



## Stanford eCorner

### Is it too early to invest in nanotech?

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Video URL: <http://ecorner.stanford.edu/videos/632/Is-it-too-early-to-invest-in-nanotech>

Jurvetson describes his position and interest in the nanotechnology industry. In his opinion, it is still too early for the average venture firm to invest in the industry--in part, because they invest in companies that are much farther along on the risk spectrum. However, individual partners or firms that do early-stage investing are interested and the numbers are growing. Draper Fisher Jurvetson is one of them, and likes to be early in any new wave. In addition, the government funding for the sector is going up immensely, \$3 billion internationally next year, and most of it is outside the US. The number of companies in nanotechnology are going up dramatically, so there is a lot of activity, he says.



#### Transcript

I think you're right, actually. It is too early for most investors. And that does not mean that we shouldn't be doing it. I think if you say, "What is the average venture firm?" What do you do these days?" It is the investing companies that are much far along in the risk spectrum. So for the average venture firm, it is too risky at this too early stage. Certainly for the average investor in public stocks, it's way too early to think about public investing. So there aren't as many early stage venture capitalists as there used to be in terms of firms. A lot of ones have migrated to different stages of investment. Those that still do this are of different opinions. Those individual partners or firms that do early-stage investing are interested, and for a number of them, increasingly so.

And we're also kind of different. We like to be early on any new wave. Like in 1993-94, we're actively investing in Internet companies. By '95, it was 80% of everything we were doing. By '98 or '99, we're tapering down in terms of new investments in the Internet. We had made money in the Internet before in Netscape, before any of that stuff, right? We were always a little early. These were smaller companies you might not have heard of, but the first e-commerce companies are always comes up. So we always try to catch that wave early for ready economic reasons. It's good and it's more fun. By the time '99 came around, I got just three business plans that sell pantyhose in the Web.

I mean how repugnant and boring is that? That's when I knew that there's no more innovation in that concept, in e-commerce, as far as I'm concerned. Just slice the economy to every micro-niche, just balls that contacted me for funding, "Oh, this sells balls, right? The brand says just balls, no bats, no gloves, just balls." I don't why I digress but I think it was partially on that boredom that said, "This was just stagnating. B2B, B2C, it's all the same. This is just stamp and repeat." Then I went to a conference. Actually, a friend of mine, entrepreneur and a portfolio, thought it would be interesting. Sure enough, it was. It was a nanotech conference and scientists were talking about the wild future. And it just felt more casual. I can't say what it was that clicked. There wasn't a business plan or entrepreneur.

It was just sort of an update to the stuff I read again for like 15 years prior. It said a lot of progress has been made. And it caused me to want to look at that more. And I think that and the decoding of the human genome, at least for me, were

inspirational. I used to read about this and see all the things that Larry Ellison, Bill Gates, Nathan Myhrvold, Charleson Mooney, just about everyone who had risen to the top of their field in software was putting all of their personal interests and foundation money on research on the science side and biology. And it was very intriguing. I looked more into it and the more I study and the more I talked to these people -- some of them, not all of them, they are not easy to reach. And there's a certain fascination that was going on there. So I think that cross-pollination of biology and nanotech -- I also saw nanotech as this sort of mechanistic future vision of little robots that one day may come. And I also realized in biology that one day, this might happen much sooner with this biological bootstrap.

That was the "A-ha." It caused me to do more research and the thing that scared me into doing more research is that I had a column that I wrote for the Red Herring that time. And there's nothing like a publishing deadline to really instill fear in you and to get your thoughts together. And so I wrote this initial column on the convergence of I.T., nanotech and biotech and it was fascinating to do that. And it got into the labs and it got me into research centers. I went around and raised the flag internally at our partnership and across our affiliate and said, "Any nanotech business plan that you see, send it to me, no matter how dumb or crazy you think it is. I just want to know what's out there." And we got a bunch and they were all powders, nano-aluminum powders, in particular, 30 of those from a bunch of tools companies. And then I started to get more rich over time but we can educate ourselves through those meetings and reading everything we could. And unfortunately, I also had to write something so I had to synthesize ideas. So conferences, tours to academic -- I came back to school, actually. I took K.J.

Cho's class. It's the first one that he just offered about a year or two ago, computational nanotech. I got to ride a little racer scooter around the campus in this one. And I sort of went back to school, literally, to learn about that one and the more I learned, the more it seemed to intuitively to be the case, that this is the next great change and the next great wave. The message is increasingly becoming resounding. I mean the government funding for this sector is going up immensely, 3 billion internationally next year and most of it not in the US. The number of companies we're seeing is growing dramatically and there's a lot, a lot of activity.