A Cost-Effective Approach to Quality

By Macyl A. Burke

The Need for Quality

Central to the processes to meet the expectations of clients is the implementation of a streamlined, proven and efficient quality management system that includes a measureable process focused on accountability, quality control and quality assurance. The need for these new approaches to process is dictated by the geometric growth of electronically stored information (ESI) and escalating discovery costs that demand new approaches.

The legal community understands that such a system is critical when dealing with the dramatic increase in ESI. Gone are the days when a lawyer could sit down and read through a box of documents and understand the scope and facts of a case. Today, a similar case might result in tens of thousands of documents requiring examination. Often, cases involve collections running into the millions. Any serious attempt to reduce legal costs must begin with discovery in general and the review process specifically.

The practice of large linear reviews, where row upon row of associates or unaided contract attorneys sought to extract the facts of a case by reviewing a mountain of information has largely vanished. With the explosion of ESI, linear review has become too costly and too prone to error. The use of technology and a measurable quality process is essential in this electronic environment.

The high cost and sensitivity of reviewing documents for relevance and privilege dwarfs all other aspects of the discovery process. Many informed sources believe the cost of review is the single largest litigation cost by a wide margin, reaching levels of 50% to 80% of all discovery costs. While all aspects of the discovery process are important, the most costly is review.

The cost of a document review project is directly related to the complexity of the case and the number of documents that must be reviewed. Document review is situational and must remain fluid due to substantive variations in needs and requirements from project to project. For example, a small, noncontroversial employment action related to the exercise of FMLA rights with simple issues that involve only one plaintiff is vastly different from a large criminal investigation of top management in a large international firm. Therefore, fundamental to reducing the cost of the review is reducing the population of documents that require attorney review. Reducing the document population to be reviewed coupled with a defensible, high-quality process will result in substantial savings.

Defensibility of a document review process is also imperative and must be conducted in good faith, and in a manner that is reasonable and proportional. Defensibility means the ability to

defend the document review and discovery process if challenged. Developing a quality management process, documentation of the process, adhering to this process, and improving upon the process are all important aspects of defensibility. The law demands reasonableness, not perfection, according to developing electronic data discovery case law standards. With that said, the courts also understand that individual errors will occur from time to time when reviewing and producing massive numbers of documents. Without good documented quality applications and processes, sanctions may be imposed, cases can be lost and reputations destroyed.

In the context of discovery and document review in particular, quality is a requirement for defensibility. The best and possibly only defense if a review were to be challenged is the quality methodology that was utilized. Without a quality management process in place, the risks, costs and the burden on the client would not be sustainable, especially with growing ESI demands.

In order to properly allocate assets and effort within a review project, the component of risk must be carefully considered through the use of analytics and professional experience. Technology alone is not a solution. It must be integrated into a sound process that is monitored and designed by humans, factoring in cost and time considerations.

The Definition of Quality

While there is no single definition of "quality", in its larger meaning, it is a measure of excellence or a state of being that reduces defects, deficiencies, and significant variations. This is brought about by the strict and consistent adherence to measurable and verifiable standards to achieve uniformity and output that satisfies specific customer or user requirements.

Other useful views of quality come from the beliefs of two of the most notable and respected contributors on the subject of "quality", Joseph Juran and W. Edwards Deming. For over 50 years, both contributed to the improvement of quality in public and private institutions. Juran's definition of quality is "fitness for use" or meeting customer expectations. Deming, on the other hand, advocated that quality begins with intent and is fixed in management. Deming placed great importance on the support of top management and believed management to be responsible for a majority of the quality problems. He believed the role of top management is critical to the success of any quality program or approach. In fact, if that support was not present and a top priority, Deming would refuse to consult with the company. Both Juran and Deming saw cultural resistance to change as the root cause barrier in initiating a good quality process within an organization.

The Metrics of Quality

Measuring document review performance is critical to understanding an organization's legal and financial risk. These measurements are used to assess the likelihood of missing important

documents, and encountering unnecessary cost and delay during a review. As with any critical business process, if you can't measure it, you can't improve it.

Measurement is not new to the legal profession. Louis Dembitz Brandeis, one of the most influential lawyers in American History, communicated often with and studied the works of Fredrick Taylor, Harrington Emerson, Frank Gilbreth, Henry Gantt and other early pioneers of quality and efficiency in the management of work. It was Brandeis who coined the term "Scientific Management" to describe their profession.

Measurement is traditionally defined as a set of observations that reduces uncertainty where the result is expressed as a quantity. Two parameters - recall and precision - best gauge the overall quality of information retrieved in a document review. Recall measures how much of the document target set has been found. Precision measures how much of the result set is on target. Searching and sampling are processes used to measure recall and precision in document review. By sampling the set that has been selected as useful or responsive, we can see how well we did in terms of precision. We can also sample the set that was excluded to see how well we did with recall.

In a typical search, one might run responsive search terms across the document population, segregating the potentially responsive documents from the nonresponsive documents. Sampling provides a check on these results. Sampling is a statistical process measurement that continues until you reach a point where you can be confident about your results. Although sampling can be used at various stages of discovery, the most common and possibly most critical use of sampling is during the review. With the vast increase in data populations, sampling is a vital method of check and balance. The first purpose of sampling is to ensure that responsive documents are identified, reviewed and produced. Courts do not demand that litigants find and produce every responsive document, but they do require the litigants to make reasonable efforts to find and produce responsive documents.

The second purpose of sampling is to prevent the inadvertent production of privileged documents. Recent court opinions are now suggesting that sampling may be required in order to reach some defensible level of assurance regarding the prevention of producing privileged documents or missing responsive documents. [*William A. Gross Associates*; *Victor Stanley, Inc. v. Creative Pipe; United States v. O'Keefe; Equity Analytics, LLC v. Lukin*] Although the use of sampling in e-discovery is in its early stages, it has become a necessity in large cases and a key tool for attorneys interested in measurable results. Through searches and sampling, an extra layer of quality control is added and provides assurance to a court that reasonable efforts were made.

Deming and Juran are eloquent on the issue of variation in systems. All systems, regardless of sophistication and precision, will show variation in output. If the variation is not measured, the system is not understood, which results in an undefined quality process.

Variation in review results poses a challenge. The standard for discovery is reasonableness, good faith and proportionality. It is not perfection. In a document review, the reviewer's task is often subjective. It is the responsibility of the reviewer to inspect the document carefully, apply litigation counsel's instructions to the document, and exercise their professional judgment to "tagging" the document into the applicable categories. The decision making process, to a certain extent, is subjective. Reasonable professionals can differ as to the "correct" way to tag a document, creating a high degree of variation. Not only is the "tagging" subjective but the standard for determining whether a reviewer's judgment is correct is also subjective. Whether a reviewer has correctly identified a document as responsive depends on the litigation strategy adopted for the case and how counsel for the producing party has chosen to interpret and respond to the opposing party's requests for production. In order to avoid being overwhelmed by subjectivity, the variation must be measured. The goal is to reduce variation to an understandable and acceptable level. To reach an acceptable level, cost, risk, and time must be taken into consideration, and balanced with reasonableness, good faith, and proportionality.

Measurement in the discovery process has been discussed and written about in increasingly sophisticated ways and has gained acceptance in some, but not all, circles. The resistance to measurement, analytics, and evidence-based decision making is not surprising. Most professions manifest resistance to change. Organizational and professional inertia is the rule, not the exception. The British Doctor, Joseph Lister, who promoted the idea of sterile surgery, was roundly ignored and criticized when he first presented his ideas. Billy Beane was thought of as odd when he drafted baseball players based on statistics rather than the opinions of scouts. Atul Gawande reported repeated resistance to process improvement in his work on checklists. Paul Meehl and William Grove have conducted extensive research on professional resistance to change, a condition not unique to doctors, lawyers, or baseball managers. But as with the sterilization of surgical instruments, we believe measurement in the discovery process is here to stay and for good reason. The cost and scope of ESI leave no other option if we are to meet the standard of a just, speedy, and inexpensive outcome.

Judge Andrew Peck has given us a compass - but not a map - on the use and future of technology-assisted review. His article, "Search, Forward" chronicles past studies and includes his views on this subject. To quote Peck, he writes "Grossman and Cormack note that 'not all technology- assisted reviews . . . are created equal' and that future studies will be needed to 'address which technology-assisted review process(es) will improve most on manual review.'" Judge Peck leaves little doubt where this road will lead. Technology-assisted review will be increasingly prevalent in the review process.

The processes described here are not revolutionary. This document is a robust source for measurement authorities. At the heart of the process is constant feedback and instruction to the front line reviewers to continuously improve and maintain a desired level of quality and

lower cost. The commentary adopts the Shewhart Cycle which is a four-step model for continuous improvements.   The four stages are Plan-Do-Check-Act (see graph below).
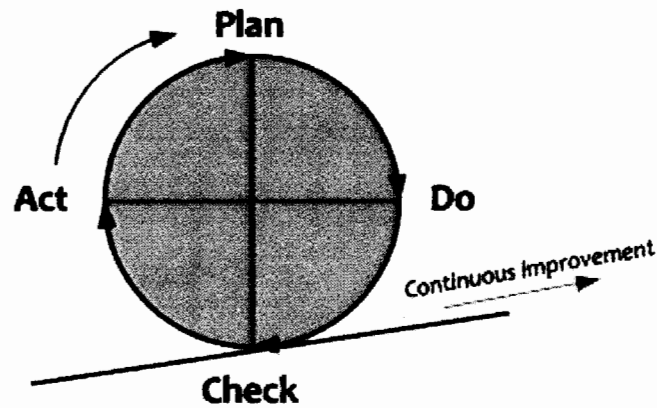
We all agree there will be human error. That is well documented by others (Blair and Maron, TREC, The e-Discovery Institute, Grossman & Cormack, etc.) as well as an antidotal experience. All systems have variation. Measurement of variation is crucial to continuous improvement. Accurate measurement provides the knowledge necessary to understanding your system's variation. Simply identifying variation without changing the process is not quality control. Once you have knowledge of the variation is acquired, necessary improvements can be made, minimizing the variation. The data and examples from the measurement must result in feedback and a higher level of output from the first line reviewers. Making these improvements is what quality control is all about and is what ultimately reduces review costs.

The definition of a reasonable, proportional, good faith effort must be determined by the law firm. In seeking improvement, at a certain point we face diminishing returns. The extra effort invested to achieve higher levels of quality will not only increase costs, but produce poorer results (see graph below). The good news is that we can measure the progress or lack of progress as we escalate our efforts and costs for additional quality gains. As the graph illustrates, additional inspection will not improve the quality, but simply increases the cost and results in wasted effort.

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Costs
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Non-quality Acceptable   Zero
      Quality   Default
      Level
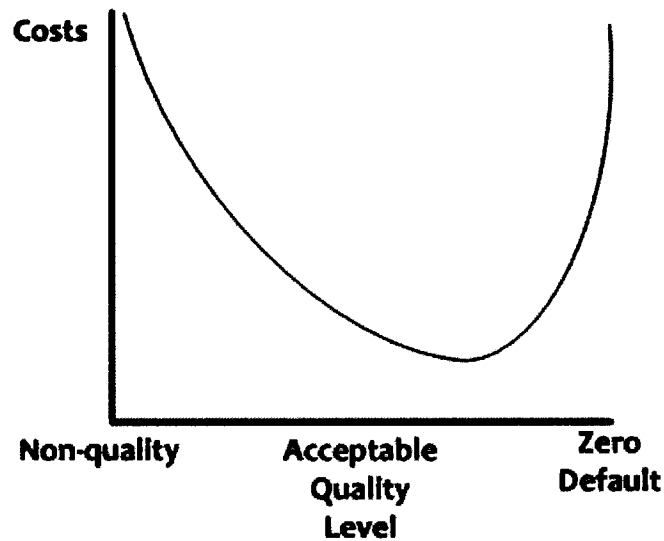
The metrics around the economic model of the review process also need to be examined. It is not sufficient to merely capture a per-hour metric. Models that work on a per-page, per-document, or per-gigabyte mode need to be part of the dialogue. Predictability regarding the cost of a review is achievable using data sampling and appropriate unit cost structures. The cost of a review is one of the three considerations of Rule 1 of the Federal Rules of Civil Procedure regarding the proper administration of justice. Review costs no longer need to be the great unknown for litigating parties. The per-hour metric can be replaced by an economic model that can give a predictable expected cost to both the review client and the court.

Structured process management can decrease document review costs substantially. If a process does not improve results and reduce costs, it is not a quality process. The creation of a quality process will not increase costs but the lack of a quality process will, without a doubt, increase document review costs. Without a rigorous quality control program in place, errors that are made early in a document review are not identified and corrected, consequently the errors can be repeated thousands of times during the review. These errors require correction, ultimately increasing the cost of the review. By measuring, analyzing and correcting errors early in a document review, errors can be reduced and the cost associated with rework can be avoided. Deming preached that if you do not have a measurement program, you do not have a quality program. Put simply, if you cannot measure your results, you have no path to improving the system.

The approach to reducing discovery costs is simple. There are four basic tenets:

1. The population of documents to be reviewed should be reduced in a reasonable and good faith manner that is defensible. For example, this can be done by omitting

duplicate documents and developing an agreed-upon list of key search terms and/or date ranges for identifying potentially relevant documents or concept searching.
2. A structured process needs to be in place. It should be documented, repeatable and auditable.
3. A rigorous quality control program should be instituted.
4. Improved communication through collaboration technology must be implemented. Collaborative technology is software or systems that assist individuals working together to do so in a coordinated fashion and towards a common goal.

The single greatest cost savings is accomplished by a coordinated integration with the law firm, client, and vendor to drive down the blended cost of e-discovery, review, certification, and supervision. In order to achieve these efficiencies, is making use of sampling over inspection to qualify and measure the results. Not only does sampling increase quality, it drastically lowers cost. To quote the quality expert W. Edwards Deming: "Inspection with the aim of finding the bad ones and throwing them out is too late, ineffective, and costly. In the first place you can't find the bad ones, not all of them. Second it costs too much".

Often clients and law firms claim their review rates are $50 an hour as a sole metric, which typically represents only the cost of the contract lawyers. The contract rate often does not include the supervision, quality control, and assurance that best practices demand, and ignores the all-in cost of the blended rate, which includes inspection and supervision by the law firm. Benchmarked blended rates range between $160 and $200 an hour. The use of sampling allows a person with a high degree of knowledge in the law firm to look at a relatively small set of documents that is representative of the entire universe of documents.

The Achievement of Quality

Two critical steps to this quality process are "quality assurance" and "quality control." It is important to distinguish between quality assurance and quality control. The terms are often used interchangeably, yet the terms are different in meaning and purpose. It might be argued that quality assurance and quality control are separated by a thin line. However, we need both to deliver good quality and they are interdependent on each other as well as essential to quality process.

Quality assurance starts before a project begins. It is based on a process approach to ensure that desired results will be attained. The expectations and requirements of the client are defined. This might include process documentation, establishing standards, developing checklists, and analytics. Quality assurance is not static. It is dynamic and relies on feedback provided by the quality control phase. Quality assurance is also critical at the end of the process as it ensures that the process is complete and accurate.

Quality control, on the other hand, refers to the steps taken during the review process to generate a quality review. It involves specific procedures, tools and techniques to ensure quality is maintained throughout each stage of the review. Quality control involves a dynamic search for universal errors, and is followed by correction of those errors and revision of the process to eliminate the errors. This is usually accomplished through a combination of training and revision of the review guidelines. Quality control should begin at the start of a review since this is when the reviewers are least experienced and most likely to miscategorize documents.

The objective of a quality process is not only to meet a standard or requirement, but to create the most benefit within a given amount of time and within a certain budget. Too much time spent on a quality process can blow the budget just as an insufficient quality process can lead to poor results. Therefore, efficiency in quality control is necessary. In order to accomplish this, a high degree of integration is required between the vendor, the client, and the law firm. Frequent communication between the vendor, the client, and the law firm enables all stakeholders in the review process to stay informed and in agreement on substantive review as well as other important matters such as timelines and budgets.

There are many ways to improve the speed, cost, and efficiency of a document review by using technology and search and retrieval methodology. Reducing the size of the population to be reviewed is critical. Predictive coding is another approach that should be explored. These processes are dependent on the nature and complexity of the case. One of the deciding factors is the richness of the population, which is the percentage of useful documents present. Large populations with low richness are problematic. Recall (the fraction of relevant documents retrieved from the whole population), and precision (the fraction of relevant documents in the retrieved set) are inversely related. As recall goes up, precision goes down. Conversely, as precision goes up, recall goes down (see graph below). Low richness coupled with the properties of recall and precision being inversely related enhances the approach to iterative searching within problematic populations. As we learn more about the data going forward, we can segment the population to improve richness and locate useful documents by running iterative searches.
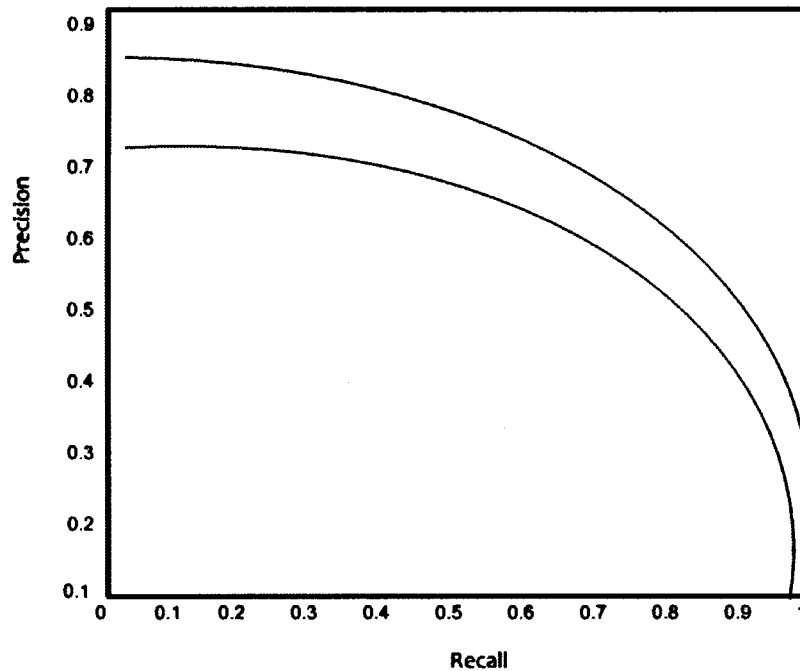
Clients are interested not only in meeting a standard or requirement, but lowering their overall discovery costs.

The other determining factor is proportionality or cost. In addition to diminishing returns and rising costs, the Advisory Committee Notes explain that "the revisions in Rule 26 (b) (2) are intended to provide the court with broader discretion to impose additional restrictions on the scope and extent of discovery…" In short, a court may limit discovery if the information sought, while relevant, is not sufficiently important to warrant the burden and expense of its production.

There are a number of economic plans in play in the current market. An excellent article by David Degnan in the Minnesota Journal of Law, Science, & Technology titled "Accounting for the Cost of Electronic Discovery" explores a range of models and approaches to cost. Alternative billing methods are common. However, the key element to consider is the "all in cost" of the entire process and not just the transactional costs of the individual elements and line items. The most common misunderstanding is the belief that review costs total $40 to $50 an hour (the cost of the contract reviewers on a per hour basis) when the real cost approaches and often exceeds $200 an hour (the blended rate for supervision, quality control, certification, etc) by the law firm.

The cost per hour is the traditional economic model used in determining legal costs. It is, however, not the most efficient model. Per document and per gigabyte cost models are more

predictive and useful in controlling costs. And in conjunction with good quality processes, it can dramatically lower costs, with savings of up to 50% attainable.

If the process is not standardized and measurable, we cannot improve the system. If we cannot measure our process, we cannot manage it. If the process is not managed, it becomes unpredictable and random in its cost and output. Measurement as defined by Douglas Hubbard is, "A quantitatively expressed reduction of uncertainty based on one or more observations". The systematic reduction of uncertainty through measurement and process helps us meet the standard of reasonableness, good faith and proportionality at the highest possible level. By sharing that information with our clients, they can, in Juran's words, make the best determination for fitness to intended use. The goal is not to eliminate intuition or experiential expertise as ways to make decisions, but to demonstrate how intuition and experience can evolve to interact with data-based decision making, resulting in better outcomes. It is not a question of knowing quality when you see it. It is a question of measuring quality, repeating it, and delivering value to clients.

If we are to accept the purpose of the Federal Rules of Civil Procedure "to secure the just, speedy, and inexpensive determination of every action and proceeding," a quality process must be developed and executed. Such a process will reasonably identify what is relevant and not relevant, what is privileged or confidential; enable the client to defend the document review and discovery process if challenged; and prevent the inadvertent production of privileged information. This process must also include the participation of top management. With the expansion of ESI, there is no other choice but continuous improvement and robust leadership toward that goal.