Search for better questions
Anthony Fordham
The Australian
JULY 20, 2004

THE next step in internet search is to make search engines artificially intelligent, say developers at the University of NSW.

Professor Enrico Coiera, of the Centre for Health Informatics, says the main limitation of search engines such as Google is that they do not know who is asking the question or why it is being asked.

"If you type asthma into Google, whether you're an asthma sufferer, a specialist or a GP, you'll get the same results as everyone else, based on statistics," he says.

Coiera says this method of searching is appropriate for simple web searches, but can fail professionals who don't have time to refine their search.

"Think about how you search at home: you'll probably try four or five different things before you get the results you want," Coiera says.

Expert searchers have no trouble finding results that are more suitable for the kind of question they have in mind, he says.

"The trick is to harness that human ability and embed it into new, more sophisticated search technology," he says.

The CHI has been working on search system specific to health professionals since 1998, after surveying user groups.

Google and others look for documents on the web, but many items of interest to health professionals are kept in databases, he says.

"There's a difference between the way a GP searches and the way a specialist searches. A GP needs quick, reliable information within a few minutes, while a specialist will normally have a couple of hours or even a whole day for research." The new search system, based on the earlier QuickClinical package, allows searchers to select from a dropdown menu of search types.

This allows the user to differentiate between a short query and a more in-depth research-level search, as well as other types.

Further advances could one day result in an autonomous search agent that scours the internet to retrieve documents and database entries, without human control.

Coiera says he's not surprised that this kind of technology doesn't already exist.

"They probably haven't thought about it. A statistical document search is adequate for most internet applications, so there's no impetus to evolve the system further."

Because health professionals and similar fields are so much more demanding, they will drive innovation in the field, he says.
The real power of new search technology is its potential to deliver results that the searcher doesn't even realise they need.

"Our system asks the question you should have asked," Coiera says.

This report appears on australianIT.com.au.