

## ◆ *What's New with Search Engines?*

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Internet searches are part of a science editor's work, from verification of literature references to detailed content delving. Every editor can recount a search session that bore no research fruit despite our most resourceful and innovative approach. In the session "What's New with Search Engines?", Raul Valdes-Perez, cofounder and CEO of Vivísimo, described the benefits of using cutting-edge search technology, such as Velocity, the full-fledged search platform offered by his company. Through screen shots and a review of specific examples provided by several companies that sought ways to improve search quality, this session featured search-user experience, working examples, and a glimpse of upcoming advances.

A search engine that can package search results in a quick, organized, and relevant manner lets site owners draw more people to their content and retain visitors once they have started clicking. These engines can allow social searches, which let users input and publish, or "tag", results with comments and rankings that enhance the

description of the results. Tagging can make topics conversational and interactive, with user reactions and suggestions appearing beneath standard links. During the session, an attendee asked whether this socializing could make content less relevant or less intelligent, but the speaker explained that the ability to tag search results can be customized and controlled by site owners for each site's needs, allowing open public access, restricted public access, members-only access, or no tagging at all. Tags can also be hidden by clicking a collapse button if a user prefers to see just the meat of the search results without any user opinions.

The technology can also output images and highlighted text to enrich located content. Search results appear in the regular list of links and summaries and in metadata navigation or clusters, which are drilled-down collections of results listed by dominating topics. Users can click the clusters or metadata to expand them and point toward the specific articles or topics they are seeking. Rather than requiring the reader to wade through redundant or irrelevant links, similar search results are massed together, producing focused searches. Session moderator Seth Beckerman mentioned that the Council of Science Editors Web site uses Clusty.com searching, which takes advantage of the same kind of technology.

Another question raised during the session was how this type of searching differs from Boolean searches. Visiting a site powered by this technology does not preclude use of typical Boolean searches. In some cases, typical searching on Ovid or PubMed might yield the same results. But

using the same method for a search on Clusty.com, for example, could also reveal links to experts in a given field, articles that may not be accessible by PubMed, unpublished abstracts, press releases, or other valuable information. The enterprise search platform Velocity, discussed in this session, now powers the US National Library of Medicine, MedlinePlus.gov, USA.gov, the US Air Force Knowledge Now portal, OnMedica, Epocrates, HSO.info, and many other scientific sites' search engines that editors use every day. There is also a function called Remix, which allows searchers to dig into themes not apparent from the original clustered results; this function is in use on USA.gov and DrSocrates.com.

The future of search-engine technology will partly cater to site owners looking to engage users more fully by building instant interaction into the search-results experience. Innovations that are forthcoming, if not already in practice, include slider bars to zoom into topic relevance; having users participate in their search experience to eliminate duplicate results and identify favorites; and applying linguistics to help the search engine "understand" queries to create cross-links that a user might not have considered. Even though science editors still need fast access to hard facts and published data, discussion forums and social searching are growing more common. Science editors will be an important part of these exciting ways to hunt for and apply information to their journals, products, and scientific companies. 