Ubiquity — “everywhere-ness” — clearly dominated the Spring Internet World Conference held at the Los Angeles Convention Center from April 12-16, 1999. The Web is or soon will be everywhere — not just imprisoned in your computer anymore! If the Internet industry has anything to say about it, you’ll find the Web in your watch, on your TV, in your appliances! Some of the gold rush fever was still evident in the exhibit hall, but clearly the Internet has arrived as a rapidly growing and highly volatile industry. Looking at some of the exhibitors in the hall you have to seriously wonder if they will survive the next year or two. Many exhibitors have products in search of customers, but don’t seem to know what problem they could help potential customers solve.

By the way, this spring Internet World conference marks another example of businesses evolving around Net realities. The former owner of the conference and the magazine it was named after, Mecklermedia, sold out last year to Penton Media, the publishing arm of an ancient distributor of burglar and commercial fire alarms. When Alan Meckler sold Mecklermedia, he left the magazine behind and kept his $100,000 domain name — www.
What struck us most about the entire Spring Internet World program was how completely it had changed from the domain of technologists and computer gurus to the world of business and marketing.

gines. He explained the different types of search engines, such as crawlers and directories. Search engines read pages found on the Web and store text in an index and when you search they look for pages with matching text. Given the tremendous growth in Web pages, finding a way to make your Web site pop up to the top of the results list has become very important. Mr. Sullivan gave lots of hints as to what helps getting your Web site to the top of the list, including:

- Title of the site is important.
- Meta tags may help.
- Page content is crucial.
- Listing in an associated directory can help.

Sullivan stressed that keyword selection is very important in order to rank highly in searches. He suggests making a list of the top terms that identify your site accurately. He recommends two- or three-word phrases rather than a one-word term. Use live search displays or goto.com to research ideas for what's popular. Specific and unusual terms work best. Although you can't anticipate everything, he suggests letting your page content work for you. It's better to have lots of shorter pages and make the titles engines include image maps, dynamic pages, and symbols such as ? for questions.

The more popular the Web site, the greater your chances you'll get indexed in Lycos. Web crawlers tend to list only home pages and not the entire site. In submitting pages remember that instant indexers add the site within a day or two, but crawlers can take weeks to journey round the Web. Eventually, all search engines will crawl your Web site. Monitor your site once you have it up, because pages sometimes disappear for no reason. Some engines sell their listings, and the higher the bidder, the higher the placement on the page.


What struck us most about the entire Spring Internet World program was how completely it had changed from the domain of technologists and computer gurus to the world of business and marketing. Most programs emphasized how to make your Web site appealing, attractive, and marketable in order to sell more from the site.

Some programs still emphasized the technology and how people used it. "How Online Newspapers Are Using the Cool Tools" had several technologists from newspapers such as The Los Angeles Times and The Washington Post automating the Web site development process in order to reduce manual delays and overhead and ensure as timely a Web site as possible. Even here the concern for efficient, speedy automation arose from the need to effectively compete against other online newspapers and sell more content and advertising space. Commerce is clearly driving the technology ever further.

In his presentation on "Getting Top Management to Sign Off on the Internet," Joel Maloff of Internet Operations Center, Inc. stated that you have to "create a business case that management can understand. You can increase revenue, reach more customers, increase customer service, enhance your quality and corporate mission, and generally be more effective and efficient." He also stated, "The Internet is a business function and not just a technical function."

In his presentation on "Information Asset Management," Mark Mathias told listeners to make doing business easy. Treat every customer as an individual, which the Web makes much easier to do. He believes that static Web sites are dead. You have to increase the switching costs for your customers to go elsewhere. Make product information, customer information, order status, and policies and procedures into information assets. Ensure that your Web site meets standards that in turn ensure longevity and compatibility. How people perceive your company on the Web is a reality you must deal with. The Web represents a growing proportion of people doing business with you. Although to-
day most Web sites only provide one-way communication, he thinks this will change. Most Web sites will become database driven.

Into the Exhibits

Wandering among the exhibitors, playing around with the software packages on display, and chatting with senior executives from vendor corporations led to a range of insights and impressions. Directly or indirectly the trends, strategies, and directions that characterize the vendors' world views will have significance to the online searcher community.

Above all, the latest Internet World exhibit hall demonstrated the shift from a technology focus to a business paradigm. Early Internet World events had exhibit halls with a wide range of toolset providers for techies, primarily with an individual contributor focus — Web site development, network security, streaming media toolsets, etc. Sure, you could always find aspiring ISPs and virtual community leaders who staked out their turf, but the jargon on the floor and the lingua franca in the halls were those of the TCP/IP expert, the CGI scripter, and the multimedia guru.

For better or worse, all that has changed. Today's exhibitors just want to make money and lots of it. They are targeting middle-tier companies and groupware, rather than individual knowledge workers. A mass migration has occurred, moving baseline technology vendors from Internet World to Interop, Knowledge Management World, and CTI expo. The exposition world has clearly segmented itself. The number of vendors participating across the board has dropped to only the global players such as Microsoft, Hewlett-Packard, IBM, and the superstars of the Internet, such as Yahoo! and Amazon.com.

Collaborative environments, e-commerce, interoperability, and customer care appeared more on the exhibit hall than FTP packages and individual productivity tools. Turn-key or quasi-turn-key solution providers dominated the floor acreage. Many suppliers tried to reposition themselves in this new world; many clearly had only made awkward attempts to repackage or spin-doctor an older or strategically flawed business model for this new world. The range of contradictions and baffling partnerships and business collaborations boggled the mind. A number of well-funded e-commerce and I-commerce outsourcing firms aggressively pushed the notion that one could outsource these two functions. The notion of who manages the content and information implicit in these systems somehow eluded both vendors and prospects.

Toolkit suppliers versus turn-key solutions providers formed the fundamental contrast of this evolving market. Although both groups clearly targeted clear: These folks intend to supply information before its absence motivates a knowledge worker or executive to explicitly seek it out.

On the other hand, some transformational trends and opportunities appeared for online searchers to escape their role as captive handmaidsens to online database providers. Vendors have begun to recognize the merging of content provider and online searcher roles. TriNet VCO, for example, sought a content editor for its e-commerce products whose credentials and tasks bear a striking overlap to those of the online searcher/librarian:

Responsibilities of Content Editors include daily testing and/or fixing of data (semantic structures) in our databases. Content Editors try to meet user needs as our databases, and audiences, grow and change. You should be

Today's exhibitors just want to make money and lots of it. They are targeting middle-tier companies and groupware, rather than individual knowledge workers.

core business processes and group interactivity, there was a clear dichotomy between the two in terms of object-orientation of the newbies versus the relational/client server models of the established players. At the core of the dichotomy lay the imbedded shift from a relational and query-based approach to an object-oriented data architecture with its implicit challenge to content management. Instead of depending on information specialists or knowledge workers to perform ad hoc queries or research, the product suppliers and service providers positioned their wares as integrating data and information into the business process — migrating from data relevance to information as a process component. The threat to the traditional notion of a dedicated online searcher or information broker was familiar with working in a Windows environment and using the Internet/WWW. A meticulous, detail-oriented individual with strong troubleshooting skills will find the most satisfaction as a Content Editor. Especially important is the ability to ferret out the core of a problem and report test results clearly.

In addition, examining their positioning, one can discern the shift from explicit query to embedded searching within a business process — invisible librarianship.

This company is NOT your standard issue Internet search engine company! Instead of entering keywords, users enter questions in plain English. Instead of receiving an endless list
of Web sites as a search return, users receive more questions designed to "home in" on the meaning of the initial query. This way, the links that are provided actually relate to the information sought by the user.

Underpinning technologies in the real world are still overwhelmingly relational. This was reinforced by an interview with Rod Legg, a key member of IBM's e-commerce services group, who also spoke at the conference. In spite of the avalanche of verbiage regarding Java, Java Beans, UML, and object-oriented programming, despite all the talk of Verity and newer database architectures, the implementations in the real world are limited to meta extensions, XML, etc., and their links to the workhorse relational databases from Oracle and the established players who control the back-end engines that run the business. LOTUS Domino, for example, still seems to have the same underpinning client-server architecture that it did 7 years ago. One could clearly pick out the traditional vendors who were hawking I-commerce and intranet extensions as opposed to those vendors offering a new model.

Targeting middle-tier enterprise was another overarching marketing theme on the floor. The gamut of e-commerce integrators and outsourcers targeted middle-tier corporations (say $50-250M). Promotions and on-the-floor product presentations appealed to brick-and-mortar companies and late adapters entering into the wild and woolly world of e-commerce. SAS, for example, has transformed itself into a customer care company and is positioning its analysis tools as an e-commerce enabler to operate on large data sets. This repositioning shows a marked contrast to its historical role as a toolset for quantitatively oriented researchers in academia and large companies' market research departments.

But Do They Really Get It?

Some brick and mortar companies are selling the family jewels to virtual companies. All these service companies and outsourcers are building data, knowledge, information, and the difference between ownership of data assets and representations of the assets of others. Main stream information providers still do not seem to fully understand or recognize this theme of disintermediation between online database providers and owners of the data itself. As I-commerce and e-commerce environments incorporate external data into their processes, the imperative to perform ad hoc queries will clearly decrease. Yet these online companies display little recognition of middleware and process integration — their product extensions primarily target end-user analytic toolsets.

The online searcher of today and the librarian of yesterday will evolve into the content manager and process designer of the future.

Implications for Librarians and Online Searchers

The online searcher of today and the librarian of yesterday will evolve into the content manager and process designer of the future. The centrality of taxonomy and indexing to knowledge based products/services, as well as brick-and-mortar products, over the Net will drive this transformation. For example, we heard several speakers separately mention that no Internet or intranet project should be done without having a librarian as part of the team. This alignment of taxonomy, indexing, data, and information with business process architecture is clearly taking place. Whether the mantle and challenge will be picked up by traditional information professionals or stolen by e-commerce directors, content managers, and other gatekeepers of the future is another matter.

Doris Small Helfer is chair, Technical Services Department of the University Library at California State University, Northridge. She was recently elected to the SLA Board of Directors as Division Cabinet Chair-Elect.

Joe Helfer is co-founder and CEO of KMRS, a knowledge management company. He previously worked for a variety of high-technology companies including Digital Equipment Corporation.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Sprint

I tried out Sprint's new Internet conferencing services after a chat with the product manager. Ease of use is the primary focus of this data and voice conferencing service. Even a middle manager could use it. The service is oriented to one-to-many communication with some degree of whiteboarding built in.

As a telephone company, Sprint faces the traditional telephony business dilemma — how far up the OSI model can we go without diluting our resources or overreaching our core competency or cannibalizing a revenue stream? By targeting corporations without integrated, multiperson Web conferencing — almost everybody — Sprint is attempting to capture the one-to-many space in a transparent manner. This involves two pieces — a multiperson telephony conference and a multiperson shared whiteboard/PowerPoint presentation space with collaborative capabilities. Unlike Netmeeting's one-to-one videoconferencing or CU-SEE ME's natural limit of eight at most, the Sprint Internet Conference Center product would work for corporate teams of larger numbers. They have packaged it to minimize speed to conference and maximize simplicity of participation. Listen to their advertisement:

Conference calling used to require advance scheduling — from a few hours to a few days. But sometimes you need to gather the group NOW. Sprint Internet Conference Center makes immediate, ad hoc conferences possible...without leaving your desk.

Amy Holmes, group manager for voice and data conferencing with Sprint, clearly has her targets in sight: sales campaign roll-outs for large companies, new product introductions, training for distributors, etc. The loose connections between the telephony and groupware capabilities clearly mark this as a stop-gap product. However, it feels like a good service, one that can roll out a PowerPoint presentation to multiple recipients while corporate headquarters gives a voiceover and a selected subset of participants conducts some whiteboard Q&A. Take a look at the service by visiting http://www.sprintconf.com.

Resonate

Cameron Lorentz, vice president of Sales at Resonate (http://www.resonate.com/), tries to address the key issues for B2C in terms of level of service. The adoption of Resonate's products by the likes of e*Bay and Excite testifies to his success.

In essence Resonate wants to reach service levels that approach POTS (plain-old telephone service) using distributed technology assets — routers switches and servers. Quoting from their literature for illustrative rather than marketing purposes makes this quite clear:

We're running a real-time online financial center, offering online trading 24 hours a day, seven days a week.... If the stock transaction framework is the heart of E*TRADE, then the Resonate site management tools, Central Dispatch and Global Dispatch, are the brain.

Online securities trading is the mission critical part of our business, with Internet transactions accounting for more than 55 percent of all our trades. Resonate Central Dispatch brings security, availability and scalability to our Web site, providing a more robust solution for our customers.

In the past, only large computer hardware suppliers such as IBM, DEC, Tandem, etc., or telephone switch vendors like Nortel and Lucent supported such levels of online reliability. Resonate recognizes the challenge inherent in service level issues for the entire distributed and outsourced environment.

Sideware

Michael Markworth, vice president, Strategic Marketing at Sideware (http://www.sideware.com/), an innovative Canadian corporation, provided the most in-depth and enlightening discussion of the conference. Unlike many of the e-commerce vendors on the floor, these folks offer something radical in structure that appears quite business-like and rational on its surface. While targeting a classic business problem's solution, Sideware has moved beyond the me-too arena and into the next wave.

Starting from the premise that most e-commerce prospects bail at the last minute and don't buy, Sideware tries to address a quantum jump in capture rate and to transform surfers into consumers or interactors with the Web enterprise. The model builds a personalized environment that draws the customer into it. Sideware offers an integrated POTS (plain old telephone service) and Web-enabled help desk with push technology available to the customer care representative. A human operator can answer questions and create FAQs by looking up prior research, but the system pushes external Web sites and applications at the target during the session. This is the first truly object-oriented architecture for customer care environments that we have seen. Whether FAQ or CSR (customer service request), this system allows a video or application to be pushed to the user while they are still chatting with a service rep on the phone. This ability to integrate external data sets and application sets on the fly is unique.

Their CTI (computer telephony interconnect) is with Lucent and involves a PBX operating in concert with a router/server combo — the present "cludge" system that everyone uses. However, online searches should appreciate the capture mechanism for missing information. Sideware embeds indexing tools and a mineable database into the process, rather than relying on intermedation by a librarian or searcher per se.

The revolutionary aspect lies in the inclusion of external data and informatic elements into the system on an explicit basis. Empowering a knowledge worker to push information from external sources, much as the traditional researcher or librarian does, and an object orientation to reuse and repackaging DIKW is quite new and, in our humble opinion, a precursor of the world to come.

Presently it requires a full scale integrator to implement, such as SAIC, but this is a truly empowering software toolkit and module set that could represent a killer app for a company seeking a strategic weapon to leapfrog its e-commerce competitors.