



Stanford eCorner

White Space is Everywhere [Entire Talk]

John Lilly, *Greylock Partners*

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Entrepreneur and investor John Lilly makes a sound pitch for why this moment in time is full of promise for passionate entrepreneurs willing to charge into the current white space of opportunity. Lilly also explains the idiosyncratic nature of investors and the goal of creating large, durable companies with the capacity to change the world.



Transcript

Okay so, this is highly stressful to get up in front of everybody and talk, it's been a little while since I've done this, so I'll do the best I can. I guess I should mention, when Tom was on my board, the first thing he did, what we first started talking about it is like 'well are you guys, I'm trying to figure out, are you guys assholes or not? Because life's too short to work with assholes.' So that was the first conversation we talked about when he was talking about being on the board. And in the first official board meeting we had after we took money from Accel, we got in Peter Fenton and Mitch Kapor, Mitch was there, and Tom came in and I think Mitch said 'Tom, the last time I saw you was at the board meeting for this incredibly defunct company!' I'm like, oh, so the last collaboration he had done was a company that had gone out of the business, so. But Reactivity worked better than that. I've got a habit of that. Yeah, Tom did all right. So, one of the first things you do when you're trying to figure out a talk is you try to figure out a title. And I thought about this a long time, I thought about a lot - I rejected a million titles. So this is the title I decided to give, How to Get a Job Like Mine. So it's a reference.

So one of my favorite authors is a guy named Kurt Vonnegut, and he gave many talks during his career, they were all named How To Get a Job Like Mine, where he would give - he would say, this is the talk I'm going to give and he would get up and talk about whatever he wanted to talk about. He never talked about how to get a job like his. One time he said people should use fewer semicolons but that's about all he did in terms of that. But I liked it, because Kurt was interesting, he built a career that didn't look like anybody else's career. And in a funny way, like a lot of the things that Kurt Vonnegut wrote, it sounded humorous and absurd on the surface but there was real truth to it, because I think - my point of view is that what he was really saying is like the way to get a job like mine is like well, I'm just me. Be who you are and try to figure that out and then don't try to be anybody else and don't try to get anybody else's job. Just be the guy you are. And so that's why I wanted to call it like that. I was actually reminded of it because of Aaron Swartz, who I didn't meet, but made a big difference for a lot of people on the Internet. And when he killed himself a couple of weeks ago under indictment from the Federal government - well it's a long story, but he's been an information freedom person for a long time.

And he gave a non-ironic talk called How To Get a Job Like Mine about three or four years ago and that's what I was reminded when I was thinking about this talk. So it's sort of an homage to Kurt Vonnegut and Aaron Swartz. So I'll do the TLDR - does everybody know what TLDR is? So all the computer scientists in the room, TLDR is Too Long Didn't Read. So it's when you're in the comments in a TechCrunch article or something like that said, well this article was really long so I didn't really read it, but here's what I think anyway. So I'll just give you the TLDR. So the TLDR there's three rules that I live. And what I'm going to do today is I'm going to talk a little bit about how I think about the world and I'll talk about my path from sitting in a chair, pretty much like these chairs, although not as nice, 20 years ago, through being an engineer and an entrepreneur and a CEO and a VC. And then I'll talk a little bit about what we do at Greylock and how we think about things and a little bit about what I think the future holds. So I have three rules and it's kind of the framing. Here's the first thing: make things, and a lot of them.

And you make things as long as you can; be a maker. The best thing about Stanford is it teaches you how to do things and put products into the world. And the people that I interact with, the people that I like being with now are the people who really can see things and be product people and can make things themselves. The second two rules actually both came from Tom Kosnik, I will talk about it in just a second and they've stuck with me for 20 years now. These are not quite his words, these are Reid Hoffman's words. What Tom Kosnik said when I was just coming out of Stanford in 1995, is he said 'you need to figure out the people who you want to be on your team.' You need to look around, at the 22 year olds, 23 year olds and 24 year olds who are coming out of Stanford and are in Silicon Valley now, and figure out the ones you want to work with, and play with, and collaborate with. Because 20 years from now you're going to be running Silicon Valley. And that really stuck with me and it affected the way I think, and it affected the way even my interactions with Reid. So I'm a partner with Reid Hoffman, who founded LinkedIn, at Greylock. He and I have collaborated in a number of ways.

His version of it is 'find your tribe'. Figure out who's on your side, figure out who's not on your side and be super clear about it and invest in the people who are in your tribe always. Like don't - it's not a static thing, so keep renewing and keep bringing people in, but really, really invest in it. And so I think I can't say this super strong enough, but like the people who you work with are just about everything. I'll focus on recruiting and collaboration through my whole talk and what you'll see is that I'll weave some of the same people in. Even though I work with new people all the time, I'll weave some of the same people and the same influences like Tom Kosnik and Tom Byers through my whole talk, it matters. It's everything I think. And then the third thing is - something that Tom said is do what makes your soul sing. And what he meant is that do stuff that speaks to you. So changing the world is hard.

Mostly people don't want change. Mostly the status quo is a status quo because people are kind of comfortable with it, and it's easier to keep it the way it is than to change it. Being an entrepreneur is super hard, nobody wants Uber except for Uber at the beginning, right. Nobody wants to communicate in 140 character soundbytes except for Ev and Biz when they started it. And so you have to make the world the way it is, there are vested interests that want to keep the world how it was. And so, because it's hard and because it's constantly hard and because people are telling you you're a moron and why things won't work over and over again, it's important to do things that really speak to you and feed your soul and help you grow over time. And I think we forget about growth a lot of times, I think we now say, 'well you're 20 or 22 and you dropped out of school and you should be able to run a multi-billion dollar company.' And I think - I say that kind of tongue-in-cheek but I submit to you that many people believe it. But I think we forget that growth is human and growth is key. And so finding things that make your soul sing, that speak to you and you love and that grow you as a person over time is the thing. Those are my rules, that's it.

Everything else is a detail. So, here's some background. This is 7th grade, that's me. This is our computer club in Las Vegas. So 7th grade - and that's my friend Adam - nobody's going to remember this but this is a PET, this is a Commodore PET computer or maybe the one before the PET. This is a floppy disk drive, it's was special because it had two floppy disks spaces. And that was a printer. I guess we had one computer for the club, I don't totally remember it. But Adam and I played a lot of Zork together and nobody probably knows what that is, but it was an adventure game that was not a lot of pictures and a lot of text. But we did that a lot.

And then we split. Because I moved and he moved, and it was interesting because later we kind of reconnected over the web. And it turns out that he did the same work that I did in school. So he became sort of obsessed with how people use computers and how - the sociological impact. And so he started doing computer design and computer interaction just like I did, so I think that a lot of that goes all the way back to what we were interested in in 7th grade. So most often when asked to identify what I am by training is I say I'm a Stanford engineer. How many people are engineers in the room? Yeah, so I've sat in your seat and I've fallen asleep in your seat once or twice, and I'll tell you a story about that in a second. So I did a BS in computer systems, which is like half and half computer science and I did an MS in computer science. And I did it in something called HCI which is human computer interaction in the very, very early days of this, and I'll tell you a story about that in just a second too. Tom mentioned this, but the best decision I probably ever made, the best work decision I have ever made was to be a section leader in Stanford.

And the reason - well I was at a d.school class this morning and one of the quotes that they made is that the job of a leader is to create other leaders. And going through that in CS198 and helping people learn how to teach other amazing students at Stanford was such a fundamental experience for me that it changed how I felt about everything really. And it turns out that in practice you can see this network blossoming everywhere in Silicon Valley. Marrison Mayer from Yahoo! was a section leader, Bret Taylor the former CTO of Facebook, Mike Schroepfer, the VP Engineer of Facebook, all these people are section leaders and sort of the lineages are extremely impressive. When I think it all goes back to thinking about how to create other leaders and how to teach other teachers. So that was the best work decision I ever made bar none. My most embarrassing moment that I'm willing to talk about on film was in CS547 in about 1993 when I fell asleep when this guy from Switzerland, a guy named Robert Kelly who bought this ridiculous box, it was this black box that was called the NeXT Computer, which is where Steve Jobs went after Apple. And he did this demo of this thing called the web page and I fell asleep while he was doing it. And it was in Skilling Auditorium and I just didn't get it, because I saw pictures and text and click, click, click and he clicked some

links and there was some other things and I was saying 'well this -' and I fell asleep. And then I woke up and everyone was leaving.

And so, anyway - after that I rallied and so I did better. The thing that I read at Stanford - the thing that changed my life and like all my career - you know when I came in to Stanford I was really interested in the kind of stuff that John Hennessey was doing, about computer architecture, about how to make computers go fast, fast, fast. And then I had a couple of mentors, internships that I was at, at Sun which is not kind of where you think of HCI coming from, but also here at Stanford. And there was a guy in my dorm named Sean Light who'll be, I will talk about through this piece, through the conversation today. And Sean kept telling me I should do this thing called HCI. Sean one of Terry Winograd's very first grad students in design at the time when we were just trying to figure out what the difference design was and human factors and usability. And Sean said 'you got to do this, you'll love it.' And I was resistant, really resistant. I was like 'no, no, I'm a computer architecture guy, I'm going to do multi-core instruction sets and silicon'. And obviously I just really wasn't interested in HCI and then I read this piece by a guy Mitch Kapor. And Mitch is the founder of Lotus, he started - he was one of the first people that really successfully commercialized a spreadsheet.

And he wrote this piece called A Software Design Manifesto. And what he said is that software needs architects just like buildings need architects. I think it's obvious now, but it wasn't obvious in 1991. It's interesting because I was just reading it today, and what he said in 1991 is that the revolution hasn't succeeded, because what started is this very human counterculture thing to give PCs to people. That was a revolutionary idea in the 80s. Is what he said is 'well shit, this has become the mainstream. Now computers are defining us instead of us defining computers.' And when I read this bold thing, he could have written this today and he could have written about mobile instead of computers and phones instead of computers. And what he could have said is the revolution hasn't yet succeeded, because in spite of the amazing progress and the amazing work that we're doing with these things, we're still not fundamentally human in our interactions with technology. And again that's a threat that's led all the way through my career and I think that we're finally waking up to. I think that Steve coming back to Apple finally woke up the world about how important design, how important the human factor is.

More importantly how the important thinking about technology in context could be and how powerful it could be. So Mitch changed my life and, eventually - well I'll come back to that in a second. I joined a company called Trilogy Software out of Stanford, and as a VC there's a funny thing that happens, which is if you come pitch me like - I believe there is a high likelihood that I can tell you where your first job was, if it was at Google, or Apple or Amazon. And it's because the first place you go out of school tends to imprint you. And so Google, they tend to have a very, very sort of let's A/B test kind of attitude. Apple tends to have a very, very slow design point of view. Zynga was like Google A/B testing but like times ten. And you tend to really, really take the lessons of the first place you work through your whole career. Trilogy, the key was recruiting, all they cared about was getting awesome, awesome people and Trilogy wasn't a successful company. I mean it's still around, it's doing okay.

But thank god I went there because recruiting is so central and so core whether you're a startup or a growing company now and that's been another lesson too. I think that picking your first company and even whether you choose to start up or not is a key, key decision. And Joe Kraus the founder of Excite and a friend - he's a partner at Google Ventures now - he likes to say 'you learn more from successful companies than you do from failures.' In going off and doing your own thing that fails, you learn a lot, but you don't always learn the right things. And then going to a company that's successful is like a rocket ship. And a guy like Matt Kohler is a good example. Matt joined Reid as he was starting LinkedIn and he saw so many things going right at LinkedIn and he joined Zuck at Facebook and now he is a partner at Benchmark. But I think seeing good examples of the right kind of scaling and the right kind of organization building is huge. I mean failing's okay too but it's not as good as winning. So then I went to Apple where I had been as an intern, I learned how to play with technology and I was in a part of Apple that we were looking at education and we were looking at playfulness, we were looking at children. And that was fun.

Because I started learning about how to tackle big problems with small solutions. It was when Steve came back. And the happy thing for me is that Steve really didn't like my group very much and so he started firing everyone, which caused my group to die and a lot of people that I cared about to leave and it helped me leave to start my own company. And I was kind of grateful for that, but there's some interesting Steve Jobs stories. And the one I'll tell you is that he came back at a time when the market cap of Apple was about - approximately equal to the cash we had on hand. And nobody remembers this, and this sounds ridiculous, it was the time when Microsoft was dominant, Sun was incredible, Sun - looked like Sun was going to buy Apple. I know none of you remember this, but it looked like Apple was dead. And Steve came back, because Apple acquired NeXT and then he took over and nobody believed in it. And I remember this town hall in a room for ATG, the Advanced Technology Group and we were about this size and Steve was up on stage. And in the press the day before, the press asked Michael Dell who started Dell computer, what Apple should do.

He was like 'well shit, I think they should give the money back to the shareholders and shut the thing down.' So, obviously it's got some poignancy now given the things that Dell's going through and how Apple has done since then. So Steve gave this

big talk on how he was going to reinvent Apple. And somebody asked him 'like, what do you think about what Michael Dell said?' And then Steve paused, and he was like 'well fuck Michael Dell.' You know. No joke. He said 'fuck that guy.' And so he said 'you know what we are going to do, we're going to reinvent the company.' Yeah I'm sorry I know it's broadcast out and - you know, I am who I am. Eight second delay or something, we should pause and give me an eight second delay because it's going to happen again. Anyway, so Steve said 'you know what, we're going to build a great company. We're going to reinvent the world. And anybody who believes me, like let's get moving. If you don't believe that will happen then get the hell out.' And this was an amazing act of leadership because it was so clear who was in and who was out.

And I'll tell you, people in the room would have followed Steve everywhere and anywhere, just about anywhere. Now it turns out me and my friends left and we're happy with that decision although economically it probably would have been better to stick around. We've all done okay. But what an act of leadership by a guy who nobody believed in at the time, nobody believed it. So after that I left and I started my company called Reactivity and I don't know what to say about Reactivity. I'll tell you being a founder is such a complex set of things. Like we started in my kitchen with my mentor from Apple and my best friend from Stanford who was a section leader and then one of the people who went through the HCI program with me at Stanford. And I still can't process it exactly. I'm very, very proud of what we built, and we eventually sold it to Cisco a few years later. But again I think that recruiting and mentors and connections was the thing.

We got Mitch Kapor invested in us from Accel. I have collaborated with him on a number of things and he was the way I eventually got to Mozilla. There was another guy from Accel named Peter Fenton who's now a partner at Benchmark. And Peter stayed on the Board longer than I did, longer than I lasted in the company. So I was there for seven years, Peter lasted two more years beyond that. And as I see so many founders now think about venture investing, or getting that A round as a transaction. I just need to get this done as fast as I can and get the money in the bank and move on. It's such a crazy point of view from my perspective. because you're going to be with these people for years, they're going to affect the way you think, you're going to affect they way they think, you're going to have uptime, downtimes, you're going to yell at each other, you're going to go through happy times. And like it's really, really careful.

It's as important how to choose your investors as it is how to choose your management team. Except you can fire your management team, you can't fire your investors. And so, I don't know, I was very, very lucky because I didn't really understand how far reaching a decision it was when I took money from Mitch and Peter. It worked out very well for us; emotionally and as a business as well. And then the best accident of my career is that I joined Mozilla. So in 2005 I was going through this period where I was trying to figure out what to do. And I thought I was going to do venture. And I just couldn't find the right venture firm for me then, and I accidentally, because of Mitch, I accidentally got sort of involved with the Mozilla people. And Mozilla at the time had just launched Firefox about three or four months earlier, they had just signed a deal with Google that made it economically viable. It was an open source, non-profit, which is not exactly which you're looking for when you're doing a job search.

But I couldn't escape it. I felt this incredibly strong gravitational pull to go work on a browser, because the web felt so important and so under pressure at the time. And again, you won't remember this, but I'll show you why it's important. So this is what it looked like just before I got there. And again you're not going to remember this. So Microsoft was dominant. Dominant, dominant. 96% of the computers in the world. Now all I see out here is Macs, that wasn't the case in 2004. 96% of the computers in the world that people used were Windows and all of them, all of them used Internet Explorer.

So this was such a finished chapter, that Microsoft took their Internet Explorer team and they said 'you guys are not working with Internet Explorer anymore, mission accomplished' and they put them all in Silverlight, which as you know is going to be huge. This was a mistake that Microsoft made; it took them years and years and years to come back from it. I would argue that it really opened a door for a quick downfall for Microsoft. Four years later in 2008 we were about a quarter market share, 9% is Opera and Safari and some other stuff. And then, now, this is IE, about 55% depending on how you count. This is Chrome, and this is Firefox, again depending on how you count, and this is some other stuff, Safari and Opera. And if you include mobile the world changes quite dramatically and I'll show that in just a second. But for most of our point of view this is what we wanted. Like we didn't want the same as this but orange, we wanted robust. We probably could have been happy with the blue slightly smaller, but this is what we wanted.

We wanted a robust competitive market, where you had people innovating and trying to be good for consumers. Because we felt like that was our mission of a non-profit. And I feel like in large part we made that happen. It's important to talk about how we made it happen, because we were this funky, odd like open source thing that nobody much understood. And I'll tell you, I think it took Microsoft probably two years to figure out what the hell we were doing. And I say that because we weren't trying to be them, we weren't going to trade shows, we weren't doing deals with Dell, we were not doing any of that shit. What we were doing is we were trying to find the biggest community we could and make them all owners. Make as many people responsible for translation and code and distribution and user interface as we could. And I showed this picture, this is a picture of the internet a while ago; it was smaller then. And what the Internet especially is called, it's a system called chaordic systems.

And chaotic systems are sort of half chaos and half order but they're roughly, they're kind of multi-nodal systems where you have multi-nodal authority and no center of gravity. And so that's what the Internet is and that's what Mozilla is in many ways. So we had people who were responsible, and we really give them responsibility, whether they worked for us or not. And it was just we competed asymmetrically. We were an open source, Microsoft didn't understand what to do with that. How can you compete if you give your source code away? We were community driven, we were a non-profit. Now it turns out that Mozilla makes many hundreds of millions of dollars a year now and we profit a significant portion of that. So non-profit is more of a mission statement than it is a balance sheet statement. We were a pretty successful non profit and I am sort of obsessed with non-profit sustainability which is why I'm involved in Code for America and some other non-profits now. We didn't try to be them, I think that's true too.

I was talking to some people at the d.school this morning and the success - the most interesting successful companies of scale, Facebook, LinkedIn, Pandora, any of these, I think they're all different. And so they're not all afraid to rethink back to first principles, how to run the company. Google doesn't run like Apple in the slightest, but they're both interesting, meaningful companies. And so I think a lot of times you get caught up with how do we act like a professional management team or how do we act like an establishment company? I think the most interesting companies don't do that; the most interesting companies think about well who are we, and how are we successful in that context, and what do we need to add to be different than who we are now? And then ultimately we involve millions. Millions and millions of nodes and millions of people and we try to help have everybody, like a political movement, feel like we needed them to be successful. And I think - that's the key I think to a lot of community projects, which is you have to be successful enough that people can see promise, but fragile enough that they think that you need their help. And the example I'll give is - and I'll show my political leanings just briefly. In 2008 I made phone calls for the Obama campaign, so I called a bunch of people on election day in Washington and Pennsylvania, which was illuminating. And I told them they should get out to vote. And I did it because I thought it was a thing worth doing, and I thought Obama might not win if I didn't go call.

And that sounds ridiculous but I think that's the key; nobody wants to go join a thing where they don't need you. And so you need to have a project that has promise but still needs you, I think that's central. So Mozilla was a pretty happy accident for me. And then about two years ago this month I joined a firm called Greylock partners and I'll do just a quick version. Greylock's one of the oldest VC firms, we're a billion dollar fund, we're on our 13th fund now. There's eight of us who are active investors, we've all operated, six of us have founded companies. Two people have founded - one of them founded a company while he was at Greylock just now, it's called Workday, it was one of the most successful IPOs this year. Another one founded it before he got to Greylock, called LinkedIn, which is a pretty meaningful company too. And so we all have operated at scale, which means we know - we've all been around very, very special ramps, very, very special companies. And so we are able to help, we all love product.

We all have the sense to leave things alone when they're working and really have the entrepreneurs, the genius in the entrepreneur, blow it out. But I think we can all help when they struggle. Software only - enterprise software, consumer Internet, all stages. I think I've written a \$50,000 check and a \$30 million check. That presents its own challenges, it's a big spectrum of things you're able to do. This is who we are, I mean over the past 24 months we've had a ton of exits and the exits are interesting but it's all work that my partners did five or ten years ago in the downturn. I think the more interesting work is the 1% and 2% companies who are in the garage now who will show up on this chart when I'm back in a few years maybe. This mostly will look like any other VC will put up but I'll give some color on it a second. Great products, great teams. And when I say get all the way to the finish line, what I mean is, you're not looking for , you're looking for a - to make a big fundamental durable company.

And there just aren't very many of those and I'll illustrate that in just a second. And then we kind of obsess about distribution; probably more than any other firm we're focused on distribution. Because whether it's enterprise software or consumer, like the key is like how do you get enough people to give a damn about your product and use it? That's a simple question and a really, brutally hard question to answer. So we care about distribution and I'll highlight that in a second. So very large, very durable companies. So since the beginning of Internet, give or take, the web, 1995 so maybe 17 years ago, how many consumer Internet companies, which is where I focus, do you suppose are on the public markets that are worth than \$1 billion? Do you think it's 50 or 100 or 10 or - anybody have any guesses? 50. 50? 10. It's more than 10 but it's not many more than 10. So the answer is 24. So - but if you really parse this out 24 is not a very big number, 15 years, 24 companies.

And so - because, like look - I'll show you my calendar in a second - so I meet about 300 to 400 companies every year and what I'm telling you is that one and a half companies a year between 1995 and now are worth more than a billion dollars in the public markets. That's crazy, because I don't even see most of the company's right, I see some fraction of consumer companies, 350, 400 companies. So here are the 24, it's kind of interesting. I actually don't know what Vistaprint does? Business cards. Who knew? Thank you. You know we've been really lucky to be involved in some of them. So how many of these do you think are worth more than \$10 billion? Because every firm will tell you they want to invest in multi-billion dollar companies. Everybody's counting. It's not half. 7.

That's it. So this list I submit - and so this is the consumer Internet not the - there's other things, the enterprise, which has a number of companies, there's little companies like Apple and others that are pretty big on the hardware side. But this is the seven consumer Internet companies that are \$10 billion or more public market cap independent companies now. So it's worth looking at those and understanding what's special about them and understanding what's similar and what's different. From our point of view everyone except from maybe Priceline and maybe Yahoo! you get serious network effects, serious distribution advantages as you get bigger and bigger in scale. We tend to be obsessed with things that have baked-in network advantages because it lets you get big quickly and lets you be robust for a long time. eBay, I mean eBay has gone through so many challenges. Yahoo! too but their built in distribution effects have kept them alive for a long time and now they're both in a period of reinvention. So let me give you a brief sum of reality, which is probably the most overused term that I hear. So most people say 'well our product is totally viral.' And what they mean is, their product, people are going to love their product so much they're going to talk about it to their friends.

So for us, that's not viral. For us, the specific and actual definition of viral is it's useful for me to get all of you on the system because that makes me want to go turn all of you into users. So, photo sharing is something that wasn't - photo taking on the iPhone, so when you first got your camera, photo taking wasn't viral in any way, it wasn't network effect, you'd take your picture and then it would sit on your hard drive. What Instagram did, what Kevin and Mikey did is they created a system where for me to get value I had to turn all of you guys into Instagram users. That's viral. And that's a special kind of network characteristic. Anything else is basically word of mouth, maybe network effects. But virility is a really special thing and the thing I like about this definition, which came from Reid, is it's really actionable. It really starts to get you to think. It's like 'oh, I'm using this on a single player mode.

I'm thinking about this as a one person product, but now, how do I think about it if I want to use it with my wife or my dad or my cousin or my classmate?' And that's a really powerful way to unlock on the consumer Internet this idea of network and network spread. So here's the bottom line, that everybody's going to tell you they want to invest in the multibillion dollar companies. And I guess I should say too, that venture capital is not all the same, it's very - different funds, different things. For us and maybe a handful of others, what we look for is the Facebook style returns, the LinkedIn style returns. Big, big durable companies that are going to be fundamental and landscape-changing. What that means is as a matter of course you make a lot of mistakes because it's hard - your peering through a glass darkly. But this is what we try to do. It almost never happens. 24 times on the consumer Internet in the last 15 years. And there's a few more of that got bought like Instagram and YouTube but - and a few more on the sidelines like Square and some others that are looking pretty good.

But when you do it, you change everything. So my profile - and so - some quick observations about VC life. This is my heatmap from my calendar from 2012. And so the red days are the days when I had 8 or more meetings and the orange days are the days that I had 5 or 6, so kind of lighter days. And then the yellow days maybe I had 2 or 3 meetings. And the only reason June looks like that is because my wife and I had our second child so I tried to take fewer meetings that month. In truth, I didn't take any meetings. I was just probably like going to the gym and stuff like that. So here's the thing, and I really didn't understand this when I was an entrepreneur and so I'm trying to communicate it to as many people as I can. Venture capitalists, all they do all day is they try to find the best entrepreneurs as they can and they try to respond to as many entrepreneurs as they can.

And they try - the best one is try to be helpful and add value. What that means is you might - a lot of VCs will see 400, 300 companies a year. And most VCs invest in 2 or 3 companies a year. So that's 1%. And as you say, 99 times you say 'no, no you're, like, not for me.' Which, as a maker, it's a hard thing to do. As a guy who see - who comes in - like, because what you're doing is, everybody's coming in and they're pitching you what the future's going to be. They can see it. It's already finished for them. The best entrepreneurs can see the future. And what you're doing is you're saying 'okay, I get this.

I get that you can see the future. It's just not for me.' And it's a very hard thing because sometimes you're saying it because you don't believe it, sometimes you are saying it because you don't like it, sometimes you are saying it for any variety reasons but saying 99 'no's for every one 'yes', that's a tough ratio and it's useful to understand it. Context switching is brutal. So you can have - like even in just the consumer Internet, and this is why we specialize a little bit. you might see a photo sharing app and - you can see a lot of photo sharing apps - but you'll see a lot of different things in the course of just one day and you'll try to be helping your portfolio of companies at the same time and you'll be trying to think of how to help your partners and everything. So it's a lot of context switching. And a result, timing's everything. So since you're only doing one or two new companies a year, it really is key - like, you might just be busy. So we passed on Pinterest twice in 2011. The first time we did it, because we just didn't think it was going to be big, which turned out to be not true.

And the second time we did it, it was just hard for us to run after it because I was in the middle of finishing up an investment in Tumblr. So Tumblr was kind of related and we couldn't really pay attention to it, and so it went by in a way that we couldn't really - I couldn't really aggressively pursue. So timing really, really is everything. And then here's the thing that I think nobody really kind of internalizes. Like we're all super, super quirky and super idiosyncratic, just like any other collection of

humans. So every firm's different, every person's different and you really have to understand who the person is that you're talking to, not 'oh I want to pitch to Accel, or Greylock or Sequoia'. So very, very idiosyncratic. We all make decisions differently, we all prosecute things differently, we all think about things differently. This is what happened in my first 24 months. I've done 5 investments.

CitrisLane - eCommerce for moms - ClearSlide - we're trying sort of a business app, we're trying to kill WebEx for salespeople - Tumblr, Dropbox and Instagram you probably know. One thing that's worth mentioning, CitrisLane was a Mayfield fellow named Mariah Fenley, who started that company, a CS major and master's student. ClearSlide was a guy named Al Lieb who's a computer scientist from Stanford who started Evite and now he's a CEO. Tumblr was a guy named David Karp who dropped out of high school in 9th grade in New York and taught himself how to code. Dropbox was Drew, MIT computer scientist. And Instagram was Kevin and Mikey symbolic systems majors from Stanford. So I like makers. I like people who are passionate about products, who make things, who really are desperate to build things that people love. And for me that's been most fruitful, has been looking places, engineering schools, design schools and that's where I hunt more often than not. And it's not to say you can't be like that as an MBA.

A lot of MBAs get tweaked when I say that. I think anybody can be a great product person as long as you have the passion and the ability to follow up in the details on product and make them great. So that's my first 24 months. So we'll see. Instagram was a slightly funky investments because we wired the money on a Thursday and Kevin sent me a mail on Sunday, said they were getting acquired. So that was unusual. So, here's the future. I'll give you three charts and then we'll open it up for questions. This is the whole thing, this is what I spend all my day thinking about, this is the Internet. In the past five years it's grown a lot.

So almost doubled. And it's useful and instructive to see where it's growing. I think many of the interesting communication apps like Lion and Cacao we're seeing come out of Asia. North America is pretty well saturated. I think and hope as a citizen of the earth that we're going to see more and more growth out of Latin America and Africa. This is pretty meaningful. This is a bit of an eye chart. But what it is, is between 1975 and 2011 - oh, by the way, this is asymco. asymco, you should all read this blog. He's at a conference today but he writes some of the most thoughtful stuff about how devices are proliferating in the world.

Everybody should read it. And what this says is, in a logarithm scale, thousands of units per year between 1975 and 2011 what did we ship? And so what you can see is like well, here's a TRS80, which again I guess I'm an old guy so TRS80 I remember, here's the next. Steve wasn't always successful. Here was the Commodore 64 which was awesome. The Macintosh that yellow line, the PC is this big line. But what I want you to notice is like this period here, nothing was happening, the PC and the Mac, and I'll show it to you in a better way in just a minute - but now everything's happening. We're seeing a Cambrian explosion of devices and screens and sensors. Everything's in play right now. The other way I'll show it to you is this way. So this chart I call the dark ages of computing.

So the blue is Windows. So from 1987 till recently, Windows dominated. So as I was putting this together yesterday, I'm like 'man this looks like the dark ages. It's like that we fell off the map. Innovation stopped, it was dominated by just Microsoft and the snarky part of me says innovation in Microsoft in that period is probably an oxymoron. But it wasn't a good time. You had this little bit of Macintosh, but Macintosh wasn't a very good time either, we were going to get bought for the amount of cash we had, right. This sucked. It sucked, sucked, sucked. But now it doesn't.

So this is 2011 and it's getting better. So now you've got - I read something the other day that for the first time in probably 20 years more than 50% of emails were read not with outlook. And it's because it's on your phone. It's because it's in your tablets and phone and on your TVs. This is going to change everything. For the first time, we've got this incredibly high energy explosion; I think things are in chaos. So the question to you guys, is, there's white space. So we don't know yet whether we will go into this dark ages where one of these dominates for another 20 years. I hope not, and I kind of don't think so, because I think the amount of our lives we are mediating through mobile, through computing generally is getting higher and higher and higher. So my view is that we're exiting in the dark ages.

Everything's in chaos, everything's a promise. There are going to be a bunch of funny starts. There's going to be a bunch of things that they grow and get big and disappear off the face of the earth. Just like the pre-Cambrian explosion. Or like the renaissance, we have lots and lots and lots of ideas and this is the time we are living in now. So the question for you guys is what will you put there? And I think this is the essence of entrepreneurship, which is like 'well I see that map. I see how it sucked before, but I'm going to draw it my way now.' That's - I'll tell you that's the most exciting chart in the whole time that I've been in and around computing. So I'm going to do a recap. Three simple rules, make things, you make a lot of mistakes, the more you make, the more you get right. Find your tribe, choose to work with people you care about and you can live with and you want to collaborate with for a long time.

And then do what makes your soul sing. And then I'm going to give one quote. So I'm going to give a gratuitous Jim

Harbaugh picture wearing Stanford gear. So, the thing I like here about Harbaugh, he's a little nutty, but I like him better - this is my favorite Harbaugh picture because it was after the USC game where we may have gone for 2 when we ahead of USC by maybe 30 points and Pete Carroll goes 'what's your deal?' and Jim Harbaugh goes 'what's your deal?' And then they run off the field. Anyway, so I liked Harbaugh. But he's got this thing that he took the 49ers from his family. And he asked people 'well, who's got it better than us?' And so I would just say you guys all sitting here at Stanford, at Stanford, at a place where the computer science department's strong, where you've got many, many, not just one or two entrepreneurship professors but people running whole programs. At a university run by an entrepreneur and an engineer in the middle of capital, mentors, entrepreneurs companies. Like there's nobody that's got it better than you people do now. And so I'll just say that there's nobody that's in a better position to change the world now than there's ever been really.

So I think with that we'll go to Q&A and then we'll go from there. Is that okay? So, questions? Sure. Your list of 24 had what I think might be a few first-to-market companies and one not on the list that I could identify is Skype, one of the early VOIPs. Oh yeah, that's fair. And when I look at it were there first-to-market challenges that kept them off the list or management issues or something else maybe? So the question is, well there are a bunch of first-to-market companies that show up and then disappear, and I guess I don't know, I haven't done the analysis on why that happened. One thing that's worth mentioning is that what we did at Mozilla was attacking an incumbent market which was pretty static at that time. And that's a different thing to what say Instagram did which was on mobile and you've got greenfield and you're trying to go as fast as you can. So it's pretty important to understand the field that you're playing on. And you're right that, look back historically, what I did was mostly illustrative, say look, building a company is hard, and so - Recruiting answer probably is to the point on that. Yeah, once you get big and once you get public recruiting gets brutal.

And I think that's truer now than it's been, ever. Next question? Sure. You mention that you invest only in one out of every 100 companies that you see. So what I was thinking is that it might create some mindset in you that you might become very negative towards investments then. So do you use any tools or are there some things that you say to yourself before you get into a meeting so you don't fall into that trap of being overly negative? Yeah, so the question is if you say no 99 times, doesn't it make you a little bit negative? And isn't that, a - doesn't that create a jaded, or a cynicism trap? And I think that's true. I'll tell you, when you say no 99 times it doesn't mean you're not interested in 99 of the meetings. So a lot - almost every meeting is interesting. Almost every meeting you can learn something from. And almost - in every meeting somebody is sacrificing much of their lives to make this future that they can see each true. So I think it's our job not to be jaded.

And I think that if you get jaded too much and if you do find yourself there you sort of shake yourself and try to get better. And if you can't shake yourself then you shouldn't do investing anymore is my view. So I'm the new guy. So I'm two years into this. I'm not jaded yet. And I'll tell you that you have one meeting with an entrepreneur in a year that turns into an awesome working relationship that lasts for years or decades. That's enough. Next question? Sure, at the back. What's the biggest reason that you turn down people? Do you look more at the - like potential in the idea or is it the potential in the person? The question is, what's the reason I turn down companies I guess? Is it the lack of potential in the idea or the lack of potential in the person? And I don't know. Look, after an hour meeting I don't know anything about you really.

And that's one of the things you've got to understand, is at a VC it's like you're doing lots and lots and lots of one hour meetings and you're not doing very in-depth things. So what you're trying to figure out is people you're interested in learning more about over time. I would say there's - there are bars that you have get over in terms of market size, distribution characteristics, product quality, demonstration, the person knows how to make things. And then I think you just try to figure out whether it's the one for you or not. Like a lot of things I turn down is just it's not - it doesn't resonate with me. I think they'll do really well but it just doesn't - it's not for me. The ones - I think it's easier to say why you like things. And when you say I'm going to invest, it's because you believe in the person and you believe in the market and you believe in the product. And when those three things come together that's the key. So it's easier to say what that positive characteristics are than the negative for me.

Sure? Why did you choose to become a VC? Looking back at being an engineer, a CEO, an entrepreneur like what do you think you liked most? So the question is why did I decide to be VC? And then - which I meant to answer in the presentation. And the second question was which job have I liked the most, or what role? I decided to be VC because I thought I would be good at it, and I thought I would like it. That seems like kind of obvious, right. I thought I could like it, I thought I could be good at it. Fundamentally I've had a really good time building ventures and building management teams. Scaling Mozilla was probably the most fun thing I've ever done. I like working with great people and great entrepreneurs and it's not more complicated than that. It just felt something that I could be really good and have a really good time at it. As far as roles, I don't know. I think you should - my own journey is, I've always tried to find things that I could be world class at.

So I've always tried to find things that I could make the biggest difference in the world and be one of the top 5, 10, 20 people in the world at it. Which I'm clearly not as a VC, I'm new. And when I came out of Stanford I was an HCI. Well, when I was an underground I was a programmer and I realized really quickly I can never be a world class programmer. And I could

find other people to be programmers, but I wanted to be a designer. So I went to be a designer. And it was really clear, really fast that I was not ever going to be a world class designer. I could be good at it but I would never be a top 20 designer in the world. But I thought I could be that for organizations. And so when I came out of Stanford I started managing a group at Trilogy and I started managing people at Apple and started my own company.

And I felt that, organizationally, like I feel some competence at. And I say that kind of in a specific way because I really feel like as soon as you feel like you know things like you start to be kind of stupid. And I feel like organizations and ventures in particular, is that learning process is continual. So everything's new. So I don't know. I'm two years into this job. People tell me it takes a few years to figure out what to do, what your style is and it takes a few years after that to figure out whether your style's any good or not. I'd like to make it shorter than that, so that's why I'm trying to work on. But I don't know, I like all the jobs I have, and they're all frustrating too, you know. Sure? Can you comment on work-life balance and your experience of working with women CEOs and how they navigate it? This feels like a complex question.

So the question is can I comment on work-life balance but it seems to me like that question you're actually asking is the other part about women CEOs and the challenges and how they navigate it? So, how do I answer this? There are not enough women entrepreneurs, there are not enough women CEO, there are not enough women executives, there are not enough women scientists, there are not enough women in the work place generally. I think it's a brutal problem. I think that it starts very early and I think - but I think that's not the only problem. I think the expectations around families and care giving is also another problem. We're going - I have a seven year old son but also a seven month old son. And I look at my wife who's had to take a pause from the workplace because we've prioritized that work for her now. And I think it's challenging. Challenging; no way around it. Mariah - I find it - I'm on Mariah's board, Mariah Finley at CitrisLane. She's got two small kids and she's amazing.

She works really hard and she really priotizes her family. I don't quite - I couldn't quite tell you how she does that. I'm also on the boards of two non-profits that have female leaders, Mitchell Baker at Mozilla and Jen Pahlka at Code for America. And they're incredible. Just full stop just incredible. So, I don't know how to answer that except that we need more, we need more people thinking about it. It is a hard problem that I don't know how to solve at a micro level other than to just keep trying. Other questions? How will you define social entrepreneurship and what do you think about its role in emerging markets? How would I define social entrepreneurship and how do I think about its role in emerging markets? I think entrepreneurship full stop is like having a view of - like I said, having a view of how the world needs to be or will be and then making it happen that way. Social entrepreneurship I think in my view is like how do you do that in a way that creates a social outcome as a top line as opposed to an economic outcome as a top line. This is what we did at Mozilla; the goal was not to make a lot of money, the goal was to make the Internet open and participatory at a time we thought it was not.

Code for America is to make citizenship better and to help more of us be citizens. I think that we're going to see more and more of these because the Internet's driving down costs to start. So technology costs and like the cost to find people who are like minded and have a similar vision of the world to you, it's going to almost a zero, and so you get some organizations like Kiva and Code for America and others. Distribution costs are almost a zero now too. And so I think that and then I think - the thing I'm obsessed with is how do you fund social enterprises or not-for-profit enterprises, how do you fund them in the market, which is why I'm so proud of what we did at Mozilla is we used search and some other things to fund this non-profit mission. I think that's totally possible because you're driving cost to zero. I don't know much about emerging - developing world to be honest with you. We did a lot of work there and we had a lot of adoption with FireFox in Latin America and Africa. I don't know, I think we're probably going to learn some things about how people deploy wireless networks and how people live their lives on mobile phones from developing nations pretty quickly. So I guess I'm hopeful.

I think that the basic equation though is driving costs down to zero to start these things, then you can start, which means you don't need as much sort of voracious growth to run the things over time. Other questions? Sure. I saw on the slide about being a VC you mentioned that there's a lot of context switches. So how do you stay productive through all these context switches? So the question is how do I stay productive through context switches, and shit, I don't know. I find - it kind of depends on the day. Some days are better than others. And I'll tell you when I was an operating executive I would come home and my wife would ask me what I did and I'd say 'well, we did this and this and this other amazing thing.' And she asks me what I did now, and most days I have to look at my calendar and say 'I'm not sure.' Because the 8am meeting was 8 contexts ago. And so it's a tough challenge. So I think that my - the thing that I struggle with the most, and thing that I find other interesting - investors struggle with the most is like how do you - number one, how do you live in your inbox more than your inbox? So how do you decide, like an entrepreneur, how do you decide what the effect you want in the world to be, how do you find this is where the interesting things are and how do you go after them, as opposed to being reactive to everybody else who wants your time? But the trick is like how do you do that and still remain accessible and responsive to many, many people who want your help? So I would tell you that I think everybody good struggles with this. And I don't have a good answer yet.

Sure? My question is just about how you said you want to find your tribe. And what I was wondering is how you go about figuring out what types of people those are for you personally? And when you do find them, how you know that they're the

people that you want to be around and can build that relationship with? That's a good question I didn't anticipate. So how do you find your tribe and how do you figure out who's in and who you want to be around and if it's worth it? I don't know, coming to Stanford is probably a pretty good start. And one of the - I think there - Warren Buffet's got this quote I think that's like, what you try to find in people you work with is people who have integrity, energy and intelligence, because if they don't have the first one the other two will kill you. And so without integrity like the intelligence and energy will totally screw you up, right. And so there's some, there's some baseline things. Like you have to, you just have to figure out where your integrity line is and all that stuff and what fundamental values are important to you. Beyond that, I think you've got to try hard to put yourself in the situations that are hard. And one of the - I haven't even given this talk, but I've got a title for a talk that I want to give some time which is called On the Virtues of Getting Your Ass Kicked. And what I'll you is that I've got my ass kicked so many times.

And when I got to Stanford I was going to be a physics major until I got like a C+ in Physics 63 right. And it was so clear that I was not able to cope with those guys. When I was - CS198 the thing I'd say was the most important decision I ever made, well they turned me down the first quarter I applied. They turned me down the first quarter. And I applied via the coordinator. They turned me down the first two quarters. And then the third time I applied I got to be a coordinator. The first time I looked to be a VC I didn't really find the right thing. The first time I started a company, I didn't really find the right thing. I've got partners, Reid, who go from thing to thing and success to success.

That's never been my experience. And I don't know, I think that if you are really aggressive and try to put yourself into hard situations where the people around you kick your ass all the time - so being at the table in our partnership it's a murderer's row. So people invested and created the biggest SaaS companies companies in the world, the biggest networking companies in the world, Facebook, so billions of dollars in return. And I'm the new guy with five investments and we'll see how it goes. It's an intimidating table to sit at and then it's intimidating to say things. You did the best you can and then people say 'well that's kind of the dumbest thing I've heard all day.' Nobody and to be clear, nobody at Greylock's ever said that to me, although I'm pretty sure they thought it. But the - if it's only the dumbest thing today that's fine. Because then you'll learn and you'll get better. So that's what I would say. Just like be clear in your integrity and then put yourself in the situations that are hard, hard, hard.

Sure? So your white space chart looks a lot like the banking system where it's not been disrupted for a long, long, time. And I just want to get your opinion on disrupting banking and what's Silicon Valley's going to do to - as you look at beyond... So the question is the chart, the dominance chart look a lot like the banking industry, which is not kind of disrupted at all. How do I think about the banking industry and opportunities there and, I don't know. Like Instagram, Dropbox, Tumblr, that's my kind of thing; how we tell stories to each other. The banking industry I'm interested because I think that - but I think every system we use is about to get blown up. I mean, you think about how different - like five or six years ago like we weren't using YouTube everyday, we weren't using Facebook everyday, we didn't have phones, we didn't get - when you're out and about and your seven year son asks what the difference between Kid Fisto and Cad Bane is in Clone Wars like you didn't have an iPhone to pull out and like look it up on Google. But now I know. What's the difference between every Pokemon card. Ever.

So I would say that everything's changed so quickly but I think we're still at the very, very, very beginning. So I would just say every system that doesn't look like it's a native, mobile, real time system, it's all going to get busted up. There's opportunity everywhere. So I don't have very good banking answers on that. My partner Reid probably would given his experience at PayPal, but things are hard - banking is hard but it'll blow up. Sure, one more question. Very simple question, assume I'm a budding entrepreneur or already an entrepreneur, how would I approach you - I mean not you, venture capital. And what is the - I mean, is it a gut feeling that you'll hear me out and say take an hour or two hours. At the end of the day you said it's something that has to click and it's vision, a long term vision plus it has to, you said about distribution and at the end of the day something has to click. Is it the gut or the heart or the brain? Or some combination of the three? Two questions and one is how do you approach.

and the best way to approach is by somebody who I've worked with. Every VC responds best to people they've worked with and it's not - it's not a big test to figure out who is my network now and do they have LinkedIn or Facebook. So that's the best way to come in. Or to meet at some of these things, but in general it's through a person we know. And I guess, how do you know, whether it's brain or gut? And I guess a story I forgot to tell, and I'll tell this and then we'll finish up, is the reason I decided to join Mozilla is I - we - I got invited to a meeting with the founders at Yahoo! where we were meeting Jerry Yang. And it was an hour meeting and Jerry shows up 45 minutes late. We were kind of twiddling our thumbs with some of the people who worked for them. And he starts - in 2005 - and he starts to yell at us. He yelled, yelled, yelled, because he was so pissed that people - Yahoo! users would download Firefox and become Google users. He was so angry.

But before that meeting I was kind of on the fence about whether to join Mozilla or not. But it was in the middle of while he was yelling at us - and look, I don't know Jerry at all. I mean he yelled at me a couple of times, and he's supposed to be a very, very nice guy and I guess he probably bought one of these buildings or something. But it was while he was yelling that I said 'well, if you can get a billionaire to yell at you, you're probably pretty good. You're probably nosing around a pretty good space.' So that's the key. It's like you're trying to figure out whether you love the product, whether you're going to get people to yell at

you because it's a good, big space. And whether there's a little bit of passion and chemistry in it, like anything else. Okay, thank you very much.