Stanford eCorner

A Panorama of Venture Capital and Beyond [Entire Talk]

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Serial entrepreneur Marc Andreessen offers the Stanford audience a rare opportunity to pose open questions. Topics addressed include everything from the state of VC and the stock market, to Facebook's market dominance, to the rebirth of consumer electronics. In addition, Andreessen offers ground rules for the start-up, including tips on attracting top talent.

Transcript

Marc Andreessen is a pioneer of a software category that is in use by more than a billion people.. What is that category? Browser.. How many of you started with the Netscape browser, learned to love it? Those of you who didn't, it was a beautiful thing that Marc did.. In addition, he is one of the very rare individuals who have actually created two billion-dollar companies in terms of market cap.. Now Sarah Lacy has written a book called "Once You're Lucky, Twice You're Good" that goes into a little bit of the story of Marc and a few other people who've done this.. If you're curious about it, you can read about it there.. But another little known fact is that this is Marc's second visit to ETL.. On April 7th of 2000, Marc Andreessen was here.. Well actually he was in Terman.. And he was happy to be reminded of that..

He may or may not go into why that is important in terms of family medicine.. But, Marc, we're thrilled that you're back at Stanford.. And let's give him a warm round of applause.. So I just checked online, April 7, 2000.. I was the speaker who was closest to the exact top of the NASDAQ.. And so last time you had me, it was perfect timing of a market top, absolutely perfect.. I don't know what that means about what's happening right now.. But 10 years from now we'll look back and we'll say, "Aha!" I don't have anything prepared.. So I just want to basically launch straight into Q&A.. Just sort of a background for people who might not have caught up with what I'm doing: my most recent thing is I started a new venture capital firm with several friends and colleagues last summer..

Actually we have four of my friends and colleagues from the firm who were here somewhere in the crowd, over there.. There we go, there's the contingent.. And so later on if you want to any of these folks, Ronnie runs all of our partnership and networking efforts.. Fred is our new analyst.. This is week number one for Fred.. And then Dave and Ellen work on our recruiting.. We actually run an in-house, essentially, recruiting function for startup companies.. And so they work on that end.. Sorry? OK, great, got it.. And so I'll be delighted talking to folks afterwards but we will be delighted to talk to you..

So we started a new venture capital firm last summer.. Actually another story of timing, we raised that venture capital fund starting in March of last year, March 2009, which was the exact low of the economic crisis, the credit crisis.. So there is something in what we do that we hit either the highs and the lows.. I don't exactly know what it is.. But we raised a $300 million fund last summer, opened up.. We've been in business for about nine months now.. We do Silicon Valley tech investing.. Our biggest deal so far is Skype, although we've back a whole series of other interesting companies.. And then boards I'm on at the moment include Facebook, eBay and Hewlett-Packard.. And then I continue to be very involved in my company, Ning, which is a social networking company here locally..

And so that is just a general background.. Let me just throw it open for questions and see what people want to talk about.. Hey, Marc.. A question for you on moving from being an entrepreneur to venture capital, I'm going to be doing the similar thing.. I'm wondering what your perspective is in working with venture capitalists who don't have any entrepreneurial background which unfortunately represents a large chunk, how you deal with board conflict in advising folks in that scenario.. OK, so the question is, as an entrepreneur turned venture capitalist myself, how do you work with other venture capitalists who may not have entrepreneurial experience or in some cases operating experience.. Yeah, we like to observe that in California you need a license to drive a car or buy a gun but not to be a venture capitalist.. And so it is true, the issues arise.. And if you talk to a cross a section of entrepreneurs you'll generally get various stories in terms of their directors who may not have a deep operational backgrounds with some of the issues that arise.. So let me just give a few general thoughts

without naming names..

So first of all I would say that if you look at the folks who are the best venture capitalists over time, some of them have very deep operating backgrounds and have been entrepreneurs themselves.. And actually some of them have not.. So some of the very best venture capitalists, as an example, Mike Moritz had a background as a journalist before he became a VC.. John Doerr had a background and worked in engineering and sales at Intel.. Monsanto before that, actually, when Monsanto had a chip business back in the early '80s.. And so he had experience in business but had not himself started a company.. Actually interestingly, Tom Perkins had, one of the original co-founders of Kleiner-Perkins, but John had not.. And in contrast, of course, Vinod Khosla had been himself a very successful entrepreneur as another example.. And then Don Valentine, another great VC, had been a very experienced operator in the chip business.. So you get this very interesting cross-section of success cases..

And so one of the things I try to do is not say upfront.. I don't think there is necessarily a predictor that just because somebody has an operating background or has been an entrepreneur that they're going to be a good VC or conversely that if you don't you're not going to be a good VC.. That said, part of the reason we became venture capitalists, my business partner Ben Horowitz and I became venture capitalists after starting and running companies ourselves, was because we think it can be quite helpful and additive to a startup when their investors and board members have actually done it before and have actually been through the experiences.. And of course we go on to say that this is completely irrelevant in the case where your company just instantaneously succeeds when everything is up and to the right and everything is glorious.. Then anybody can be a good board member.. It's when the times get tough and things get difficult.. It helps a lot to have been through a layoff or a restructuring or a forced sale or a recap, all the other things that you'll restart in and all the other things you are going to go through as an entrepreneur.. And so I do think that's helpful and important.. The characteristic of the venture capital industry right now is that we're on the fourth of fifth generation of VCs in some of the older firms.. And so there are certainly plenty of VCs who have finance backgrounds as contrasted to operating backgrounds or as contrasted to entrepreneurial background..

Sort of talking my own book, as they say on Wall Street, I think there is a real opportunity for VCs who have an operating and entrepreneurial background to add a lot of these values in these companies.. And so we spend time basically when we go into a situation with the other investors who are already in trying to understand, "Do they have that background? If not, how are they when they get into the thing?" I think it's helpful.. The flipside of it, I would say, the danger.. We got a talking to from all our friends in venture capital before we became VCs.. And they were very rigorous with us in this point so I think I repeat this.. The danger of an operator who becomes a VC is that he continues to want to be an operator.. Then he tries to operate the companies that he is in from the board.. And of course that's lethal, like that's just a prescription for disaster.. And so the best professional investors we found over the years are very good at understanding what's going on.. They're very good at helping..

But they have to remove from the day-to-day operations because the minute they don't and the minute they get too hands-on, things start to get seriously wrong.. It really is impossible to run these companies from the board.. And so we as VCs are going to try to live up to that.. The apps market is somewhat hot.. I've been in Kleiner-Perkins who has a $100-million fund dedicated to iPhone apps.. Do you think the single apps are interesting to invest in, Android apps or iPhone apps, or would you only consider whole platforms on the mobile platforms? So the question is on the hotness right now of the application market, especially on platforms like iPhone and Android.. And there is a tremendous amount of investment going into companies building applications on these new platforms like iPhone and Android.. So we have maybe a little bit of a contrarian point of view on the general assumption behind the question, if you will.. The reason I'm also asking you is in an app, it seems like how much revenue is actually generated.. It seems like that..

So the question is how much revenue can an app actually generate.. OK, so our answer on this kind of thing is always "it depends," which is my favorite answer of all time.. I can always start answering "it depends" and then talk for half an hour.. People think I've said something.. So it really depends.. It's a little bit like the early days.. To us it looks a little bit like the early days of the PC industry.. In the early days of the PC industry, you would open up a magazine like PC Magazine and there would be ads for thousands and thousands of different software applications doing all kinds of different things, games and learning tools and typing instructors and probably recipes and all these stuff.. Most of the companies that produce those applications are long gone because those weren't significant categories.. You couldn't build a real business around them..

On the other hand, you had companies like Microsoft and Lotus and Adobe and others that were building applications like Photoshop or Lotus 123 or Microsoft Word that turned into empires.. So I really think on this kind of thing that the answer is "it depends".. And so in a nutshell, we wouldn't invest in an app company because it's an app company, but we also wouldn't avoid it because it's an app company.. We would look very carefully at the specific thing of what it does.. And by the way, let me generalize out and say that's the same answer I give to almost any question involving a particular category.. So people say, "Well location-based services are really hot.. What are you doing there?" Or people say, "E-commerce is hot again like with all these new group buying services.. What are you going to invest there?" And our answer is, we are going to do absolutely nothing in the category because the worst thing you can do is go to a category and just try to find something to invest in because if the good ones are already taken then you'll invest with the bad one and you'll lose all your money.. It's a bad formula and there are VCs who do that and we don't recommend it.. So on the other hand if we get the opportunity to

invest in a very special company with a special founding team and product idea and market position and strategy, then we will do that in almost any category..

In fact one of our favorite things to do is actually invest in categories that other people believe to be dead.. And so for example we're very excited about investing in enterprise software.. People say, "Well, that's ridiculous.. Enterprise software is dead.. You know that nobody can do that anymore." And it turns out between 2002 and 2008, the most recent period where these things are measured, the top performing sector in all of venture capital is enterprise software, precisely because everybody thought it was dead.. And so the companies that got funded have practically no competition.. And the people who made the investments actually could invest very cheap because very few people wanted to fund those companies.. So we're absolutely delighted to go into a sector that people feel is dead.. We're also happy to go on sectors that are brand new as long there's a specific company with something magical happening.. I'm just interested, from your experience, what sort of criteria did you use when you decided to actually start a business? I'm guessing you got a lot of ideas..

And for someone who has different ideas, what criteria would you say, "OK, this I'm going to pursue it and this I'm not going to." So the general criteria for a successful high-tech startup in my view, you see different rules of thumb for different people.. But the three big things you always come back to are, is there a big market? And by the way, that comes in two parts.. Is there a big existing market that you think you can go after and displace incumbents? Or do you believe there will be a new market that will be big? So a big market.. Is there a fundamental technology or economic change that causes you to basically justify having a new company? And that's really important.. And we always think about that as, is there a 10x change happening in the technology landscape? Is something 10x faster, 10x cheaper or 10x better? And if is not 10x, we as VCs or entrepreneurs really have to ask ourselves is it really worth doing.. Because it's really hard to start new companies.. New companies generally shouldn't exist.. Existing companies are usually pretty good at what they do.. And so for a new company to exist, it not only has to come in, go into business and bring a product to market.. But it has to bring a product to market that's so much better than what already exists, that it punches through the status quo..

Most customers in most markets are pretty happy buying from the current suppliers.. So there has to be a real edge on the thing.. And we look for that in either a technology change, usually a technology change or an economic change, which are often the same thing.. The third is team.. Is the team outstanding? And if you think about this as an entrepreneur, it becomes a question of the founding team.. Some companies are solo founders and they can work.. But generally most of us like myself, we're human beings, we're mortal, you want to have a founding team of complementary skill sets.. So you want to have at least one super strong technologist, quite possibly more than one; some of the best startups, actually, are more than one founding technologist.. And then it often helps to have somebody who is a market or a salesperson or has a really good understanding of business on the team.. It certainly helps a lot..

And so we started looking at market, product, and team.. The reality is you need all three.. I would say, interestingly, if you're going to compromise as an investor, if you're going to compromise on one of those, it would be actually be the product.. And the reason I say that it's because a great market is a lot easier to make up for with iterative product execution than a poor market, because the problem with a poor market, a small market, is even if you do a great job on the product, there just aren't that many customers.. It's hard to ever get big.. People get demoralized.. So we definitely focus a lot on the size of the market and then also the team.. And we actually evaluate the team in a startup based on its ability to get into a big market with a good product.. And so one of the things we look for early on as VCs, we don't need the team that's going to run the company when it's 500 people and 100 million revenue; that's irrelevant.. We need the people who can get the product to market in a big market and if they're wrong, keep adjusting to get into the right market..

So that's the general template and that's how we always thought about it as entrepreneurs.. There is, however, one other thing we look at that I think is really fundamental and important.. And it took a while to figure this one out and I think it's really interesting.. So, given all that.. Then you look at the companies and you say, OK, here is a high-quality set of companies.. And then we divided them into two buckets.. And we basically say there are products that become companies, and then there are companies that come up with a product.. One of the interesting things you see over the years is that many of the most successful technology franchises were products first way before they ever became companies.. Just in my own experience, Netscape was a research project.. It was based on a research project at the University of Illinois that we had worked on for three years prior..

And in fact the team had come together in Illinois before we started Netscape.. Microsoft, Bill Gates and Paul Allen were like deep into PCs early on before they even thought there was a software business.. Apple, Jobs and Wozniak built the first Apple as hobbyists.. More recently Mark Zuckerberg had Facebook running out of his own dorm room way before he ever thought of starting a company.. And then my own favorite example is Twitter.. Twitter was a side project at a company called Odeo and Odeo wasn't working.. Twitter was a couple of guys who were, basically, knew the Odeo product, which is a podcasting product, was going to fail.. And so they were frustrated and unhappy.. And so they started the side project Twitter and it just started to take off.. And so the product that becomes a company is a really good template..

And my theory on that is because it's a demonstration that the product has to exist.. The market needs the product so badly that somebody actually built it and deployed it and you can actually see evidence that people want it even before there is economic motivation to do so.. That's market demand.. Something magical is going on there at that point.. In contrast,

great entrepreneurs, the stereotypical.. Hewlett-Packard, counter example, company then product.. HP Archives put online a while ago they put the original minutes of the first HP board meeting.. They're great minutes because it's like Mr.. Hewlett and Mr.. Packard, they were like in the 30's..

So these guys were really young at that time.. And it's like, their a lawyer and their accountant, whatever.. And it's like, "Assemble such and such, Palo Alto at 2:48 pm.. and first order of business, cash.. The company has $3,000 whatever, in the checking account." It's like topic number six, product.. In one line said the product that the company will build has not yet been decided.. Period.. Topic number seven.. They didn't know.. They had like a general idea that there was going to be something to do with electro or mechanical or something, something, something..

I mean this is before the computer, literally before the computer when they started this thing, right? So they didn't know what it's going to be.. And they came up with many good ideas later but they didn't know.. So that's a success case of company first then product.. But we see a lot of failure cases which is a smart entrepreneur sitting around saying, "I really want to start a company.. And now let's go and try to figure out something interesting and good to do." And it's very easy in that process we've found to fool yourself into believing that there is a market and that there is a need because you want to find something.. You have a very strong motivation, internal motivation, to come out with an answer.. It's very hard to go through that process for three months and then say, "You know what? We can't come up with any good ideas.. You know what? Let's just go back with our day jobs." Yeah, at a big company of your choice.. And so it's a very strong motivation to fool yourself.. We're always a little bit leery of those..

I mean in fact if you track those true funders, those are often the ones that aren't actually able to raise money because the VCs are good at this kind of thing, they can smell this kind of thing coming.. Moral of the story is it has to be a really good idea.. That often will be an idea that is preexisting at the time you decide to start a company.. And if it isn't, be really careful because you're walking on sharp rocks at that point with a high risk of falling off the cliff and into the ocean.. It's particularly dangerous scenario to be very aware of.. Yeah.. Hi.. You mentioned on the Charlie Rose show once about The New York Times' basic turn off of the printing press are going nearly digital.. And I know you've also made some investments recently in a media company like TPM.. So I'm just wondering how you see that landscape or whatever..

A while back I was on the Charlie Rose Show.. And I talked about how in my opinion newspapers - it's easy to have opinions about other people's businesses.. And they love them when you do, by the way.. My opinion basically was newspapers and magazines in their current form are not economically viable.. It's time to shut off the printing presses and go digital.. I provoked it by saying shut off the printing presses because that's what they're all thinking but none of them will say, because they all say, "Well, 90% of our revenue is still coming from the printing press.. It's still coming from the printed edition.. And we're not making much money from digital.. And so how can we do that?" Of course, my response to that is the reason you're not succeeding digitally is because you're not focused on it, right? You're playing defense, not offense.. So when you go in these organizations, what you'd find is attention is exactly correlated to revenues..

So if 80% to 90% of your revenue is coming from the old dying business, 80% to 90% of the effort is being spent time to trying to preserve the old dying business, which dooms you to failure in the new business.. And so I said it's the obvious thing to do.. By the way, if you do a margin analysis, like if you look at the cost structure, you would say a lot of the people and a lot of the overhead involved in running a printing press and physical distribution.. If you just nuked all that stuff, you could bring the cost structure of the company down a lot.. And then it would be a lot easier for you to make money digitally because you wouldn't be carrying this huge burden behind you.. I'll give you an example.. Newsweek magazine just got put up on the block, which is both print and online.. Newsweek has been struggling for years to try to figure out how to jump online but they still print.. And the most revealing thing in the Washington Post Annual Report where they talked about Newsweek is you note how skinny Newsweek is today.. It's like a pinhole magazine like there's not a lot in it; 427 employees..

Now if you said, "What would Newsweek Online, what would the true headcount be for that same content if you distributed online?" The answer has to be like 30 or 40.. So what are the other 400 people doing? Well they're doing circulation and they're doing the printing.. And they're doing logistics, the coordination of the newsstands and they're doing inventory.. And then they're destroying all the magazines that get sent back, that don't get sold.. And it's just on and on and on and on.. It's like to a certain point, OK, that's not the future.. And so the reason I even have an opinion on this is because this is the exactly the kind of thing that we get faced with in the technology industry all the time.. So what's ironic, in the tech industry we're actually used to dealing with this exact kind of problem because what happens is the technology changes and we have to completely rearrange our businesses.. And this is the innovator's dilemma.. This is the classic Intel story that Andy Grove tells in his book "Only the Paranoid Survive", where he talks about Intel used to be huge in the memory business..

It was 80% of the revenue.. And then the Japanese came in and started systemically undercutting them.. And at certain point they had to shut down the memory business to be able to focus on the CPU business because they knew that was the future.. But they knew the memory business would drag them down.. What I always tell people in the media business is you're just not used to the technology changing like that, right? And then they say, "Well that's a good point." The newspaper in its current form was invented in Italy in the 1500s.. And I'm like, OK, if I was in an industry where literally the current form of the business had been invented 500 years ago and had not changed, you can see why that would be difficult to deal with.. But in my view leaders of the business, and this is true of every business I've been involved in and every business I've invested in,

and it's like top of mind for every time I work with any business is, if there are a set of disruptive changes coming, it's incredibly important to go on offense.. It's incredibly important to get set up to be able to compete vigorously.. And then this is why I'm putting my money where my mouth is.. This is why I've invested in Talking Points Memo and I've invested in Business Insider, which is centered and launched its operation in New York..

There were a whole bunch of sites including Silicone Alley Insider.. And there's a whole bunch of these.. TechCrunch locally here is another one.. The new media businesses are structured properly for the future.. And so you go to Talking Points Memo.. It's not a huge company yet but it's like 30 people, not 427.. And it's hiring and not firing.. And it's 100% digital.. And there is no time and effort worrying about trying to charge for contents or trying to preserve the print base.. And every ounce of effort is going into growth and expansion in the model that makes sense for the future..

And it's just a completely different kind of energy.. And I think what's going to happen is I think there is going to be a whole new generation of companies that are just going take over these things market by market unless more radical change happens fairly quickly.. In some early media reports about your new firm talks about you and your partners having an interest in consumer electronics as an investment pieces.. Can you talk a little bit more about that? Yes.. OK, so here's an example.. I said earlier we're not typically theme-driven.. The question was in media reports, we talk about consumer electronics being a key area of interest for us which causes people to have strange reactions because people think consumer electronics went to Japan and China and Korea about 20 years ago and haven't come back.. So we must be out of our minds.. This is an area where I said earlier we don't tend to work by category.. But of course we can't help ourselves..

And so we sit around and we think and we have theories like everybody else.. So one of our theories, which we lend a little bit of weight to, we think there is going to be a whole new wave of consumer electronics companies in the US and particularly in Silicon Valley.. And we think that the center of gravity for the whole consumer electronic industries is likely to shift back to the US.. And the reason fundamentally is because the technology that goes into a modern consumer electronics device product is completely different than it was when these products left the US.. They're completely different.. And specifically the hardware is much more commoditized today than it was 20 years ago.. And then these products consist of a much higher percentage of software than they used to.. And so what we're seeing is a whole pattern of companies in the Valley.. I'll name a whole bunch and they're not all super successful yet.. But Palm and TiVo and of course Apple and Sling and Flip and Jawbone..

There is whole series of these companies, and a whole bunch of new ones coming, including some that were backing.. And basically what they all have in common is, they're taking off-the-shelf components, and in particular off-the-shelf chips, and in particular this really powerful new off-the-shelf graphics chips for companies like NVIDIA and TNTI that do high-speed 3D graphics and they do high-def video and it's just all in a single little chip you can buy for just a couple of bucks.. And they wrap it in a box.. It comes in a box.. But then they build software services that integrate right in.. And of course Apple is in many ways the template for that these days, the way that Apple provides the device and the OS and the application stack and the store right in the online services.. And Google is obviously doing a lot of that as well.. And so we think that's actually a really interesting model.. And so we think there are a whole bunch of categories of consumer electronics that can get reinvented.. And then there is a whole bunch of new categories that can get created..

And so I will just give you one example; we are angel investors in a copy called Jawbone that makes the sort of high-end Bluetooth headset, sort of the high fashion Bluetooth headset.. What's interesting about Jawbone, Jawbone is an example of this exact thing.. Jawbone is a real R&D company with deep R&D in Bluetooth and in hardware and in software.. And then the new version of the Jawbone headset that just came out, when you connect it to your PC, it turns out it has an apps store.. And of course at first people think that's crazy.. It's a Bluetooth headset.. What kind of apps can we possibly be talking about? Well the ability to literally read you in your ear turn-by-turn directions while you're driving around, or the ability to read you your voicemails, or the ability to read you a Twitter feed or a Facebook feed, or the ability to do voice SMS.. And these are just the tip of the iceberg.. And basically you want to view the Bluetooth headset as a wearable computer that's going to have many different kinds of software applications running on in the future.. And so basically if you can do that in Bluetooth headsets, there is any number of categories that you can do that in..

And so we're extremely excited about this.. And if anybody has any great ideas we're totally game.. This is the job I have been talking about.. Our space is to make it comfortable with custom prosthesis.. We have a big market.. We have a market coming over, spending more and more time interacting with data so that ongoing comfort of the thing is becoming a concern.. And we feel like we had found the solution.. We think about that 10 times, 100 times, 100x, if you will.. But what we don't have is the team.. How would you recommend we, who are stumbling around in the dark, putting together a team that can take this where it needs to go? Yes..

The question is building a team around an idea that has traction.. Probably the two hardest parts of running these companies: number one is recruiting, and number two is talking people out of quitting.. And by the way, at first recruiting seems like the hard part.. And then later you realize talking people out of quitting is the hard part.. And by the way, if you ever got through this and you will find yourself talking to people out of quitting all the time, it's completely normal.. You can't believe how often it happens at successful companies.. It's like every day.. So I would say to generalize I don't have any magical answers.. The basic answer is brute force.. It's going to be kissing a lot of frogs..

It's going to be talking to an enormous number of people, a tremendous amount of networking.. In some cases investors and advisors can be very helpful.. And so one of the things we always tell early-stage companies to do like for example raising angel rounds of financing is it's a good idea to actually bring in a whole bunch of angels and syndicate the deal because a lot of the angels are actually really good at recruiting and networking.. That's something we try hard to help with.. And then of course later on there are some very good local executive search firms and talents and recruiting firms that are helpful.. But I mean I tell you it is hard.. It's hard for everybody, like there is no real easy answer.. What thoughts went through your mind when Netscape began to lose popularity and how did you recover from it when they ultimately considered it a failure in the eyes of consumers? Sure.. Well, we did two things.. We did two radical shifts..

One is we took the browser to free.. The question was as Netscape started to come under pressure and started to have issues, particularly with browser market share in the late 90s.. We executed two shifts.. Now one of the things about a story like Netscape is you don't often actually read the whole story because there is set of popular perceptions.. When companies actually become too popular in consumer consciousness, it's hard to actually track what they do as businesses because narratives gets set.. But we did two things.. One is we took the browser to free.. And then we ultimately released it as Firefox.. And so everybody who loads up Firefox today, it's huge numbers today, is basically using the Netscape browser, essentially version 10 or something like that version 12, if you look at the lineage.. And then the other thing we did was we put a massive investment and a massive turn focusing on actually two things, software for businesses and then our website..

Actually interestingly, Netscape grew revenue all the way through it existence as a public company.. It was profitable for virtually the entire existence.. And then of course it ultimately sold for a lot of money to, basically a combination of AOL and Sun.. But that's one of the case studies that I draw, I mean in my own business.. So in Netscape we did this massive shift from browsers to server software and website services.. We're talking like at that time 600 million revenue, which adjusting for inflation is close to a billion today.. So it's a very big software business behind that.. And then the other shift, my second company went through a huge shift going from being a services business to being a software business.. And so we did it again there.. And also with good outcome..

And also my third company is going through a version of the shift right now.. Ning just went through a shift for people who watch this things for free.. It is sort of premium free plus paid to paid.. And so my experience generally is most of these companies go through that kind of shift at some point.. I'll give you another example.. Intel, I talked about before.. Intel made the shift from memory chips to microprocessors, which was hugely dramatic back in the 80's.. Microsoft before that, actually early in its life, made a fundamental dramatic shift.. They were forced to basically at the risk of not being a viable company.. It's all in the history..

People don't think about it much.. But it was very important at the time, which was Microsoft never intended to be in the operating system business.. Microsoft intended itself to be a programming tool business and their revenue was programming tools for people to be able to build software.. And they were building basic interpreters and all these other kinds of programming tools, selling them to lots of companies, making OSs.. If you had a PC in the early '80s, no matter who it came from, it probably had Microsoft Basic as the programming language.. They had this amazing deal in hand to license their programming tools to IBM.. But IBM was unable to get a good operating system for a variety of reasons.. And so famously they tried to get the dominant PC operating system at the time, it was called CPM, from a company called Digital Research.. Famously the CEO of Digital Research was out flying his small private plane that day, couldn't be bothered to meet with IBM.. He sent in his wife who was an attorney, who was very hardnosed on the topic NDAs, completely alienated the IBM team..

They got up, walked out, drove back up to Seattle.. And they told Gates, "The deal to license Microsoft Basic is off unless you can come off with an operating system." And so Gates to his credit said, "I think I can probably figure that out." He literally went down the street, bought the rights to an OS that a guy down the street had built for $50,000 and that's DOS.. Actually that's part one of the story.. Part two of the story is the shift that he tried to make that he failed at making which turned out to be one of the best failures he ever had.. In 1985 Bill wrote a semi-famous letter to John Sculley, who was then the CEO of Apple.. His letter is on the Internet, begging Sculley to license Mac OS to clone vendors so that there will be lots of different Mac clones so that the Mac UI and OS could take off in terms of market sharing and volume.. And because at that point Microsoft's view was most of the money was going to be in the apps, so at that point they were building Microsoft Word and Microsoft Excel and Powerpoint.. And IBM had taken DOS as far as it could go.. And Mac looked like the next big thing.. So he tried to get a whole Mac clone market created..

And in fact there is an attachment to the letter where he went to Motorola at the time, which was at the time a big important computer company.. And he had Motorola agree to basically build Mac clones if only Apple would license the Mac OS.. And so he had the big OEM in hand, took it to Apple.. And of course Sculley said, "No, no way.. No way we're ever going to license Mac OS," which then led to Microsoft developing Windows which then led to Windows having 97% market share and Mac having 3% market share.. And so it is so common.. I feel like I've been through it now two or three times.. The vast majority of business that I've ever worked with have been through it.. I think it's just so common to go through this kind of transition.. I think once you get one of these businesses up and running, you have to go through this kind of transition..

I mean in tech it almost seems like you have to do it every five years almost no matter what.. The other classic Silicon Valley story is Sun.. Sun hit its stride in the '80s when it started building UNIX workstations.. And then they went through a

massive structural transition in the early '90s to building servers that almost killed the company.. It was like incredibly intense.. And then of course years later there was another fundamental structural change that they went through to try to adapt to Linux and Intel servers in the early 2000s and of course that ultimately led to Sun later on being sold to Oracle.. That one didn't go as well.. But that's again a common story.. And so my opinion is a key skill set of actually running these companies or working with these companies is being able to make that kind of transition.. And it is never fun no matter when you go through it..

But it's a necessary thing.. And so I draw on my own experience having done that a lot.. When you're doing a startup, I was wondering if you know any startups that are using the new cloud providers and is that a viable way to keep costs down when you're doing a brand-new startup? And then I was also wondering about for the new trend with user-generated content and social networking sites.. Right now a lot of the sites get a good portion of their money from ad revenue.. And I'm wondering if you ever see a point where that ad revenue can start being shared with the people generating the content and would that ever be viable.. Yes.. OK, so two questions, if I remember both questions.. So the first question was on startups using cloud services.. Let me take that one first.. So virtually - let me explain what I mean also by the question..

Virtually all has been very striking.. Virtually all of the startups that we see that are building some kind of Internet service.. Whether it's a Web service or a mobile application or even consumer electronics we saw, we're seeing startups recently that are building for example different kinds of fitness devices, this new consumer electronics model.. And it's got an online service component to it.. So there's a website that aggregates all the data.. Virtually all of these companies are building on cloud services.. And in particular today, interestingly, most of them are building on AWS.. AWS is like 96% or something and then Rackspace is in there.. And then every once in a while you'll see somebody who is on.. I don't think we've seen anybody on Google..

Google has a thing called App Engine.. I don't think we've seen anybody building on that yet.. And we haven't seen anybody building on Microsoft's new thing.. So Amazon right now is just doing a great job in that market.. And this is another factor that's changing the economics of these businesses a lot.. It's a really big deal.. These companies otherwise - five years ago these new services companies would have to raise a lot more money a lot quicker because they'd have to buy a lot of servers and a lot of networking gear and have their own data center and they'd have to buy a lot of storage.. There is a lot of capital costs involved in building a Web service.. Even back when Facebook started in 2004 and 2005, Facebook today owns a very large number of servers which cost a lot of money.. The folks who are running on AWS are completely sidestepping that upfront capital cost..

And so their initial fund raise is much lower than it would otherwise have to be.. And then it's much easier to scale at least for the first few years.. There is a question of whether ultimately you'll have to jump onto your own servers if you get big enough whether AWS or one of those cloud services can scale to the really huge services.. But a very large number of entrepreneurs are making that bet.. And furthermore a lot of entrepreneurs that are running older Internet businesses that had to do all their own backhand, they didn't have AWS available at that time.. A lot of them will now tell you, "If I were to do it over again, I would definitely not do it the way we did it.. I would definitely do it all in the cloud." I mean that has just been a huge change and absolutely fundamental.. And again this is why I get so get excited.. I pair, actually, technology and economics when I talk about the kinds of changes that take place.. And so to me like the way I think about it is what I mentioned with consumer electronics where you have these chips now for a couple of bucks that you can buy to do 3D graphics that you can embed anywhere..

What those chips can do ten years ago would have caused you thousands of dollars.. And so there's just all of a sudden a whole new category of products getting built.. And so the cloud services to me are the exact same thing.. We can now afford as an industry to experiment on a much broader range of software and services because we can develop them so much more cheaply than we used to be able to.. And so there's that, and then there's other question, user-generated contents.. The question was you see all these user-generated content companies, famously YouTube and blogging platforms and so forth and Twitter most recently.. They all seem to have a characteristic that the company that runs them ends up making a lot of money on advertising and the people who actually created all the content don't.. And so wouldn't it be a good idea to basically share the revenue out with the users? Almost every attempt I'm aware of to try that has failed.. And there have been a whole bunch of attempts for ten years and I bet you've never been heard of any of them because they failed so spectacularly that they just vaporized.. The successful user-generated content applications and sites tend to harness people's passions much more than they tend to harness people's greed..

And so just in practice, the sites and services that are super geared towards how people think and how they want to live and how they want to act independently of how they make money.. But if you give people a platform for expression or a platform for communication, it's really good and fun and empowering and wonderful to be on.. Those are the ones that tend to win in terms of user behavior and the ones that try to split revenue generally never get anywhere.. A lot of free market economists look at this.. University of Chicago economists look at this and say, "Well this can't be true because everybody knows that humans are purely economically-motivated and only want to make money and never want to do anything for fun." I will give you another case study, Wikipedia.. Nobody makes money on Wikipedia.. Google watches this big effort called Knol and the big promise of Knol is that it's going to be like Wikipedia except if you contribute to it, you can make money.. And I mean it's like a dead zone.. There is nothing on Knol and Wikipedia is gigantic.. So Clay Shirkey talks a lot about a lot about

this in his book, "Here Comes Everyone"..

Is there something really magical about harnessing people in large numbers on things that they love and things that they enjoy doing.. And that seems to be the template for it much more than immediately trying to figure out how to help people make money, which is just a really interesting large-scale psychological experiment but one for which there's not a lot of data.. How did you find your new users or your first users for both Netscape and Ning? Because as far as I can see it, they were both new markets and new categories? Nobody wakes up and says, "Hey, I want a social network," or "Hey, I want to browse the Web," at the time.. And so where did you find the first users? So the question is where did the first users for both Netscape and Ning come from, because as you say they were both brand-new markets.. And so it wasn't like people go to the grocery store and they're like, "Boy, I like one of those Ning things along with my Coca-Cola." Both Netscape and Ning, as are Facebook and Twitter and a lot of these other things are network effects.. At the core they're network effects businesses.. And so the nature of network effects businesses, the definition of network effects basically is that fundamentally you're building a network where people can communicate or share in some way.. And the nature of the network is it gets more and more valuable to everybody who is on it as more people join.. So when ten people are on it, it's not very interesting.. When 100 people are on it, it starts to get more interesting..

When there is a million people on it, it starts to get really interesting.. And that very first set of users actually like it more and more as it grows because there are more and more people to talk to.. And you often see with these network effect things like they can grow really fast for a very long time because they're just going to continuously be more and more useful to everybody who's on them.. As another example: as I mentioned earlier we're involved in Skype.. And Skype now is six or seven years old.. Skype today gets over 1.1 million downloads a day.. So it's something like closing in on something like 600 million accounts, just absolutely staggering numbers in growth rate.. If anything the growth is accelerated.. And a lot of people say, "Well Skype was from 2005, like who cares anymore?" Well, Skype in 2005 had 14 people you could call.. Skype in 2010 has like 500 million..

That's much more useful.. The good news with network effects businesses is that when they grow as they grow, they can often grow very fast for a very long time and they get very useful in the long run.. You have this massive chicken-and-egg problem upfront.. It's like selling somebody the first fax machine.. It was a hard sales call.. Just imagine the sales rep saying, "Well, what can you do with a fax machine? Well, you can draw on a piece of paper.. You can stick it in here and you can send it." "OK, well, who can I send it to?" Well, nobody.. Fax machine actually, by the way, was invented in the 1860s.. This may have something to do with the fact that it didn't take off until the 1970s.. True story..

They had a fax machine working before they had a telephone working during the Civil War era.. So you have the chicken-and-egg problem.. So basically what you try to do with Netscape was you basically seed it into the right initial community to bootstrap the chicken-and-egg movement momentum.. What we did at that point was we basically seeded it, not surprisingly, into people who were super interested in, at that point the Internet, which was a brand-new phenomenon and people who were very interested in Internet software and information sharing on the Internet.. And at that point there were some other systems with names like Gopher and WAIS and FTP that people were using to share files and do things.. And so we basically just found those groups of people who are already sharing information on the Internet.. We just introduced this straight in there.. At the time we used news groups to do it because that was where you can talk to all these people.. And so that worked.. Later with Ning and more recent network effects businesses, new entrepreneurs and network effects businesses are much smarter and much better educated on this phenomenon..

And so the new networks effects businesses tend to have a term called virality.. They tend to be viral.. And by that I mean they tend to have a mechanism built straight into the product that causes it to propagate to other users.. And so the classic example on this is you sign up for Facebook.. And it encourages you to upload your email address book.. And then it tells you, "Here are all your friends in your address book who are already on Facebook and so you can connect to them automatically.. By the way here are your friends who aren't on Facebook and wouldn't you like to send them an email, inviting them to Facebook?" And so there's a whole bunch of different viral mechanisms like that that you can employ.. If you do them right, there is a whole art and science to virality, the whole special thing in and of itself, but if you do that right, you can wire a network effects product.. You can wire it for growth in the early stage.. And so we did much more than that in Ning..

You alluded to the capital costs going lower.. And you also alluded to industries having to change.. What do you see with the VC industry? How is it going to change as capital requirements continue to drop? How substantial do you see capital requirements dropping for, say, consumer-oriented type of content? OK, so this is the motherload of all questions for me.. So probably I'll talk about for an hour.. So the question is how are the economics of the venture capital industry changing? And in particular like what structural changes are going to happen to venture capital as a consequence of these economic changes? So first of all I don't believe there is such a thing as the venture capital industry.. I don't think it exists.. I think you've got a set of firms.. You've got 20, 30, 40 boutique venture capital firms that do really well over time.. And then you've got about 660 firms that will generally very much break your heart as an investor if you invest in them.. They will return you less than the stock market with much higher risks..

Venture capital is one of those things.. Venture capital firms hedge funds, buy-out firms, investment firms operating in special markets that are ill-liquid or have special knowledge.. You tend to have a few firms that generate all the returns.. Then

you tend to have a lot of people who want to generate those returns.. They can never actually figure out how to hurdle the bar.. You can download this list online.. If you pull up like venture capital firms in the US, it's like 700.. And you can read through that for like three hours.. And you won't recognize the vast majority of the names on that list.. And how they get funded, I don't have the first clue..

It's the same thing with hedge funds.. There's like 8,000 hedge funds.. You don't even know who these people are.. The problem is when you talk about the venture capital industry, all that data gets rolled up.. And then they look at it and they say, "Well venture capital's terrible because venture capital doesn't make any money.. It's like, "Well yeah.. If you include all the bad firms, it's terrible." So it's this really a striking thing.. What's interesting is entrepreneurs know this.. And it's not like there is shortage.. There is a bunch of good firms..

But entrepreneurs are well aware that there is a set of firms that know what they're doing and there is set of firms that really don't.. And so there is a whole adverse selection thing that kicks in.. So there's two ways of asking the question.. One is what's going to happen to venture capital broadly.. And I almost spend no time on that topic.. To me the very interesting question is what's going to happen to the really good venture capital firms? And I think there is a whole variety of things that are happening there.. One is there's this whole tier of angel or seed funding because it's so much cheaper to start these companies.. There is a whole tier of angel or seed funding that has now appeared and is becoming very professionalized.. And in fact a lot of the best angel investors are now starting actually raising funds.. So for example, my colleague Ronnie's father, Ron Conway, is one of the really well known Silicon Valley angel investors..

He's just raised a new fund to even wrap up this activity.. And that's very exciting because the best angels are really good.. And if anything the best angels are at least as good or better than the good VCs in a lot of cases.. So on the very early stage that's very exiting on the one hand.. On the other hand there's this equally interesting phenomenon that's happening in later rounds.. And the classic case study there is this Russian firm called DST that has become a major investor in companies like Facebook and Zynga and most recently Groupon.. And so you may have noticed in the last ten years, since my last appearance here in April 7, 2000, there are very few IPOs.. And so you've got companies like Facebook and Zynga and Groupon that are getting very successful financially and getting very large.. And they're not going public nearly as early as they used to.. And so there's this new category of investor that is coming in..

Some of these are existing firms that are now getting larger.. And some of these are new firms that are being created that are coming in and are investing later and later in the company life cycle.. And some of these firms are taking ownership stakes of hundreds of millions of dollars in 500, 600 and 700 million of individual ownership stake in a high-growth company at a later stage.. Another example of that is actually the Skype deal we just did.. Skype deal was more of an LBO.. But it was a little bit like what I'm describing because it was a $2.75 billion transaction for a company with at the time about 700-million revenue, give or take.. It was like Skype will go public at some point.. But a lot of these companies that may be in the long run will be public or not yet public.. And so there is these specific kinds of investment opportunities that pop up.. And so I think that stuff's really exiting..

And I think it maps up well to how these companies are getting built.. And you'll hear people overgeneralize.. You'll hear people say, "Well companies cost less to get started.. And so therefore let's raise less money than companies used to." I don't think that's true.. I think they raise less money at first and then I think they raise more money as they grow because the markets are larger.. If you really want to build a company to go into a huge global market, ultimately you're probably going to have to raise a lot of money because you're going to need to expand to be able to reach the market.. So all this tension and activity I see around people who are rethinking their models has to do with some combination of either going much smaller or going much larger.. When Facebook started, there was a lot of competition.. How did it emerge the winner? Good question.. When Facebook got started, there was a lot competition..

How did it emerge the winner? So when Facebook got started, it was actually even more dramatic than that.. When Facebook got started, social networking had been declared dead and buried.. Friendster had failed.. Hopefully people in the audience are not so young that you don't remember Friendster although time flies.. Friendster appeared in '01, '02, '03.. It was a Silicon Valley startup, a very great entrepreneur named Jonathan Abrams.. And Friendster was the first big social networking service that took off.. And it grew in a vertical takeoff rate.. And then a bunch of things went wrong.. And it had huge issues and lost most of its users..

Most people around the Valley concluded, OK, basically that was evidence of category failure.. And so like that's it, social networking has been proven to not work because Friendster didn't work.. Later on MySpace and shortly after that Facebook emerged.. And essentially they did some things differently.. MySpace focused on basically entertainment.. And Los Angeles is its initial seeding ground as opposed to Silicon Valley.. And then Facebook concentrated on college campuses.. And so they seeded the network effect differently although they both became large services ultimately.. So they took a different approach to basically get to market.. But in my opinion that's all the beginning of the story..

The real story has been Facebook in the last five years.. Facebook has become one of the great Silicon Valley technology companies.. And so when you look inside Facebook, at what the company actually is, it is a technology machine.. It is a development machine with world-class software capabilities that are easily equivalent to what you would find at Microsoft or

Oracle or any great historical software company.. It's a really really top notch software company.. It's like Google in that way.. It's the same thing wherever you go.. It's like Google.. It's a world-class software company.. And what we've seen in search engines is it's a huge asset..

It has been a huge asset for Google to be world-class R&D.. It has been the cornerstone of why they succeeded.. I think the same thing is true for Facebook.. They've become world class in R&D and phenomenal software engineering.. A lot of Facebook's competitors in the last few years have not been as good at software engineering.. And MySpace in particular had the potential to become that good.. But they got bought by News Corp.. And there was a whole series of management changes there that prevented them from developing into the company they could have been.. And so at this point Facebook is absolutely a phenomenal engineering company.. And to me one of the reasons I'm so exited about our business is because I think Google and Facebook are great examples among many others, but are great examples of how the Valley, the Valley is very bad at many things but the Valley is very good at creating new technology companies..

And in a lot of big important markets the quality of the technology and the products really matters.. And I think both of those companies are case studies of that.. Just going on the teambuilding question that was asked earlier that talked about networking in order to attract people to apply to your company.. But when you're a three-person startup with no revenue, just an exciting vision, how do you convince your top choices once you've identified them to actually join your venture instead of going to Microsoft or Google.. Stock options, which they'll you those aren't worth anything.. And then a friend of mine likes to say that a part of it is vision.. And he says the difference between a vision and a hallucination is that other people can see the vision.. And I think that's actually the core answer to the question.. So the best entrepreneurs are really good at selling people on their company precisely because they can explain the way the world is going to look in a way that is so compelling.. This is the famous Steve Jobs..

If you talk about Steve Jobs, he has what we call the reality distortion field.. So if you get within ten feet of Steve Jobs, whatever he says in the next 20 minutes you're going to walk out of there believing, whatever he says.. He can say the sky is purple and you'll be like, "Yep, that makes total sense." Four hours later over dinner as you're explaining it to your wife or your husband, you look, "Well, I don't really know what he meant by that.. But it was really, really compelling at the time." The best entrepreneurs all tend to have that in common.. They tend to be really good at that.. It's essentially sales, selling to employees.. And so it's an incredibly valuable skill to be able to do that - plus stock options.. The other thing I've found with hiring over the years is that while it's incredibly frustrating, part of the frustration is actually a good thing because the frustration is you try and to talk somebody into joining they don't come.. And you're like, "Damn it, I wasted a lot of time." But hiring is also a selection process.. And it's a self-selection process on the part of the candidate..

Of all the people you interview, if you hire them all it would turn out that a good two-thirds or three-quarters of them you probably shouldn't have hired anyway.. And what you can do in the hiring process, what the best companies do, is they provide a very stark idea of what their company is and what it isn't.. So we are a company where people are expected to work 18-hour days.. And if you don't like that, don't come here.. Or we are a company where people expect to go home at 5:00 every day, and if you think that would be frustrating don't do it.. Whatever it is.. Or we have dogs in the office.. We have a company we've invested in where the whole company does yoga together.. And so if you like yoga, this is the company for you.. If you don't like yoga, don't go there..

You're going to be asked to put your feet in positions that you're just going to be completely uncomfortable with.. Literally, yoga every day.. The company is called Asana, which of course means a yoga pose, I learned.. So a very very very stark idea.. It's very good because it's polarizing.. And I think the best companies tend to be polarizing.. And so if in your hiring process you're turning people off as often as you're turning them on because they are deciding, "Well this is clearly not the right fit for me," I think that's a good thing.. And actually by the way, the same thing applies later on to product development and sales.. We much prefer companies that have polarizing products.. We love companies where products where some people hear about it, they're like, "That's awful..

I would hate that." Let me give you an example: Foursquare.. We dropped out, but we were recently in the bidding for Foursquare.. You describe Foursquare to 20 people.. So Foursquare is a location-based service where you can check in and you can see where all your friends are and they can see where you are.. You describe that to 20 people.. Sixteen of them are like, "That's the scariest, stupidest thing I've ever heard." There's actually a website called PleaseRobMe.com.. And they use the Foursquare API.. And they basically give you a running list of the names and addresses of people who have announced that they're not at home.. And so this just freaks people out.. We love it because 16 people out of 20 might hate it but the four people who love it will just absolutely love it..

And they pride themselves on being on Foursquare all the time and logging in all the time.. So we would much rather back a company that has that kind of polarizing vision.. My other favorite one recently that we're not in but I love is Blippy.. And so Blippy is the one where all of your purchases are online.. You just plug in your credit card and all of a sudden everything you buy is listed online for your friends to see.. And again most people - I see eyebrows are going up.. Most people are like, "Oh my God.. I buy stuff that I wouldn't want anybody to see." I wonder what that is.. Maybe later on everybody can volunteer one thing they bought that they don't want anybody to know about.. But Blippy already has a core of community of people who just think this is the best idea ever..

And so another great example is there's this whole phenomenon of people, these health and fitness bloggers who are like fantastic because they're documented in an extensive detail like all of the stuff they're eating, all the stuff they're not eating, all the weight they're losing, all their bodily functions.. You can learn stuff about people like where I grew up like you didn't talk about.. But people love it because a certain kind of person loves it because it's social reinforcement and it's being part of a community.. So yeah, we love polarization.. And I think that also works for recruiting really well.. So when you're looking at an early-stage company, how do you come up with evaluation for investing in those companies? Yes, the question is on an early-stage company, how do you come up with evaluation for the investments? So for an early-stage company generally there's just a set of market comparables.. But what we do as investors is we just look at a cross-section of other companies that are similar founding team, similar potential of ideas, similar state of company.. Ronnie is expert on this.. But if it's two people, two founders who have not started a company before and have a brand-new idea but don't have anything running yet, evaluation could be arbitrarily low.. It could be 500,000 pre or something or a million pre..

If it's two people who have successfully started a company before and sold it for $50 million, then evaluation might be two, three, four pre.. If it's Diane Green who started VMWare or Bill Gates decides to start his next company, evaluation will be significantly north.. So track record of people.. The other real moving target that you see a lot goes to this product, the product that becomes a company versus a company that comes up with a product.. The product that becomes a company, those will get higher evaluations in general because there is already something running.. And I always tell people especially in software like by far the best thing to do for a fund raising sampling is actually build the product first and then raise money.. Or at least raise a very small money to build the product and then raise a larger round of money because you get dramatically more leverage that way.. And actually as investors we enjoy that because it's nice to be able to see people with a small amount of money to build initial product without having to take a big gamble.. And then it's nice to be able to double down once they prove that it works.. For the past ten years aggregate returns have been lower than the previous ten years..

And as VC you're a proxy for that as well as lower investment capital.. Do you think that's a function of the actual value that's being created in the financial markets and why do you think that is? The question is in the last ten years, you mean overall aggregate equity value, stock market value? It has obviously been a lot lower in the last ten years.. I don't know if people noticed this, but the stock market has sucked for ten years.. If you have a 401-K, you might have noticed.. Versus the '90s.. And you're right, venture capital is a proxy for that.. So generally you can think of a venture capital as almost a form of leverage, high risk, high return on top of equities.. I'm not an economist but my diagnosis is that the stock market is manic-depressive.. And there are periods in the '90s where everybody is all excited and then in 2000s everybody's is all depressed about everything.. Sorry, just with respect to technology..

Like startup.... Well I think that's also true.. I'll give you the answer first then explain.. As far as I can tell, new technologies follow a shockingly straight linear line.. And part of that is Moore's Law, and part of that is just the mechanics of how semiconductors get built, where they follow a very predictable patterns over time.. But also like software advances they just keep coming.. Every year there are more better software tools and better software infrastructure and better programming techniques.. And programmers keep getting smarter and more productive.. Bandwidth keeps getting cheaper.. There is a huge amount of progress..

In fact from 2000 to 2005 it was a time of fantastic technology progress.. The prices on all kinds of things dropped tremendously.. New kinds of applications got created.. Google took off.. Facebook got created.. All kinds of things happened.. So as far as I can tell there is a very large disconnect between what is actually happening in the technology and then whatever is happening especially in terms of the public stock market and then the private markets echo that to a certain extent.. My only conclusion is to be in this business, you essentially have to ignore the opinion of the broad base of investors precisely because they are going to be manic depressive.. And the other thing I would say is trying to, when you say what if you want to take it into account, what if you want to think about it? Well the problem is that when people and technology think too much about what's happening in the broader market or in the stock market, they tend to want to try get involved when things are hot, when the stock market is hot.. And they tend to want to bail out when the stock market is low..

So a very large number of people came out of investment banking, came to Silicon Valley in 1999 because they thought they were going to make a lot of money.. And in 2001 they all turned around and went back to New York and created the credit crisis.. That worked out well.. And so it's almost like a "buy high, sell low" kind of thing.. I guess my personal point of view is it's irrelevant.. It will even out over time.. And if you're building real value and technology, it'll ultimately show up in the prices.. But that could take five years, ten years, 15 years.. That could take a lot of time.. It's one of the reasons I actually like being in the venture capital business..

Venture capital is actually a very interesting asset class like buyouts because you have this enormous virtue of a ten-year lockup on the funds.. So we raised money in July 2009.. We have until 2019 guaranteed contractual lockup.. And then we actually have the ability to extend it beyond that if the stock market is low.. I talk to friends of mine who run hedge funds or mutual funds.. Mutual funds get redeemed on a daily basis.. Hedge funds get redeemed quarterly.. Venture capital gets redeemed every like 13 years.. It's perfect.. It's outstanding..

And so our view obviously is we should take full advantage of that.. We should be finding things that have enormous long-term potential.. And then if it takes seven to ten years and if we go through a full up-and-down cycle and then back in an up

cycle at that time, that's just fine.. So that's out goal...