Yahoo hires the former director of one of DARPA’s most important units to expand its research team.

December 15, 2005

Yahoo has opened a new research center in New York and has brought on board Ron Brachman, the former director of the U.S. Defense Advanced Research Projects Agency’s Information Processing Technology Office (IPTO), as it enhances its core technology team.

The New York center is Yahoo’s first on the East Coast. It already operates three in California—in Berkeley, Burbank, and Sunnyvale. The new facility will specifically focus on computer science and social media.

Mr. Brachman will serve as vice president of worldwide research and report to Prabhakar Raghavan, who heads up Yahoo Research. He is a known expert on artificial intelligence.

He also developed an AI group when he was research vice president at AT&T Labs. Mr. Brachman has also served as president of the American Association for Artificial Intelligence.

Many, especially in the academic community, look to artificial intelligence as a key factor in the evolution of search. Mr. Brachman shared his views on this subject and others with Red Herring.

Q: People in the academic search community often say companies don’t use AI enough to improve search. Do you agree?
A: Companies like Yahoo are already using AI technologies. They don’t make a public fuss about it. For example, with expert systems, such as those which can help in data mining… or in search, aspects of AI matter.

Q: Could you give us an example of where AI could improve search?
A: The way most search engines work today, they take a document and treat it like a bag of words. But the order of words matters.
A: The challenge is that the human language is ambiguous. With interpreting a sentence, what makes humans so good is that they can bring context to bear. If you’re on the Net because you want to buy something, there are certain sites and ads that you’ll respond better to.

If the computer could work with you and understand context, it would be much better at bringing up things you care about.

Q: So, you'll be working with the search marketing people? What are the kinds of projects you're going to be working on beyond that?
A: Yes, we will be working with them. The scope is bigger than that. We will work broadly across the company.

We will be working in a number of interesting areas. One is search and information retrieval, of course. Then there is micro-economics, and [how it] relates to e-commerce. The Internet is a facilitator for new kinds of commerce. We’re also interested in the user experience.

There’s always room for improvement in the user interface and artificial intelligence—machine learning and database analytics. And we will also look at the scale at which computing needs to be done at Yahoo. The technology areas will impact many parts of the business.

Q: When it comes to video search, experts say the technology at most search companies is still rather primitive. However, they say the Department of Defense has done some very good work in this area.
A: The Department of Defense has done a tremendous amount of advance research in various areas. They need [video search for] surveillance of enemy territory. But the research is shared with the academic and commercial world.

There might be a germ of truth in [what they say—that the research isn’t completely shared]. But it’s not a key issue. Yahoo, as it facilitates user-generated content, [knows] a lot of that will be video in future, and it’s important [for] people [to] find what they need.