And You May Find Yourself

in a Large Document Review

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When the Talking Heads sang "Once in a Lifetime," they could never have imagined that the song would inspire an article on document review, but the lyrics speak to confusion and frustration — feelings many attorneys can relate to when faced with a large document review. Today's corporate legal departments are up against significant challenges. They are under constant pressure to decrease litigation expenses, yet typical document collections have grown ever larger and outside counsel fees seem to continuously rise.

Litigation has always been a fountainhead of cost and it is no secret that document review comprises a huge part of that expense.[1] The exploding size of typical document collections over the past decade has done nothing to alleviate the cost control burden. Document review can seem like trying to remove water from the bottom of the ocean: electronic document collections can be vast, and once you complete review of one set, additional documents fill up the empty space. In fact, these days it is not uncommon for the cost of manual document review to exceed the cost of all other trial expenses combined — it can even tip the balance when deciding whether to defend or settle a case. But you can't let the water hold you down.

Ericsson Inc., was recently part of several large, complex matters that led us to take a critical look at how we might better address the expense of litigation in general and document review in particular, primarily by using technology to reduce resource costs. We will outline ideas for leveraging technology to decrease your review spend and will draw from our experience to suggest methods for controlling your document review budget.

Well… How Did We Get Here?

Thanks to the decreasing costs of storage and other IT infrastructure, corporate America creates astronomical amounts of data everyday.[2] And, as data storage costs decrease, today's companies retain more of that data than ever before. In fact, between 2004 and 2007, the average amount of data stored by a Fortune 1000 firm grew from 190 terabytes (190,000 gigabytes) to 1 petabyte (1 million gigabytes). Mid-size companies experienced similar growth, with the average amount of corporate data growing from 2 terabytes to 100 terabytes during the same three-year period.[3]

Because the volume of corporate data is so massive, it is common for an initial collection of relevant documents to contain hundreds of gigabytes — if not terabytes — of data. While in years past attorneys were concerned with managing several hundred boxes of documents, today they

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manage tens of millions of electronic documents — generally with the same number of personnel and less money in their budgets. (*See expert tip #1*).

Unfortunately, the enormous volume of data involved in typical collections are not the only challenges companies face in document review. Other issues include:

- **Globalization:** Most modern corporations have an international reach, often leading to complex document collections that involve multiple languages and different date formats. Long-distance collection efforts can also be expensive and it can be difficult to ensure complete collections from foreign employees who have no idea who Laura Zubulake[4] is or why she is important.
- **Short Timeframes:** Courts are often less than understanding about the time it takes to collect and review documents. While the average size of a document collection is much larger than in the past, courts rarely afford proportionally more time to organize and conduct document review.
- **Simultaneous Matters:** Most corporate litigators juggle multiple matters at once. While the mix of matters may address different issues and include varying levels of exposure, every pending matter requires attention.
- **Limited Budgets:** Mysteriously, legal department budgets never seem to be large enough to handle every matter the way counsel would prefer. Both in-house and outside counsel are often forced to find creative ways to stretch their existing budgets.
- **Complexity:** Today's document collections are often complex. They generally contain a variety of file formats, encrypted documents, databases and myriad other issues never encountered in the paper-based document collections of the past.
- **No Technology Background:** Most attorneys lack the technical training needed to understand a company's operating systems, data architecture, archival programs and network structure. They often must rely on internal IT personnel or outside technical experts to help analyze issues and translate technical jargon.
- **Confusing Landscape of Solutions:** The ediscovery marketplace offers a wide variety of solutions for every aspect of discovery, including document review. This broad range of vendors — and their associated solutions — complicates the process of finding an effective, well-priced answer for challenges.

Expert Tip #1

Paper-to-Electronic Estimate Conversion Table

Boxes of Documents	Approximate Total Pages	Megabytes, Gigabytes, Terabytes	
1	2,500	50	Megabytes
10	25,000	500	Megabytes
20	50,000	1	Gigabyte
100	250,000	5	Gigabyte
200	500,000	10	Gigabyte
300	750,000	15	Gigabyte
400	1,000,000	20	Gigabyte
500	1,250,000	25	Gigabyte
1,000	2,500,000	50	Gigabyte
2,000	5,000,000	100	Gigabyte
5,000	12,500,000	250	Gigabyte
10,000	25,000,000	500	Gigabyte
20,000	50,000,000	1	Terabyte
40,000	100,000,000	2	Terabyte
60,000	150,000,000	3	Terabyte

Source: EDRM Group

Fortunately, while technology has caused a lot of these headaches, it also provides some relief. If properly managed, new technology can significantly assist document review efforts. Ironically, the same technology that created the data can be harnessed to ease its collection and review.

Same as It Ever Was: The Traditional Approach

Attorneys have not always viewed technology as a friend in the fight. For some, the last time technology seemed helpful was back when Dictaphones were standard issue. Traditionally, attorneys have performed document reviews for relevancy and/or privilege. After all, it is an attorney who has to certify that a production is complete and that documents withheld were withheld for good reason.

The familiar process of reviewing documents by hand — page after page — has today given way to reviewing documents "by hand" on a computer, screen after screen. The arguments most often used to support this traditional approach are:

- When attorneys manually review documents, they gain a thorough understanding of the details of the case and are more likely to find critical documents that will provide a "Perry Mason" moment.
- Document review provides good training for young attorneys, teaching discipline, perseverance and critical analysis — all traits required to become a great lawyer.
- Attorneys performing document review often have specific legal expertise, allowing them to quickly understand the documents and use them to construct arguments for trial.

The reality is that today's massive volumes of data make screen-by-screen document review nearly impossible in larger cases. Wading through hundreds of thousands of documents is incredibly time-consuming, even on a computer. Unless you are in a jurisdiction that is willing to wait months for results, you probably do not have the luxury of this kind of time. Even if deadlines are not a concern, the weeks — if not months — required to manually review a large collection can quickly burn through a limited budget. And, to present a final concern, human reviewers often exercise inconsistent judgment when marking documents, causing a variety of problems as trial approaches.

After the Money's Gone: Technology to the Rescue?

So, why not move to a document review process run entirely by technology? After all, computers do not bill by the hour, so they are a lot less expensive. Also, computers are tirelessly objective and tend to make uniform choices that lead to highly consistent results.

However, there can be problems with an entirely technology–driven approach. Technological performance is dependent upon good design and accurate data input in order to achieve correct results. If either the technology itself or the input process is flawed, the resulting output will be equally flawed. The use of technology in a document review may lead to the need for an explanation to judges or adversaries on the basis of the technology's inclusion or exclusion of documents — explanations that you might not have or even understand.

In addition, computers are not subject matter experts. They cannot formulate a deeper understanding of the issues involved in a case or of how documents intertwine to create an argument. In other words, computers can provide a lot of benefit to document review but some issues simply require a human touch.

Into the Blue Again: The Best of Both Worlds

If neither human analysis nor technology alone offers the most effective approach to document review, what is the best solution? The following is a detailed description of

Expert Tip #2

How to Estimate the Size of Your Collection

- **Understand that data is often collected in a "packed" state.** For example, the .PST files that contain a custodian's email are consolidated into a compressed file that must be "unpacked" to individually view message files and attachments. Unpacking files increases the collection size.
- **Know whether your collection includes system and application files.** Ideally, you will exclude operating system and application files during the collection process. But, if your collection does happen to contain such files, one way to identify and eradicate them is to compare your collection to the National Institute of Standards and Technology (NIST) hash list. The list includes over 34 million hash values associated with standard operating system and application files.
- **Follow this rule of thumb: For every custodian, you will likely collect 2GB of data.** Though the number may be higher or lower depending upon your specific case, it is a good rule of thumb for initial calculations.
- **Once you have estimated how much data you think you will collect, add another 20 percent to the total.** During the course of a case, it is typical for additional custodians to arise and for data to unpack to unexpected volumes. So, pad your estimate to help ensure review costs stay within the planned budget.

how you can blend the talents of people and the speed of technology to design a process that is accurate, defensible and cost-effective.

Planning Your Document Collection

Few people are foolish enough to build a house without a blueprint. Likewise, an effective document review strategy requires a sound plan that addresses critical discovery needs. As the primary managers of company litigation, in-house counsel are generally the best candidates to design such a plan, since they control the overall litigation strategy and budget. (*See previous page expert tip #2*).

The first step in creating a review plan is to analyze the types of documents your collection is likely to include. Try to estimate how much data the initial collection will involve — distinguishing between paper and electronic documents[5] — and evaluate potential challenges such as uncommon software formats, foreign languages, proprietary applications and software code. Identify potential sources of trade secret data and confidential third-party information. Finally, discuss topics such as deadline management, strategic goals, a key

custodian list, and relevance and privilege terms with outside counsel as early in the process as possible, so you can plan for these issues.

Proactively evaluating the contents of your collection will help you to:

- Define a workable plan for your document collection effort;
- Understand the extent of your document review needs;
- Plan for solutions to problematic documents and databases; and
- Create a well-defined cost and time schedule. (*See expert tip #3*).

Collecting Documents

A targeted collection process is critical to controlling document review costs, but this can be difficult to achieve. Limiting collection efforts to areas specific to your litigation matter such as key custodians, particular date ranges and relevant documents will result in less data and, in turn, will cost less to process and review. Yet, the document collection effort must be thorough in order to eliminate the need for follow-up work. Meeting these goals can be elusive and the culprits are too often ourselves.

Your primary ally in data collection is the IT department. Unfortunately, IT staff can be reluctant to commit to the often significant effort required to achieve a truly targeted electronic collection because — let's face it — detailed collection efforts can be labor intensive and IT staff tend to stay very busy.

But another, more insidious reason is the tendency for counsel to give incomplete or confusing directives regarding what data they want collected. A lack of clear direction

Expert Tip #3

Five Things You Need for a Meet and Confer

1. Approximately how much data the proposed collection will include;
2. A plan for classifying the data you preserve. For example, how will you make determinations about what data is considered inaccessible versus accessible?
3. Thorough documentation to support your identification efforts and litigation holds;
4. Details of the production format you will use (e.g., native files); and
5. Your claw-back agreement.

You can also use the meet and confer to:

- Negotiate agreement on custodian lists, search terms and privilege terms. The earlier you gain consensus, the easier it will be to arrange your collection and document review.
- Negotiate timeframes for data collection and production. This is especially important if part of your data is in a legacy (outdated) software program that will be costly to process.
- Negotiate timetables for production and gain agreement for rolling productions, if necessary.

Expert Tip #4

Understand Your Organization's Technology

Before litigation arises, you should make a concerted effort to understand your organization's technical architecture — in other words, the hardware, databases and applications in which your organization's data resides. That way you will understand the challenges you may face and what existing technologies you may be able to leverage before urgent deadlines become an issue.

For example, many companies implement email archiving repositories with powerful, built-in search and filtering commands that make it easy to locate data based on keywords — yet IT staff may be unaware of such functionality because it does not directly impact their own responsibilities.

often results in multiple collection efforts, so — frustrated by previous unfortunate experiences with the legal department — IT staff will often collect all existing data from a particular custodian and leave it to counsel to sort out.

Equally problematic, attorneys often collect more data than is necessary out of fear of missing a critical item. Over-collection adds significant extra cost to discovery, because irrelevant documents must be processed and reviewed along with the rest of the collection. Counsel should set collection parameters early in the process and attempt to create a complete yet well-focused document collection that is neither overly broad nor too limited. (*See expert tip #4*).

Reducing a Document Collection

No matter how targeted your collection efforts, the initial data set will likely require further reduction. Fortunately, you can leverage technology to quickly and accurately identify duplicate, irrelevant and privileged documents.

Removing Exact Duplicates with Automated De-duplication

Exact duplicates are documents with a 100 percent match between content, metadata and format. Identifying exact duplicates is a relatively straightforward process, usually accomplished through software that uses MD5 hash technology.

An MD5 hash value is like a document's fingerprint. An algorithm creates the value by analyzing a document's content and characteristics, and assigning a unique value based on the information the document contains. Even a very subtle difference between two documents — for example, the addition of a dash or a period — is enough of a variation to trigger the allocation of dissimilar MD5 hash values. Once every document in the collection has a hash value, documents with identical values can be processed as duplicates.

The process of assigning MD5 hash values is not perfect; there is a miniscule probability that the algorithm will assign the same hash value to two dissimilar documents. However, the likelihood of such failure is remote. So unless your risk tolerance on a case is extremely low, you can feel confident segregating or discarding exact duplicates without further review.

Finding Near Duplicates with Automated De-duplication

While identifying exact duplicates is pretty simple, identifying near duplicates is not so clear cut.

Near duplicates are documents with anything less than a
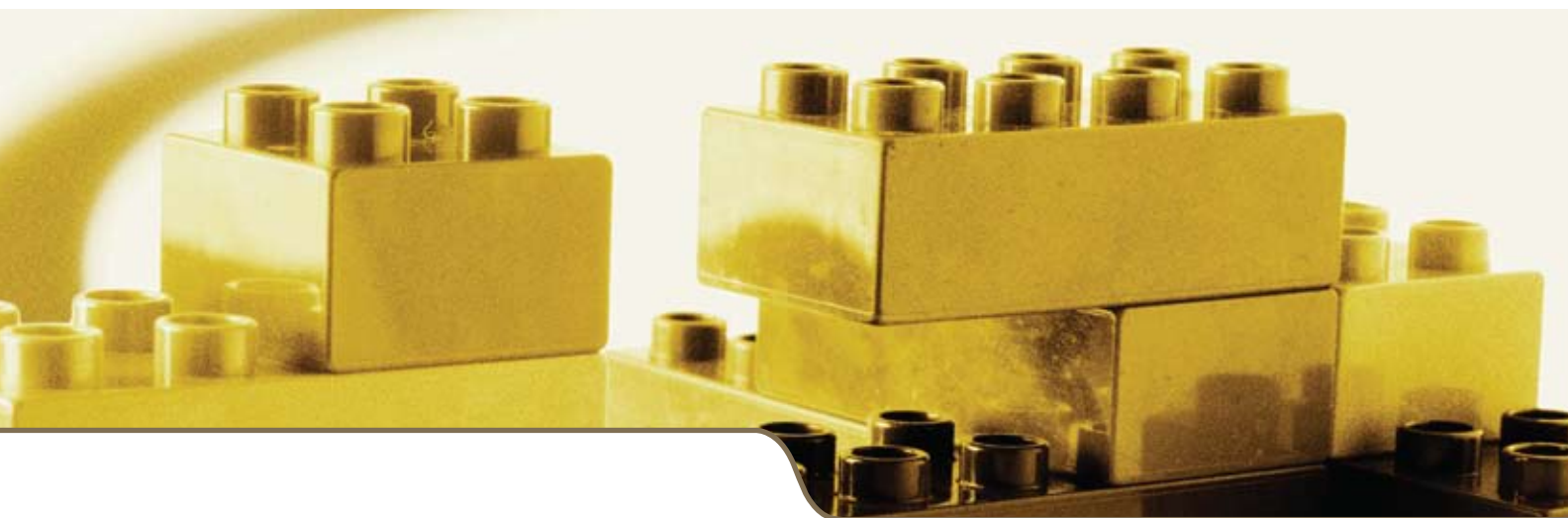
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100 percent match between content, metadata and format. While the differences between some near duplicate documents are immaterial, the subtle differences between other near duplicate documents are significant. For example, the 0.05 percent difference between two contracts might be the overall contract amount. Similarly, the slight difference between two emails might be the one sentence that gives rise to attorney-client privilege.

When it comes to identifying near duplicates, the best approach is to rely on automated de-duplication software to identify near duplicate documents sets, and then manually review those documents to make a final determination on duplicate status. A good rule of thumb is to classify non-email documents that have a 70-80 percent content match as near duplicates that require human review. For email, a 30 percent content match is generally sufficient if the subject lines are identical.

Identifying Relevant and Privileged Documents with Automated Review

After you have identified and removed duplicates from your collection, your next step is to locate relevant and privileged documents. This can be achieved by comparing your collection to a list of keywords pertinent to the case. While you can accomplish this feat by reviewing every word of every document, in a large collection, that will take a lot of time and money. Instead, the most efficient and cost-effective approach is automated review.

Frankly, many attorneys are skeptical of automated review. The concern is that results might be inaccurate, or that the court or opposing counsel will challenge an automated approach. In truth, if you use an ill-conceived process, those are reasonable concerns — but legal precedent shows that if you follow a few key guidelines, you can easily design an accurate and effective automated review process that is highly defensible in court.

The three most important steps to conducting an effective and accurate automated review strategy are: 1) employ the help of experts, 2) methodically test the results of your design and 3) thoroughly document your decision-making process so that it is completely transparent. *Victor Stanley, Inc. vs. Creative Pipe, Inc.* --- F.Supp.2d ----, 2008 WL 2221841 (D. Md. May 29, 2008) offers a clear demonstration of these points.

In the case, US Magistrate Judge Paul W. Grimm — widely considered an expert in the field of ediscovery — found that the defendants waived their privilege and work-product protections for 165 documents they inadvertently produced to opposing counsel. At the crux of Grimm's decision was the fact that the defendants could not demonstrate due diligence in their document search and review process. He cites that the defendants were "regrettably vague" in their description of how they developed the keyword list and that affidavits did not prove that the list was developed by individuals who were qualified to design a search strategy. Also at issue was the fact that the defendants did not perform testing to determine whether search results were reliable. Specifically, Grimm said:

> "Selection of the appropriate search and information retrieval technique requires careful advance planning by persons qualified to design effective search methodology. The implementation of the methodology selected should be tested for quality assurance; and the party selecting the methodology must be prepared to explain the rationale for the method chosen to the court, demonstrate that it is appropriate for the task and show that it was properly implemented." *Id*. at *6.

In other words, attorneys familiar with the facts and the terminology of the case should create the initial list of key relevance and privilege terms. Then experts in search methodology should expand the list to include common variations, such as misspellings, alternative spellings and abbreviations.

Once the keyword list is complete, randomly select a subset of the documents — we suggest one to two percent of the total collection — and subject these documents to both automated and human review processes. Then based on the results of this analysis, refine the keyword list as needed and re-run the automated review process until the returned results are accurate.

Once you are satisfied that your keyword list is comprehensive and accurate, you can use automated processes to

Expert Tip #5

Documenting Your Review Process

- **Document your litigation hold procedures.** This includes — among other things — how you identified which data to preserve, the business locations and custodians you placed under a litigation hold, and the efforts you took to ensure a thorough preservation effort.
- **Document your data collection efforts.** List the custodians who contributed relevant data, the custodians whom you contacted but did not have relevant data and your efforts to preserve the integrity of collected data.
- **Identify subject matter experts for your litigation hold and collection efforts.** You must be able to defend your efforts if they are challenged, so choose a representative who is well-qualified to discuss your identification and preservation procedures.

compare your entire collection to the validated list. Generally, you can feel confident removing documents from your collection that do not contain relevant keywords without further review and — in like fashion — you can identify potentially sensitive documents as those that contain a privileged term. Once those documents are identified, they can be segregated for additional review. (*See expert tip #5*).

Use Technology to Automatically Organize and Structure Data

Technology's power pays off when it significantly reduces human effort. In other words, the less time and effort a human spends on a document — processing, reviewing or managing it in any way — the more time and money you save. Consequently, your goal should be to eliminate as much inefficient human contact with your document collection as possible by using technology to:

- **Organize Documents:** Every large case benefits from organizing documents according to basic characteristics — for example, key custodian or location; creation date; document type or department/division. Technology offers a variety of options for creating linear organization structure within a collection, including high-quality software programs and hosted solutions that organize documents based upon general concepts.
- **Sort Documents for Review:** Use a document review platform to facilitate an efficient process and leverage technology to programmatically send data into defined review queues rather than having a person do this by hand. As an example, Ericsson recently had a case that included documents from several different languages, each of which required a fluent speaker to accurately conduct the review. Our solution was to configure our search technology to identify the non-English documents and segregate them into queues based on language. Then we directed each queue to a specific team with the language skills necessary to conduct a thorough and accurate review. This effort ultimately saved quite a bit of time that might have been spent manually organizing and routing the specialized data.
- **Perform Conceptual Searches:** There is a growing body of technology that categorizes documents along conceptual lines by analyzing content and grouping together those that likely address the same subject matter or issue. This conceptual grouping enables attorneys to quickly identify documents that pertain to a particular subject, or even to expose previously unidentified areas that require additional consideration.
- **Connect Related Documents:** The newest technical tools may have the greatest impact on reducing human effort in organizing documents. These programs allow attorneys to create custom "display windows" that connect and exhibit information related to a central topic, idea, theme or entity. For example, in a mass tort action, attorneys can relate medical information, work history, deposition testimony and payroll history for each unique plaintiff. Or in a patent infringement case, attorneys can relate designs, inventor's documents, licensing agreements and lists of products containing each unique patent. These technologies dispense with the hunt-and-peck method of multiple searches and hand-made spreadsheets for tracking related information. They do require upfront planning, but the benefits of allowing technology to pre-organize data to your specifications can be staggering.

Notice that these technical tools are not mutually exclusive — depending on the needs of your case, you can combine the strengths of multiple technologies to achieve maximum savings.

Under the Rocks and Stones: Document Review in Action

If you elect to use technology in your document review process, you will likely experience significant time and money savings — but technology is not the only way you can improve your review process. The following are additional suggestions for increasing the effectiveness of your document review strategy.

TECHNOLOGY DIRECTS DOCUMENTS TO QUEUES...
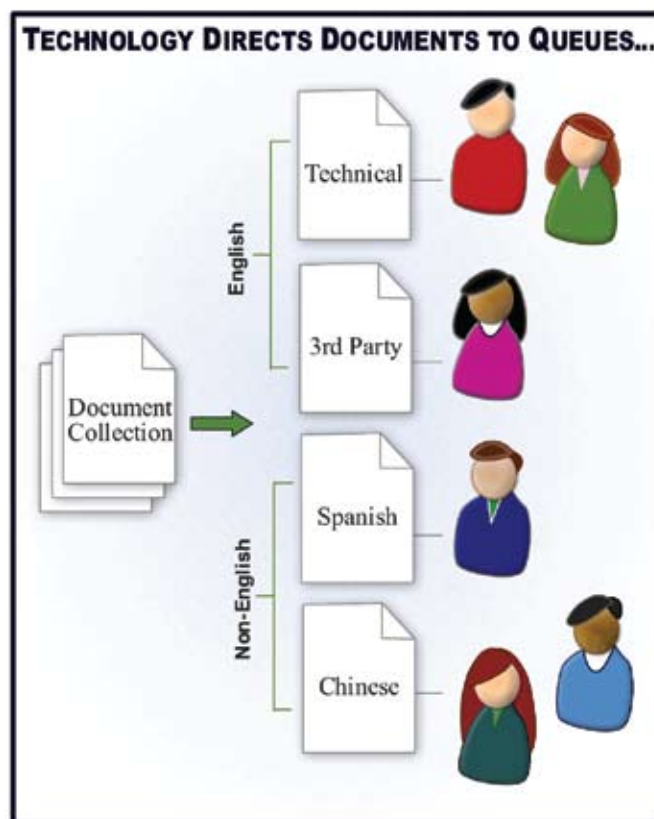
Create Effective Management

An ineffective overall review strategy can quickly undermine the efficiencies you achieve with technology. It pays to analyze whether your document review procedures are geared toward ensuring the most efficient possible workflow. This is especially important if you are working with a new law firm or a new attorney within a familiar law firm. A few best practices include:

1. **Create a standardized review manual.** Providing reviewers with standardized instructions facilitates consistent markings between team members.
2. **Appoint a lead review supervisor.** Assigning one person to oversee the review team structure and document review protocol helps to ensure that the flow of documents to reviewers does not break down, resources are not overwhelmed, and problems are quickly identified and corrected. Your lead review supervisor should be a seasoned veteran; this is not a position for a new associate or a junior level paralegal, as past experience will significantly reduce the occurrence of issues and failures.

3. **Define a problem resolution protocol.** Creating a decision matrix provides a clear path for issue resolution. Questions and problems flow through a pre-defined chain of command, dramatically improving consistency in solving problems, decreasing downtime and alleviating bottlenecks.
4. **Be flexible.** Changing the review structure, tweaking review instructions and adding new documents is common as a case evolves. You can plan ahead and adapt by:
   - Creating review teams that you can easily reconfigure without causing significant downtime or unnecessary shuffling of resources.
   - Implementing a protocol for addressing previously reviewed documents when instructions change.
   - Adding an appropriate time cushion to your review schedule so that changes and additions do not cause substantial disruptions to your estimated completion date.

Create Custom Document Review Teams

As previously mentioned, complicated matters generate complex document collections — often with very specific

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ACC Extras on…Document Review

ACC Docket Articles

- *Top 10 Legal Issues in Technology, Ecommerce, and Information Management Outsourcing Agreements (February 2003).* Would you feel comfortable if your company outsourced its key technology, ecommerce, or information management-related functions using agreements that did not cover the most critical contractual issues? Of course not. This article provides a list of important legal issues that you should address in technology, ecommerce and information management outsourcing agreements, and also provides sample contractual language that can be used as a starting point to address key legal issues specific to your company. *www.acc.com/docket*

- *The Emerging Role of Office of Technology Counsel (April 2007).* Corporations are facing new challenges in litigation due to the changes in case law, and the recently passed amendments to the Federal Rules of Civil Procedure (FRCP). This is changing corporate infrastructures and expanding services and technologies offered by electronic discovery providers. Read on to find out how this new landscape in litigation affects your job as in-house counsel. *www.acc.com/docket*

Program Material

- *Outsourcing/Offshoring First Level Document Review in an Era of Ediscovery (December 2007).* It is estimated that well

over 90 percent of all data is electronically stored information (ESI), mostly consisting of what we save on our laptops, desktops and servers. Alarmingly, one of the largest concerns facing organizations today is how to manage and limit ESI for necessary discovery and pending litigation. Our ediscovery experts provide simple metrics and models that define how streamlining evolving ediscovery technology with pioneering methods in offshoring first level document review can project future cost savings and efficiencies. *www.acc.com/legalresources/resource.cfm?show=19871*

Quick Reference

- *Top Ten Reasons For Corporate Counsel To Outsource First-Pass Document Review (November 2007).* In-house counsel are increasingly outsourcing first-pass document and email review. Here are our top ten reasons for corporate counsel to outsource first-pass document review. *www.acc.com/legalresources/quickreference*
- *Effectively Managing Employment Litigation Checklist (January 2003) www.acc.com/legalresources/quickreference*

ACC has more material on this subject on our website. Visit *www.acc.com,* where you can browse our resources by practice area or use our search to find documents by keyword.

Without Technology
Typical 12-Week Billing Cost

	WHO IS BILLING?	TYPICAL # OF HOURS	TYPICAL HOURLY RATE	# OF WEEKS	TOTAL BY RESOURCE
Organization	3 Junior Associates 3 Paralegals	20 hrs/week 20 hrs/week	$250/hr. $150/hr.	3 3	$45,000 $27,000
Familiarization	1 Senior Partner 1 Junior Partner 3 Junior Associates 3 Paralegals	15 hrs/week 25 hrs/week 5 hrs/week 10 hrs/week	$450/hr. $350/hr. $250/hr. $150/hr.	12 12 12 12	$81,000 $105,000 $45,000 $54,000
Hours Generated by Adjustments and Corrections	1 Junior Partner 1 Junior Associate 1 Paralegal	5 hrs/week 10 hrs/week 10 hrs/week	$350/hr. $250/hr. $150/hr.	12 12 12	$21,000 $30,000 $18,000
Document Review	3 Junior Associates 3 Paralegals 20 Contract Attorneys	30 hrs/week 20 hrs/week 40 hrs/week	$250/hr. $150/hr. $75/hr.	12 12 6	$270,000 $108,000 $360,000
Management	1 Senior Partner 1 Junior Partner 1 Junior Associate 1 Paralegal	5 hrs/week 10 hrs/week 5 hrs/week 5 hrs/week	$450/hr. $350/hr. $250/hr. $150/hr.	12 12 12 12	$27,000 $42,000 $15,000 $9,000
TOTAL		235 hours			$1,257,000

With Technology
Typical 12-Week Billing Cost

	WHO IS BILLING?	TYPICAL # OF HOURS	TYPICAL HOURLY RATE	# OF WEEKS	TOTAL BY RESOURCE
Organization	3 Junior Associates 3 Paralegals	5 hrs/week 5 hrs/week	$250/hr. $150/hr.	3 3	$11,250 $6,750
Familiarization	1 Senior Partner 1 Junior Partner 3 Junior Associates 3 Paralegals	5 hrs/week 15 hrs/week 3 hrs/week 5 hrs/week	$450/hr. $350/hr. $250/hr. $150/hr.	12 12 12 12	$27,000 $63,000 $27,000 $27,000
Hours Generated by Adjustments and Corrections	1 Junior Partner 1 Junior Associate 1 Paralegal	2 hrs/week 5 hrs/week 5 hrs/week	$350/hr. $250/hr. $150/hr.	12 12 12	$1,400 $15,000 $9,000
Document Review	3 Junior Associates 3 Paralegals 10 Contract Attorneys	30 hrs/week 20 hrs/week 40 hrs/week	$250/hr. $150/hr. $75/hr.	8 8 3	$180,000 $72,000 $90,000
Management	1 Senior Partner 1 Junior Partner 1 Junior Associate 1 Paralegal	5 hrs/week 5 hrs/week 3 hrs/week 3 hrs/week	$450/hr. $350/hr. $250/hr. $150/hr.	12 12 12 12	$27,000 $21,000 $9,000 $5,400
TOTAL		156 hours			$591,800

needs. If your collection contains information that requires specific knowledge or skills, improve the accuracy and efficiency of your review process by creating specialized review teams. Use technology to organize the document collection into specialized sets and forward these document sets to your teams accordingly. While you may spend a little more up front on tools and reviewers with specialized skills, you will likely save over the long term in reduced resource costs.

Some examples of documents that may increase the complexity of your review include:
- multi-language documents,
- software code and highly technical documents,
- financial documents,
- schematics and engineering documents,
- trade secret or proprietary data, and
- third-party agreements and related documents.

> When **technology** is thoughtfully used, the **benefits** to corporate counsel are **worth their weight in gold.**

Is Relying Solely on Automated Review Ever Your Best Option?

While relying solely on automated review is not appropriate for most litigation matters, there *are* instances when it is the only viable option. Generally, it is advisable when a document collection is so large that the cost to conduct a review will be completely untenable or when the production schedule simply does not allow enough time to conduct any meaningful level of manual review. Under these conditions, you may consider using technology to conduct the entirety of the relevance and privilege review — but before taking this approach you should understand the risks involved:
- **Testing:** When using technology alone to conduct a review, you must thoroughly test the search criteria to ensure that the keyword list is comprehensive, accurate and properly implemented. Documenting all steps of the testing process will be key to defending your process.
- **Claw-back Agreements:** Technology is not foolproof — even a well-designed and tested automated review sometimes allows privileged or sensitive documents to be unintentionally disclosed. Plan for this possibility by researching privilege waiver case law in your jurisdiction and crafting a strong claw-back agreement that facilitates the recovery of inadvertently disclosed information.
- **Executive Documents:** An executive's document collection is most likely to contain sensitive company information, so it can be risky to forgo a thorough analysis of this data. To allay risk while still saving your budget, consider segregating executive documents for attorney review and producing the remainder of the collection using only automated review.
- **Disclosure:** It is a good idea to inform opposing counsel and gain prior approval from the court when relying solely on automated review. As an example, in a recent matter involving another company, in-house counsel faced a review of nearly 600GB of data (approximately 15 million documents). Due to both time and budget restraints, the only practical option was to rely on technology for privilege review. So the in-house attorney approached both the court and opposing counsel to explain the situation and gain approval.

They struck a compromise that allowed opposing counsel to select an agreed number of documents listed on the privilege log. The in-house attorney would then manually review those documents. If the rate of non-privileged documents within this subset exceeded a specific percentage, then all documents listed on the privilege log would be required to be manually reviewed. If the failure rate remained below the set percentage, the privilege log generated by the automated review would be accepted as accurate. This arrangement helped to satisfy both the court and opposing counsel that the automated privilege review could be verified if requested and the in-house attorney was able to save significant time and extensive costs.

Am I Right? Am I Wrong? The Benefits of Blended Review

Combining technology's benefits with human expertise is the best way to design a large-scale document review given today's needs. When technology is thoughtfully used, the benefits to corporate counsel are worth their weight in gold. For every hour saved, you reserve your limited budget for other needs. The benefits come in many forms including:
- **Reduced costs:** Automated review dramatically decreases the number of documents that require human analysis, allowing reviewers to focus time and energy where it is most needed: the relevant and privilege-protected documents that require a human's subjective expertise.
- **Improved accuracy:** Let's face it — human document review leaves a lot of room for error. A reviewer who spends hour after hour analyzing documents just might miss the one critical sentence that gives rise to attorney-client privilege on page 48 of a 50-page document. Technology is accurate and consistent when the terms are carefully crafted and the process thoroughly tested.

- **Shortened document review cycle:** Using an automated review process can shave weeks (and sometimes even months) off of review. It may take a few tries to define an optimal keyword list, but the time spent refining search terms is far shorter than the time it takes for a human reviewer to analyze an entire document collection.

In short, effectively blending technology with human expertise saves time and money and lowers litigation risk — issues that are pertinent to arguably every corporate counsel. Implementing technology to gain advantages just makes good sense and is a much better course of action then letting the days go by….

Cost Savings in Reality...

Technology does have a cost. But the savings it generates, even on the simplest matters, almost always offsets the expense. Consider the following example of what an organization will likely spend on attorney and paralegal billing — for just the first 12 weeks of a typical matter — if technology is left out of the document review strategy.[6]

Employing technology at each step of the document review process significantly decreases billable hours. The potential cost savings in this example is a whopping $665,200. Though they differ with each matter, cost savings can be achieved in almost any litigation.

NOTES

1   According to "A Revolution in Ediscovery – The Persuasive Economics of the Document Analytic Approach" by KPMG.

2   According to the International Data Corporation's White Paper, "A Forecast of Worldwide Information Growth Through 2010" by John Gantz, David Reinsel, Christopher Chute, Wolfgang Schlichting, John McArthur, Stephen Minton, Irida Xheneti, Anna Toncheve and Alex Manfrediz, March 2007.

3   Mearian, Lucas. "A zettabyte by 2010: Corporate data grows fiftyfold in three years." *ComputerWorld*. March 6, 2007. *www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9012364&pageNumber=2.*

4   *Zubulake v. UBS Warburg, LLC* (Zubulake I), 217 F.R.D. 309, 319 (S.D.N.Y. 2003).

5   Additionally, after you collect paper documents, scan them into an electronically searchable format in order to centralize your collection into one document repository.

6   The rates represented are an average from medium and large firms, based upon a cross sample of matters. These numbers are for example purposes only.