Practice Innovations

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Editors in Chief

Austin Doherty
Director, Information Resource Center
Hogan & Hartson L.L.P.
Washington, D.C.

William Scarbrough
Executive Director
Baker & McKenzie
Washington, D.C.

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Cleveland, OH

Linda Will
Director of Information Resources
Dorsey & Whitney L.L.P.
Minneapolis, MN

Please direct any comments or questions to either of the editors in chief:

Editors in Chief

Austin Doherty
Hogan & Hartson L.L.P.
555 13th St. N.W., Rm. 10W100
Washington, D.C. 20004
202 637 8701 (voice)
e-mail: radoherty@hhlaw.com

William Scarbrough
Baker & McKenzie
815 Connecticut Avenue N.W.
Washington, D.C. 20006
202 835 1640 (voice)
e-mail: william.p.scarbrough@bakernet.com

Managing Editor

Eileen Gonyeau, J.D.
West
610 Opperman Drive
Eagan, MN 55123-1396
651 687 5497 (voice)
651 687 8722 (fax)
e-mail: eileen.gonyeau@thomson.com

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The Rise of Law Firm Operational Teams

Opportunity is everywhere in today’s law firms. This is especially true when it comes to the operations teams of law firms. These prominent groups, when working together, have endless possibilities to help push your firm toward a more business and client-focused operations model. These departments can help your firm not only acquire new clients, but keep them.

The first task is to work together, something leadership can facilitate. To reach true potential, your marketing, finance, information resources, human resources, operations and technology chiefs must work together, not in separate silos with separate agendas.

In too many firms, the administrative team leaders don’t see eye to eye, and focus only on what is important to them as individuals, worry about who is going to receive credit for what, and complain about what isn’t happening versus looking at the opportunities. At a recent AALL meeting, the audience was asked, “How many of you work with your marketing department?” All hands went up. Then the follow on question came, “How many of you have a good working relationship with your marketing and business development team?” At least half the hands went down.

Just like “eat what you kill” isn’t cutting it anymore among lawyers, it doesn’t work for C-level folks either. You only win by moving to a collaborative environment, so start today and model the type of behavior that showcases your leadership. It’s neither efficient nor politically correct for these groups to be in constant turf wars.

Some Experts Speak from Experience
Kelvin Chin, Director of Marketing at 400-attorney Edwards & Angell LLP, reports, “Increasingly, firms are moving toward hiring sales executives to help drive the business

“You only win by moving to a collaborative environment.”
development leader will start internally building strong relationships with all sectors of the firm administration, as well as the attorneys. It's all about creating synergistic working relationships. Effective sales and marketing leaders need to first ‘sell themselves’ as team players to their administrative colleagues. I've found that leading by focusing on the ‘common ground’ is most effective. This will be paid back multifold in working collaboratively with departments such as IT on effective CRM selection, rollout, and implementation; Information Resources (library) with effective sales and marketing research; Finance with crucial client data; and HR with staffing needs. I've even received solid sales leads from administrative colleagues.”

Beth Cuzzone, Director of Business Development at Boston-based Goulston & Storrs, notes that her firm made the decision not to hire a COO or executive director many years ago and reports that its operational team model is still working well today. She describes its dynamic this way, “The administrative Goulston & Storrs team leaders meet monthly with one or both of our co-managing partners. It is an information gathering and problem solving session. The managing partners share important upcoming information, like the opening of a new office or the acquisition of a practice area from another firm. We, the administrators, together plan accordingly. Let's take the latter for example. If a practice area from another firm is going to join us then IT may help HR, facilities may help business development, recruiting may help accounting, and so on. How does it work? The director of IT, while trying to understand the technology needs of the new group, may learn their support ratio is less than our firm’s, which impacts HR’s hiring. Business development and facilities can work together so that the office location of new members may support cross selling, integration and relationship building. The recruiting director, while interviewing laterals, may learn of finance and accounting policies/procedures G&S can consider.”

Of course, perceptions go all around. If tech writes off marketing as the folks who manage the baseball and symphony season tickets, or host cocktail parties, there’s not going to be a lot of mutual respect. If marketing looks at finance as people who only understand numbers and don’t see the big picture, they won’t realize how tied to the clients Finance really is—especially billing and collecting, which touch the client once a month. If the COO believes that he oversees everything, he will end up overseeing nothing well. Everyone has their place across an even playing field—at least in a well-run, profitable firm.

Kelvin Chin adds, “Building effective working relationships with my non-sales and marketing colleagues within our firm is essential to being a successful law firm salesperson and marketer. I don’t consider it a choice—it’s a necessity. Not doing so would simply reflect poor leadership and management skills.”

Linda Will, Director of Information Resources, is a big team builder at Dorsey & Whitney LLP. Linda and her team actively engage in building camaraderie with other departments and are very involved in key client management with the sales team. She observes: “Firms that do not change, meaning embrace competitive intelligence, will lose their position in the market place. Put a professional marketing team with a first-rate library research center and you have success.”

**Leadership Starts at the Top**

Reporting into an operations partner or administrative partner is the new model. Strong team leaders work best when reporting to the top.

Too many firms have an operations officer or director to whom the other officers or directors report. This reporting structure no longer makes sense and thwarts the firm’s ability to move forward with a strong team. Operations and finance professionals do not understand marketing, information resources, human resources, or information technology. By often micro-managing these areas, they prevent opportunities for growth and competitive advantage. So what’s the answer? A partner from the firm—either the managing partner, chairperson, or administrative partner who is interested and understands the operations side of the firm—should be the ultimate director of the operations teams and officers.

Kirkpatrick & Lockhart Nicholson Graham LLP Chief Recruiting and Development Officer Susan Fried discusses how this works at her firm, “Working with other operational teams in the firm is critical for firm success—and our own individual success as leaders—for a number of important reasons. First, it allows you to maximize and leverage the strengths of the people in each department for the benefit of the firm as a whole and for their own professional development. Second, it offers big-picture perspective; individual departments come to understand and appreciate the successes and challenges that their peers face. Third, it ultimately produces an integrated work product where your firm’s brand/values/common goals are consistently integrated throughout all of its functional departments. Finally, by facilitating cross-departmental work, firms can differentiate themselves in the marketplace for management talent.”
At least half of the AmLaw top 20 firms follow a model where the reporting is to an operations or administrative partner. Officers and directors are respected for their work and their knowledge and are expected to do an outstanding job. It works. Other firms are also following this model and finding their teams are more productive, people are less likely to leave, and the operations team members feel free to develop recommendations that benefit the firm as a whole.

So Where Does a Firm Begin? Take small steps together. Identify a couple of projects that require cross-team support and management, that can be completed in six months with minimal effort, and that have goals that are easily communicated to the firm. Working on small projects together and with cross-functional operations teams will establish relationships and lay groundwork for much larger, challenging future projects. What a great way to be a role model for those in your operational departments and others in the firm. If your firm is not structured this way, then as an officer or director, take it upon yourself to create synergies across your operations teams and invite another director or officer to work on a project with you.

A few examples that make good sense include:

- Marketing and Information Resources
- IT and Finance (time and billing systems)
- Finance and HR (personnel systems; employee benefits systems and opportunities)
- Recruiting and Marketing

Carolee Swallie, Client Service Manager for Kirkland & Ellis LLP, believes: “Many firms are currently turning to client relations management systems as a way to augment their business development efforts. A CRM system must have communication and cooperation between the IT and marketing departments in order to be successful. As we ask our attorneys to foster relationships with their clients, the departments designing and supporting the system must also build a relationship—complete with common goals and a knowledge of what each department is working to achieve. This can only be accomplished by constant and open communications.”

Scott Cotie, CFO at Alston & Bird LLP, adds, “The rise of “C” level positions within law firms is an evolution of the legal market itself. More competitive, consolidating, and complicated. In effective, strategic oriented firms, this group of professionals must work as a team.”

Top-down management is important. Officers should be created equally in a firm. Their skill sets vary and are complimentary when focused in a positive direction. Build opportunities to collaborate. When you do go before the partners, you’ll be able to put some punch into your presentations. You’ll have a track record of cooperation and accomplishment. Think of the possibilities!”
Knowledge Management (KM) efforts have finally become mainstream in the legal market. Although the level of sophistication and completeness may vary greatly, and although many firms don’t even use the dreaded KM acronym, most firms are in fact managing at least some of their institutional knowledge. But many firms are realizing that first attempts at managing knowledge have had less than ideal results, often due to the extra steps required to use and maintain KM processes. For the next generation, firms are focusing on making KM more transparent, where it is simply a part of conducting business, leading to improved adoption and sustainability.

One of the more difficult questions to answer is where KM information should be stored and accessed. Because studies show that attorneys spend the largest amount of their workday in e-mail, doesn’t it make sense that Outlook® should become the KM platform? Is this even possible? What are the drawbacks? A variety of recent legal blogs, list-servers, articles, and webinars have focused on this issue. People tend to be much divided, falling into one of two camps: the Outlook as KM camp and the Portals Are Still the Best KM Tool camp.

Thoughts from the Outlook as KM Camp

In a recent article, Tom Baldwin (Sheppard Mullin Richter & Hampton LLP) observed that many lawyers are comfortable with Outlook. Because of that and the well-known difficulty drawing attorneys into training on new products, he concludes that it might be advantageous to develop enhanced capabilities within Outlook. “Most of an attorney’s clients are already in Outlook, in one form or another, and Outlook 2003 seems to hold a lot of promise for making it easier to embed data from disparate systems into it.”

In a recent AmLaw Tech profile, Warren Jones (Pillsbury Winthrop Shaw Pittman LLP) characterized his firm’s knowledge management approach as one based upon the firm’s e-mail system, which allows lawyers to drag and drop their files and e-mail messages into a
firm database much as one moves messages into a personal Outlook folder. “It took lawyers a long time to learn Outlook—why ask them to leave that environment [for knowledge management]?”

Regardless of whether Outlook is your primary place for KM or not, certain solutions appear to be a natural fit with Outlook. Raquel A. Holder (Snell & Wilmer L.L.P.) points out that her firm deploys InterAction, which allows attorneys to use Outlook Contacts while at the same time sharing their non-personal contacts in a firm-wide view. Noting decreased redundancy and improved accuracy as a result of the integration, she says, “It is possible for attorneys to do almost everything in Outlook while still maintaining the integrity of our InterAction database.”

Another clear fit is using Outlook to locate experts. Haynes & Boone is looking at using Tacit Mail, which “examines e-mail stores and taxonomizes the information so that people can ask ‘who knows’ type questions,” explains Thomas P. Wisinski. Other firms are making efforts at capturing the in-search-of e-mails so they can be searched and reused.

Outlook and DMS integration may make a good fit also, since e-mail and documents represent most of an attorney’s work product. For example, “Interwoven provides a tool that stores and profiles e-mail along with documents, and integrates the DMS with Outlook so you are working inside both at the same time,” says Don Oppenheimer, a Senior Consultant with ii3, Inc.

The basic capability of Microsoft Exchange is a limiting factor on Outlook’s potential as a KM tool, however. “IT managers are exasperated with the amount of data lawyers dump into their mailstore. It is now not uncommon to hear of lawyers with 10GB of data stored in Exchange. The architecture behind Exchange was never intended to house this much data,” said Theresa Grote (Dinsmore & Shohl LLP) during a recent ii3 webinar.

Many firms rely on Exchange public folders as the filing mechanism for KM. This is a temporary solution at best, as Microsoft has announced it will eventually phase out public folders from this product.

Thus, the view has emerged that Outlook cannot be scaled up to an enterprise-wide KM environment. Mark Boggis (Clifford Chance LLP) strongly agrees: “In its current form Outlook is next to useless in KM terms, but it is not going away. It has its tentacles deeply embedded in every process the law firm has, but needs to be focused back on being a communication platform, not a collaborative platform.”

Thoughts from the Portals Are Still the Best KM Tool Camp

Those who felt strongly that KM does not belong in Outlook most frequently cited portals as a better solution. “To me, integrating CRM, Outlook, Document Management, external news, company profiles, and other content via a Web portal makes more sense than to try and access all of those services via Outlook,” says Nina L. Platt (Faegre & Benson LLP).

Portals’ searching capability usually far exceeds that of Outlook. Don Oppenheimer concurs, “Portals, like SharePoint, are far better tools to search, categorize and aggregate content from diverse sources of knowledge than Outlook is or was ever intended to be.” Portals usually provide for taxonomy too, another way to locate information not easily done in Outlook.

Both John Halbleib (Mayer, Brown, Rowe & Maw LLP) and Oz Benamram (Morrison & Foerster LLP) are waiting to see what will shake out of Microsoft’s much-anticipated Longhorn, the next operating system upgrade. It will add relational database capabilities to the file system, which should vastly improve the speed and ability to find documents, e-mail, and other data. They are also interested in the promises of SharePoint and Groove. (In March 2005, Microsoft acquired Groove, which “will change the way people collaborate in Outlook”.)

Let Them Have KM Cake and Eat It Too

There is third position. Many people feel that a solid universal search engine or work product search engine will largely negate or at least greatly reduce the need to spend time identifying, coding, and organizing firm knowledge. Products such as Recommind, WestKM, LexisNexis Total Search, and Practice Technologies Inc.’s Real Practice not only allow you to search, but provide ways to pivot views of data, offer multi-faceted searching, and allow for automatic classification of information. These tools are becoming much more commonplace in the legal market and may drastically affect the Outlook versus portal debate.

3. Transcripts of the webinar and the Q&A portion of it can be founded at www.ii3.com/webinar/101404/.
In “The Paperless Chase” in the June 2000 issue of The California Lawyer, Dean Robert C. Berring, Jr., eulogized the “grand libraries,” which “were once a major feature of the largest, classiest law firms.” He pointed out how these libraries were being downsized and converted into offices, conference rooms, and computer spaces.

In an addendum entitled “On Neutral Ground,” Bob talked about his experiences as a summer clerk at a major New York City law firm. The grand library, he said, was a social club, temple, and convenience store, which was open and in use 24 hours a day. He described the library as “a watering hole used by all species of law firm animals. Litigators, corporate attorneys, estate and trusts specialists, senior partners, new associates—everyone could gather in the neutral space of the library.” The library was a bridge. It was a safe zone. It was escape from the rat race of legal practice.

Bob suggested, “Before the physical space that was once the law library does disappear, we should ask ourselves if we are losing something irreplaceable. As we read reports of the increasingly confrontational nature of legal practice and the grinding alienation that is part of it, is it a good idea to jettison one of the last friendly places in the law firm? Will some other institution arise to replace it?”

Bob and I agreed to discuss the benefits of the past and predict whether the library as it was can be replaced. We’ll look at four broad areas: (1) the world of legal research, (2) the concept of sanctuary, (3) the idea of collaboration, and (4) the concept of serendipity.

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Al Podboy has identified four lenses through which we can look at the developing role of the law library in the coming years. The first is legal research. Here the future remains enshrouded in fog.

**Unique Dish or One Ingredient in the Information Stew**

Legal information once lived in its own world, surrounded by its own obscure indexes and abstracts. Understanding legal research was an arcane skill. Just using the research tools was a challenge and law librarians knew the way through the maze. Increasingly, legal information is blending in with non-legal information in one great digital stew, and it is accessible via the same search engines as everything else. This makes the role of the law library much less defined. It will drive law librarianship closer to other branches of librarianship. This is not inevitable. At the conclusion, I will point out how legal information in a different form may well hold the rosiest future of all.

**Library or Starbucks**

Al’s second lens concerns the concept of sanctuary. I fear libraries can remain sanctuaries only by morphing into proto-Starbucks. If libraries offer good coffee, reliable wireless connectivity, and a comfortable chair, we preserve the aspects continued on page 9
Legal Research Changes
As Bob pointed out, in the last century the library was still a very physical space. It had a lounge area; it had books, newspapers, and magazines. Our libraries changed as the world of legal research changed.

At the beginning of the last century, cases, statutes, rules, regulations, and legal treatises provided traditional research and filled the grand old libraries. In the 1920s, this started to change with the advent of the Brandeis brief, in which social and statistical information played an ever-increasing role in legal research. Next came the addition of Web sites and public records. The world of legal research became increasingly complex. Researchers now frequently need to get plaintiff, defendant, and client information; view court filings; do credit checks; and link to other research sources.

Library Provides Sanctuary
The library was a sanctuary—even though many older partners and associates might argue the point because they were often there in the wee hours of the morning or for very, very long days. Still, it was a friendly space, a safe zone, a social club, neutral space, and an area where you could converse across practice areas.

The physical library can be and usually is much smaller today. It often has a lounge area, books, food, coffee, newspapers, magazines, and, increasingly, wireless connectivity. It is still a friendly space and a neutral safe zone.

The library, as Heather Smith argued in her article “Don’t Count Them Out!” in the July 2005 American Lawyer, has not been supplanted by the digital medium but instead complemented by it.

With the availability of online resources, partners and associates increasingly prefer to perform their research in the truly comfortable surroundings of their homes, where they can enjoy their choice of music, relax in their pajamas, and, oftentimes, have the companionship of their families.

Library Builds Ties
Much of what was appealing in last century’s physical library involved the world of collaboration. In the library, you could bounce ideas off of your friends and peers, build relationships, and intellectually cross-pollinate across different practice areas with other species of lawyers.

Libraries Created Serendipity
Another appeal of the last century’s library was the magic of serendipity. Webster’s defines serendipity as “an assumed gift for finding valuable or agreeable things not sought for.” Serendipity is a real part of the magic of using a physical library collection.

Librarians and libraries have created serendipity for centuries. It often occurs when one wanders around a subject as arranged physically in a library. Serendipity is based oftentimes on the arrangement of the material on the library’s shelves. It is based on the relationship of tools to one another. It is based on the notes prepared by a catalog librarian in the old hard copy card catalog. It occurs when one immerses himself in a subject ordered collection.

Lament or Re-imagine
Rather than lament the fact that we may be losing something irreplaceable, can we replace the feeling, the warmth, and the nature of yesteryear’s physical space in our new electronic world? Can we replace the institution with new media and vision?

In Praise of the Grand Law Libraries of Yesterday

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of sanctuary. Some of my faculty colleagues at Berkeley already do their work at local coffee shops that meet all three of the comfort criteria above. Is this the area where we have the most to offer?

**Face-to-Face or Cyberspace**

The third lens is collaboration. Technological innovation is making conferencing, co-authoring, and meeting with others at a distance increasingly easier. Why waste the time, money, and psychic energy getting into airplanes and flying to other cities in order to work together? Working together from the desktop will be easier, cheaper, and less stressful.

I am not sure where the law library fits into this model. In some places, the law librarian has seized control of the IT operations and made himself into the coordinator of all such innovation. This is the law librarian saving his role by stepping away from it.

**In the Stacks or in a Search Result**

Finally, serendipity. Since most of my life seems to have been dictated by serendipity, I can hardly underestimate its importance. The capacities of new search engines provide serendipity of their own. I grew up browsing through books as a part of the tapestry of my life; however, my sons (18 and 21) have grown up with serendipitous online searches. The modern researcher is far more likely to run a Google search and play around with the results that he finds than he is to browse a shelf of printed material.

**New Roles for Law Librarians Can Evolve**

The greatest strength of law librarians lies in their deep expertise in using legal information. Working with legal information, at a deep level, is growing trickier. The use of search engines has blurred the distinctions. A researcher might plug a question into a search engine and receive a variety of sources, which mix primary and secondary authority. My students in Advanced Legal Research have shown me that one cannot assume an ability to distinguish between the authority of a section of the United States Code and a report that appeared in *The Washington Post* on a digital retrieval list. As information proliferates and search engines treat the Code and the *Post* the same, there is an increasing need for experts who know the difference. Speed and ease of use are worth nothing if the end product of research is not valid. Law librarians have the chance to become the real manipulators of legal authority.

Earlier I observed that the leveling of information will make law librarians more like their professional cousins. But future law librarians can choose to grow in the opposite direction and become even more specialized. Law librarians must be the real experts on legal information systems and the guardians of legitimate legal authority. This calls for law librarians to have more substantive legal expertise and to be more proactive in designing legal information systems. Librarians have always floated above information, knowing how the information was organized, but, with the exception of some reference librarians, not dipping into the heart of the information itself. The time to change that image is now. There is a niche waiting to be filled and law librarians are the natural candidates to fill it.

So here’s hoping that there will always be sanctuary in a safe place that is called the law library. Let’s hope too that the librarian, rather than serving the cappuccino, is instead explaining to the young lawyer drinking it how to use legal information.

“Law librarians must be the real experts on legal information systems and the guardians of legitimate legal authority.”
Convincing attorneys to take the time to invest in their careers and to continue their learning in an environment where billable hours are traditionally the hallmark of success is essential, albeit difficult. Before the 1990s, some firms offered deposition and trial advocacy programs, and encouraged attendance at conferences or continuing legal education courses, but most training was on-the-job (and on-the-clock) and dependent upon a willing and capable mentor or supervisor.

A leadership change at McDermott, Will & Emery LLP provided an opportunity to innovate. The new management team focused on development of its human capital by establishing McDermott University, a comprehensive professional development system, in August 2004.

Looking to the business world to find an established model, it became clear that for McDermott University to succeed, the firm needed (1) an integrated and systematic framework, (2) a “creation” process that fostered collaboration and buy-in, (3) leadership commitment, and (4) a structured implementation process to defuse resistance and facilitate a culture change.
The first step was to develop a systematic and integrated framework for McDermott University. Borrowing from what the firm had accomplished in the past and from what other firms were doing, the professional development department with the support and approval of the firm’s leadership, determined that a framework of four integrated elements was the way to proceed. The four key elements agreed upon were core skills, training, mentoring, and career planning.

Core skills relate to core competencies, a term first discussed in a series of articles in the *Harvard Business Review*, and defined as skills and characteristics essential for achieving professional excellence. McDermott defined two broad types of core skills: departmental substantive skills and professional skills. To provide flexibility, the firm opted for a levels approach, whereby core skills were articulated at four levels of practice instead of by class year.

The firm’s new framework provides for global departmental training that is aligned with the core skills. All programs are posted on the firm’s online calendar and available to all interested attorneys in any office live, or via videoconference or audio conference. The firm simultaneously implemented a formal firm-wide mentoring program, whereby every associate and many junior partners have a more senior attorney from their department as a mentor. This formalized process was established to ensure that every attorney feels connected to the firm. Special coaching skills were offered to both mentors and protégées through a series of training programs.

Finally, associates and junior partners were expected to create a career development plan with the assistance of their mentor and with departmental approval. Using a template adapted by each department to incorporate its respective core skills, every attorney articulated goals and action steps, and identified related resources necessary to achieve them.

**Collaborative Creation Process**

It was recognized from the outset that for this initiative to succeed, it could not be created by fiat. While leadership commitment was critical, it was also essential that the initiative be developed collaboratively. To this end, departmental working groups were created to implement each element of the initiative. Each working group was chaired by a Partner-in-Charge and consisted of up to 12 attorneys—associates and partners—selected by each department head. The groups had representation from each office in which the

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Depending on who you talk to, the power of Search has been overestimated or underestimated, coming into its own, or on the way out. At the same time, the need for a tool that will allow law firms and lawyers to find what they need when they need it has grown exponentially as information has expanded. The expansion of information continues to accelerate as new electronic publications, Web sites, and databases are created. Given that growth, is Search or Enterprise Search the answer?

**Yesterday and Today**

In the mid 90’s, law firms had access to Westlaw®, Lexis, Dialog, and a few CD-ROMs that may or may not have worked effectively on their networks. Today, the landscape is entirely different, with Westlaw, Lexis, Dialog, CCH, BNA, various SEC services, multiple public records services, numerous patent and trademark services, various company information services, and hundreds of individual sources that have moved to electronic format. In the 90’s, law firms used Word or WordPerfect and possibly e-mail. They also used accounting software, with records management and conflict modules that came with systems they had purchased. HR may have used a database for tracking employees and payroll, and document management may have been deployed in some firms.

Today, law firms operate with office suites and accounting, document management, HR, conflicts, docketing, CRM, litigation support, records management, case management, and knowledge management.
systems. As more information-based systems have come into being, the need to search and retrieve information has been expected and, to some extent, accomplished. As more systems were introduced, it seemed logical that users would not want to search each one separately if similar information could be found in multiple systems. Enter the Enterprise Search Engine. Today, many law firms are looking to use enterprise search engines to connect information with the people who need it, across systems and applications.

Evaluating Web search engines back in the mid 90's was simple. The criteria and basic capabilities might have included:

- Natural query language
- Boolean operators (AND, OR, NOT)
- Proximity operators
- Phrase searching
- Thesaurus
- Concept searching
- Wildcards
- Exact match
- Fuzzy match
- Numeric operators
- Range operator
- Fielded searches
- Query by example
- Platform
- File types (what type of document could be indexed)
- File location (does it support more than one location or multiple collections)
- Relevance ranking
- Hit-to-hit navigation
- Navigation from one document to another in a result set

Today these basic criteria are still relevant, but, in addition, the following should also be considered in an enterprise search engine (along with other questions not listed):

- Does it index databases as well as unstructured documents? Can users search both simultaneously?
- Which languages does it support?
- Does it support metadata input/assignment, search and display?
- Does it allow users to personalize their interface and save searches?
- Does it honor the native security in the systems that it is indexing and searching?
- What kind of usage reports can be developed?
- How much customization is possible?
- Does it provide automatic categorization and summarization?
- Does it provide faceted navigation?
- If a taxonomy is part of the system, how is it developed and maintained?
- Does it fit into the business processes used in the firm?

**Web Search vs. Enterprise Search**

Will the Web search engine you have in place on your intranet today work for enterprise purposes? Probably not. Michelle Hope responded to that same question in her article in the March 7, 2005, issue of *Network World*, “IT Revs up Search Engines.” She stated that, “The ability to process a company’s structured and unstructured data, stored in a variety of formats, is what separates enterprise search tools from more public Web search engines, according to analysts. Structured data exists in database tables, usually associated with a company’s ERP, CRM, or custom database systems. Unstructured data can take the form of e-mails, Microsoft® Office-type files, Adobe PDFs, and a host of other current or legacy file types scattered throughout a typical corporation.”

**What’s Available?**

CMS Watch (www.cmswatch.com) in its July 2005 *Enterprise Search Report* provides a list of 35 potential candidates. While many of the vendors are new to the search scene, it is interesting to see some of the vendors that made similar lists in the mid 90s. They break their list into several categories: The Big Four, Specialized High-End Players, Infrastructure and ECM Suite Vendors, Mid-Tier Challengers, Search Appliances, Hosted Services, Lower Cost, Web-Oriented, and Open Source. Hummingbird and Isys are two vendors on the list that many law firms may already have in house. Two that did not make the list are two legal market vendors: Recommind and Onward Technologies. Both vendors have worked with large law firms to develop searching across the enterprise. Corpora Software, a relatively new vendor in the U.S. market and new to the legal arena, has text analytic capabilities that look useful and should be explored.

As I began writing this article, I expected to find a number of firms that had already implemented, and were using, Enterprise Search. What I found was a small number who have made the plunge, and many more who are exploring, or in the proof of concept phase. What has kept the numbers low? In “A Year in Search: A Real
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Market”, KMWorld, April 2005, Alkis Papadopoulos, director of linguistic technologies at Convera, noted that, “People hope they buy search that will mesh well with their business processes. That isn’t quite happening yet, but search vendors are much closer to that (perception) than ever before.” Why is that important? It will allow us to put content into context and move from information to knowledge.

CMS Watch Enterprise Search Vendor List

The Big 4
Traditional, publicly held enterprise search vendors with six-figure pricetags and a variety of add-on modules.
- **Autonomy** - IDOL Server
- **Convera** - Retrievalware
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- **Fast Search & Transfer** - Enterprise Search Platform (ESP)
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- **Verity** - K2 Enterprise
- Related: articles(0) news(3)

Specialized High-End Players
The pricier offerings in the market can also deliver decent ROI by focusing on specific use cases for embedded search, such as e-commerce and CRM.
- **iPhrase** - OneStep
- **Stratify** - Discovery System
- **TeraText** - TeraText Suite
- **Lextek International** - Onix
- **Endeca** - Profind
- **InQuira** - InQuira
- **Triplehop** - MatchPoint

Infrastructure & ECM Suite Vendors
Search is a by-product of larger portal and content management offerings, but don’t count them out.
- **Hummingbird** - Hummingbird Search Server
- **OpenText** - Livelink
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- **SAP** - TREX
- **Microsoft** - SharePoint Search Services
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- **IBM** - DB2 OmniFind Edition
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- **Oracle** - Oracle Text

Mid-Tier Challengers
These vendors offer reasonably comprehensive search services at a lower entry point.
- **Speed of Mind** - Speed of Mind Index Server
- **Arikus** - Aire
- **Coveo** - Coveo Enterprise Search
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- **Vivisimo** - Vivisimo Clustering Engine
- **ISYS** - ISYS Search Suite
- Related: articles(0) news(2)

Search Appliances
Plug-and-play boxes are increasingly popular, but remain best suited for Web search.
- **Google** - Google Search Appliance
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- **Thunderstone** - Thunderstone Search Appliance
- Related: articles(0) news(1)

Hosted Services
Although focused primarily on Web search, these vendors help you avoid investing in costly infrastructure and staff.
- **WebSideStory** (formerly Atomz) - Search
- Related: articles(0) news(1)
- **CrownPeak Technology** - CrownPeak Search
- **Blossom** - Blossom Enterprise Search
- Related: articles(0) news(1)

Lower-Cost, Web-Oriented
Inexpensive solutions ideal for searching Web content or other information exposed via Web applications.
- **YourAmigo** - YourAmigo Enterprise Search
- **Mondosoft** - MondoSearch
- **dtSearch** - dtSearch
- **Innerprise** - ES.NET 2004
- **Verity** - Ultraseek
- Related: articles(0) news(1)

Open Source
These toolsets are less out-of-the-box than commercial counterparts, but they are typically well-engineered and community-supported.
- **ht:Dig** - ht://Dig
- **Apache Project** - Jakarta Lucene
- **Swish** - Swish-e

department had attorneys. The result was that each department had a Core Skills Working Group, Training Working Group, Mentoring Working Group, and Career Development Working Group.

Additionally, to foster the sharing of ideas and best practices across departments, the departmental Partners-in-Charge of each element of the initiative constituted their own firm-wide working group. This was particularly useful in creating consistency between the departments in the number of levels of practice, in avoiding duplicative training in related practice areas, and in developing the career development plan template.

Working groups were encouraged not only to collaborate among themselves, but also to seek input from their colleagues and to keep them informed of their progress. In the case of core skills, each working group shared drafts of the core skills for comments with their entire department before they were finalized. A similar process was followed with regard to training curricula. And when it came to developing mentoring pairs, the groups sought input from within their departments before making the pairings.

Finally, the working groups served not only to specifically address the task at hand, but also as opportunities for leadership development, diversity enhancement, and departmental team building. In many cases, attorneys who had not previously known each other had the opportunity to work together and share ideas. Similarly, many who had not had leadership roles within their departments now had the opportunity to lead. These opportunities not only benefit the firm as a whole, but also benefit the careers and development of the individual attorneys.

Facilitated Implementation
To decrease resistance to the changes, the firm demonstrated support from the highest levels by conducting individual department rollout sessions, in which firm management and department heads introduced and celebrated the opening of McDermott University. At these meetings, every attorney had the opportunity to ask questions and address any concerns.

The firm also provided hands-on training and coaching in a variety of contexts. At the beginning of the endeavor, McDermott’s professional development staff trained the Partners-in-Charge of each working group in the elements of the initiative and in the collaborative “creation” process. To further implement the initiative, the professional development staff provided group training and individual coaching to attorneys at every level in the mentoring process, both on how to be a mentor and on how to be a protégé. Similarly, attorneys were provided training and individual coaching in career planning to assist them in completing their career plans. Meetings were held with attorneys at all levels to address issues of concern and to help reduce resistance.

Practice Innovation
Having established an integrated professional development system using a collaborative process to design and implement it, McDermott has taken the firm to the next level of professional development. Over 200 attorneys firm wide collaborated over six months to implement McDermott University. Every department has core skills and aligned training, with more than 250 substantive legal programs now being offered. Every associate and many junior partners have at least one mentor. Out of 252 active associates, 224 submitted career development plans. As Don Goldman, Partner-in-Charge of Professional Development, has said, “The goal was to facilitate the Firm’s and every individual attorney's commitment to ‘investing together in the future.”
Thomas Georges starts from the hypothesis that human beings, including their brains and mental functions, are entirely material systems that function under the laws of physics. He argues that plausible mechanical models can be constructed to emulate human thinking, consciousness, and emotions, if not in precisely the same way, nonetheless with essentially identical results. There is, therefore, no distinction between artificial and human intelligence. With sufficient knowledge, machines can and will be constructed that surpass human intelligence in every important way.

He acknowledges that some do not accept the purely physical basis of the mind. Accepting their view forecloses any further investigation, so Georges proposes to follow the physical hypothesis.

We humans have been making devices to help us remember, calculate, (e.g., the abacus), and make decisions for centuries; computers are a new tool to perform these functions. Machines are already exceeding human capabilities in specialized areas, for example, calculation, manipulating text, and expert systems. Georges contends that these existing capabilities can be extrapolated to mimic human thinking, consciousness, and emotions. For instance, manipulating a set of on-off switches can perform any logical operation. The brain carries this switching out with neurons; the computer with transistors or chips. Performing a large set of these operations together results in purposeful behavior, which is indistinguishable from thinking.

Consciousness can be thought of as a process: the self-monitoring and self-maintenance that all complex systems, living or electronic, need. Computers that monitor their systems and can bypass malfunctioning parts are already exhibiting a primitive self-awareness.

Georges imagines a brain or a machine that runs many programs in parallel, with variable priorities assigned to each. The priorities, which change according to changes in internal needs and the external environment, determine how much processing power is devoted to each program. Each combination of priorities is similar to an emotional state.

Internal neurological states are not observable. If an entity, be it human or machine, “acts in all respects” (p. 44) as if it thinks, is conscious, or has emotions, we must treat it as if it does those things. After all, Georges points out, “We attribute emotions to other people, based solely on their observed behaviors.” (p. 108).

Because machines are already becoming too complex for humans to understand and maintain, we are adding self-monitoring and self-repairing capabilities, which will eventually replicate and surpass human intelligence, making the machines more and more autonomous. Eventually, the machines might begin shaping their own evolution.

What would be the moral status of machines that are intelligent, conscious, and self-aware? They might have rights we humans are bound to respect, (e.g. continued existence and autonomy). Like corporations, they might own property but not vote. A legal regime might develop that grants machines certain rights but not others, tailored to their particular mix of abilities.

How could machines take over? We might surrender more tasks to them until we depend on them for everyday sustenance. The machines might link up through the Internet to form a global brain, which might eventually decide that it doesn’t need humans at all or might harness humans for its own purposes.

What can we do to prevent this? Georges points out reasons we might not be able to “pull the plug.” The diversity and redundancy, which we build into our machines to prevent breakdowns and thwart sabotage, might make it difficult to shut them down. We might be unable to live without them.

The most important thing humans can do is to resist being treated like machines and being told what to think. Each of us must learn to think critically: examine unfounded claims, challenge pseudoscience, question arguments from authority and appeals to tradition. We must also change the education of scientists to eliminate scientific isolationism and include “preparation for their roles as citizens and human beings.” (p. 239). Then, we can seek to make sure that only the machines that enrich our lives survive.

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**Book Review:**

**Digital Soul: Intelligent Machines and Human Values**

by Thomas M. Georges

Reviewed by John E. Duvall Administrative Analyst Hogan & Hartson L.L.P. Washington, D.C.

“What would be the moral status of machines that are intelligent, conscious, and self-aware?”
Communicating best practices and innovations in law firm information and knowledge management to legal professionals.

610 Opperman Drive
Eagan, MN 55123