

Look Who's Talking Now?

Can your computers actually “speak” to other machines? With web semantic capabilities, this hypothetical possibility today might very well become tomorrow's reality.



WEB 3.0 AND THE SEMANTIC WEB

Tomorrow's Web

Seth Godin, a popular speaker at both Google and TED, has an interesting way of describing the Web of the future:

“I'm late for a dinner. My GPS phone knows this (because it has my calendar, my location, and the traffic status). So, it tells me, and then it alerts the people who are waiting for me.”¹

But let's leave the design efforts of what will become Web 4.0 to the IT folks and focus on something that's important to us right now – Web 3.0.

2.0 → 3.0

We're all familiar with mash ups and social networking, and sites like Youtube and Facebook that allow visitors to change what is presented on the web site. Web 2.0 sites like these are built on the technologies that are leading to Web 3.0.

Eric Schmidt, CEO of Google, offers a simple, straightforward explanation of what Web 3.0 applications are. “The applications are relatively small, the data is in the cloud, the applications can run on any device, PC or mobile phone, the applications are very fast and they're very customisable.”²

In other words, Web 3.0 is made up of linked data on linked devices. Why do we need it? “How we access information is a mess,” explains Hank Williams, CEO of KloudShare. He added, “It's difficult to get the big picture when there are buckets of information. It's difficult to capture information the way it is currently put together.”³

¹ http://sethgodin.typepad.com/seths_blog/2007/01/web4.html

² http://dbpedia.org/page/Web_3.0/quote2

³ <http://www.digitalmediabuzz.com/2009/06/time-running-out-for-web/>

WEB 3.0 DEFINED

But what does all this really mean? Well, for starters, it includes the phenomenon of ubiquitous data, which means that data is everywhere. The implication is simply: You can access anything on the web and contribute to any web site from any device. With the new standards being promoted by the W3C (World Wide Web Consortium), web pages will look as good on your Blackberry as they do on your computer screen.¹ It also means that you'll be able to use your phone to set the temperature in your home half an hour before you arrive.

It also includes video like you've never seen before. See a vase in a video that would look great on your table? Click on the vase in the video and be taken to web sites that sell it. Or click on a popular person's face in the video to read more about them.

Most importantly, however, Web 3.0 is about the Semantic Web.

SEMANTIC WEB



Tim Berners-Lee, the person credited with inventing the World Wide Web, has this vision for the Semantic Web, "I have a dream for the Web [in which computers] become capable of analysing all the data on the Web – the content, links, and transactions between people and computers... The day-to-day mechanisms of trade, bureaucracy and our daily lives will be handled by machines talking to machines. The 'intelligent agents' people have touted for ages will finally materialise."⁵

Search engines such as Google and Yahoo use keywords on a web page to determine what its content is about. So when you search for "Maldives", it shows you popular pages that contain the term Maldives.

With Web Semantics, web developers will add a new type of keyword that will allow search engines to know not only what the web page discusses, but how to find other, related web pages. You'll perform a search such as "I want to spend two weeks in the Maldives on a \$2,500 budget", and you'll be presented with tailor-made vacation options that will appear to have been prepared by people, not computers.

This is why Search Engine Optimisation (SEO) service providers like Notion Age is thriving. The Singapore-based digital marketing has enabled big industry players like Trend Micro (SG), Toshiba (SG), Sony Ericsson and Mediacorp's Okto to optimise and strengthen their online presence and effectively reach out to its target audience by using customised SEO services, online marketing campaigns and solutions like viral campaigns, social media marketing, EDMs, link-building, website design and development.⁶

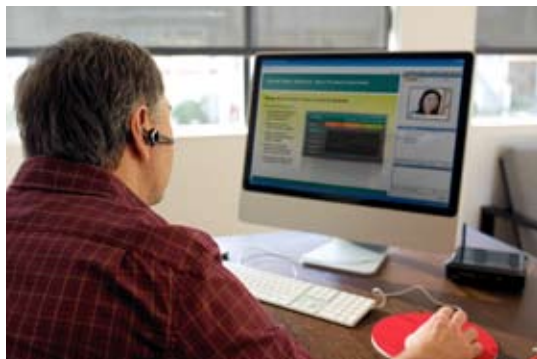
⁴ See <http://www.w3.org/Mobile> for details on the initiative.

⁵ http://en.wikipedia.org/wiki/Semantic_Web

⁶ "Notion Age: Making Visions Come Alive On The Web", 2009, Media Buzz

<http://www.mediabuzz.com.sg/asian-emarketing/may-june-2009/436-notion-age-making-visions-come-alive-on-the-web>

SEMANTICS IN BUSINESS



So what does this all lead to? Opportunities. On the SMB front, Singaporean company YBO (ybo.com.sg) is bridging its way from Web 2.0 to Web 3.0. They have moved away from site-based applications and now offer cloud-based solutions to their customers. Content, marketing, inventory and orders are accessible at any time, from anywhere, on any platform.

The National Archives of Korea (NAK), a government service agency that accumulates and preserves historical records and data, faced the problem of not having a standard metadata strategy. Metadata with regards to job classifications, department classifications or content types such as books, text and periodicals were absent, and the need for developing a large capacity semantic information retrieval system and construct a Semantic MetaData Repository (SMDR) that would house its 70 million non-current national records emerged. NAK adopted the ISO-11179 standard ontology MDR (MetaData Repository) type and used over 12 million metadata statements in order to build its new collective search engine and resolve the problem of inhomogeneities in its retrieval system.⁷

And look no further than DotSpots (dotspots.com) for inspiration on what can be achieved by going Web 3.0 all the way. DotSpots ties user-generated content to news stories. You snapped a picture of an event near your home that's in the news? Send it to DotSpots. They use semantic matching technology to distribute each contribution to every instance of that news story across the Web.

WEB 3.0: NOT A BIG BOYS CLUB

On the web the playing field is flattened. Small companies can have as much an advantage as larger ones. Web 2.0 technologies such as blogs and consumer reviews make it relatively easy to get your company's message out there and to leverage the collective opinions of consumers.

Web 3.0 flattens it further. Semantic-ready web sites will be included in the searches people make online. And if your products and services can be easily accessed from any device, people will choose it over the competition.

GETTING READY FOR WEB 3.0

Companies and organisations need to begin making the transition to Web 3.0. Achieving that includes the following action plans.

Make use of the Semantic Web to help potential customers find you and your products. Ensure your web site is Web 3.0-ready by making it accessible from any device.

⁷ "Semantic MDR and IR for National Archives", 2008, NAK
<http://www.w3.org/2001/sw/sweo/public/UseCases/SaltLux-NAK/>

Explore cloud-based software solutions to save money now and begin using solutions that would otherwise be too expensive. If you're in the software industry, look into making your applications available in the cloud. You'll help SMBs gain access to more powerful tools and strengthen your customer base in the process.

Finally, you should also find out how your industry is adopting Web Semantics and Web 3.0 as a whole. Are you ahead of the competition? Do you need to catch up? Finding out may be a simple matter of attending one of the many international, regional and national Web Semantics seminars and events.

Getting ready for Web 3.0 is no different than other strategies your company has for marketing and growth. Make it a part of your long-term IT plan.

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