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THE NET

SEARCH: The Internet and the World Wide Web are growing faster than any media in history. As a result of this growth, those using the net and the web are continuously faced with overwhelming complexity, as new websites appear by the hundreds or thousands each day. What's more, the content on new and existing sites grows and changes, often on a second by second basis. The net does not stand still; it races to become bigger and more complicated and complex all the time.

The problems this growth and change present to net and web users are myriad, forcing habits in this early stage of the net's history to fix on issues like familiarity and ease of use. This is especially true in the search space, where the major search engines have enjoyed unparalleled growth and fidelity over the past three years.

This growth, for the most part, has led search engines to molt into something more. As they noticed that their users returned again and again, the search engine companies realized that their businesses revolved much more intensely around utilizing these repeat customers. If a user comes to a search site to find something on the net, perhaps he or she would be willing to do something more than search.

At first, search engines exploited their repeat uses by showing advertisements to users. Then they started adding far flung services to their menus of search capabilities. As these search companies began to demonstrate the strong connection that users had to their sites, they could demonstrate to advertisers and others that they were, in fact, the ultimate web destinations.

Companies like Yahoo!, Lycos, Excite, Infoseek, AltaVista and others molted into portals and hubs, sites aimed at converting surfers into intense users and buyers. These portals also attracted a great deal of corporate attention from media and technology companies, anxious to expand their own net portfolios.

Though Yahoo!, the largest and most popular of the portals, remains independent, many of the others have joined larger companies. AltaVista, originally sold to Compaq Computer, has now been sold again to CMGI, the owner of Lycos. Excite was snapped up by @Home, which was bought by AT&T. As this issue goes to press, the possibility of a sale of Excite@Home to America Online (AOL) is at the top of the Wall Street rumor mills. c|net invented Snap and they were both snapped up by General Electric's NBC. Infoseek is the search anchor for Disney's Go.com portal website.

Now, the real news on the search scene is not just merger and acquisition activities and consolidation, but the introduction of new technologies. Among the first wave was the introduction of Ask Jeeves's ask.com, which uses a variety of advanced computational technologies, including neural nets, to parse the search query and submit it to a number of search engines. Dell Computer (a major owner of the new FAST, a search engine that vows to index the whole web, eventually) uses ask.com's natural language facilities at the customer service section of the computer maker's very popular ecommerce dell.com home page website.

Earlier this year, Inktomi, the company originally behind the search technology for HotBot (when that was a really good search engine), and now a supplier of search and other net infrastructure technologies to a host of companies (e.g., AOL, Excite@Home, c|net, CNN, GoTo.com, Yahoo!, etc.), announced that it was using advanced technologies (including neural nets (NN)) under the direction of Gordon Sun. Inktomi's new NN-based Directory Engine technology, as well as its new Concept Induction,™ system, aim to help portals customize their content and directories for search offerings and supporting technologies.

Now, two companies are poised to make new moves on the search scene and hold out the promise for even more advanced technologies to come in the future of the search domain. Both are aimed at supplying their new technologies to other companies rather than directly to end users.

San Francisco, CA-based Verge Software Corp. (http://www.vergesoft.com/)announced late last month that it had hired neural network tensor network theory pioneer Andras "Andy" Pellionisz as Chief Intelligence Officer and Senior Architect. Pellionisz will be bringing his skills in artificial intelligence, neurocomputing, XML (extensible markup language) and NLP (natural language processing) technologies to Verge's new software packages. The company describes its offerings as "software that customizes the web for professionals, allowing them to keep, link, and do smart searches on the information that matters to them."

Before joining Verge, Pellionisz invented, designed, coded and managed the development of "Mr. Turing," a beta product created for intelligent Internet consulting and information routing for Kanisa, a software affiliate of Ernst & Young. Before Kanisa, Pellionisz founded and directed the Silicon Valley Net Institute. He also worked for the National Research Council at NASA Ames, and was a professor at New York University.

Earlier this year, Verge licensed Autonomy's intelligent functions tools, software that forms the basis for Ask Jeeves's advanced functions. The company, with Pellionisz's technical leadership is now working on an intelligent web capture tool, due for release before the end of this year.

Providence, RI-based Simpli.com, a new start-up (http://www.simpli.com/), announced its existence just this month. At the time the company was announced, it revealed that it had new, patent-pending, "intelligent" search engine technology rooted in the principles of cognitive science, psychology, linguistics and computer science. The new technology is called SimpliFind.

According to Jeffrey M. Stibel, Chairman, CEO and co-founder of Simpli.com, Inc.: "The holy grail of Web search technology is to be able to pull information from the broadest range of sources, yet deliver users precise and meaningful results." Stibel worked for several years at GTE on product development for an interactive portal and search engine site.

He is joined at Simpli by President and COO S. Russel Craig, formerly with Andersen Consulting, McKinsey and Co. and Arthur D. Little, Inc., and Vice President and Chief Scientist James A. Anderson, Professor and former Chair of the Department of Cognitive and Linguistic Sciences at Brown University.

Simpli.com believes that its approach to search will bring new parameters and actions to the search field. It has incorporated design, performance elements and aspects from cognitive science, psychology, linguistics and computer science in order to make the search process a more intelligent and friendly one for the user.

Simpli.com, which will have web-based proof-of-concept demonstration software in a beta test later this year, starts by disambiguating the user's search term (e.g., does java = coffee, computer language, place?). But, when it submits the search query to any number of engines on behalf of the user, it may still use all those meanings. The difference from previous search strategies will come from Simpli.com's ability to properly order and sequence search results, learn from users actions, make use of a proprietary and, ultimately, personalized knowledge base coupled with an interactive and friendly interface.

The company also plans to offer to "create a customized 'News Service' by automatically polling on a query but presenting only previously unseen results."

INTELLIGENCE
PO Box 20008
New York, NY, USA 10025-1510
212-222-1123 (Voice & FAX)/800-NEURALS
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