

ISO 9001: A Foundation for E-Discovery

As the e-discovery industry strives for common standards and practices, an ideal solution exists: ISO 9001.

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Executive Summary

A lack of standards and common practices hampers the processing of Electronically Stored Information (ESI) for litigation. Industry thought leaders, as evidenced by recent work by the Sedona Conference, Text Retrieval Conference (TREC) Legal Track, as well as this DESI meeting, are actively seeking standards to define and manage the process of discovery. This is necessary for both competitive differentiation in the marketplace, as well as to satisfy a growing demand for transparency and documentation of the Discovery process from the judiciary.

The legal profession has focused much of its energies seeking benchmarks and standards in the search process, but there is a need to be able to certify repeatable, defensible, and consistent business processes through the entire e-discovery process. In many of the ongoing industry discussions, the ISO 9000 standards family arises as one of the ideal models for how to provide certification and standardization. In fact, we believe that the ISO 9000 family of standards is not just a model, but is ready today to provide a common standard of quality for e-discovery. In addition, the model provides a framework for an industry-specific solution that can emerge to solve the growing complexity and difficulties found in e-discovery.

Introduction

The Discovery Management industry does not have a defined baseline for quality. Complicating matters, the discovery of evidence for litigation was, until relatively recently, a paper-based process. As such, any existing industry standards and quality expectations are still primarily paper-based or focused on standards of quality control for scanning paper documents to digital formats. As the industry has adapted to process the exploding universe of digital media, and new products and processes are introduced, no new set of quality standards has emerged specifically to govern the discovery of Electronically Stored Information (ESI).

In other industries, standards help inform buying decisions, provide a common language and point of reference to communicate quality. When purchasing in a manufacturing vertical (such as automotive and pharmaceuticals), buyers can expect a baseline of quality based on certifications. The e-discovery services industry is largely cost driven, with buyers purchasing e-discovery services as if it were a commodity but without the means to ascertain the level of quality they can expect. However, the purchasers of e-discovery legal services cannot expect quality service at every price point because of the lack of accepted industry practices.

Industry standards are not simply a marketing tool to sell services; standardization of processes is an explicit requirement from the judiciary.¹ Primarily in the area of search technology, courts have confirmed that standards are necessary for establishing defensible e-discovery practices. In addition, the Federal Rule of Civil Procedure 26(g)(1) requires attorneys to certify “to the best of the person’s knowledge, information, and belief formed after a reasonable inquiry” that disclosures are “complete and correct.”

¹ *William A. Gross Construction Associates, Inc. v. American Manufacturers Mutual Insurance Co.*, 256 F.R.D. 134, 134 (S.D.N.Y. 2009) (“This Opinion should serve as a wake-up call to the Bar in this District about the need for careful thought, quality control, testing, and cooperation with opposing counsel in designing search terms or “keywords” to be used to produce emails or other electronically stored information”)

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We believe these requirements can be satisfied with the adoption of quality management and documentation processes in the e-discovery industry.

The discussion at this conference² and others like it underscores the growing consensus that quality standards are necessary in creating the common baseline for defensible and standardized e-discovery practices. However, the industry is just beginning to grapple with issues such as the criteria used to search electronic records for responsive documents. For example, the Text Retrieval Conference (TREC) Legal Track is evaluating the effectiveness of various methods of information retrieval technology to find a baseline quality expectation³. Similarly, the Sedona Commentary on Achieving Quality in E-Discovery calls for development of standards and best practices in processing electronic evidence.⁴ These efforts are feeding a larger effort to create defensible standard practices for the industry.

Most professionals in the e-discovery industry understand that there will never be a comprehensive e-discovery process; the demands of searching, reviewing, and producing evidence from the complex, diverse, and ever-expanding universe of discoverable data ensures that standardization will likely be impossible. An even bigger obstacle is the rapid changes in technology. For example, the use of advanced information retrieval technology to augment the human review process is constantly evolving.⁵ Also, protocols are case-based; what may be a perfect solution in one situation may not be appropriate for the next.

ISO 9001 is an ideal solution for this state of affairs because it is designed to deliver the best solution for different situations. Because ISO 9001 is a baseline standard, it is flexible enough to address this complex challenge as few other approaches can. ISO 9001 has been held up as a standard that is a useful example of the type of standard the e-discovery industry can hope to develop. We believe that ISO 9001 is in fact not just an example, but a workable, real-world solution that provides a solid foundation for the e-discovery industry today.

What is ISO 9001?

The ISO 9000 family of standards is an internationally accepted consensus on good quality management practices. ISO 9001 is an international quality certification that defines minimum requirements for a company's Quality Management System (QMS). A company's QMS includes the organization's policies, procedures and other internal requirements that ensure customer requests are met with consistency and result in customer satisfaction. Some of the areas of an organization within the scope of ISO 9001 include:

- **Customer contracts**
- **Hiring and employee training**
- **Design and development of products and services**
- **Production and delivery of products and services**
- **Selection and managing of suppliers**

² In Search of Quality: Is It Time for E-Discovery Search Process Quality Standards? Baron, Jason E-Discovery Team blog. (<http://e-discoveryteam.com/2011/03/13/in-search-of-quality-is-it-time-for-e-discovery-search-process-quality-standards/>)

³ J. Krause, Human-Computer Assisted Search in EDD, Law Technology News, December 20 (2010).

and Oard, et. al. Evaluation of information retrieval for E-discovery, Artificial Intelligence and Law, December 22 (2010).

⁴ The Sedona Commentary on Achieving Quality in E-Discovery, May 2009. Principle 3. Implementing a well thought out e-discovery "process" should seek to enhance the overall quality of the production in the form of: (a) reducing the time from request to response; (b) reducing cost; and (c) improving the accuracy and completeness of responses to requests.

The type of quality process that this Commentary endorses is one aimed at adding value while lowering cost and effort.

⁵ Maura R. Grossman & Gordon V. Cormack, *Technology-Assisted Review in E-Discovery Can Be More Effective and More Efficient Than Exhaustive Manual Review*, XVII RICH. J.L. & TECH. 11 (2011).

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To maintain the certification, an organization must implement:

- **Management responsibilities**
- **Internal quality audits**
- **Monitoring and measuring**
- **Continual improvement**
- **Corrective and preventive actions**

To receive an ISO 9001 certification a company must put the required QMS processes and controls in place, monitor performance of its processes and demonstrate continual improvement. Many companies hire an experienced consulting firm to assist with these preparations. Once the QMS is in place, a registrar (or certification body) is hired to audit the company's compliance with ISO 9001 requirements. If discrepancies are found during the audit, they must be corrected before the ISO 9001 certificate is issued. One of the most demanding aspects of the ISO 9001 certification is that it must be maintained through regular audits (bi-annual or annual) conducted by the selected registrar.

To maintain certification, organizations must provide measurable targets for improvement and data to show current and past performance. This information is kept in a quality manual, a general description of how a company operates and how meets ISO 9001 requirements. An organization provides specific procedures or work instructions determined by the management as needed to ensure processes meet the stated quality objectives.

In addition, an organization must maintain historical records that demonstrate compliance with company procedures and the ISO 9001 standard and train employees and management in the required responsibilities, ISO awareness and understanding of the quality policy, administrative procedures, and the audit process. Customer feedback is another essential component, which demands tracking customer complaints, compliments, and overall satisfaction. A management representative is assigned to coordinate the ISO program and a regular management review meeting should assess the progress and initiate improvements as needed. In addition, a team of employees trained to conduct an audit similar to the registrar's audit must conduct a formal internal audit, on top to the annual outside auditor review.

Through these requirements, organizations will likely find that they have to ensure that rigorous documentation of processes is in place. And because the program demands continual review and process improvement, the certification makes certain that an organization's services, documentation, and processes are consistently updated and streamlined.

The Benefits of ISO

From an organizational standpoint, adopting and adhering to an ISO 9001 compliant QMS creates a more organized operating environment, attracts new customers, and generally leads to a higher level of satisfaction among those customers. For e-discovery practices, the certification process would demand documentation and policies be put in place that are available as a reference or even supporting materials that attest to an e-discovery vendors good faith efforts to provide the highest standard of care in litigation.

From a practical standpoint, the certification forces an organization to continually upgrade and reconsider its processes. In outlining any current operations, organizations must add the requirements of the ISO 9001 standard and optimize processes, meaning internal operations can be quickly enhanced and streamlined. And, as noted, after achieving certification, the process mandates continual process improvements. A recent survey of 100 registered firms reported the average improvement in operating margin at 5 percent of sales. These firms also reported faster turnaround times, and a reduction in scrap and overtime.

In addition, the ISO process facilitates increased quality awareness. During implementation, quality awareness will increase, since all staff must be trained on ISO 9001. The QMS will also demand built-in systems to report on key quality indicators, which will significantly reduce the reoccurrence of problems. This helps develop a strong quality culture, where the staff recognizes problems such as systems or process issues and work on fixing them, rather than placing blame with an individual. And with ISO 9001

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certification, employees learn processes more quickly and reduce misunderstandings with customers. If a problem does occur, it is traced to its root cause and fixed.

While there is no accepted ISO certification requirement in the e-discovery industry, ISO 9001 certification is becoming a requirement to do business in many markets. We believe that as sophisticated business enterprises bring the e-discovery process in-house and away from law firms, the expectation of ISO certifications will increase. A recent survey of ISO 9001 certified companies shows that 41 percent were asked to achieve certification by a client. Considering that it can take 6 months or longer for some organizations to achieve certification, already having a compliant QMS in place can be a distinct advantage. E-discovery vendors that do adopt the standard now, ahead of any possible requirement to do so, have a distinct marketing advantage, as they are able to declare their processes conform to an internationally recognized standard that few competitors can claim.

The ISO Organization

Perhaps the most important benefit of ISO certification is the broad, international acceptance the standard has achieved. The International Standards Organization is a combination of the national standards institutes in roughly 157 countries. The ISO 9000 family of international quality management system standards is perhaps the best known example of the organization's output, but it is only one of the many standards produced.

The ISO 9000 standards provide a basis for certifying compliance by individual organizations with standards in the family. An e-discovery company may qualify for basic ISO 9001 certification, or, more optimally, an industry-specific standard could be created to provide applicable certification to their operations in this field. And when a company or organization is independently audited and certified to be in conformance with any ISO 9001 standard in the family, that organization may also claim to be "ISO 9001 certified."

What ISO Does and Does Not Do

The ISO 9001 certification is distinct because it demands patience and an ongoing process of improvements. Other standards offer a regimen of self-help and implement more advanced management techniques in an organization. But as management and staff turnover naturally occurs, organizations lose interest and forget what they are working on without the ongoing commitment to the ISO 9001 audit process.

ISO mandates that an organization's management has a defined quality standard and meets these goals. Compared to the ISO model, other certification processes are often static. Once certified an organization can claim to have achieved the standard, but there is no required maintenance. For example, the Capability Maturity Model Integration (CMMI) in software engineering makes similar demands, but without demanding process improvement or providing a point of reference for appraising current processes.

Of course, no certification guarantees quality service; rather, they can only certify to potential customers that formal processes for measuring and controlling quality are being applied.

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The ISO 9001 Family

Figure 1: ISO 9001 and its industry variants

ISO 9001:2008	
Industry-specific standards:	Related management-system standards:
AS9001 Aerospace Industry Standard	ISO/IEC 27001 Information security management
ISO/TS 16949 Automotive Industry Standard	ISO/IEC 20000 IT service management
TL 9000 Telecom Industry Standard	ISO 14001 Environmental management standards
ISO 13485 Medical Industry Standard	ISO 26000 Social responsibility
ISO/TS 29001 Petroleum, petrochemical and natural gas industries Standard.	OHSAS 18001 Occupational Health and Safety
ISO 17025 Calibration and Test Laboratories	
ISO 22000 Food Safety	

As the chart above indicates, a number of industries have created ISO 9000 variants with specific requirements. Most are in manufacturing fields, although the model can certainly be adapted to create a standard specific to the processing of ESI. In addition, management system standards have created systems for implementing international standards for social responsibility, as in the ISO 260000 model or the environmental safety model defined by ISO 14001.

Of particular interest to e-discovery service providers, the ISO 27000 standard is designed to identify and manage risks posed to business information by data theft or accidental loss. It provides guidelines for putting a secure infrastructure in place and implementing a risk management process and corporate policy to minimize data loss. This is the one existing ISO standard e-discovery vendors can and should actively consider adopting in addition to the ISO 9001. E-discovery service providers can have their processing centers certified under ISO/IEC 27001 certification as an assurance to customers that any ESI handling and processing is done with a commitment to security and data integrity.

Litigation and support suppliers will certainly benefit from the adoption of the general ISO 9001 standard. However, many industries have benefited from the adoption of an industry-defined subset of 9001. These subsets were all proposed and developed by professional organization and industry experts with the intent of addressing perceived weakness in ISO 9001 relative to that specific industry. Because a number of initiatives and projects are underway that attempt to define and create a framework for acceptable e-discovery practices, these efforts could certainly be used to jump-start an effort to define an e-discovery ISO 9001 model.

ISO 9001 and the E-discovery Industry

Industry organizations have begun to make some initial attempts at creating standards and best practices. The Sedona Conference has a number of guides and best practices recommendations available for e-discovery topics, including search protocol and choosing an e-discovery vendor.⁶ The Electronic Discovery Reference Model (EDRM) has led an effort to create a standard, generally accepted XML model to allow vendors and systems to more easily share electronically stored information (ESI).

⁶ The Sedona Conference Publications (http://www.thesedonaconference.org/publications_html)

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However, industry best practices are currently only recommendations, and technical standards such as the proposed XML schema are most useful in creating consistent standards and attributes for products. ISO focuses on how processes work and how work product is produced and is not a technical or product related standard. Technical or product related standard certifications are generally hard to come by and are most useful only for technology vendors and not service providers.

As noted, the ISO 9001 standard is a general, baseline and provides only high-level guidance. A number of industry sectors have created standardized interpretations of the ISO guidelines for processes in industries as diverse as aerospace manufacturing and medical devices. Industry-specific versions of ISO 9000 allow for industry-specific requirements, and allow for the training and development of a base of industry auditors that are properly qualified to assess these industries. Standardizing processes could standardize pricing as well – or at least create a common language for pricing e-discovery services.

Courts have repeatedly found that a failure to adequately document the steps taken to sample, test, inspect, reconcile, or verify e-discovery processes is unacceptable and can result in court-imposed sanctions.⁷ The profession may resist applying metrics to litigation as are applied in manufacturing and other industries, but the discovery phase of litigation is a business process, and a quantifiable one. There will always be questions of law in the discovery process that require a lawyer's judgment and discretion, but within the process, service providers can and should apply some of the same rigor and standardization of service as seen in other industries. For example, some of the possible quality metrics that can be measured are:

- Defects per reviewed document delivered
- Search expectations- how many images, graphics, or embedded documents were successfully indexed
- The error rate for files loaded to a repository of the total number of files received
- Deadlines met or missed
- A measure of data collected which was ultimately deemed non-relevant
- Search accuracy and recall
- The number of corrupted files loaded to a repository prior to review

In order to implement such standards, definitions must be agreed upon. For example, such foundational issues such as what is a document and what is a container file. The ongoing research by TREC and other technical studies can continue to develop baseline measures for successful e-discovery search and document review. These measures and metrics should then be considered within the ISO 9001 framework to provide a baseline for quality of services.

Moving Forward

Organizations such as the Sedona Conference and the EDRM are two obvious candidates for promoting further efforts in this area. The ISO 9001 standard would in fact be an ideal vehicle for implementing the work these and other organizations done into search methodology and information handling across the industry. And together with the more detailed efforts to define and create best practices for the industry, perhaps an ISO 9001 standard for the management and handling of ESI can be formulated.

The primary driver for an e-discovery-specific ISO standard will be to ensure that when a customer purchases services from a certified source, they can have a level of assurance that the vendor has basic quality control practices in place. Most importantly, the ISO 9001 certification standard provides a third-party independent auditor who reviews the company's standard against the certification. Buyers do not want to trust a vendor with their data sets only find out a vendor does not have basic quality control measures in place.

ISO 9001 is a standard that may become necessary just to compete. The e-discovery industry can only stay fragmented for so long. In order to mature, the e-discovery industry needs a common language to both satisfy the demands of its customers as well as the growing chorus of judges and legal scholars looking for measurable quality standards.

⁷ *The Pension Committee of the University of Montreal Pension Plan, et al. v. Banc of America Securities LLC, et al.*, No. 05 Civ. 9016 (S.D.N.Y. Jan. 15, 2010)

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Chris Knox has more than 16 years of project and resource management experience. He is responsible for the implementation of strategic initiatives and IT expenditures, as well as the development of company-wide operating procedures. Chris graduated from the University of Texas at Austin with a degree in Engineering and received his MBA from Syracuse University.

Prior to IE Discovery, Chris designed and implemented data collection networks for software developers and Fortune 500 corporations. Chris also previously created Geographic Information Systems for large municipalities, specializing in the development of algorithms for hydraulic models.

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Scott has more than 20 years' experience in manufacturing with the past 10 years consulting with organisations seeking ISO 9001 certification. Scott is also an active voting member of the US Technical Advisory Group (TAG) to ISO Technical Committee 176 (TC 176), which is responsible for drafting ISO 9001 and ISO 9004 on quality management systems.