

A conversation with Nova Spivack

Nova Spivack is the grandson of brilliant business theorist Peter F. Drucker, but he doesn't define himself as that any more than Paris defines itself as the Eiffel Tower. Spivack himself was behind some of the world's first Web pages and now, with his recently-launched application Twine, a smart, social bookmarking and research tool, he's at the forefront of the Semantic Web – or Web 3.0, if you prefer. Spend some time talking with him and you'll gain insight into being brushed off by venture capitalists, Artificial Stupidity, and zero gravity.

It's the early 1990s. You were a Philosophy major focusing on cognitive science and Artificial Intelligence. Then it's 1994. You're just a few years out of college and you co-found EarthWeb, one of the world's first Internet companies. What was it that got you into the Web, especially when the Web was hardly anything?

I had been working with computers already for years. I was a hacker in high school and in college I was working on supercomputers. I had always been using the Internet – the original Internet. And then, after college, I was an analyst, following news related to emerging technology. A lot of what I was reading was about the Internet. I saw it was going to be important.

And of course you were right. Did you have any idea exactly how right you were going to be though?

No. We had no idea. I don't think anyone did. We started EarthWeb before there was even an Internet browser. There were no pictures either.

To save space and readers' time, we're going to assume everyone knows what has happened to the Internet and the Web in the last decade or so – eBay, Facebook, 98-percent of public school students being online. But a lot of people, myself included, don't have the imagination to conceive what the future Web looks like. Tell us.

The next big step for the Web is to add more structure and smarts. Searches will get better and sites will start to learn about you. Software will understand the meaning of language. Sites will become interactive, making personalized suggestions to users. Searches will be more precise. If you type in "I'm looking for 2007 Jaguars near me," the semantic web will know you're talking about cars and will give you that information. Do that search now and you get all kinds of junk (say, a blog entry about someone's dream of a black jaguar in the Amazon or a MySpace video of a jaguar fighting a caiman). The [next generation] of the web could also bring people smart virtual assistants. You could ask the web where you should go on vacation and it will come up with suggestions based on what it has learned you like.

And Twine is one of the first applications of this smarter web?

Yes. Twine manages and tracks information around your interests. As you use it, it learns about you and helps you discover new things. Twine can search almost any electronic document and then automatically tags and organizes the information it finds and saves it in your account. The more you use Twine, the better it gets to know you – it learns about your interests – and it starts to make recommendations. And then it also has the social networking capabilities, but it's not just for socializing. You can find people with similar interests and connect with them to share knowledge and have discussions.

What's the goal of making the Web smarter?

Well, first off, it isn't the Web itself that is becoming smarter, but the individual services on it. As that happens, your experience with the Web will become better. You won't have to do as much manual work. People might worry about the Web becoming too smart, but Artificial Intelligence is something I've worked on for much of my life and I know it is an elusive and difficult thing to achieve. I'm not worried this will become even slightly intelligent. I'm just hoping for Artificial Stupidity. I want a Web that can do the stupid things. I don't need to have a conversation with it, I just want it to save me the hassle of doing mundane tasks. That's one of the goals.

Your grandfather, the late Peter Drucker, was pretty influential, even famous. He's credited with founding the field of management science and defining modern corporations in the second half of the 20th century. He wrote 30-some books on a wide variety of topics. Does anything you're doing now relate to what he did?

He was a cognitivist and social theorist. I think a lot of his work has been setting the stage for what I'm doing. He was on the theoretical side. I'm on the applied side. We both recognize knowledge as an important product. I'm working on enabling knowledge – making it more accessible and shareable.

When not poking holes in accepted management practices of the time, your grandfather made sure to have some fun: he'd read – and memorize -- the encyclopedia. That's a pretty head-y hobby. What's your kind of fun?

I really enjoy reading ancient Tibetan manuscripts.

That's about on par with reading the encyclopedia. Anything else?

I love space. I've flown to an elevation of 90,000 feet, reaching Mach 3, in a MiG with a Russian test pilot and I've done zero gravity training.

What did zero gravity feel like?

It is quite unfamiliar, disorienting and stimulating. All your senses change. It is very vivid. Like scuba diving but without any sense of your body's weight.

And what about flying to 90,000 feet?

At the top of the stratosphere – that's a pretty interesting feeling. I most remember a profound silence. And loneliness. I had a great sense of distance from the Earth. The sun was unbelievably bright. It gave me a much bigger appreciation of the Earth.

Radar Networks, which you are the founder and chief executive of and which is behind Twine, is one of the first companies to launch a Semantic web application. What has surprised you most about Twine's reception?

How many people want it. I thought the new technology would be a harder sell – that we would have to do more education about what this kind of semantic application could do for people -- but we had 30,000 people on the wait list to test it.

So Twine's reception has been positive. I'm sure it wasn't all this easy though.

No. Since we were pretty much building the first consumer application of the semantic web, we didn't just have to build our product, but first we had to build the underlying development and support tools. We were working on the underlying technologies since 2003 and Twine itself only since the summer of 2007.

And even before we were doing any kind of building or development of anything, it was difficult to get funding. Plenty of people in the past told me I'm insane to try doing what we were. They just didn't get it. We were so far ahead of our time. We were like science fiction. We almost ran out of money several times, but whenever things got really dire, the universe supplied whatever was necessary to keep it going. It was a project that was just meant to happen. Someday I'd like to publish the rejections though.

What intrigues you most about the future?

I live in the future, so there's so much that is interesting to me about it, but it frustrates me too. I'm impatient for the future to happen. It isn't happening fast enough.

Interview conducted, compressed and edited by Dina Mishev.