and how it is formatted. It can be created by applications, users, or the file system. Metadata can be altered intentionally or inadvertently, and this sometimes occurs when native files are processed for litigation. Some metadata, such as file dates and sizes, can easily be seen by users; other metadata can be hidden or embedded and unavailable to computer users who are not technically adept. Metadata is generally not reproduced in full form when a document is printed to paper or viewed as an electronic image.

\textsuperscript{11} Native file format is the source document, as collected from the source computer or server, before any conversion or processing of the document. This file format is referred to as the “native format” of the document. Because viewing or searching documents in the native format may require the original application (for example, viewing a Microsoft Word document may require the Microsoft Word application), documents may be converted to a neutral format as part of the record acquisition or archiving process. “Static” formats (often called “imaged formats”), such as TIFF or PDF, are designed to retain an image of the document as it would look when viewed in the original application by which it was created, but do not allow metadata to be viewed or the document information to be manipulated.
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between objective and subjective coding (defined earlier), auto-coding\textsuperscript{12}, and on-shore and off-shore review. They all have strengths and weaknesses and have an impact on what fields and issues you will code, and have significant effects on the pricing of the coding. Appropriate coding decisions result in much better output from the litigation support technology and, therefore, better work-product and representation, again demonstrating the importance of having knowledgeable and skilled personnel.

12. \textit{Learn How to Search.} Reading fast is no longer sufficient. Large document cases have too much discovery for any one person, or even a small group of people, to ever read everything. Now, you must know how to use search technologies to accurately narrow the universe of documents you must read. Unless you learn to search effectively, the volume of discovery will overwhelm your ability to review and analyze it and compromise the preparation of an effective defense. The importance of this skill cannot be overstated. It takes time, and practice makes perfect.

13. \textit{Remember Keyword Searching Is Probably Not Enough.} As we become more accustomed to digital evidence and information technology, we are relying more and more on keyword searching. Criminal defense attorneys need to be very cautious in relying solely on keyword searching. Recent research shows that its effectiveness is constantly overestimated by end-users, with many relevant documents not being found, and too many non-relevant documents being included in the search results. Though it is an important starting point for document review, keyword searching must be viewed only as one of the tools available, not the only tool.

14. \textit{“Concept” Search and Retrieval Tools, Though Expensive, Can Be of Assistance.} A host of alternative search and retrieval tools have been developed to assist lawyers in finding the information they need in large electronic discovery datasets. Also known as advanced analytical search programs, some of the more prominent types of tools include Conceptual, Thesaurus, or Related Searching\textsuperscript{13}, Topical Searching\textsuperscript{14}, Content-Based

\textsuperscript{12} An automated process by which a software application examines and evaluates documents using pre-determined codes, and records its results.

\textsuperscript{13} This search tool will provide words that are similar or close in meaning to the primary word. NOTE: The language used to describe the various concept search and retrieval tools is from \textit{Arkfeld on Electronic Discovery and Evidence} (Second Edition), Michael R. Arkfeld, Pgs. 5-35 to 5-37.

\textsuperscript{14} This tool enables you to search documents by topics and subtopics relevant to your case.

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Searching\textsuperscript{15}, Clusters of Related Phrases\textsuperscript{16}, and Similar Document Searching\textsuperscript{17}. Using a number of different algorithmic approaches, these tools generally enable practitioners to review the evidence by a concept, issue or key document as opposed to simply using keywords. Instead of looking for strings of letters as words (like in keyword searching), the program will provide words, phrases or documents that are similar or close in meaning to the primary word, phrase or document. Taking the Conceptual, Thesaurus, or Related Searching tool as an example, once the meaning of the word is identified (bill of law vs. duck bill, for example), the program identifies relevant documents (documents that reference bill of laws, constitutional amendments, etc.) and excludes other documents which may have the word “bill” in them but do not include the concept of “bill” that you are interested in. This process can allow for more focused searches, and gets you to the more relevant documents more quickly. At this juncture, this kind of search is only available through web-based systems with third party vendors and costs money up-front, but it can greatly reduce the overall costs of litigating a case when dealing with a large set of data.\textsuperscript{18}

\textsuperscript{15} Unlike keyword search systems, content-based search systems try to determine what you mean, not just what you say.

\textsuperscript{16} This search finds all of the documents that contain clusters of related phrases. This tool deconstructs sentences linguistically, indexing relevant phrases.

\textsuperscript{17} This search finds all documents that are similar to the primary document.

\textsuperscript{18} An excellent commentary discussing the challenges and potential solutions involved with searching large amounts of ESI is The Sedona Conference Best Practices Commentary on the Use of Search and Information Retrieval Methods in E-Discovery, August 2007 (www.thesedonaconference.org.)
III. CONCLUSION

There is no turning back to a paper-only world. Handling electronic discovery cases can be a complicated process, especially for people who have little or no experience working with electronic data. However, if you seek help from experienced people who can offer informed guidance, properly staff your case, invest “up front time” to really understand your case, and then practice using the appropriate computerized litigation tools, you can become adept at handling large amounts of data. With the right education, human resources, processes, and tools, the computer can help you process, organize, and find critical information more quickly and allow you to more effectively represent your client.