Information Outlook, July 2001

Special Libraries Association

Follow this and additional works at: https://scholarworks.sjsu.edu/sla_io_2001

Part of the Cataloging and Metadata Commons, Collection Development and Management Commons, Information Literacy Commons, and the Scholarly Communication Commons

Recommended Citation

This Magazine is brought to you for free and open access by the Information Outlook, 2000s at SJSU ScholarWorks. It has been accepted for inclusion in Information Outlook, 2001 by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.
inside this issue:
Continuity and Change
Tending the Garden of Knowledge: A Look at Communities of Practice with Etienne Wenger
EU Copyright Directive Adopted by the European Parliament
Custom Information Portals and the Delivery of Real-Time Intelligence
A Roadmap for the Successful Implementation of Competitive Intelligence Systems
Shortcut to seminal cases

Here's a great new way to find the strongest support for your argument. Most Cited Cases®, exclusively on westlaw.com®, retrieves a list of cases most often cited for a point of law. Uses the West Key Number System®, so you know your result is thorough.

Try it! Takes seconds; saves hours.

Most Cited Cases

www.westlaw.com/mostcited
Research Assistance: 1-800-REF-ATTY (1-800-733-2889)
Drive your acquisitions workflow into the fast lane.

Inmagic.NET connects your library acquisitions workflow to online information providers, adding core benefits to your e-procurement process. Put yourself in the driver's seat of the e-commerce revolution and point-and-click your way to the value-added acquisitions workflow of the future.

Go to www.inmagic.com/testdrive and test drive Inmagic.NET today, or call 800-229-8398.
It’s how you know the way...

...in the confusing world of information.

It’s how you know the spirit of your work will shine through the clutter of information.

It’s how you know your insights are valid.

It’s how you know that LexisNexis™ has rich, superior content, easy-to-use Web solutions and support for all aspects of your work, to help elevate your success.

It’s how you know you’re moving ahead in the right direction.

LexisNexis™
It’s how you know™

Explore LexisNexis @ www.lexisnexis.com
Features

6 Tending the Garden of Knowledge:
A Look at Communities of Practice with Etienne Wenger
To learn more about emergent organizational forms, Information Outlook decided to interview the man who, quite literally, wrote the book on communities of practice three years ago. Consultant and speaker Etienne Wenger is widely regarded as perhaps the world's leading communities of practice "green thumb." Jeff De Cagna recently chatted with Etienne Wenger. We think his perspectives will help you tend to your organization's knowledge gardens more successfully.

16 EU Copyright Directive Adopted by the European Parliament
The European Parliament in Strasbourg voted on 14 February 2001 to adopt the draft EU Directive on copyright in the information society, with overall minor modifications. This is almost the final stage before the Directive officially becomes European law. Parliament's second reading opinion has now been forwarded to the European Commission and the Council of Ministers. Teresa Hackett, Director for EBLIDA, reports.

24 Custom Information Portals and the Delivery of Real-Time Intelligence
Over the past decade, the new Information Age has intertwined itself with the Internet to bring about the most expansive collection of data ever compiled. Today's knowledge workers are drowning in the sea of data streaming at them from disparate sources. It has taken the Internet to bring together content from television, radio, magazines, newspapers, newsletters, books, and miscellaneous other publications and papers. Michael Gallagher explains.

34 A Roadmap for the Successful Implementation of Competitive Intelligence Systems
The successful design, development and deployment of a successful CI system requires a good project plan. Much like a roadmap, this plan serves to identify important milestones and provide information about alternative routes that can help the project team(s) avoid delays. Katherine Shelfer and June Verner explain what is necessary to achieve success.

Columns

5 Executive Outlook
Continuity and Change

14 Strategic Learning Outlook
Learning How to Learn

32 Copyright Corner
Importance of the Public Domain

23 Money Matters
Maintaining SLA's Historic Headquarters

45 Making News

Departments

48 Coming Events
48 Advertising Index
The Special Libraries Association has as its long standing motto “Putting Knowledge to Work.” What better way to apply this motto than to the 2002 Annual Conference in Los Angeles. The sessions and presentations will highlight how information professionals have always creatively met the information needs of their organizations and clients by utilizing the core values inherent in the motto of the Special Libraries Association.

SLA’s 2002 Annual Conference recognizes our past, our present, and our future. Working with the tracks and program levels, conference attendees should find themselves with a rich diversity of topics to ensure a rewarding and professionally stimulating conference.

See you next year in Los Angeles! Don’t be left out!

http://LosAngeles.sla.org

Plan to attend the 93rd Annual Conference.
Now that you have Seized the Competitive Advantage in San Antonio, move on to Putting Knowledge to Work® in Los Angeles next June.

Each summer we are at the time of endings and beginnings. Some association officers finish their terms of office, others begin, and some continue. This year we celebrate David R. Bender’s retirement after a very successful twenty-two years, and we welcome Roberta Schaffer as the new Executive Director this coming September. David leaves us with a strong association foundation and very competent association staff. Roberta brings a great deal of experience and fresh, new ideas.

As association members, we are the source of our own continuity and change. We have a strong history of 92 years of action. We have a strong core of members providing continuity but also leading the way to change. Our profession is fast paced and changing, and our association is seeking to change to stay relevant.

Our members’ expertise in finding information doesn’t change. Service is our major source of continuity. Looking back at Ranganathan’s laws, the goal of putting information and people together is changeless. Ranganathan’s “every book its reader” and “save the time of the reader” translates well today to include multi-formats and computerized resources as well as the historical print. This year’s work In Good Company by Larry Prusak and Don Cohen highlights the role we can play in bringing people together to solve their information needs. Sources and methods of delivery keep changing around us. This past year, Past President Donna Scheeder coined the apt phrase, “change is our tradition.”

In my library we have an intrusive column providing support for the building in one of the rooms in my library. An ergonomic specialist who visited made the point we couldn’t get rid of the column so we needed to make the column “our friend.” In the same way, in this time of rapid change, we need to make change “our friend.”

As we move closer to the end of our first century as an association, we need to keep in mind the long haul or the long view. Stewart Brand spoke about the long view at the Minneapolis annual conference. The Long Now Foundation guidelines (for a long-lived, long-valuable institution) have something to say to us: Now in its 92nd year, SLA is here to serve the long view and the long viewer.

The presidential term of one year is a very short term to effect change, and the best a president with his or her board of directors can do is initiate their best plans, continue movement in a right direction and make course corrections as needed, and be as involved as possible in the President-Elect and Past President years. Changes coming to fruition now represent the work of past and present Boards of Directors. Member participation and commitment is basic to our success. We need to use the many talents of our members and to facilitate their growth while at the same time we recognize the time constraints of volunteers. Two way communication is so important to achieve this goal – listening and interacting with members. The simplification initiative has this goal at its core. I see the necessity of marrying change and communication for successful continuity.

I am very honored to have the opportunity to serve as President of SLA. I feel very strongly about my need and desire to give back to the association because I have gained so much as a member. Throughout my career as a business librarian and now as a library director at a college focusing on business and technology, I have kept turning to SLA and have kept learning and growing. For me, SLA is people and opportunities.

I see two types of change: change leading to success or change leading to challenge and opportunity for improvement. We need to celebrate our many successes and embrace our challenges. Help me by sharing these so that we can find ways to celebrate. We can be much more successful while we are having fun.

Hope M. Tillman
SLA President
Tending the Garden of Knowledge: A Look at Communities of Practice with Etienne Wenger

INTERVIEW

by Jeff De Cagna

Jeff De Cagna is managing director, Strategic Learning and Development, for the Special Libraries Association. He may be reached at jeff@sla.org
TWO YEARS AGO IN AN INTERVIEW WITH FAST COMPANY MAGAZINE, LEARNING
organizations thinker Peter Senge advised those of us who are concerned about change to “act more like gardeners
than mechanics.” We think that this is particularly good advice for information professionals who are interested in
facilitating the work of their organizations’ “communities of practice.” Communities of practice do not form and exist
according to the command-and-control model of Industrial Age organizations. Instead, these learning communities
are truly organic, energized primarily by a generative blend of individual identity and shared passion.

To learn more about these emergent organizational forms, Information Outlook decided to
chat with the man who, quite literally, wrote the book on communities of
practice three years ago. Consultant and speaker Etienne Wenger is
widely regarded as perhaps the world’s leading communities of practice “green thumb.” We think his
perspectives will help you tend to your organization’s
knowledge gardens more successfully.

“Communities of practice are very rich sets
of relationships and responsibilities around
learning and knowledge that really are the
cornerstone of the knowledge management
initiative in an organization.”

Jeff De Cagna: Dr. Wenger, let’s begin with the central
question: what is a “community of practice?”

Etienne Wenger: Well, a “community of practice” is a
group of people who share an interest in a domain of
knowledge, for instance, how to do open-heart surgery
or how to write children’s books. Together, they develop
a set of approaches that allow them to deal with this
domain successfully.

More formally, I would say that a community of practice
really must have three elements in it: domain, commu-
nity, and practice. The first one is that it must have a
domain—a specific area of expertise that members share.
So, in this sense, it is different from an informal network
of relationships among people.

The second thing that you want to have is a commun-
ity—a set of people who interact with one another, who
engage with one another, who talk with one another, who
think together and develop relationships with one an-
other in that process. So a website is not a community of

practice. And the third important element to
have is a practice—ways
of dealing with the problems typical of their do-
main—that is developed
over time. So a commu-
nity of practice is more
than a mere community
of interest.

JD: How is a community
of practice different from a team in an organiza-
tion?

EW: Well, a team is defined by a task. So I think what
distinguishes a “team” from a “community” is the dis-
tinction between a task and a domain.

When you are given a task, it is important is to coor-
dinate your actions with others on the team in order to
accomplish it. Teams frequently break up once the task
is finished, because the team was defined by its task. A
community of practice, on the other hand, is defined by
an interest in a shared domain, and so what brings people
together is the interdependency of their knowledge, not
the interdependency of specific tasks on which they are
working.

The community of practice may engage in certain tasks,
but it doesn’t end there. What brings value in a commu-
nity of practice is its members’ shared learning. Mem-
bers of a community of practice frequently don’t work
together on a day-to-day basis, and so what brings them
together is the exchange of ideas, best practices and new
knowledge that allows them to return to their teams and
do their jobs better.

JD: You have anticipated my next question. Can you
elaborate on the way in which communities of practice contribute to the sharing of knowledge within organizations?

EW: If you want to manage your knowledge as an organization, you have to understand which knowledge domains are essential to the organization’s success. So, for example, if you are an automotive manufacturer, brake design or windshield wipers are important knowledge domains.

Then you must ask who is in the best position to manage the knowledge in that domain, and I think again and again, companies are coming to the conclusion that the people who are in the best position to manage knowledge in a given domain are its practitioners, not a database and not a specialist group at headquarters, but the group of practitioners who actually are doing the work. You can see why the concept of community of practice is very powerful because, at its core, it is a group of practitioners who have taken on the responsibility of managing knowledge in their domain. This responsibility entails not only sharing knowledge, but also creating knowledge, and scanning the environment to see what new technologies or methods may be on the horizon. It may also mean introducing newcomers to this knowledge domain, as it exists within a given organization.

So communities of practice are very rich sets of relationships and responsibilities around learning and knowledge that really are the cornerstone of the knowledge management initiative in an organization.

JD: What role do communities of practice play in organizations when it comes to contributing to and “stewarding” innovation?

EW: If you are on a team, you innovate because you face new problems, and you must invent new solutions. But, again, the difficulty is that you are very task-focused. So, if you have a new half-baked idea that is not quite ready for prime time but has potential, your team will say, “Forget it, we need to complete the project by the deadline.” So having colleagues who understand your perspective and can say, “Wow, this is really a great idea, we need to pursue that,” is very important.

I am not saying that communities of practice are the only places where innovation occurs. Innovation takes place under many different circumstances, but it is great to have a community within which you can discuss the latest ideas, explore them together and get feedback.

Let me add one more thing. We should not idealize communities of practice too much because they can also become closed, self-concerned and narcissistic. So I think it is very important for communities of practice to interact with people outside and keep open boundaries so they keep learning.

JD: In the May issue of Information Outlook, Larry Prusak and I discussed the idea of social capital, and I want to ask you about it as well. What is your view on the importance of social capital within communities of practice?

EW: Social capital is essential and, actually, communities of practice are a very good context for generating social capital because people help each other. They create relationships and friendships that are often more enduring than the teams on which people work. There is something stable about a community of practice that makes it a very good place for building social capital.

Also, what is important is that communities of practice combine social capital with intellectual capital and with structural capital, so that the skills of people, the relationships they build with each other, and the tools and documents that they construct and share all are part of the practice.

JD: As I listen to you describe the richness of the social environment one finds within communities of practice, I cannot help but wonder how organizations can appropriately use the variety of technologies that exist today to support their work. What do you think?

EW: I have just finished a study of technologies for communities of practice, and the first thing to say is that communities of practice existed for a long time before
Introducing the NEW eStat Database.

eMarketer's new eStat Database aggregates facts and figures from hundreds of the world's leading research firms, consultancies and news agencies.* Updated daily and easy to use, it saves time and resources and leads to quicker, more informed decisions.

It provides a single, reliable source for all your e-business information needs.

Covering every aspect of the global internet economy, the eStat Database puts insights from eMarketer analysts and the latest figures from industry, financial and government reports all in one place, so you can quickly compare and evaluate them. There's no better way to make sense of fast-changing e-business numbers, trends and projections.

See the eStat Database for yourself: go to www.emarketer.com, or call toll-free 1-877-378-2871. For information on multiple subscriptions, ask for Thomas Hammer, ext. 217.
anybody provided technologies to them. So while technologies can be good, they are not going to make the critical difference. Many organizations have installed technologies that are not being used. Community development is not a technology process, but a social and cognitive process.

Still, there is a great deal of technology available today, and with more and more communities of practice involving people who are not co-located, the technology can really help. So one tool that is used frequently is teleconferences. It is a technology that’s been around for a long time, but now there is web meeting software that can make teleconferences much more interesting with a presentation or a white board. There are also discussion boards that I use with many communities to float questions to people. There are file-sharing technologies that are important, and just having a website is a way for a community to assert its existence within an organization. So there are many kinds of technology that can be used to help communities, but it would be a mistake to think that the technology can drive the process.

J: What are the questions you would advise organizational leaders to ask themselves as they are thinking about which technologies to employ?

E: I think the crucial idea here is to really understand the real needs of the community. Do these people need to have conversations with one another or, for example in the case of an energy company, do they need to be able to look at a map together and say, “Oh, there must be oil in here because I can see the shape of the landscape?” So, for me, the most important thing is to look at the practice of the community and ask how do we fill the holes and what kinds of activities do they engage in through which they learn? What you want to do is support activities that create value for the community and for its members. You cannot answer this question in the abstract. You have to engage the community with the design of the system.

J: I have a broader question about organizational support for communities of practice. How do you advise organizations to strike the balance between, on the one hand, supporting communities of practice and, on the other hand, not being too “hands on” so as to avoid crushing the community with the weight of too much organizational expectation?

E: I think that is really a crucial question because dealing with communities of practice is something really new for organizations. Organizations deal with teams, of course, but as we discussed earlier, teams are given tasks that are determined by the organization. When you are talking about communities of practice, their knowledge domains are their own. They have expertise in their domains that nobody else has. They participate because they have a passion for that domain. So there is a level of independence that is necessary for these communities to survive. This goes beyond what is done with teams.

We must understand that good communities really work on passion. They work on people’s identity and their identification with the domain. There is a sense of excitement and a sense of “wow!” The community is where I can discuss things that are really meaningful to me and are deeply a part of my identity. But the passion aspect of communities is tricky for organizations to deal with, because you cannot control it or force it. And yet in a knowledge economy, if you want people to be engaged with the organization, then you have to take their passions, their interests, their personalities and their identities as a whole. If people are to be creative in their work, they must be able to be a whole person.

At the same time, when you discuss this with some managers they say, “Oh, okay. Let’s just leave them alone.” What I say is no, no, no! To leave them alone is just the other side of the coin of controlling them. If I can’t control them, then I should just leave them alone. This is also wrong. What you need to do is really engage the communities in the way that you run the business, to expect them to make a difference, and to engage them when you have any important decisions that involve their domains.

In addition, a big question for communities of practice in almost every organization is time. People ask, “Where am I going to find the time to belong to my communities of practice?” An important thing that organizations can do, then, is to value the communities themselves, to value the time that people spend in a community and to make that a part of yearly performance appraisals. If organizations really want to support communities of practice, they can do it by allowing people to create them and contribute to them without being penalized for it. This is a very basic form of support.

J: What role do you think information professionals can play in identifying, nurturing and supporting the work of communities of practice?
The end of a day. A good day. A fantastic day. The pressure was on.

You delivered. Facts at your fingertips. The power to search. Your way. Pinpoint precision.

Best content. Dow Jones and Reuters. Two global leaders. One incredible new service.

Visit www.factiva.com/factiva to find out more.

Factiva.com  The basis of a good decision
EW: I think there are very important roles for information professionals. First, communities need help organizing their own knowledge repositories—their own libraries, if you will, or their websites. So, something that librarians have that is very useful for communities is an understanding of how you build a taxonomy that allows you to find the information that you want easily and quickly. A big question that the members of communities have to ask is, “Given our perspective and the kinds of problems that we face, what is the best way to organize the information we have put down on paper so we can find it when we need it?” Communities need some help with this work, and I think information professionals are very well qualified to provide this kind of assistance.

Another role is more subtle. Since information professionals tend to be at the crossroads of information seekers and information givers, an important function of the information professional is to say, “Oh, you should go talk to that person.” In this sense, the information professional becomes a broker among many communities. Or they may recognize a community that needs to become more intentional about its development.

So, if you are the place where people ask for information, and if you have a set of communities that you know and can interact with, then your sense of directing people to the right place to find information is greatly increased. It is really essential, then, for information professionals in organizations to be aware of where the communities are, what they are capable of doing, and what is the best way to send them a request for information. Information professionals can be the entry points into multiple communities that have knowledge in various domains and, to some extent, I’m sure it is a role that your members are already playing. It seems to me that an effective information professional in an organization is the kind of person who has connections to all sorts of people, including members of specific practice communities to whom he or she can direct information requests.

JD: I want to get your reaction to something that I am going to read to you from an article entitled, “Bristol-Myers Squibb: Building the New Corporate Library,” which was published in the Fall/Winter 2000 issue IBM’s Journal of the Institute for Knowledge Management. The article, written by Alvin Jacobson and Omar Cheema, includes the following statement: “Libraries are at the very center of seminal ideas and discussions on how to foster knowledge-sharing, how best to use the library’s space to promote its knowledge management potential, and how to track knowledge trends and issues.” What is your reaction to this assertion?

EW: Well, as I said earlier, the people in the best position to manage knowledge are practitioners, not librarians. The roles for information professionals that we were just discussing are in the service of communities; the library is not at the center. I think of the library as a place to serve the life of communities, so my reaction to what you read is to be careful not to put the information professional at the center of a knowledge management team, but to see knowledge management as a distributed process. As an information professional, you don’t manage knowledge, but you make it possible for communities to manage their knowledge and their relationships to one another.

JD: We always like to help our readers get to know the people we interview a little better. What do you like to do in your spare time?

EW: Well, I like to play music. I play both the piano and the guitar, but these days, I mostly play the piano. I like to improvise on the piano, although I’m not a great pianist. I really play for myself.

JD: Do you have a favorite composer?

EW: Well, I was educated in classical music. I would say my favorite composer is Bach, but I am very eclectic. I really enjoy jazz. My son is a jazz musician. I also enjoy rock and world music. But when I sit at the piano, what I play is what I would describe as a pseudo-Baroque improvisation.

JD: That’s terrific. It’s very exciting.

EW: I suppose the thing that really drives me, though, is this question: what does it mean to be a human being? What is an identity? You’re born one day and you’re just a blob of cells, and pretty soon you are a person who is capable of making sense, of making meaning, of learning. So what is the essence of human beings? I think that on a daily basis, that is the question that drives me.

JD: I want to thank you for sharing that thought with me, because this is a question that fascinates me as well. I have one final question for you, and perhaps it doesn’t come as any surprise: what is it that you love about libraries?

EW: Well, I could spend days and days in libraries because I am a sucker for information and stories. I love knowing what other people think, how other people live, and what ideas they have. So I guess what I love about the library is the serendipity—the possibility of looking for one thing and then discovering something completely unexpected and totally interesting, which turns out to be what you really need. I think that is great.
Ovid’s knowledge management solutions provide your organization with the information resources critical to scientific research, competitive intelligence, marketing and management.

Ovid delivers the journals, databases and texts your users need under a single interface. Ovid can even load your company’s database of proprietary information, maximizing your investment in data collection.

Using Ovid’s Web-based service saves time, improves efficiency and helps your company stay competitive.
Learning How to Learn
By Mary I. Beall

When I returned from the MLS Renewal for Special Librarians, my friends, colleagues, and boss all asked me, “So what did you learn?” The most important lesson I learned was how to learn.

I was reluctant to go to the MLS Renewal for several reasons. Although I define myself as a special librarian, and I am an active member of SLA, I work at a large public library, and I am a partner in an Internet consulting business. Would this program offer anything for me to use in my environment? Did the “big questions” I was supposed to think about and discuss have any relevance to my career?

As an assignment prior to coming to the Renewal, I read an article entitled “Teaching Smart People to Learn” (Harvard Business Review, May-June 1991). The article pointed out how defensiveness and a reliance on problem solving can be barriers to learning and change. This article provided a blueprint for my learning process.

The first thing I had to do when I started the learning process at the MLS Renewal was to stop being defensive. I had to stop thinking about how different I was from the other information professionals, and stop rejecting what I heard because I thought it didn’t apply to me and my organization. I remembered a conversation I had with my boss before I left for the Renewal. She observed that all information professionals, no matter what type of library employs them, work for a larger organization. The key to success in any scenario is to learn the goals of the larger organization, and make sure everything you do in the library is in line with those goals. All of us attending the Renewal were striving to do that.

Once I stopped being defensive, I had to start participating, which involved listening with an open mind to all we were discussing. It included asking questions when I didn’t understand or had trouble seeing the connection to my work. Most importantly, I had to acknowledge mistakes of my own.

We did a short exercise that had a big impact on me. We were asked to share our organization’s strategy in ten words or less. I have always had trouble explaining what my consulting company does. As I struggled to articulate my company’s strategy, I realized that I had been thinking of the company’s goals, and not its strategy in reaching those goals. Our goals are the same of most Internet consulting companies: to help our clients create and maintain an effective Internet presence. It’s our strategy that gets us clients and achieves those goals.

This realization led me to the next step in my learning process: how to adapt and apply what I heard from the other participants to my organizations and the work I do for them? Maybe the exact approach one professional used to provide good service in his or her organization wouldn’t work in mine, but could I use facets of it? If not, could I at least adopt the idea behind it?

The questions and concepts we discussed at the MLS Renewal were universal and therefore easy to apply to any environment. We talked about how information professionals are in a natural position to contribute by making connections: between people who need to talk to each other, and between people and the information they need. Another concept that resonated with me was that necessity begets innovation. It is easier to design and sell an innovation if you can articulate what necessitates it.

The major concept I took with me from the MLS Renewal was that the professional who can learn is the one who can adapt to and even affect change. This learning involves all the things I had to do during the Renewal: stop being defensive, start listening, and keep making connections to your work.

Going through this process was invigorating, and I did feel renewed at the end of my four days at the MLS Renewal. Now that I am back at work, there is one more step in my learning process: to keep doing it every day.

For more information, contact Corville Carrington (corville@sla.org)
The Infotrieve Virtual Library solution turns your desktop into a powerful research library—a portal to the finest scientific, technical, and medical information. Customize the Virtual Library to fit your cataloging systems and network graphics. Open a new world of content and convenience, in addition to time and cost savings.

Free-to-Search. Pay-per-Article. Flexible electronic and paper delivery options. This is The Virtual Library solution, powered by Infotrieve, the leader in document retrieval since 1987.

The Virtual Library solution gives you:
- Free-to-search databases for discovery
- E-Content with unique pay-per-article pricing
- Ends-of-the-Earth full-service document delivery
- Real-time order tracking and reporting
- Free customization and consultation
- Whatever-it-Takes customer service and staffing support

Free Offer! Try our fast and friendly service today with a free document of your choice, up to $30 in value. Just call 1-800-548-3443 or go to www.edm3.com/free2 to get your free document. For more information visit www.infotrieve.com.
by Teresa Hackett

Teresa Hackett is the Director for EBLIDA (European Bureau of Library, Information and Documentation Associations). She may be reached via email at eblida@nblc.nl. www.eblida.org
The European Parliament in Strasbourg voted on 14 February 2001 to adopt the draft EU Directive on copyright in the information society, with overall minor modifications. This is almost the final stage before the Directive officially becomes European law. Parliament’s second reading opinion has now been forwarded to the European Commission and the Council of Ministers. If the Commission and the Council agree with Parliament’s amendments, the Directive could become official as early as 2001.

Commission welcomes Parliament’s vote
Commissioner for the Internal Market, Frits Bolkestein, welcomed Parliament’s vote. “I am delighted that the European Parliament has voted overwhelmingly to endorse the compromise amendments to the EU copyright Directive that reflect the delicate balance of interests catered for in the Council’s Common Position”, said Mr Bolkestein after the vote. “Parliament’s vote should help to ensure the rapid adoption of this important measure to bring European copyright rules into the digital age, as requested by the EU’s Heads of State and Government at the Lisbon Summit. The rapid implementation of this Directive will facilitate the development of electronic commerce and so increase the competitiveness of the European economy.”

Maintaining the Common Position
The text before Parliament was the so-called Common Position, achieved after nineteen months of negotiation by diplomatic representatives of the EU member states (see Information Europe, Autumn 2000 vol. 5, issue 3). Although there were still concerns, EBLIDA gave a cautious welcome to the Common Position, as it was a good improvement over the outcome of the first reading in the European Parliament and gave a more balanced approach as envisaged by international treaties (see Information Europe, Winter 2000 vol. 5, issue 4). Above all, the main concern was to maintain this balance. During the weeks when the Directive was actively under discussion in Parliament (8 January-14 February 2001), the library and user communities had to call on all their resources as they faced a powerful rightholder lobby, making the copyright Directive described as the most lobbied piece of European legislation.

Compromise amendments
The Committee on Legal Affairs and the Internal Market, one of seventeen standing committees of the European Parliament, was responsible for making voting recommendations on the copyright Directive to Parliament as a whole. The Committee appointed the Italian MEP Enrico Boselli as the rapporteur to draw up a report on the issue which he presented to the full committee. Mr Boselli, who belongs to the Group of the Party of European Socialists (PES) and has been an MEP since 1999, described the passage of the Directive during its second reading as “the mother of all battles”. Mr Boselli presented his report (Boselli report) to the Legal Affairs Committee on 8 January 2001, with recommendations for four amendments, essentially maintaining the spirit of the Common Position. MEPS on the Committee then had one week in which to submit their own amendments, provoking an unprecedented 197 amendments, the majority in favor of rightholders. These included proposals to attach compensation to the library ‘fair dealing’ provisions and to narrow the library copying right to archiving and conservation purposes only, as it was during the first reading in Parliament in 1999. These and other amendments would have seriously unbalanced the delicate compromise of the Common Position and would, in all likelihood, have delayed adoption of the Directive.

In an attempt to rescue the situation, Mr Boselli proposed nine compromise amendments. In return, some MEPS withdrew their amendments and others agreed to support Mr Boselli. When the Committee voted on 5 February, the nine compromise amendments were accepted as well as six others. The proposals damaging to libraries were rejected. The Common Position, plus the fifteen amendments, were then submitted for debate by the whole Parliament on 13 February.

Debate in Parliament
All 626 MEPs had three days in which to table further amendments to the Committee’s compromise proposal. A total of nine MEPS, some on behalf of their political groups, tabled a further thirty amendments. Some of these amendments were the same as those which had been rejected by the Legal Affairs Committee and some were tabled by the same MEPS.
The debate took place in Parliament on 13 February. Mr Boselli introduced his recommendation for second reading, drawn up on behalf of the Legal Affairs Committee. MEP Medina Ortega, Spain, spoke on behalf of the socialist group (PES), the second largest political group in Parliament. Mr Manders, the Netherlands, spoke on behalf of the liberal group (ELDR), Ms Echerer, Austria, on behalf of the Greens (Verts/ALE), Ms Fraise, France, on behalf of the Europe United Left (GUE/NGL), Mr Abitbol, France, on behalf of the Union for a Europe of Nations group (UEN) and Mr Krarup, Denmark on behalf of the Group for a Europe of Democracies and Diversities (EDD). In addition, MEPs Cederschiöld, Fourtou, Graça Moura, Harbour, Niebler, Villiers, Wuermeling represented the European People’s Party (EPP), the largest political group in Parliament.

Every MEP commented on the huge lobbying which had taken place, most mentioned the interests of users and consumers in the debate and some specifically mentioned libraries. There were many interventions in our favor, in contrast to the first reading, where rightholders seemed to have a monopoly on the copyright issue. The debate was rounded off by Ana Palacio Vallelersund, Spain, Chair of the Legal Affairs Committee and by Commissioner Bolkestein from the European Commission, who gave a clear indication of which amendments before Parliament would not be acceptable to the Commission. A verbatim report of proceedings is available from the Parliament Website.1

The vote
The vote took place the following day on 14 February. The conservative (EPP) group were prepared to support the Boselli report, with two further amendments. As the largest group in Parliament, this gave the compromise a good chance of success. Although Mr Boselli belongs to the socialist group (PES), the socialists were divided and did not manage to form an agreed party line. The liberals (ELDR) and the Greens were also divided, so there was intense lobbying of MEPs right up to the last moment.

There was much attention from the media and the debate featured in most of the European press, as well as the US press. The International Federation of Phonographic Industries (IFPI) organized a press conference with the Belgian artist, Axelle Red, and George Martin, ex-producer of the Beatles and the user lobby represented by the European Fair Practice In Copyright Campaign (EFPICC) and supported by EBLIDA, handed out balloons to MEPs urging them to Keep the Information Society Afloat by not placing unnecessary restrictions on copyright legislation. Much behind the scenes lobbying by national library associations and individual libraries also ensured that our message got across and was listened to.

In the end, nine of the Boselli compromise amendments were accepted and once again, the damaging proposals for libraries were rejected. The results of the votes are available on the Parliament Website.2 After three years, Europe became a significant step closer to having a copyright Directive.

How will the Directive affect member states?
Directives require ‘national transposition’ i.e. national laws in each EU member state must be introduced in order to implement the Directive. One of the changes made by Parliament in the second reading is to reduce the time given to member states to implement the Directive from 24 to 18 months, in line with the e-commerce Directive. Both Directives are complementary and are seen as important pieces of legislation to encourage the development of the European Information society.

Adoption of the Directive means that Europe will sign up to the World Intellectual Property Organization (WIPO) Copyright Treaty (1996). This extends protection for European authors, artists and creators in a global market and boosts the European internal market in the fast moving global economy by adjusting existing copyright law to the digital age.

Despite great effort, the aim to harmonize copyright law in Europe was not achieved in the end. The focus was on the so-called ‘exceptions’ i.e. special provisions allowing libraries, the disabled, consumers, etc. to copy in certain circumstances. Only one of these provisions is obligatory; the controversial issue of temporary, fleeting copies which are produced as an image or text is transmitted from server to server over the Internet, and which are an essential part of the network transmission process. Under the Directive, Internet service providers and telecoms operators can transmit such copies without special permission from rightowners. This will help ensure the effective operation of live webcasting and the streaming of music and video.

The other provisions are optional, which means that individual member states may choose which to adopt and which to reject. What they cannot do is add anything new to the list. So libraries and other users may end up with different rights in different countries. For example, a library in one EU state may be able to digitize print material already in their collection while their European colleagues may not, or a song copied legally onto a portable CD player for private listening may be illegal in another member state. This will not work in favor of the borderless information society or help the European internal market.
It's nothing personal.

Maybe that's the problem.

You've invested a lot in your intranet. Why are your people bypassing it only to end up lost in cyberspace?

Empower your people with the right information, right from the start.

LexisNexis™ Customized eSolutions™ meld seamlessly with your current intranet to deliver critical news and business intelligence made to order for your company.

More than custom content, our "company personalization" shines through every step of the way — from needs analysis, to solution implementation, to on-site training and consultation, to 24/7 service and support. We're here to help.

What's your intranet worth? Give us 60 seconds and find out. Take the LexisNexis Knowledge Profile at www.lexisnexis.com/kmprofile

Or call 800.227.4908

LexisNexis™
It's how you know™
Other disappointments are that the rights of private individuals to make copies were further restricted, including in the online environment, despite new technical systems which allow rightholders more control over access and use of information. Rather bizarrely for a Directive designed to promote the information society, online contracts (so-called 'click-on' contracts), where the user is faced with the choice of either accepting the terms of the contract, even if these are unfair, or is refused access to the Website, take precedence over statutory rights.

Lobbying at national level
The stage now moves quickly to the individual member states. With the high number of options available, the library and user communities must press their national governments to adopt as many as possible, all of which relate to the public interest. EBLIDA will continue working with the national library associations and other groups to ensure that the hard won achievements at European level are rewarded by the individual member states.

1 http://www.europarl.eu.int/plenary/default_en.htm
2 http://www.europarl.eu.int/plenary/default_en.htm. Then go to Minutes-14 February 2001-HTML provisional edition-
Result of roll-call votes-Recommandation Boselli.

What rights does copyright provide worldwide?

Think there's one system of copyright protection worldwide? Think again. Just about every nation around the world offers its own brand of intellectual property protection for works created and/or used within its borders. And most national laws have quirks that are unique to that nation alone. So how does the world harmonize its varied laws?

The World Intellectual Property Organization, or WIPO—that's how! It's an international organization dedicated to promoting the use and protection of works of the human spirit. These works—intellectual property—are expanding the bounds of science and technology and enriching the world of the arts. Through its work, WIPO plays an important role in enhancing the quality and enjoyment of life, as well as creating real wealth for nations.

With headquarters in Geneva, Switzerland, WIPO is one of the 16 specialized agencies of the United Nations system of organizations. It administers 21 international treaties dealing with different aspects of intellectual property protection. The Organization counts 175 nations as member states.

The original creators of works protected by copyright, and their heirs, have certain basic rights. They hold the exclusive right to use or authorize others to use the work on agreed terms. The creator of a work can prohibit or authorize:
- its reproduction in various forms, such as printed publication or sound recording;
- its public performance, as in a play or musical work;
- recordings of it, for example, in the form of compact discs, cassettes or videotapes;
- its broadcasting, by radio, cable or satellite;
- its translation into other languages, or its adaptation, such as a novel into a screenplay.

Many creative works protected by copyright require mass distribution, communication and financial investment for their dissemination (for example, publications, sound recordings and films); hence, creators often sell the rights to their works to individuals or companies best able to market the works in return for payment. These payments are often made dependent on the actual use of the work, and are then referred to as royalties.

These economic rights have a time limit, according to the relevant WIPO treaties, of 50 years after the creator's death. National law may establish longer time-limits. This limit enables both creators and their heirs to benefit financially for a reasonable period of time. Copyright protection also includes
moral rights, which involve the right to claim authorship of a work, and the right to oppose changes to it that could harm the creator's reputation.

The creator—or the owner of the copyright in a work—can enforce rights administratively and in the courts, by inspection of premises for evidence of production or possession of illegally made—"pirated"—goods related to protected works. The owner may obtain court orders to stop such activities, as well as seek damages for loss of financial rewards and recognition.

What are rights related to copyright?
A field of rights related to copyright has rapidly developed over the last 50 years. These related rights grew up around copyrighted works, and provide similar, although often more limited and of shorter duration, rights to:

- performing artists (such as actors and musicians) in their performances;
- producers of sound recordings (for example, cassette recordings and compact discs) in their recordings;
- broadcasting organizations in their radio and television programs.

Why protect copyright?
Copyright and its related rights are essential to human creativity, by giving creators incentives in the form of recognition and fair economic rewards. Under this system of rights, creators are assured that their works can be disseminated without fear of unauthorized copying or piracy. This in turn helps increase access to and enhances the enjoyment of culture, knowledge, and entertainment all over the world.

How has copyright kept up with advances in technology?
The field of copyright and related rights has expanded enormously with the technological progress of the last several decades, which has brought new ways of spreading creations by such forms of worldwide communication as satellite broadcast and compact discs. Dissemination of works via the Internet is but the latest development which raises new questions concerning copyright. WIPO is deeply involved in the ongoing international debate to shape new standards for copyright protection in cyberspace. The organization administers the WIPO Copyright Treaty and the WIPO Performances and Phonogram Treaty (often known together as the "Internet Treaties"), which set down international norms aimed at preventing unauthorized access to and use of creative works on the Internet or other digital networks.

How is copyright regulated?
Copyright itself does not depend on official procedures. A created work is considered protected by copyright as soon as it exists. However, many countries have a national copyright office and some laws allow for registration of works for the purposes of, for example, identifying and distinguishing titles of works.

Many owners of creative works do not have the means to pursue the legal and administrative enforcement of copyright, especially given the increasingly worldwide use of literary, musical and performance rights. As a result, the establishment of collective management organizations or societies is a growing trend in many countries. These societies can provide members the benefits of the organization's administrative and legal expertise in, for example, collecting, managing, and disbursing royalties gained from international use of a member's work.

Compiled by John Crosby, Director Public Communications. For more information contact John-c@sla.org
Maintaining SLA’s Historic Headquarters.

As any of you who have been to SLA’s Headquarters can attest, the building in which the Association’s offices are housed is an incredible asset. Not only is it functional, but it is also a historic building of great beauty. The building, which was originally built and owned by a Special Librarian, was built the same year in which the Association was founded, 1909.

As you can imagine, owning a 92-year-old historic building of this size can present some challenges in terms of maintenance needs. When does the roof need to be replaced? Are the windows going to last another year? Are the faucets leaking? Any homeowner is all too aware of how many different items there are that can break down, wear out or need to be replaced. To help overcome these challenges, staff developed and maintains a 15-year capital improvement schedule. This schedule details all items that need to be taken care of on a recurring basis.

To help cover the expense associated with keeping the building in good working order, the Association established and funds a Building Reserve Fund. Each year the Finance Committee reviews the 15-year plan and the anticipated expenditures which are required. The Committee then makes a recommendation to the Board of an amount that should be included in the budget for these expenditures. The costs vary from year to year depending on what is scheduled for replacement that year.

This careful stewardship ensures that the Association’s Headquarters will be a safe and pleasant environment for visitors and staff today and for many years to come.

For more information, contact Richard Geiger, SLA Treasurer (gelger@sfgate.com).
head

Dun & Bradstreet stands alone. We offer more information on more businesses worldwide. No one even comes close.

With a global database of over 62 million businesses, D&B not only has the information you need, we update it frequently — over 1 million times a day. Plus, to provide an even more complete picture, we include information from public records, government files and numerous third-party sources. That’s why D&B is the right choice for business directories, public record databases, marketing information and detailed business reports. So make the smart decision, start with D&B. Access D&B directly at www.dnb.com or through Dialog, Farbou, LexisNexis™ and Westlaw®, to name a few.

A special note to information resellers:
As the world’s leading provider of business information, we can help you enhance your site, increase revenue and provide your customers with access to quality information. To find out more, call 1-800-223-1026 or e-mail alliances@dnb.com.

1800 223 1026

dnb.com
Custom Information Portals and the Delivery of Real-Time Intelligence

by Michael Gallagher

Michael Gallagher is VP-Sales & Marketing with Hoover's Media Technologies, a division of Hoover's Inc. He may be reached at mgallagher@hoovers.com or mgallagher@worldnet.att.net.
A new Knowledge Age is emerging. In this era, Application Service Providers (ASPs) are building information portals that deliver specialized, relevant data in real time.

Over the past decade, the new information age has intertwined itself with the Internet to bring about the most expansive collection of data ever compiled. Today's knowledge workers are drowning in the sea of data streaming at them from disparate sources. It has taken the Internet to bring together content from television, radio, magazines, newspapers, newsletters, books, and miscellaneous other publications and papers.

Sorting through this cyber data-field has become a daunting task. Companies seeking intelligence data have sought relief from knowledge specialists who have the necessary resources to comb the traditional sources, like books, newspapers and trade magazines, to generate specialized reports. Most of these firms have brought their services into the Internet age and are still a good source of specialized data for a price. The dawn of the Internet also unleashed the concept of free information. From this idea, several search engines were born. These engines, supported by rising dot-coms, generally returned long lists of data where at least half of the list completely missed the requested mark.

From these two extremes, a new Knowledge Age is emerging. In this era, Application Service Providers (ASPs) are building information portals that deliver specialized, relevant data in real time. This article discusses the evolution of intelligence solutions and outlines the various options and solutions available to knowledge workers in today's marketplace.

The Polarization of Solutions
Most intelligence solutions can be broken down into two major categories – premium specialty solutions and widely available, public solutions. To keep pace with the millennium's business demands, these two solutions have evolved from brick and mortar, hard-copy delivery models to Internet-based digital delivery models. This trend is discussed in the next section.

Premium Solutions
The first category includes powerful, content-rich, and expensive solutions that are geared toward use by specialists. Included in this group are such companies as Dialog – a Thomson Company, Factiva, and MarkIntel.

Each of the solutions in this category boasts itself as a one-stop solution for all information needs. Among these three companies, they have more than three million documents spanning more than twenty-five years of historical data accumulated from greater than 36,000 sources, which is more than three times the amount of information available on the entire World Wide Web. These premium services offer several pricing plans, all of which are based on how much access you will have to their respective databases. These services carry lofty price tags. In fact, a simple market research paper from MarkIntel can range from $6.30 per page to $18.30 per page. This pricing structure is beyond the reach of most small to midsized companies.

Public Solutions
This second type of solution is widely inclusive. Generic free search engines from Yahoo!, AltaVista, and Excite, as well as hybrid solutions providers like Individual.com, Company Sleuth, and Northern Light, fall into this category.

The public solutions offer a less expansive list of sources. They tend to concentrate on published stories, public filings, and press releases. Generally, the results returned are in list form, which may or may not have a similar look and feel and may or may not pertain to the specific inquiry. These engines and services rely heavily on keyword and industry searches to locate and return data based on user input.

Some of the hybrid service solutions offer special reports that are priced reasonably (i.e., Northern Light at US$1.00 to $4.00). The risk is that the reports may or may not have the needed information and users may have to procure several reports before finding one that actually meets their need.

Another hybrid, Individual.com touts that they deliver true personalization of services as defined by Forrester. They call this Smart Personalization. Through this service, users create a custom logon, define news topics,
and a homepage. Still, with only forty domestic and international news sources in their repertoire, they cannot provide the comprehensive returns of their premium service counterparts.

**Trend to Internet Based Delivery**

In the '70s, centralized applications were stored on mainframe computers. Users at terminals requested and fed transactions to mainframes. This application-centric architecture served as the standard in configuring work environments. The centralized application housing kept application hosting and development costs in check and relatively manageable.

In the late '80s and early '90s, the PC became commonplace, bringing about a distributed client/server computing architecture. As applications began being stored on individual workstations instead of on the server, costs associated with writing, developing, and managing applications skyrocketed.

The Web browser was introduced in the early '90s. Developers soon recognized it as the way to bring centralized management to a distributed environment. As Internet access speed increased due to higher bandwidths, ActiveX and Java applets became commonplace starting in 1998, bringing about a new standard for application delivery. With these technologies and other open e-business platforms, Web communities are becoming more prevalent and vertical information portals are populating the Internet.

**Hosted Applications vs. Software Solutions**

Applications have become one of the most critical resources to business success. Integrating those applications into the business model is critical. Workers in all areas of the company need access to the same applications. Considering that organizations are competing in a worldwide marketplace, the complexities can multiply overnight.

Finding software solutions that support the variety of devices, operating platforms and connectivity protocols utilized throughout an organization can be costly. These expenses include both hard and soft costs. Hard costs include equipment, software, and services and soft costs include downtime, increased time to market and maintenance costs. Hosted applications give a five-fold benefit to customers in terms of reach, speed, predictability, cost, and flexibility.

Hosted applications are able to reach out to the entire world around the clock. The Internet Age has brought about the need for access to current, historical, relevant, and comprehensive information at lightening speed. Complex software application deployments can take months or years to complete. With the shortage of skilled IT workers, it can take longer and cost more by becoming obsolete even before fully deployed. The Gartner Group estimates seventy percent of enterprises will outsource small applications and small to midsized companies will soon rely on application hosting as their primary delivery model.

Hosted applications offer a level of predictability that is hard if not impossible to duplicate in a distributed application environment. Advances in fail-over protection and physical security measures, such as diesel backup generators, biometric scanning devices, and perimeter guards, can be cost-effective when applied to central services but are not cost-effective or often implemented in distributed application environments. Further, hosted applications give users familiarity. If they log on in Tokyo or in New York, they can expect the same service level, the same interfaces, and the same version support.

Cost analysis of hosted vs. non-hosted applications includes determining the real cost associated with applications. The Tolly Group estimates that recurring costs of providing non-hosted applications can exceed $10,000 per user per year. The break-even point between hosted applications and a non-hosted application is beyond the one-hundred users point. The optimal hosted-application customer is the small to midsized business with twenty to one-hundred employees. Larger companies can benefit from targeted, hosted applications that are departmentally or geographically specific, thus creating small/midsized businesses within businesses.

Hosted applications can offer a flexibility of pricing that cannot be easily mirrored by traditional distributed application software. For instance, only in a hosted-application environment can companies truly have a pay-per-use management method. The ability to subscribe to services with usage-based pricing is very appealing when relating to intelligence solutions.

**Distributed vs. Centralized Content**

Intelligence solutions need to pull data from several disparate sources in order to provide a useful service to clients. There are two ways to accomplish this – pull all sources together into one centralized database or send out agents to pull data from individual source databases and compile that data for each individual request.

Solution providers who manage to compile a centralized database will be able to provide their customers with faster return times for search requests and thus would be better able to satisfy the need of real-time intelligence access. Yahoo!, AltaVista, and Excite are all examples of distributed content intelligence sources. Dialog and Nexis are examples of intelligence solutions that offer a centralized database.
Growing a practice takes hard work and the right tools. CourtEXPRESS' Business Development Searches will help you find new clients and leverage your existing relationships into higher income.

Rain Maker will assist you in finding new clients within specific areas of practice. By simply entering your area(s) of expertise, for example Intellectual Property, Rain Maker alerts you to just-filed cases matching your criteria.

Want to help your clients stay out of the rain? Use Client Watch to keep up-to-date on new federal cases affecting your clients. Enter your client list and CourtEXPRESS will alert you to new cases involving your clients. In many cases, you will know of a new lawsuit before your client does.

Due Diligence provides a comprehensive litigation background report on any individual or company, including civil, criminal, bankruptcy and appellate cases. Before you hire, fire or sign on the dotted line do your Due Diligence.

Need the docket or complaint? It's easy to pre-order it all while you're at www.courtexpress.com

CourtEXPRESS is easy-to-use, powerful, effective and now more profitable for you than ever. Sign up today on www.courtexpress.com and receive your first Business Development Search free, or call 800-542-3320.

With CourtEXPRESS, when it Rains, It Pours!
Content Integration vs. Content Aggregation
Hosted intelligence services can be distributed as an aggregated product of combined data from disparate sources or as an integrated list of disparate sources that contain the data requested. Integrated content can be thought of as just-in-time compilations of consolidated search results or content sets that are distributed directly to the end user (i.e., AltaVista.com). Content aggregators such as Bell & Howell Learning & Information and COMTEX consolidate the content as products and then distribute those products to customers who may be either resellers or end users.

Making Sense vs. Making Lists
There is a trend in intelligence and research products to provide some overarching analysis of search results or other findings. To date, most research or intelligence products have simply listed raw search results or findings, leaving it up to the user to make sense of those results, analyze patterns, and draw conclusions. Within the past two years, some services have branched out to provide the next level of service, including analyst reports and trend alerts. All intelligence solution providers will eventually need to provide the higher service level in order to remain competitive.

Real Time vs. Old Time
Real-time solutions are becoming the mainstay of business. Information on mergers and acquisitions, product launches, and SEC filings is available more quickly than ever. The age-old tradition of waiting weeks for a comprehensive competitor analysis is just not a viable option to be competitive. Hosted applications offer intelligence with a mouse click. They serve the market by providing immediate access to relevant information.

Issues and Concerns in Portals and Intelligence Solutions
With new Web sites popping up all over, employees are finding it harder than ever to get their hands on information that is relevant to their jobs. Couple this with the learning gap that exists in the workforce between Internet-savvy and neo-Internet users, people are looking in all the wrong places and getting more and more frustrated. The solution lies in successfully combining intelligence sources with a virtual portal.

Collaboration and content are the components of a successful portal venture. Portals are massive automated directories of vertically aligned products or services. These virtual directories can be programmed to understand what you are looking for and then going out and seeking it. Collaboration between partners that provide Internet content and database applications is critical. The next generation of intelligence solutions will need to go beyond pure vertical portals and address concerns of individualization, customization, and personalization.

Interface Standardization across Heterogeneous Content Sources
Another important facet to consider when discussing real-time intelligence is the distribution and presentation of collected materials. When compiling information from several disparate sources, it can be difficult to sort out the important pieces within the content. New hosted-application providers are beginning to favor a standardized method of displaying information gathered from multiple sources to make discovery and analysis easier for users. Hoover's Intelligence Monitor is a good example as it takes information from thousands of sources and presents it in a standard, user-friendly browser format.

Content Management – Indexing and Storage
Using intelligence solutions to find current information is typical. Using intelligence solutions to find historical data is more complex. Premium services that warehouse their data in centralized databases are typically better able to provide historical data services. The ability of any service to manage their content and make it accessible over time is a true measure of their longevity in terms of usefulness. The ability to refine data searches via indexes is a good indicator of an evolved intelligence solution. Search and indexing capabilities by source and date are two of the most widely sought functions of real-time intelligence solutions.

Authentication and Permission
Internet application security is of utmost importance to any successful intelligence solution deployment. At a minimum, security requirements should include allowing administrators to manage user passwords and access levels to ensure that information is kept at a need-to-know level. Optimal security measures include encrypted transmissions, Point-to-Point Transport Protocol (PPTP), Virtual Private Networks (VPN), and firewalls.

Information Currency and Alerting
Real-time intelligence providers know that the right information in the hands of the right person in a timely manner can result in a financial windfall. Proactive providers have turned to automated Web-bots that can be customized and automated to search data sources for user-defined keywords and proactively alert users about their hot topics via e-mail or pager.

Customization vs. Personalization
Many intelligence solutions say they can tailor their results to fit specific criteria. This is accomplished on two levels. The top level is customization. A solution with customized offerings can tailor its deliverables to meet the needs of a single organization. The organization as a whole can define standard criteria that will be used by all users regardless of relevancy to the individual worker. The better option is a solution that focuses on
personalization, the other level. Personalized options allow for both top-level organizational customizations and individual work-related requests, news feeds, and information requirements.

Customization and Personalization
All intelligence solutions need to be able to be customized to some degree. The depth of customization depends largely on what the organization is trying to accomplish and what the expectations are of the workers who are using the tool. Due to its centralized architecture and thin-client requirements, hosted applications are able to provide levels of customization and personalization faster, better, and more manageable than any distributed server/client application.

Customization
Customized solutions are client driven. This is the most basic level of accommodation that a service provider can offer and still claim to serve unique needs. Customized solutions are founded on common features needed by all users within an organization. This is a sufficient solution for workers who need only to gain broad access to intelligence information.

Personalization
Personalized solutions are user driven. These service providers realize that each worker may have a need to explore different areas within the intelligence arena. Their offerings can be individually tailored to include both the common features required at the organization level and the user level. Personalization is the key to successful portals and company-wide intelligence solutions.

Personalization Requirements
Once a service provider has committed to the idea of providing personalized intelligence solutions, they need to consider the requirements. These requirements range from selectable data sources to flexible filters and interfaces.

Selectable Data Sources
There are three main data sources - Internet, proprietary, and premium/licensed. The Internet offers a wide variety of distributed information that is publicly available to those who are willing to search. Proprietary databases can be locally stored intelligence sources or remotely hosted databases that are owned in whole or in part by the organization doing the searching. Premium/licensed databases are owned or compiled by one or more companies and can be sold in parts or as a whole. Premium/licensed databases may be hosted remotely or in-house. An excellent intelligence solution provider would have the ability to combine all three disparate data sources to provide the most comprehensive solution offering.

Flexible Filters
Along with providing great content, personalized solutions offer users the ability to define, manage, and edit several information filters to ensure that they are able to retrieve relevant information and tweak the filter when necessary to get a more concentrated or broad selection. Additionally, intelligence solutions providers need to accommodate easy addition, modification, and deletion of search criteria as needs change.

Flexible Interface
Not all users want to receive information from all sources or need all services from a particular solution provider. Therefore, it is important that intelligence service providers offer the ability to select among their services to enable a user-by-user service offering that speaks to the needs of the individual as opposed to just servicing their corporate culture.

Options and Solutions
So, what are the choices? It all comes down to choosing between an ASP or software solution. There are pros and cons to each option and there is no one-size-fits-all answer. Suffice it to say, weighing the options is a good start for any company looking for an intelligence solution.

Software Solutions
Among the many software solutions are enterprise information portals (EIPs) and traditional document and knowledge management (KM) applications. EIPs such as Sybase, Plumtree, Hummingbird, and Sagemaker, offer push-pull technologies that transmit information to users through standardized interfaces. They integrate content management, business intelligence, and data warehouse information and are often packaged applications that target their content toward a particular function or industry. Traditional document and KM applications such as Verity, Documentum, Open Text, and Convera (formerly Excaliber) help unlock the value of proprietary, digitally stored information. The downside of software solutions includes high costs, maintenance upkeep, the need for IT resources, and sometimes complex interfaces that limit the ability to customize and personalize intelligence searches.

Service Solutions
As discussed above, ASPs and hosted application servers offer great flexibility, reach, ease-of-use, predictability, and speed. Perhaps one of the biggest benefits offered by the hosted applications is the ability to customize and personalize intelligence search solutions to deliver real-time, current, and relevant data to the person who needs it most. Easy to use and maintain, service solutions fit well
into organizations of all sizes. The downside to using an ASP service lies in the language of some licensing structures that may not favor larger organizations. Licensing language is unique to each ASP or hosted service provider and may just as easily benefit a larger organization.

Final Thoughts
Finding the right intelligence solution for an individual company comes down to one thing – what is the cost associated with not having the right information in the right hands at the right time? Intelligence solutions can be used throughout an organization to enhance sales, follow up on competition, research fiscal status, and conduct industry trend analysis. The use for structured data on relevant topics is limitless. The future of any industry relies on business leaders knowing who is doing what at any time.

Hosted applications are poised to offer the best of both worlds – they are able to deliver on the promise of collaborative interaction that will enable people to work together, share information, and redefine the way business is done.

BIBLIOGRAPHY


Sponsor of

- Information Portal for Special Librarians, a gateway to articles, books, and web sites on:
  - Careers
  - Intellectual Property
  - International Resources
  - Internet/Intranet
  - Knowledge Management
  - and more

- SLA's Information Resources Center

  June 27, 2001


21st Century Partner of the Special Libraries Association
Importance of the Public Domain

What is the public domain and why is it important in copyright law? Nearly everyone has heard the term and has at least a vague notion of why it is important, but a deeper understanding of the value of the public domain is important for librarians, especially as copyright holders try to expand their rights.

A shorthand definition of a "public domain" work is that the work is the opposite of a copyrighted work. Works that are copyrighted have a bundle of rights associated with them. The owner of the copyright has the exclusive right to reproduce and distribute the work, adapt it, publicly perform and display it and, if the work is a sound recording, to publicly perform it by digital means. If the work is within the public domain, there are no ownership rights associated with the work. It may be said that everyone and no one owns the work. Therefore, anyone may reproduce the work, distribute it, adapt it, etc.

The public domain is particularly important to scholars, researchers and librarians. There is no longer any need to seek permission for any uses of the work, so members of the public may freely use public domain works, not only for nonprofit educational and library purposes but also for research, scholarship and even to commercially exploit the work. The statute does not define public domain. Instead, it details the conditions necessary for copyright protection, the types of works that are eligible for protection, the rights of copyright holders and the exceptions to these exclusive rights. Thus, a work not protected by copyright is necessarily a public domain work. One of the major complaints from the scholarly and research communities about term extension was that adding an additional 20 years to the term of copyright for existing works delayed by two decades works passing into the public domain. In fact, it will be 2019 before anything else enters the public domain. When Congress enacted term extension, it made the provision retroactive for all works still under copyright. For example, at the end of 1998, all works from 1923 should have passed into the public domain; instead, they received an additional 20 years of copyright protection.

Many foreign published works which had been within the public domain in the United States have been restored to copyright status due to treaty obligations. This amendment applies only to works that were not in the public domain in the country of publication. In other words, much of the world had a longer copyright term than did the United States, thus, foreign-published works were treated as having expired terms in this country but not in their country of publication. This amendment contains a number of protections for parties who relied on the public domain status of a work. Further, the restoration lasts only as long as the work would have been protected had it never entered the public domain (i.e., life of the author plus 50 or 70 years for most countries).

There are four large categories of works that are found within the public domain. First, the public domain is made up of works that do not meet the statutory requirements for copyright. Second, all works published in the United States on which the copyright has expired are no longer eligible for copyright protection. This represents the largest category of public domain works.

The third category is comprised of works in which the author never claimed copyright or which were dedicated to the public by being published without copyright notice prior to January 1, 1978. Prior to the current Act, publication without notice was a fatal flaw, and the author lost her rights. Since 1978, however, publication without notice does not destroy copyright protection, and the work is still protected.

United States documents comprise the fourth category. Section 105 of the Copyright Act simply states that works by the federal government are ineligible for copyright protection. This used to be an absolute, but around 1978 the National Science Foundation began to award grants to researchers that permitted them to hold personal copyright in works they would produce. These were predominantly NTIS documents. As the government has increasingly contracted with outside vendors to conduct studies, write reports, and the like, there are some government publications that appear with copyright notice - not a claim of government copyright but a claim from the private contractor that produced the work. Despite these anomalies, the huge majority of federal government publications are public domain. Because the Copyright Act is a federal statute, it is silent as to state government publications. Thus, states are free to claim copyright in their documents if they so choose.
Many publishers and other producers of copyrighted works repackage federal government information and sell it commercially. Is this a problem? No, neither for the publisher/producer nor for the librarian and user of the information. The republisher of the government work does not get a copyright work in the public domain material. Any copyright claimed by such publisher is only for any new material added such as a preface, special index, or the like. Users of these works are free to reproduce the data or text as it appeared in the government document but not to reproduce the copyrighted material added by the republisher. In fact, for works that consist predominantly of federal government works, the notice of copyright should identify those portions of the work that embody works eligible for copyright protection. In other words, the government documents incorporated are not eligible for protection but any new material added may be, if it meets the requirements of originality and creativity.

Other publishers and producers do more than republish the work. They might prepare an adaptation from the government document. For example, if a publisher prepared a summary or condensation of a government report, that condensation is an adaptation, or if an artist took three government-produced photographs and created an artistic panel of those photographs, that is an adaptation. The adaptation would be eligible for copyright protection if it meets the requirements for copyright. However, anyone else could still take the original government work and prepare his own adaptation.

Today it is difficult to place a work within the public domain. Since copyright automatically attaches when one creates a fixed, original work of authorship how can one dedicate a work to the public? In reality, it may not be possible to do so. What one can do, however, it to include a note that appears on the work to the effect that the author makes no claim or copyright and hereby grants all users the right to make any use of the work.

There are several sources to locate various types of public domain works. A recently published work, THE PUBLIC DOMAIN: HOW TO FIND & USE COPYRIGHT-FREE WRITINGS, MUSIC, ART & MORE by Stephen Fishman details many of these sources.

For more information, contact Laura Gasaway (laura-gasaway@unc.edu)
A Roadmap for the Successful Implementation of Competitive Intelligence Systems

by Katherine Shelfer and June Verner

Katherine Shelfer is associate professor at the College of Information Science and Technology, Drexel University, Philadelphia, PA. She may be reached at: kathy.sheifer@cis.drexel.edu.

June Verner is professor at the College of Information Science and Technology, Drexel University, Philadelphia, PA. She may be reached at: june.verner@cis.drexel.edu.
Regardless of format or location, an organization's knowledge is generally filtered through both a cognitive dimension and a relationship dimension.

The successful design, development and deployment of a successful CI system requires a good project plan. Much like a roadmap, this plan serves to identify important milestones and provide information about alternative routes that can help the project team(s) avoid delays. According to a survey by the Delphi Group, 58% of the useful knowledge of an organization is recorded information (documents and databases) and 42% resides in employee brains (Hickens 1999). Integrating knowledge management and competitive intelligence encourages their use, improves their quality and allows the firm to respond more rapidly to changing business conditions (Senge 1994), so the best CI system uses what is already inside the organization. One of the first decisions is whether to improve access to the organization's recorded information or elicit knowledge that currently resides in employee brains. Regardless of format or location, an organization's knowledge is generally filtered through both a cognitive dimension and a relationship dimension.

The cognitive dimension focuses on the “stuff,” but to identify the important attributes of the relevant “stuff,” it is important to know how it is filtered through the relationship dimension. The relationship dimension has the following characteristics:

- **Purpose** – the organization’s business purpose, its vision, mission, goals and objectives
- **Process** – the means by which strategic initiatives are moved from “clean sheet” to launch
- **People** – the “four - i cs”
  - Demographics – personal characteristics of current and potential users (e.g., position, education and training, learning style)
  - Psychographics – personal belief systems that impact action/reaction/interaction
  - Geographics – factors of culture, distance and time
  - Politics – formal/informal lines of authority, innovation and trust (Shelfer and Goodrum 1999)

The planning process and the project itself must take these characteristics into consideration in order to be successful. In fact, the successful CI system might also be likened to the steps involved in successful community gardening:

1. seed the ground,
2. water and fertilize what you plant,
3. weed the garden,
4. reward the gardeners,
5. discourage the predators,
6. harvest the value.

**Indicators of Project Failure or Project Success**

Experienced consultants have identified the following critical failure indicators:

1. lack of informed consensus;
2. acceptance of the status quo;
3. unwarranted trust in the vendor;
4. failure to support the business purpose;
5. a short term, internal, myopic approach;
6. paralysis by analysis;
7. sabotage by external predators;
8. suicide through ignoring project constraints;
9. failure to consider business, human or technology limitations imposed on the project (Tyson, 1998). Careful planning is the best form of failure prevention. There are both management constraints and technical constraints to be considered. Management constraints involve three key problem areas—time, money and scope. The flexibility needed to deliver a quality project is severely hampered if any one or two of these three are fixed. For example, project constraints impact deadline constraints. A fixed budget with deadline constraints generally kills any chance of success. Regarding technical constraints, is there any flexibility in terms of the tools available? It is imperative to avoid getting caught up in the “trade rag” hype, so a warning is appropriate here: **NEVER buy off vendor presentations!** Other key factors to consider include experience, whether legacy systems are involved and whether the system will be “bleeding edge” or a patch. It helps to know if this system will be a pilot for knowledge-sharing in the organization.

Unlike failure, success can’t be guaranteed, but it is much more likely if the project includes:

1. flexible design;
2. willingness to implement a mechanized “less than ideal” system;
3. use of an evolutionary approach with prototyping;
4. giving users substantial (to total) control;
5. coordination by individual business units; and
6. active networking. Though there are many factors contributing to software project success, the presence of a committed project sponsor is one of the most important early success factors (Proccacino and Verner 2001). A committed sponsor has a significant impact on many of...
the project phases and project functions, including the (1) schedule estimates, (2) quality of the project team members, and (3) degree of interaction with other stakeholders.

Choosing Between Methodologies—Waterfall Lifecycle or Prototyping Lifecycle
Without early defined and agreed-upon acceptance criteria, there is no way to recognize when the project is completed or if it has been successful. Most project managers would prefer to use a waterfall lifecycle for project development as this ensures better control of the project and its schedule (Verner and Cerpa, 1997). A waterfall development methodology must begin with good requirements in order to ensure project success, as poor requirements are a major cause of project failure. These days, projects are notorious for beginning (and sometimes even ending) with inadequate requirements (Proccacino and Verner 2001).

An iterative prototyping methodology, such as the prototyping lifecycle, is preferable when it is difficult to obtain adequate requirements at the start of a project, as is often the case with a CI system. Iterative prototyping tends to be more verbal and to involve the developers in many more interactions with the customers and users than is required for a waterfall methodology (Verner and Cerpa 1999). With iterative prototyping, project managers and developers are often uncomfortable with the lack of documentation that would be part of a waterfall process. As a result, development personnel tend to dislike using iterative prototyping. They also feel that they have little project control and that they do not really get a good understanding of the requirements.

Since this method normally involves many iterations, it is important to limit the number of incoming requests for additional functions. Having early agreement concerning acceptance criteria can ensure that the prototyping iterations do not continue endlessly. One way that project managers control iterative prototyping in practice is to make it clear from the beginning that there will be a maximum number of iterations (e.g., three). If stakeholders are warned in advance of exactly how many iterations will be permitted, they are more likely to make a genuine effort to complete requirements within this time frame. The project manager will also be more content, since there is little chance that the project will continue iterating endlessly.

Mapping System Requirements to User Needs
There are several useful techniques that can be applied to understand user needs in order to define the requirements of the CI system. These include (1) stakeholder analysis, (2) needs analysis, (3) gap analysis and (4) cost-benefit analysis. Even if we have done a good job of gathering the software requirements, these cannot be frozen at the start of a project. Inevitably, there will be changes that must be made. A project can become hopelessly bogged down without a change control process. All members of the team are vulnerable to approaches for undocumented changes, which can spin out of control. Uncontrolled changes can escalate the costs of a project and lead to huge cost overruns, so it is really important to have clearly defined roles for the change process, and for the users to have clear understanding and expectations.

Given that we must expect change and plan for it, there should be an agreed-upon change process, with clearly defined roles and processes to deal with change requests. This allows us to minimize changes to those parts of the project that are critical to its overall success. The two-level control scheme is generally effective in controlling changes. That is, a senior review board oversees the scope of the project and a change control board is responsible for managing the "tweaks." It is generally best if decision-level representatives from all stakeholders are represented on these boards. These boards rule on the change requests as appropriate, and monitor their impact on the project itself. The discussion below is an overview of the planning process that leads to a good project plan.

<table>
<thead>
<tr>
<th>TRIP PLANNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Identify WHO - Stakeholders</td>
</tr>
<tr>
<td>1.1 Sponsor</td>
</tr>
<tr>
<td>1.2 Other Stakeholders</td>
</tr>
<tr>
<td>1.3 Project Manager</td>
</tr>
<tr>
<td>1.4 Team Leader</td>
</tr>
<tr>
<td>1.5 Initial Team</td>
</tr>
<tr>
<td>1.6 Risk Management (RM) Plan</td>
</tr>
<tr>
<td>2 Identify WHAT</td>
</tr>
<tr>
<td>2.1 Create a K-Map</td>
</tr>
<tr>
<td>2.2 Needs Analysis</td>
</tr>
<tr>
<td>1 Gap Analysis</td>
</tr>
<tr>
<td>3 Identify HOW MUCH</td>
</tr>
<tr>
<td>3.1 High-Level Cost-Benefit Estimates</td>
</tr>
<tr>
<td>4 Identify HOW</td>
</tr>
<tr>
<td>4.0 Options Trading</td>
</tr>
<tr>
<td>4.1 Implementation Plan</td>
</tr>
<tr>
<td>4.2 Plan to Action</td>
</tr>
<tr>
<td>5 Identify HOW WELL</td>
</tr>
<tr>
<td>5.1 Feedback</td>
</tr>
<tr>
<td>5.2 Post Mortem Review</td>
</tr>
</tbody>
</table>
COMING SEPTEMBER 2001

THE ENCYCLOPEDIA OF MATERIALS: SCIENCE AND TECHNOLOGY

An unrivaled reference-base of knowledge in print and online

Editors-in-Chief
K.H.J. Buschow, University of Amsterdam, The Netherlands, Robert W. Cahn, University of Cambridge, UK, Merton C. Flemings, Massachusetts Institute of Technology, Cambridge, MA, USA, Bernhard Ilschner, Swiss Federal Institute of Technology, Lausanne, Switzerland, Edward J. Kramer, University of California, Santa Barbara, USA and Subhash Mahajan, Arizona State University, Tempe, AZ, USA

The encyclopedia is an authoritative reference source for the increasingly broad and multidisciplinary field of materials. Coverage includes the following materials:

- Amorphous materials
- Building materials
- Ceramics
- Metals and metallurgy
- Optical and opto-electronic materials
- Polymers

ISBN: 0-08-043152-6
List price: $6,875 | Pre-publication price: $4,795
(A 30% savings through September 30, 2001.)

Every article in the Encyclopedia has been commissioned and written by an internationally recognized expert and provides a concise overview of a particular aspect of the field including application, characterization, fatigue, plasticity and elasticity, processing and testing.

For more details, please visit our website. www.elsevier.com/locate/emsat

In Print:
- 11 volumes
- 10,000 pages
- 1,750 articles
- 5,000 illustrations, including color

Electronically:
- 3 years access to the web version
- Regular web updates

Contact the Regional Sales Office or your vendor

Elsevier Science, Regional Sales Office
655 Avenue of the Americas, New York, NY 10010-5107
Tel: 212-633-3730 (Toll free for customers in the USA and Canada: 888-437-4636) • Fax: 212-633-3680
E-mail: usinfo-f@elsevier.com
Five-Step Checklist
In order to craft a successful CI system, we use a trip planner to identify (1) who is involved with the system, (2) what they actually require, (3) how much they are prepared to pay and (4) how many benefits they expect to obtain from the system. We then must discover (4) how we will go about developing the system and, at completion, (5) determine how well we met the project goals.

Step 1. Identify WHO
The members of the CI unit whose viewpoints are critical to the success of the project are the CI Unit Coordinator, the Industry Watcher (Researcher) and the Issues Management Analyst. In a small CI unit these are often overlapping roles. In addition, there are other Stakeholders who should be included. These are the sponsor as well as representatives from operations management, strategic business units and various functional areas. It might be a good idea to include someone who interfaces with all these units, such as the manager of quality assurance.

Stakeholders should be identified in the very earliest stages of the project. To identify stakeholders, you need to identify those who USE the system, but it is also important to find out more about those who IGNORE/BYPASS formal systems. Two methods include gap analysis and user requirements analysis. These are formal methodologies about which much has been written. This is the point at which you also need to select a Project Manager and a Team Leader. In selecting members of the Initial and Subsequent Team(s), be sure you know who you need to please and who will give you the necessary time. It is important to integrate different forms of sharing and to plan for organic evolution and growth. Imperfection will happen, so it helps to be prepared to deal with it.

A caution is relevant here—guard against your own subconscious filters! It is important to listen carefully and obtain verification that you have understood the intended input. In the example below, what is the topic of discussion? Would you guess the topic of discussion is (I)NSECTS and (Y)ELLOW STUFF? (Sheifer 1998).

- Who is attracted to Y — is it I?
- How might I be attracted to Y?
- Where might I be attracted to Y?

1.1 Sponsor — What's in it for ME?
With a visible, politically powerful, committed project sponsor, things are easier for the project manager and the project team. Customers and users are more likely to accept the project as a whole, to be cooperative and to be available when required. They are also more likely to provide adequate time for the development team. If the project begins without a sponsor, or the sponsor is not visibly committed, the seeds of failure have been already sown (Proccacino and Vernier 2001). Because of the huge effect that a sponsor has on a project, it is important at the beginning of the project for the project manager to find out as much as possible about the project sponsor:

- How much political power does the sponsor have?
- How interested is the sponsor in the project?
- How visible is the sponsor likely to be?

The project needs a senior management sponsor. The more politically adept the sponsor, the more likely the project will be able to avoid roadblocks. The sponsor must be visible and continue to show interest and commitment throughout the project. Other stakeholders are unlikely to feel that they must cooperate if the sponsor is seen to lose interest. If the project begins without a sponsor or the sponsor shows little commitment, then the project is unlikely to succeed. It is better for the project to begin without a sponsor (and for a committed sponsor to be found later) than it is for the project to continue with an invisible uncommitted sponsor (Proccacino and Vernier 2001).

1.2 Other Stakeholders
Anyone who is impacted in some way by the system should be considered, but the majority of stakeholders are users. It is important to consider all operational or functional areas that are impacted by the proposed system. All of these groups have the ability to impede the development of the system in some way. If senior management shows interest and commitment to the project, other stakeholders are much more likely to cooperate. If senior management is not supportive, then why should the other stakeholders make time to work with the project team? At this point, it helps to prioritize. Which matters FIRST? Generally, this would be the capabilities, priorities and politics of the technical staff who are charged with the design, development and/or deployment of the system.

1.3 Project Manager
Any project is more likely to be viewed as successful if the project manager is viewed as credible by the stakeholders. Other factors leading to successful project outcomes include having a project manager who (1) has a clear vision of the project, (2) is respected by team members, (3) does not play favorites, and (4) is able to delegate tasks (Proccacino and Vernier 2001). At the beginning of the project, the project manager is responsible for generating a project plan that is monitored and modified as the project progresses.

1.4 Project Team Leader(s)
The project leader should be both a visionary and a pragmatist. This individual will serve as a communicator,
bridge, translator, facilitator, champion, cheerleader, nurse, and traffic cop.

1.5 Team(s)
How do you identify likely members of the initial/subsequent team(s)? The objective of The INITIAL team is to assess and plan. The objectives of SUBSEQUENT teams are to carry out, evaluate and iterate. These teams require different knowledge, skills and abilities. However, continuity is important, so there should be core members who carry forward as part of the succession plan. No plan is perfect. Bad things can happen to good teams, and bad teams can implement successful projects. However, careful selection and management of the project team provides a greater likelihood of project success.

1.6 Risk Management Plan
- Product size risks
- Business impact risks
- Customer related risks
- Process risks
- Process issues
- Technical issues
- Technology risks
- Development environment risks
- Staffing risks (Pressman 1997).

Once a list of potential risks has been identified and listed, the impact of each of these risks needs to be assessed. After the highest risk items are identified, a risk management plan can be developed for each of these risks. The risk management plan may include risk avoidance, risk mitigation, risk management and contingency planning. The project manager may decide that some risks are so unlikely they can be ignored. The manager may also choose to transfer the risk to others. As the project proceeds, risk monitoring activities commence. To do this monitoring, the project manager must ensure that the project management process includes risk tracking. This might take the form of developing a project risk table and reviewing the status of each risk at weekly or biweekly meetings. At each of these meetings, identified risks may be dropped from the list or new risks added. The effort put into the risk management plan should correspond to the probability or importance of the risk; that is, the greater the risk, the more developed should be the risk management plan.

Step 2: Identify the WHAT
Management literature identifies four basic kinds of knowledge problems: Ambiguity; Equivocality; Complexity; and Uncertainty (Zack 1999). When dealing with ambiguity and equivocality, optimal systems support face time. That is, they provide fast access to experts and link the key decision makers. Systems designed to minimize complexity are those which can manage and analyze complex interrelated inputs, variables, processes and outputs. Those designed to resolve uncertainties will increase connectivity through space and time. The following checklists help determine relevant system features (Zack 1999).

Complexity Checklist
- Handle complex interrelated inputs, variables, processes & outputs
- Include searchable online repositories
- Provide access to experts who can handle complex situations
- Coordination of complex tasks
- Coordinated integration of diverse expertise
- Support decentralized Decision-making

Uncertainty Checklist
- Data: Locate, Gather data; Cue to gaps
- Connectivity: Across time, across distance
- Communications Configuration: Flexible; Handle sudden, unpredictable events; Broadcast at-large RFI; Generate pointers
- Support Learning: Estimation, Inference, Prediction; Automated management of central knowledge repositories; Feedback

2.1 Create a K(nowledge)-MAP
A Knowledge Map (or K-map) is defined as a collective view of the Knowledge and skills required to successfully perform each step in delivering a solution (Fulmer, Gibbs and Keys, 1998). A K-map is predicated on the following assumptions:
1. Knowledge is composed of data to which insight has been added. It is derived from processes taken in context.
2. Processes involve players who engage in rules-based activities
3. Rules have definitions
4. Activities can be monitored, managed and mapped

The process of creating a K-map begins with mapping the existing terrain. The processes used to identify relevant knowledge include asset-mapping and user needs analysis. In developing an asset-map, the current available corporate knowledge assets are identified, as are the processes by which these are obtained and used. The next step is to engage in user needs analysis. Once these have been completed, knowledge assets are compared to user knowledge requirements. It may be that the existing knowledge could provide additional value if it were more
effectively managed, so the CI system project might be directed toward enhancing internal use of existing information. At this point, however, gaps between available and needed knowledge generally remain. This is the knowledge that must be acquired from others (external to the organization). At this point, the K-map should be refined so that it becomes project-specific. This refined version should be used to establish the project’s direction.

2.2 Needs Analysis

Needs analysis takes two forms—“road maintenance” and “traffic control.” For each category, the relevant tools are listed in Table I.

There are several tools that can also be used to plan for future needs, including Delphi, content analysis, scenario analysis, impact analysis and K-maps (Fulmer, Gibbs and Key 1998). The K-map is the tool emphasized in this paper.

Step 3. Identify the How Much

The goal of any CI system is to enhance decision support through knowledge transfer. At this stage, it is not yet known which components of the CI systems project will actually provide the most useful enhancements to the CI function at the most affordable cost. For this reason, a high-level cost-benefit analysis is used to support the choice between two options: (1) the one that shows the greatest likelihood of a quick success; and (2) the one that caters to a specific stakeholder/champion/unit who is most likely to protect Phase Two. Such priorities need to be determined before a more detailed project plan can be developed. Regardless of the option(s) chosen, the objective at this stage is to buy time to protect the next phase of the project.

3.1 High-Level Cost-Benefit

The initial project cost estimation process requires a mental review of the project. For example, estimate the start-up tasks involved in terms of people or space. How are such costs estimated for other projects? It helps to know what happened to other projects when costs were more (or the benefits less) than initially projected. Throughout the life of the project, it is important to keep cost data. Comparing projected costs to actual costs is an important component of the post-mortem review & will benefit future planning. This is a difficult process, so experienced project planners should be involved.

Step a. Identify the How

As the initial project starts to take shape, it helps to take a few days just to think about it. For example, can you define the CI system? What are the mission/objectives? How will this impact network management? What new resources might be required to maintain it? How will it support industry watch or issues management?

4.1 Options Trading

It is now time to trade information systems/technology implementation options. There are three possible categories from which to choose: (1) commercial “plug and play”

<table>
<thead>
<tr>
<th>Road Maintenance</th>
<th>Traffic Control</th>
<th>Utilities (multipurpose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• employee suggestions</td>
<td>• transfer innovation</td>
<td>Basic:</td>
</tr>
<tr>
<td>• consensus-building</td>
<td>• effective intervention</td>
<td>Customer surveys</td>
</tr>
<tr>
<td>• self-directed teams</td>
<td>• business process reengineering (BPR)</td>
<td>External advisory groups</td>
</tr>
<tr>
<td>• Statistical process control (SPC)</td>
<td>• task forces</td>
<td>Consultants</td>
</tr>
<tr>
<td>• benchmarking</td>
<td>• ad hoc groups</td>
<td>Content analysis</td>
</tr>
<tr>
<td>• workout programs</td>
<td>• internal management development</td>
<td>Advanced:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dialog</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Scenario Planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Merlin Exercise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Practice Fields</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Action learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Six Sigma Quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. CAP - Change Acceleration Process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Knowledge Management (KM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• K-maps</td>
</tr>
</tbody>
</table>

Source: Fulmer, Gibbs and Key 1998.
A powerful benchmarking tool that no special librarian should be without!

Order today and use your’s to compare and contrast wages and other earnings of thousands of special librarians in various regions in the U.S. and Canada.

New features!
In addition to the data you’ve come to depend on, this year we’ve included more breakdowns by industry, size of library, title, responsibility and geographic region.

The book also contains salary data on the dynamic and expanding responsibilities of special librarians.

Find out how much you could get paid if you did this:

- Knowledge Management
- Intranet/Internet development
- Database software design
- Marketing
- IT administrator

Find this information and more in the latest salary survey!

Prepayment is required for all orders. Orders are shipped via UPS and should arrive within 2-4 weeks.

Name____________________________ Org. ___________________________ Phone________________________
Street Address__________________________________________________________
City________________________ State/Province________________ Zip/Postal Code_________ Country_________

Check enclosed
Bill to credit card ____ Visa ____ Mastercard ____ AMEX ____ Diners Club
(US dollars only)
Account #____________________________________ Expiration________________
Signature___________________________________________

<table>
<thead>
<tr>
<th>Qty.</th>
<th>ISBN</th>
<th>Title</th>
<th>Member</th>
<th>Non-Mem</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-87111-519-0</td>
<td>SLA Annual Salary Survey 2000</td>
<td>$45.00</td>
<td>$54.00</td>
<td></td>
</tr>
</tbody>
</table>

Phone 1-202-939-3673, Fax 1-202-234-2442, Email books@sla.org, Virtual Bookstore www.sla.org.
Special Libraries Association, Order Dept., 1700 18th Street, NW, Washington, DC 20009 USA
software; (2) customizable off-the-shelf (COTS) packages; and (3) in-house development. There are three myths/legends that need to be debunked. No option is the "magic bullet" solution.

1. Commercial plug & play is [all/not at all] what we need.
In opting for commercial software, the cost of development is shared with others and there is the added benefit of the supplier's development expertise and insight into CI systems. However, the system might also include unwanted features or lack important ones. The vendor's promises might fall short of reality.

2. Customizable off the shelf [gives/costs us] WHAT?
Choosing COTS can provide a clear advantage in terms of creating a system that matches user requirements without the cost of creating a unique system. However, going "outside" for the customization delivers core knowledge about an organization's business processes to outsiders, the vendor may not actually have the skilled employees required for high-level customization, and the process might be far more expensive than initially anticipated. Access to (and ownership of) the code can also be an issue. The organization can be held hostage to costly technical support of the final hybrid product.

3. In-house is [cheaper/more expensive] than other options.
In-house is not automatically cheaper/more expensive than other options. You might get a considerably better product without the risk of outsiders getting access to sensitive information. Your project might be "piggybacked" onto an existing project at little additional cost. However you might also find that project resources have been "hijacked" or that other projects continually have a higher priority. You might have a great price from the in-house team, yet never get the system built.

In evaluating system options, it is a good idea to develop a features "beat sheet" or features comparison checklist. Examples of such features are:

- Natural Language vs. Structured Queries
- Jargon-mapping. The following list illustrates the different terms used for similar concepts (Pearson 1999).
- Locals - Plan, Do, Study, Act
- Explorers - Explore, quantify, analyze, verify
- Scientists- Problem-solve, teamwork, new ideas, create value
- Systems - Chaos, simulation, team learning, feedback
- KM - Communicate, virtual consults, knowledge base. lessons learned
- K-building - Psychology, statistical methods, systems theory, Knowledge theory
- Content Mining (good for e-mail)
- Statistical Process Control (SPC)
- Constant Processing
- Taxonomy Templates
- Flat and stays close to the business process
- Visualization Software

To properly organize a project plan, the project manager must break the project down into its parts using hierarchical decomposition that includes the following: (1) work breakdown structure; (2) PERT chart; (3) GANTT chart; and (4) resource table. A work breakdown structure is an extension of an organizational chart that is used to show the essential components of the system. Because a work breakdown structure is used to break projects into manageable pieces, it is possible to work on and monitor one phase at a time. Once this is completed, a task network or PERT chart is used to identify tasks with parallel, or sequential, execution. After the PERT chart has been developed and a critical path defined, a Gantt chart is developed to show:

- What tasks must be done
- When they should start
- When they should finish
- How long each should take

Gantt charts are very useful, because they provide good visibility of major tasks and allow for comparison of tasks with estimates and actual project status. Along with this, a resource table should be developed that shows who is available to work on the project and what, exactly, is their availability.

4.2 Plan to Action!
User feedback is essential to the identification of system requirements and good system requirements are essential to project success. If a customer is unsure of what exactly is needed then an iterative prototyping approach can be helpful in more accurately pinning down requirements. After each prototyping iteration user feedback is used to modify the prototype. This process continue until maximum benefit for minimum cost has been achieved. New conditions are documented—success metrics are generated.

4.21 Managing the Team
The fatal error that some teams make is to develop a "throw it over the wall and see what sticks" mentality. This happens when a team defines a set of system requirements, develops a system and then just throws it at the users. In this situation, there is very little end-user testing. Follow-up is restricted to those features that "stick." In reality, useful features may have unrelated problems such as dated or poorly formatted content. Once the system has been defined, it is important for the team to keep stakeholders involved in the development process, since there are sure to be technical and functional trade-offs.
A determination of the bottom line value of libraries and information centers has proven difficult because of the intangible nature of the value and the use of archaic accounting systems that for the most part focus on tangible or physical assets rather than intangible ones. The problem is that the intangible value of libraries and information centers may be orders of magnitude greater than their tangible value. To overcome some of these measurement difficulties this workbork presents four different approaches to the intangible valuation of information resources.
4.22 Management Reporting
For a project to be considered a success, it must show steady progress. In the case of systems development, no news is almost always considered bad news, so the stakeholders should never have unpleasant surprises during development. Weekly team meetings that monitor and track progress should be held. From the very beginning of the project, of course, it should be clear to all parties as to the type and frequency of progress reporting that is expected. It is essential that milestones be monitored and management and other stakeholders be kept informed of progress.

4.23 Quality Assurance, Control
Quality is not something that can be added at the completion of a project—it needs to be included from the very beginning of the project. During the development process, it is important to review quality early and often. An excellent method for improving quality is to use peer reviews to identify and remove errors. Used properly, peer reviews can (1) save time, (2) improve the quality of the product, and (3) be more efficient than testing for identifying faults (McConnell 1997). Peer reviews can involve both team members as well as selected clients. Team members can work through various scenarios with the client. As a result of this stakeholder interaction project results are found more credible by the stakeholders.

Step 5: Measure: How Well

5.1 Feedback
Once the system has been opened to the users, there are several specific passive and unobtrusive methodologies that can be used to obtain feedback. For example, transaction log analysis (TLA) can be used to identify where (and in what direction) patterns of usage may have changed. (TLA requires that a baseline be established at the inception of the project.) E-mail response can also be integrated into the system. Ethnography, in the form of analysis of user feedback messages, can be used to direct future enhancements.

5.2 Post-Mortem Review
Many useful lessons can also be learned from a post-mortem review of the project. The post-mortem review should not be used as a performance review of individuals, but as a vehicle to discover what went right/wrong in the project. What went right should be institutionalized. For example, how good was the risk analysis? What risks did or did not happen? What else should be considered, or managed more carefully, next time? The post-mortem review can also be used as a vehicle for quality control. The information acquired can be used to improve all phases of future projects. It is particularly useful to have ideas, issues and problems documented throughout the project and examined during the post mortem review. The whole contribution to date can then be evaluated. While it might not be advisable to share all the information from the post mortem review, it will be helpful if an expunged version is made available within the organization.

Endnotes
SLA Member, Sandra Kit Announces New Releases

Author and SLA member Sandra Kitt, has announced the August release of her 21st novel, called “She’s The One”, from Signet Books. Sandra is the author of “The Color of Love”, “Family Affairs”, and her most recent, “Close Encounters”, which was named among the Top Ten Contemporaries for 2000 by amazon.com.

Known for her emotionally rich stories, and characters that come to life, the author has invented a heroine who is a librarian! “She’s The One” is the story of single professional black woman, Deanna Lindsay, who is named the guardian of the daughter of an acquaintance she hasn’t seen in seven years. No one believes Deanna’s capable of caring for the child, including Patterson Temple, a fireman and a friend of the child’s mother. Deanna’s life is turned upside down and further complicated by troubles at her office, and the sudden appearance of the child’s father who is trying to blackmail Deanna.

Sandra Kitt is the Manager of Library Services for the Richard S. Perkin Collection in Astronomy and Astrophysics at the American Museum of Natural History in New York. She is a member of BCALA, and Special Libraries Association. Sandra is Past President of the New York Chapter of SLA, and recently served on the Search Committee for the SLA’s new Executive Director.

Her work has been praised by Library Journal, USA Today, and The Black Scholar, and has appeared on the Black Board best seller list in Essence Magazine. A short story included in GirlsFriends, and anthology from Harper Collins, was nominated for the prestigious NAACP Image Award for Fiction in 1999.

Jan Hayden Accepts New Position Within Nike as Footwear Materials Resources Specialist

SLA member, Jan Hayden has accepted a new position within Nike as Footwear Materials Resource Specialist. She is charged with designing a library that will house approximately 10,000 textile samples for Nike’s footwear designers. Jan is a member of the Oregon Chapter and the Museums, Arts and Humanities Division.

Because a collection of textile samples, rather than books, will be housed, a great deal of creativity is required. A database of cataloging information about each material sample has been established, and will be converted to a web-based version by late fall of 2001. Nike’s material vendors will partner with the library to showcase a wide range of textiles as well as leathers and synthetic leathers in the collection.

Jan has been working in Nike’s Design Library for the past five years. When the materials group searched Nike internally for possible candidates, they looked for someone with library experience and library design skill. They were willing to train a librarian in the subject of textiles. Jan decided she couldn’t pass up such a unique opportunity (although it is her third library design project), and she is enjoying learning more about textile design and fabrics.

Viola Furumoto, SLA Member Dies

Viola Furumoto passed away on April 15th, 2001, at her home in Kona, Hawaii. Viola was a librarian at the University of Hawaii at Manoa, Science Technology Reference Dept., and retired in 1988. She had been a member of SLA since 1973.

Former SLA Member Bonnie-Jean Radtke Dies

Bonnie-Jean (Woodworth) Radtke, 60, of Bloomfield, died on April 26, 2001 at Saint Francis Hospital. She set up the Investment Library at the Hartford Insurance Group and ran it for 25 years. She was past President and Board member for both the Capitol Region Library Council and the Connecticut Valley Special Libraries Association.

Karen Holloway to attend Institute for Women in Higher Education

Karen Holloway, Team Leader of the University of Arizona Science-Engineering Library, has been selected to attend the 2001 Summer Institute for Women in Higher Education. Bryn Mawr College and Higher Education Resource Services, Mid-America, sponsor this prestigious program jointly. The institute selects women who demonstrated leadership ability and offers them intensive training in education administration. In its 26th year, the Summer Institute seeks to enrich the leadership of North American higher education by providing its participants with skills and information.
pertinent to the management and governance of colleges and universities.

Shirlee Schwarz is named the 2001 Karen J. Switt Award Recipient

The 2001 Karen J. Switt Leadership Award winner is Shirlee Schwarz, President of Library Consulting Service in Westport, CT. Shirlee was nominated by her colleagues for her numerous roles within the SLA Fairfield County Chapter as well as her hard work for the Special Libraries Association’s Library Management Division’s Consulting Section. She is also being honored for her role in mentoring numerous new, and some not-so-new, special librarians. This award is given by the Library Management Division and the C. Berger Group, Inc. and is presented at the annual LMD luncheon. The winner receives an engraved crystal sculpture as well as a check for $750 from the C. Berger Group, Inc. of Carol Stream, IL.

Each year since 1988, at the Annual SLA Conference in June, LMD has honored one of the division’s members in recognition of significant leadership in the information management profession during the previous five years. Accomplishments must be in some aspect of library and information management, for example: visionary leadership, planning and strategy, information policy, technology, communication, marketing, public relations, human resources, finance or ethics.

Annual Meeting, Banquet, and Awards Presentation of the North Carolina Chapter of the Special Libraries Association

SLA members from across the state of North Carolina came to the Annual NC/SLA Business Meeting and Awards Banquet at the Guilford Convention Center. Joanne Garci Marshall, Dean of the School of Information and Library Science at the University of North Carolina at Chapel Hill, spoke to members about “Workforce Issues Facing Special Librarianship.” Dean Marshall’s comments engaged everyone concerned with scarcity of applicants and the “graying” of the profession. Among other strategies, she encouraged everyone to enliven their commitment to NC/SLA, particularly by mentoring new librarians and students. Ellen Leadem, President, then offered congratulations to the newly elected officers, and sincere thanks to those who agreed to run and to outgoing officers for their service to the chapter. Assuming new roles on the Executive Board are President-elect-Densie Boldt; Director-Elixa Robertson; and Secretary-Becky Carvajal.

Mary Schwartz, Sara Aull Chair, presented the Sara Aull Student Paper Award of $500 to K.T. Vaughan, student of the School of Information and Library Science at the University of North Carolina at Chapel Hill, for excellence in writing while contributing to the literature of special librarianship. Ms. Vaughan’s paper was entitled “Methods for Journal Collection Evaluation in Science Libraries.”

Ann Stringfield, Past-president and Awards Chair, noted that the next two award winners for 2001 have their outstanding support of Library Information Science students in common. Barbara Best-Nichols presented the Meritorious Achievement Award to Robert Baillard, professor at North Carolina Central University. Ms. Best-Nichols noted that her former professor had often gone above and beyond the call of duty in order to support students in their NC/SLA interests.
2001 Karen Sternheim Memorial Scholarship Recipient Announced

The winner of the Southern California Chapter's sixth annual Karen Sternheim Memorial Scholarship, chosen from 15 applicants, is Aura Lippincott, a master's degree candidate from the UCLA Graduate School of Information Studies. This year's award of $3,000 was presented to Aura at the chapter's annual business meeting on May 17 in Pasadena, CA. The scholarship was established by the Southern California Chapter of the Special Libraries Association to provide assistance to a student enrolled in a graduate master's degree program in library and information studies that intends to pursue a career in special librarianship.

Aura earned a B.A. in Philosophy and Political Science from George Washington University in 1992 and expects to graduate from UCLA's Information Studies program in September of this year. Currently an assistant to the librarians at UCLA's Rosenfeld Management Library, Aura's responsibilities include development and maintenance of library Web pages, including course support materials and case studies. She also develops user guides for business databases and presents orientation workshops in software applications to MBA students. Aura is a member of UCLA's student chapter of the Special Libraries Association and served as Vice President from 2000-2001.

The Sternheim Memorial Scholarship honors Southern California Chapter member Karen Sternheim, who was employed by the UCLA Management Library from 1980-1993. Karen was very involved in the Special Libraries Association and was an active member of the Scholarship Committee and UCLA's student group. She also participated in the UCLA Library mentoring project and supervised information science graduate interns employed by UCLA's Management Library.

For more information on the Karen Sternheim Memorial Scholarship, please visit the website at http://www.sla.org/chapter/csca/stern.htm.
**July**

**American Association of Law Librarians**
New Realities, New Roles
July 14-19, 2001
Minneapolis, MN, USA
www.ala.net/events

**Church and Synagogue Library Association**
World of Media: expand your mind
July 15-17, 2001
Norcross, GA, USA
www.worldaccessnet.com/

**TICER**
International Summer School on the Digital Library
July 9-24, 2001
Tübingen, The Netherlands
Florence, Italy
http://www.icsi.berkeley.edu/ticer/summer01/index.htm

**August**

**University of Aarhus**
Hypertext 2001
August 14-18, 2001
Aarhus, Denmark
www.htol.org/home.html

**IFLA**
Making a Difference in the Library Age
August 16-25, 2001
Boston, MA, USA
www.ifla2001.org

**Australian Library and Information Association**
Rivers of Knowledge: 9th Special, Health and Law Libraries Conference
August 26-29, 2001
Melbourne, Australia

**September**

**WebSearch University**
Power Searching with the Pros
September 9-11, 2001
Reston, VA, USA
www.websrchu.com

**Tending the Garden of Knowledge: An Inside Look at Communities of Practice**
SLDC/Information Outlook 2001 Virtual Seminar Series
September 26, 2001
Featuring Etienne Wenger, consultant and author of Communities of Practice: Learning, Meaning and Identity
2 pm-3:30 pm (ET)
http://www.sla.org/content/Events/strategic/index.cfm

**Eusidic Annual Conference**
Information Value Chain September 30-October 3, 2001
Baden-Baden, Germany
www.eusidic.org

**October**

**Internet Research 2.0:** INTERconnections
The Second International Conference of the Association of Internet Researchers
October 10-14, 2001
Minneapolis-St. Paul, Minnesota, USA
www.cdc.vt.edu/aor/index/

**November**

**SLA Technology Forum**
(SLATech 2001)
October 24-28, 2001
Keynote speakers: John Seely Brown, Hal Varian and Kevin Kelly
Hyatt Regency Monterey Monterey, California USA
www.sla-learning.org/slatech

**Information Today, Inc.**
Knowledge Drivers of the e-Enterprise
October 29-November 1, 2001
Santa Clara, CA, USA
www.infotoday.com/kmwd01/default.htm

**December**

**Tempered Radicals:**
Change Agency in the 21st Century Organization
December 5, 2001
SLDC/Information Outlook 2001 Virtual Seminar Series
Featuring Debra Meyerson, professor of management at the Simmons Graduate School of Management in Boston
2 pm-3:30 pm (ET)
http://www.sla.org/content/Events/strategic/index.cfm

---

**The New SLA Online Events Calendar has it all**

You can now find out what events are being put on by HQ, SLDC, Chapters, Divisions and all SLA units in one place. The SLA Online Events Calendar is the perfect resource for information on events and happenings in the information profession.

http://www.sla.org/calendar/

---

**2002 and Beyond**

**SLA Winter Meeting**
January 24-26, 2001
Chicago, IL, USA
www.sla.org/content/Events/index.cfm

**SLA 33rd Annual Conference**
Putting Knowledge to Work®
June 8-13, 2002
Los Angeles, CA, USA
http://LosAngeles.sla.org
We’ve changed

Now there's a faster way to find the solid information you need... while saving time and money!

- Think of Nerac as the ultimate “search engine.” Going beyond a traditional Internet search, Nerac searches are performed for you by our scientists and engineers who have access to the world's foremost scientific, technical, patent and business databases.
- For a FREE DEMONSTRATION of how we can help you or a free CD-ROM, click here or call us at (860) 872-7000.

We connect companies that need information with our specialists who find answers.

From technical problem-solving, to technology tracking, to patent images, to document retrieval, make Nerac.com your first stop for information.

© 2000 Nerac, Inc.
This is the information that is found by the account planner who puts it into the report that is forwarded to the client who awards the business that earns the company a cool million.

This is Profound.

The CEO wants corporate intelligence. The CFO wants financial data. The CMO wants market research. All in an in-depth report with colorful graphics and insightful analysis. Oh, yes. And they need it by end of day today. If you've ever spent time turning disparate pieces of information into comprehensive reports, Profound™ can change your world. In just a few keystrokes, you can pinpoint research reports on virtually any industry, browse their contents, and download all or parts of them—complete with charts and graphs—into your latest document. Profound. It's the easiest way to impress the CEO, the CFO and the CMO... ASAP.

To sample how, visit www.dialog.com