



## One Size Fits One: Tailoring Technology to Consumer Needs

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While a number of commentators these days suggest that the web could soon make newspapers, magazines and TV obsolete, Jeff Weiner, senior vice president for search and marketplace at Yahoo!, doesn't buy it.

Sure, he said at a Wharton Technology Conference in February, some bloggers -- online editorialists who post their work on weblogs -- have become much-read and even influential voices. But plenty of mass-media outlets such as *The New York Times* and ESPN have established hefty and popular online presences. Bloggers may critique and supplement the big outlets, but they won't soon replace them.

Weiner's company and its rival, Google, are the web's gatekeepers: They not only monitor a huge swath of Internet traffic but to some extent control it. Their decisions about search design and ad placement determine what users see when they search. That gives Weiner a vantage point from which to observe the media's evolution. He said that bloggers and their proponents have misconstrued the direction of the media's post-web changes. The future, he predicted, won't belong to either mass or micro players, but rather to *consumers* who will increasingly tailor their information gathering to their needs and tastes. "The future is going to be 'my media,'" he said.

An example is the personalized home pages that people already are building via services such as My Yahoo! On these pages, users can link to their favorite blogs *and* favorite newspapers. "My media' enables people to consume media on their own terms," Weiner explained.

The move toward more personal media isn't limited to the web, he said. Its musical analog is the digital music player -- iPods are the most prominent example -- which lets users not only download songs but also mix and store them in varied ways. The TV versions are TiVo's digital video recorders and cable's on-demand video services. "Talk to people who have TiVo, and they will tell you that it absolutely changed their lives," Weiner noted. "TiVo users have an evangelical zeal."

Internet search engines, for their part, are also moving toward greater personalization, he said. Searches are increasingly effective -- often delivering users' desired results on the first try -- because search companies have continued to refine their search software, and because users have become savvier. "Today, tens of millions of searches are unique queries," Weiner pointed out. "They are only performed once." That suggests that users aren't just typing in a common word and hoping for pay dirt. Instead, they are devising complex queries to narrow their results.

### A Hard Sell and 'Black Hats'

Despite the growing desire among users for customization in technology, Weiner and other tech industry panelists who spoke at the conference agreed that whether it's for individual consumers or corporate clients, the ability to customize presents some unusual challenges in such areas as marketing, managing complexity and containing costs.

The rise in "unique" queries on search engines that Weiner cited is one example: The combination of better technology and smarter users makes it harder for search companies to sell sponsorship of searches,



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at least broad ones. Before, a company such as Yahoo! might sell to, say, a resort in Jamaica the right to have its ad appear when someone searched for "Jamaica." But as technology allows users to refine their searches -- using perhaps "Jamaica," "mountain-biking," "resorts" and "child-friendly"-- sponsorship of a broad search becomes less valuable, as users will simply bypass it.

Yet sales people are better at selling broad searches than narrow ones. "Sales forces can't sell a unique search," Weiner explained. It's far easier to peddle a search performed a million times than one done just once. In response to this problem, Yahoo! in 2000 began to offer online bidding for searches. "Anyone can bid for a key word," he noted. "Small firms can buy 100 queries. This monetizes virtually all searches."

Selling search terms as well as other online advertising is paying off for the Sunnyvale, Calif., company. In 2004, it earned \$840 million, or 58 cents a diluted share, on sales of \$3.6 billion. Its earnings rose 250% above the previous year, while its sales rose 120%. The company's stock has returned more than 200% over the two years ending in mid-March, compared with a 45% return for the Dow Jones Total Stock Market Index.

Weiner predicted that online search companies will continue to refine their software so that search engines soon will be able to "recognize" users and deliver ever-more relevant results. "[A] truly personal search is the Holy Grail," he said.

Now, for example, everyone who types "Chicago" into Yahoo! will get the same results. But two different users might have different interests. One might want to take a vacation in the city, while the other might be interested in "the cheesy rock band from the '70s," he said. In theory, a search engine that recognized a user would know whether she liked to travel or listen to old rock 'n' roll. In reality, such a search engine would probably work like TiVo or a junk e-mail filter: Users would have to "train" it by indicating their preferences and grading the relevance of its results.

Weiner, as one would expect, paints an idyllic picture of the web, but he conceded that the medium, despite its advances, has its problems. Some individuals -- Weiner called them "black hats" -- have begun to try to game the prominent search engines, looking for ways to trick them into landing on websites that may not be popular or pertinent to an individual's search. Yahoo! is experimenting with automated ways to tackle this problem. In the meantime, the best way to fight back is "tapping into all of us and forming self-policing communities," he said. "That's eBay's secret sauce -- the community of people who take the time to rate the sellers."

### **Addressing Companies' Quirks**

As with Yahoo! and Google, companies that make software for small and medium-sized businesses are striving to make their products ever-more customizable, noted a group of panelists who participated in the conference. But for these software companies, the challenges may be even bigger.

Search, after all, operates the same way for everyone: People who work for big companies don't search differently than ordinary consumers do. The same isn't true of the software that runs essential business processes, such as accounting or customer-relationship management. Whereas big businesses can afford to have their own information technology staffs to customize software to their particular needs, small and medium-sized businesses usually can't. That means that they have to settle for off-the-shelf products, which sometimes poorly serve their needs.

"We need more focus on what individual small companies want," said Tim Levine, technology director for Earth Sun Moon Trading, an online retailer in Grove City, Pa. "I'm so tired of hearing about 'solutions.' That's meaningless tech talk for the stuff that companies are trying to force down the throats

of small businesses."

Levine wants software that he can tailor to the quirks of his company. Trouble is, customization breeds complexity, and complexity has historically driven up cost. "There's a constant tradeoff between out-of-the-box stuff that just works versus customization," said David Weiss, vice president of information technology solutions for Intuit, maker of such popular programs as QuickBooks and TurboTax. "We struggle with it. Some people want customization. But some want simplicity."

A solution to the problem may already be developing, said Taylor Collyer, a senior director at Microsoft. It's the advent of "web services," which give smaller businesses access to complex, high-level software via the web. The web allows the software to be shared -- users might be charged a subscription fee -- so smaller businesses can select and use sophisticated programs that they couldn't otherwise afford. Web services, Collyer added, "are a real boon for small business -- one of the greatest advances we have seen."

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