Entrepreneur Journeys

Billion Dollar Unicorns

Sramana Mitra

To Dreamers Everywhere

Content

Prologue

In November 2013, Aileen Lee wrote a post on TechCrunch titled *Welcome To The Unicorn Club: Learning From Billion-Dollar Startups*. In it, she presented the rationale of why Unicorns are important.

"Many entrepreneurs, and the venture investors who back them, seek to build billion-dollar companies.

Why do investors seem to care about "billion dollar exits"? Historically, top venture funds have driven returns from their ownership in just a few companies in a given fund of many companies. Plus, traditional venture funds have grown in size, requiring larger "exits" to deliver acceptable returns. For example – to return just the initial capital of a $400 million venture fund, that might mean needing to own 20 percent of two different $1 billion companies, or 20 percent of a $2 billion company when the company is acquired or goes public."

In the post, she offered a list of 39 companies (0.07 percent of the venture-funded startups from that period) that have had billion dollar exits, and analyzed some of the common threads.

The tech market has been quite prolific of late, and this list has expanded steadily. Also, the startup business is more mature now, and in the good twenty years since 1994 (milestone: advent of the commercial Internet), we've seen a number of businesses achieve valuations in the billion dollar range. The total pool of technology companies that deserve an entry into this list is likely to be over a hundred.

In this volume, I would like to look at some of the 'unicorn' companies that Aileen identified (started after 2003), as well as some others that I know well (may have been started before 2003), and one by one, explore their early stage entrepreneurial journeys.

Needless to say, there is a lot of luck involved in any disproportionate level of success. Luck, however, is not a repeatable event. What we seek to identify in these journeys are ingredients of success that ARE repeatable.

This volume, by no means, is exhaustive. We only present a selection of stories here with a close look at their specific ingredients.

Our research continues. There will be more stories. There will, definitely, be more collections of Entrepreneur Journeys!

Also, while Aileen has explained the rationale of why investors seek to fund billion dollar businesses, we should also stop to consider why entrepreneurs seek to build them. There are the obvious reasons: ambition, desire to make the greatest impact, desire for money, power, fame, desire to realize a vision, desire for controlling your own destiny, etc. None of these are particularly new insights.

My intent, in writing this book, however, is not necessarily to only cater to the entrepreneurs who want to build Unicorns. I am interested in extracting lessons from the Unicorns that a much broader set of entrepreneurs – even those building $1 million, $5 million, $10 million businesses – can apply.

After all, there are many more $5 million, $10 million, $50 million ideas out there than billion dollar ideas that grow at an exponential pace. I am interested in seeing those entrepreneurs survive, become sustainable, and then, perhaps, aim higher.

This is not to say that this book is not for those aiming to build Unicorns. Of course it is. Building very large companies tend to require huge sacrifices from entrepreneurs, and I have tremendous respect and empathy for people who choose to make those sacrifices. This is an opportunity for those with similar aspirations to learn from some who have succeeded.

In fact, one question that is bound to come up in this context is what are the commonalities across these and other Unicorn companies. Aileen Lee's original research offered some synthesis of commonalities she has identified. Her research, however, was more from an investor's perspective. My work is more from an entrepreneur's viewpoint. In this volume, I have organized some themes that strike me as replicable, takeaways that I find worth learning from.

Almost all the stories we cover here have one of three business models: Subscription, License Fee, and E-Commerce. Of these, increasingly, the software industry is moving towards subscription as its chosen business model. E-Commerce is consistently yielding Unicorns (Example: Zulily IPO in November 2013), and will continue to do so going forward.

The one category of stories you will find missing from this volume, however, is what I call the *Valuation without Revenue* style of Unicorns, the most prominent recent example being WhatsApp's $19 billion acquisition by Facebook.

Unfortunately, for every WhatsApp or Instagram, there are thousands of roadkills out there – companies that have tried to build traffic without monetization, assuming investors would continue to fund them, and Google or Facebook would buy them. It's a dangerous game to play, most run out of money, are unable to raise follow-on financing, and the acquisition doesn't happen.

I know from my conversations with many consumer VCs who play this game that this only works if you have been able to bootstrap your way to huge traffic before raising funding. By the time Sequoia invested in YouTube, the company already had huge adoption. YouTube was a valuation without revenue scenario that had a happy ending with Google acquiring the company at $1.65 billion. Incidentally, Google has very successfully monetized YouTube via advertising.

The luck factor, however, is much too prominent in that genre of startups, and I do not claim to have any clue on how to activate that luck in a startup scenario.

Nobody does.

As such, you will see that this volume only deals in businesses that have a clear monetization model right from the beginning.

Early Customer Validation

How Tableau Raised Series A at a $20 Million Valuation

Christian Chabot, the founder CEO of Tableau, is from Milwaukee, Wisconsin. He arrived in Silicon Valley to study at Stanford, and got inspired to become an entrepreneur by Irv Grousbeck. Soon after graduating from business school in 2000, Christian founded BeeLine Software that came up with a better way of doing digital mapping. The company only had 3 people, and was sold in 18 months to Vicinity, offering the founders some early cash.

After a couple of years at Softbank, Christian started Tableau as his second venture in 2003. He and his two cofounders from BeeLine had cash with which to bootstrap Tableau for a while. He already had some deep insights into a problem he had encountered as a data analyst at Cornerstone Research. This problem had to do with visualization of structured data from databases, a technology already being incubated in the Polaris project at Stanford.

"Almost all visualization of data, even today, follows the same archaic model. First you open some data with a query interface and you work with that data. You analyze it, dice it, and pivot it, all in text form until you get what you would call your answer. Only then do you put it into some kind of chart wizard. Once you get your data points into the chart you have an end result, which is data translation. And what happens next? You look at it and say, "That's not what I wanted" or, "That's what I wanted."

Your brain is naturally curious about data whenever it sees it. The problem with the whole paradigm to understanding data is that the visualization comes last. By then it's too late. If you have a new hunch or angle, then you have to go back and do the whole process again. The idea behind Polaris was to query a database using a picture, to be able to sort, filter, zoom up, and pivot it through a purely graphical interface. When you do it that way you are working at the speed of thought. By dragging and dropping after viewing some of the data on a canvas, you are actively querying it. That lets you generate pictures of it at the same time."

Christian had insights into the problem as a user. And he had really strong computer scientists as cofounders to figure out the solution that he envisioned. To that, they added a powerful set of cross-domain expertise: "They say that the greatest innovations are born from strange bedfellows. In our case it was PhD's in database optimization, data structures, and data queries, married in the lab with people who had PhD's in computer graphics. These are groups that don't even talk to each other anywhere else. They definitely don't collaborate. That is one of the reasons that we have the IP we have today."

Cross-domain innovation tends to produce strong, defensible competitive advantage.

The Tableau team licensed the Polaris technology out of Stanford for a small equity, and very quickly started selling to real customers. The first 100 customers gave them immense validation.

At this stage, there was no investor involved. In fact, for two years and 200 customers, there was no investor involved. In effect, they bootstrapped.

Then they got a mammoth 4-year OEM deal with Hyperion including an advance.

At this point, Tableau raised $5 million from NEA at a $20 million pre-money valuation. The average pre-money range at the time for Series A was $5 million. VCs love to come to the rescue of victory.

Revenue ramped very well. In 2004 they did $800,000. That rose to $2.1 million in 2005, $3.7 million in 2006, $7.8 million in 2007, $13.9 million in 2008, and $20.1 million in 2009.

Tableau went public in May 2013 raising over $250 million at a $2 billion valuation. Before the 2013 IPO, they crossed $127 million in 2012 revenue. Their 2013 revenue was over $230 million.

Tableau Software is currently trading in the public market under the symbol DATA with an over $4.5 billion market cap. Their 2014 revenue is over $350 million.

According to CrunchBase, the total amount of venture funding the company raised was $15 million prior to its IPO. This, if I may underscore, is an amazingly capital-efficient success story. Of course, the founding team's ability to bootstrap was high because of their prior exit.

All told, Tableau is a textbook case study of immaculate execution that is worth learning from.

Interview with Christian Chabot, Tableau Software

This interview was done in March 2010, long before the company's destiny took it to the stratosphere. What I have always found exciting is to sit down and trace, in depth, the beginning of these journeys when the degree of uncertainty was orders of magnitude higher. Christian sat with me in my living room, and took me through the details and nuances of his decisions. It is the thought process driving the decisions that I find the richest material to learn from.

Sramana Mitra: Let's start at the beginning of your story. What is your background?

Christian Chabot: I am from a suburb of Milwaukee, Wisconsin. I had a typical American upbringing. I came to Silicon Valley to attend Stanford as one of two people from my high school to be admitted. The other is my wife. We were undergrads together. I studied engineering and she studied biology. We both graduated and went into the workforce for a while before returning to Stanford for graduate school. She went to law school and I went to business school.

While I was getting my MBA I met Irv Grousbeck, who has been one of the bigger inspirations in my career. Their business school is mostly renowned for its entrepreneurship program. Most of the credit for that goes to Irv. He was the founder of Continental Cablevision, which was later known as Media One. He practically invented the cable television industry. He is a decorated educator at Stanford, and I am just one of hundreds of his fans.

Sramana Mitra: What did he do that inspired you and drew you in?

Christian Chabot: I think he is one of those rare people who can communicate the lessons of life and the theory of business in a tightly integrated fashion with actual anecdotal experience. There are professors who can do the former or the latter. Irv is rare because he can combine the two. I think everyone is inspired by him in a different way. He was one of the people who brought out the entrepreneur in me. At Stanford I realized that I wanted to be an entrepreneur as a career choice. Irv convinced me that I did not need to wait for more experience.

Between undergrad and grad school I was a data analyst. I worked at Cornerstone Research, which was in Menlo Park. It is really well-known in consulting circles for high-end economic consulting and analysis on extraordinarily complex financial problems. It was a very research-extensive private sector job.

Sramana Mitra: What did you do after business school?

Christian Chabot: I graduated from Stanford's business school in 2000. I was a part of the first class to graduate after the [dotcom] crash. I was committed to doing this as a career choice regardless of the economic situation. I remember when I was in school that everyone wanted to be an entrepreneur. By the time we graduated, there was only a dozen who went straight into entrepreneurship. More will surely do it over the course of their careers. When the crash came, all of a sudden investment banking and management consulting started to look attractive to many students.

So I started a company. It was called BeeLine Software, and we invented a better way of doing digital mapping. The business plan of BeeLine was very simple; it was to flip the company. It was to get the technology to a state to be helpful and useful and then inserted into the grand technology empire that could distribute it. That was the choice we pick for multiple reasons. It was the stated goal. It was even in our business plan. We did that and we had offers from AOL and Vicinity, which was a geospatial company. We took Vicinity's offer. They ended up being bought by Microsoft. We did that entire company with just three people. We bootstrapped the company, so financially it was a win.

Sramana Mitra: How long did it take you to build and flip BeeLine, and what did you do after that?

Christian Chabot: It took about 18 months. Even to this day I'll look over at a stoplight and see one of our maps, which is very satisfying. A month after we sold BeeLine we had a party to celebrate, and I ran into a friend from business school. He told me about an opening at a venture capital firm he was with and convinced me to join him at this firm, which was called Softbank Venture Capital. It had a notorious reputation, but despite its woes had many successes. I did that for two years, and then I got the entrepreneur itch again. I wanted to start another company and this time I had no interest in flipping it.

Sramana Mitra: Did you come up with the idea for your next company while you were working at the venture capital firm?

Christian Chabot: No. The idea came out of relationships. My first company I founded with two computer scientists named Christopher Stolte and Maneesh Agrawala. We started meeting and talking about ideas for the next company, and we were very patient to make sure that we found the right idea. Ultimately we decided to commercialize an idea at Stanford called the Polaris Project. That is what became Tableau. This all occurred around 2003.

Sramana Mitra: What was the idea behind the Polaris Project?

Christian Chabot: The idea was to make database structured data easy to visualize and explore.

Sramana Mitra: What was the state of the art regarding database visualization at the time, and why was Polaris different?

Christian Chabot: Almost all visualization of data, even today, follows the same archaic model. First you open some data with a query interface and you work with that data. You analyze it, dice it, and pivot it, all in text form until you get what you would call your answer. Only then do you put it into some kind of chart wizard. Once you get your data points into the chart you have an end result, which is data translation. And what happens next? You look at it and say, "That's not what I wanted" or, "That's what I wanted."

Your brain is naturally curious about data whenever it sees it. The problem with the whole paradigm to understanding data is that the visualization comes last. By then it's too late. If you have a new hunch or angle, then you have to go back and do the whole process again. The idea behind Polaris was to query a database using a picture, to be able to sort, filter, zoom up, and pivot it through a purely graphical interface. When you do it that way you are working at the speed of thought. By dragging and dropping after viewing some of the data on a canvas, you are actively querying it. That lets you generate pictures of it at the same time.

Sramana Mitra: Architecturally, how does the data tie to the graphics or picture?

Christian Chabot: The core invention of Tableau, which is what it will be known for, is VizQL. One of the most important advances in using data was SQL. The idea behind SQL was to have a pithy declaration that was almost plain English to send to a database and let the database find the answer. It was declarative, not procedural, and it changed the world.

Regardless of what you send, SQL always replies with a table. You then take that table and go through the clumsy process that I just described above to get to an answer or presentation. The idea behind VizQL is to be able to send a VizQL statement to a database and have it reply with a picture, not a table. You would just turn that table into a picture of some sort anyways. VizQL is an algebraic formalism that embodies both the graphics commands and the query which is required to bring tuples back into the data engine. By virtue of marrying both into a single language, it is easy to provide a single picture of the data.

Sramana Mitra: Essentially, you are doing drag-and-drop query-building using graphics. Internally, that query is being translated into some sort of SQL which is processed and transferred back into graphics for the user. Is that a correct assessment?

Christian Chabot: Yes that's right. The language from which we are retrieving data could be anything. You can expose any declarative query interface. For example, MDX is another popular option. If you married a description of information graphics with a description of data queries into one formalism, you could then write applications which were fluidly graphic and thus generate queries fluidly. It is a unification of those two worlds into one that is the breakthrough.

Sramana Mitra: Don't you need a translation layer to accomplish this?

Christian Chabot: That's a simple thing and we could write our own. Writing a procedure that retrieves data is a computer science 101 task. That layer can be anything.

Sramana Mitra: I'm not talking about the query interface, I'm talking about going between the query and the graphics interface. That's your technology, right? Going from graphics to data and back?

Christian Chabot: Yes, but that has to be architected in a way that maps very well to relational algebra. If they didn't write the formalism that easily compiled to popular query languages, then the task would have been easier. Most analytical applications rely on using their own proprietary data silo where they expose their own custom query interface. That is why virtually any analytical application in the world requires you to import the data from the database into the analytical silo. That's true of Excel, SAS, Business Objects, and every other one you can name. They are built on that model.

You have to get the data out of the database and into their fancy silo. They'll never expose the query interface to people. They just build their captive UI to that. If we had architected that way ourselves, then the task would have been much easier. We have written the formalism very elegantly into the data query, which is part of the brilliance of what we have done.

Sramana Mitra: It's an on-the-fly compiler?

Christian Chabot: It's an on-the-fly compiler of optimized data queries which databases can understand. It's a greater burden than just writing a visual interface to any style you offer yourself.

Sramana Mitra: Was the Polaris technology already finished at Stanford?

Christian Chabot: I think a fair description is that the landmark papers had been written, the formalism had been invented, and it was a research project. Our idea in 2003 was to spin that project out at Stanford and commercialize it.

Sramana Mitra: Describe what was going on in your head in 2003 when you decided to do that. Why that particular project? Why did the next phase of your life center on that technology?

Christian Chabot: My first job out of college was a data analyst. If I did not have that job I would not have seen this opportunity. Most of the people we showed it to very early on did not get it. Everyone has seen information graphics before. When they saw it they only recognized it as something else that generated information graphics. It's only if you had worked as an analyst that you could realize the bridge between where the data is stored and getting it into a useful form that can be manipulated and explored. That is the crucial task.

Sramana Mitra: Your previous work experience gave you an actual user's point of view. You are solving a problem you faced earlier in your life.

Christian Chabot: Exactly. Even within the world of information visualization, there are many different schools of thought, and I learned about many of those in my first job. A very important school of thought to which I subscribe is proper information visualization. Edward Tufte has written landmark best-selling books on how to properly and responsibly convey data as information graphics. There is a community of a couple of million people who have bought his books and gone to his lectures. They believe there is a right way and a wrong way. I was trained in that school of thought because I worked in a highly analytical-intensive environment.

My background let me immediately see the benefit of what Chris [Stolte] and Pat [Hanrahan] had invented. They built the formalism on the information presentation side in a way where it was very easy to plug-in rules to follow those proper information visualization principles. Most analytical applications have horrible use of color. If you put red on the screen as just another color to light a piece of data, your audience thinks it is something important because red is used to highlight. It stresses meaning and attention. You should always try to avoid or mute red in the presentation. Analytical products tend to abuse color by putting too many on the screen at once.

There is a huge body of academic work in the fields of perception and psychology. Stanford has one of the best programs in the world in this, coincidentally. Our inventors are very close with them, and they know the rules of perception design outside of computer science. Chris and Pat were very influenced by this school of thought.

Sramana Mitra: There's a lot of powerful subtlety in what you are saying.

Christian Chabot: There is also another important entrepreneurship point that I find extractable from the Polaris Project. Over the years, writers have commented on the fact that sometimes a person coming from outside of the field, or who is very young, is the best person to come up with breakthroughs. People like that are unbiased about other connotations and experience that people very close to the field have.

Pat Hanrahan is a Stanford professor and a really famous mind in the field of computer graphics. He was a very early employee at Pixar. He wrote the software that did the rendering. The fact that he started to look at data and queries as a computer graphics professor is something that I believe is one of the key events that resulted in his and Chris's coming up with a completely new way of looking at this. They were unburdened by knowing how previous applications work. They were just thinking about the right way to do it.

Sramana Mitra: I wrote a piece a year ago on cross-domain innovation. I pointed out the same fact: if you put innovation that straddles different domains you get some of the coolest stuff. It's very hard to do because normally people who spend their entire lives in one domain or another never really come together. If you have been able to do cross-domain innovation, that creates huge barriers to entry and solves problems in unique ways.

Christian Chabot: I was giving a speech to customers the other day and I used this for my intro line: "They say that the greatest innovations are born from strange bedfellows." That is your point exactly. In our case it was PhD's in database optimization, data structures, and data queries, married in the lab with people who had PhD's in computer graphics. These are groups that don't even talk to each other anywhere else. They definitely don't collaborate. That is one of the reasons that we have the IP we have today.

Sramana Mitra: Did you finance the project yourself?

Christian Chabot: When you spin out of Stanford, the first thing you need to do is license the technology. We worked with the technology licensing office. That was step one.

Technically speaking, there is a high road and a low road regarding how people handle Stanford. There have been people over the years who have taken the low road. Despite the fact that the university may have some rights in it, these people go and start something on their own and do not collaborate with Stanford at all. The most famous example is Sun Microsystems. They just left and commercialized. Google is an example of a company that took the high road. Stanford was a very successful shareholder of Google.

Sramana Mitra: What does the financial structure of a business spun out of Stanford look like? Do they take an equity position?

Christian Chabot: I get that question a lot, and I can't comment directly because each case is unique. The thing to remember about Stanford is that they license to more than startups. They license a lot of technology to major corporations. Because of that, their terms have a very wide range. It can include royalty, payments, quarterly minimums, and things like that. It's a deal negotiation and can spread all over the map. In our case, they took a small equity position as they had done in Google and other startups.

Sramana Mitra: What came next? Did you raise money?

Christian Chabot: No. We're fans of bootstrapping. We all decided to bootstrap this.

Sramana Mitra: So it was yours and Chris's money?

Christian Chabot: Chris Stolte, Pat Hanrahan, and me are the co-founders and initial funders. We all recognized early on that we had skepticism towards external sources of financing too early. For the first 18 months we just worked in the warehouse out in Mountain View. We were actually getting our space from the back half of another startup.

Sramana Mitra: Did you have any customers?

Christian Chabot: Step A was to spin out of Stanford and the rights to commercialize the technology. Step B was basic patenting and company formation. Step C was to start working on the software to an extent that it could be packaged up and used in some product form.

When I give entrepreneurship advice to people, I often tell them to sell early and sell often. Even if it's just PowerPoint slides, you have something. Go to a local company and sell them an early adopter package. You are only getting the real opinion when you start talking money. You have to qualify them by asking the right questions. We took that strategy and created the 0.5 version; it did not deserve a 1.0 designation.

Sramana Mitra: That's okay. The iPhone version 1.0 didn't do cut-and-paste.

Christian Chabot: Exactly. We started selling a very early version directly to companies.

Sramana Mitra: Can you tell us something about your first couple of customers?

Christian Chabot: The business strategy we chose was one where you could start small. You could start by buying a couple of copies.

Sramana Mitra: At what price point?

Christian Chabot: Our entry point is $1,000. That is a single copy for personal use. As a result, we have some customers who invested a lot in our product line, and other customers who have just a couple of licenses. I would say the first 100 customers gave us the best product validation.

Sramana Mitra: Were these 100 customers from a single industry?

Christian Chabot: We collectively decided that a horizontal strategy was the right move. This was controversial at the time. It was not obvious. We wanted to come across as being the company to use for broad horizontal use. We had no vertical specialty.

People typically call our industry the business intelligence industry. The traditional sets of vendors have names like Business Objects, Crystal, and there are more than 15 other companies. Those are the product lines that are still out there. Without exception every one of them is complicated. They have heavy architectures originating from the 1980s. They are very expensive and difficult to configure. They have high services ratios and their sales teams are trained at off sites to go sell two dollars of services for every one dollar of licenses.

We came into the industry with a fresh approach. The thing that was different was obvious because they were a dying set of companies. There are others in a new generation. One of those was called SpotFire. They were also a university spinout, from the University of Maryland. They got up to a couple hundred people before they got bought out. It was a real company. They were strong students of "Crossing the Chasm." They really believed in perfecting a vertical before moving on. We think the exact opposite. Pharmaceuticals was their vertical, and then they went after oil and gas.

Sramana Mitra: How did you find your initial customers?

Christian Chabot: We used things like cold calls, Silicon Valley networking, and friends of friends. When you're starting from nothing, you do whatever it takes. I was talking to anyone who would listen. I networked heavily, got friends to send me ideas, and went to alumni databases. After we put up a website, some people started to find us. That would produce one to two leads a week, and at that stage every lead was a drop of gold. If you treat every lead like gold and have enough perseverance, customers will start bubbling up.

Sramana Mitra: Where were you finding users? Did you target business intelligence users across the board?

Christian Chabot: We don't have an industry focus but we do have a user type that we focus on.

Sramana Mitra: Was it a vertical market based on user function?

Christian Chabot: It's a profile of a person. We are applicable to knowledge workers who need to interact with data as part of their job once a month or more. We call those types of users data workers. That is who our market is. You can find data workers in every profession.

Sramana Mitra: Were you using direct sales?

Christian Chabot: Yes, and we still use direct sales today. We use the inside-out model. It is the same model that Salesforce.com uses. We leverage a largely inside sales force and complement it with field reps. When I was in venture capital, virtually every VC was making the mistake of overloading company with field reps.

Sramana Mitra: I would say that over the past five years that model has matured greatly. The success of Salesforce.com and the software-as-a-service model have opened their eyes.

Christian Chabot: WebEx was probably one of the first. They are a software company but nobody thinks about them that way. That's the beauty of the model. People tend to form a personal connection with their brand.

Sramana Mitra: There are a lot of things that came together to make that work. Without the Web it would not work. Without broadband it would not work.

Christian Chabot: That is why I think WebEx is one of the first pioneers. They used their own tool to do the job. They are one of the Valley's best successes. They have the same investors that we have. When I was selling our business model that was one of the things that got our investors excited. At the time I was proposing the model, most enterprise software companies were not doing it.

Sramana Mitra: You took venture capital funding?

Christian Chabot: We did later. We bootstrapped for the first two years. Then we started to earn our first customers and managed to secure a few really big deals.

Sramana Mitra: What kind of revenue did you get up to before taking money?

Christian Chabot: We closed a couple hundred deals in direct sales. I also closed a mammoth deal which was an OEM deal. We did that with Hyperion, which is now a part of Oracle.

Sramana Mitra: Were OEM deals with intelligence vendors part of your strategy?

Christian Chabot: Yes, but very carefully. I view OEM deals with the major platform providers as a means to an end. It was just what we needed during our startup years. I don't believe that pure OEM deals in software ultimately create big viable companies. For us it was early market traction. It was a vehicle for recognition and some financial stability as well as respect from industry analysts. That is the only OEM deal we have ever done.

Sramana Mitra: How big was that deal?

Christian Chabot: It was a four-year deal that involved a 10-digit figure. We had an advance on the deal as well.

Sramana Mitra: Why did you raise money?

Christian Chabot: Because we have big dreams. We needed capital to ramp faster. Let's define the destination as a major publicly traded billion-dollar market cap company. That destination can be arrived at by bootstrapping alone. However, we wanted to go faster. I needed more capital for that. More capital does not guarantee that we will arrive, but it can help us arrive faster.

Sramana Mitra: Who was your investor?

Christian Chabot: New Enterprise Associates.

Sramana Mitra: How much money did you raise?

Christian Chabot: We raised $5 million. We grew the company for four more years, and in August 2008 I decided to raise more funding. NEA took the whole round and we raised $10 million.

Sramana Mitra: I often tell entrepreneurs to bootstrap the early stage, and if they do raise money it should result in a better valuation. They have a validated business. Did you find that to be the case during your valuation negotiations?

Christian Chabot: We are a great example of bootstrapping paying off. In Q3 2004 we raised money. At that time the median valuation for a first-time fund-raising company was something like $5 million pre. We raised at $20 million pre. The only reason we were able to do that is because we had a validated business. VCs would rather pay a higher price for something more secure.

Sramana Mitra: How have your revenue ramped since that time?

Christian Chabot: In 2004 we did $800,000. That rose to $2.1 million in 2005, $3.7 million in 2006, $7.8 million in 2007 and $13.9 million in 2008. Our final numbers for 2009 had us at $20.1 million.

Sramana Mitra: What is your assessment of your TAM?

Christian Chabot: If you went to a traditional analyst firm and asked them how big the business intelligence market is, they will all say $6 billion to $7 billion. Entrepreneurs tend to laugh at these firms because they always look at the past and not the future. They are looking at yesterday's market, which is not the TAM. They are not willing to consider the fact that a new technology changes the market size. I'm not worried about how big the business intelligence market is today; it's how big the business intelligence market would be today if the technology was easier to use and more affordable. My answer is between $15 billion and $18 billion.

Sramana Mitra: You have positioned your company as a data visualization company. Your target audience is the data worker. To me, the TAM is the total number of data workers multiplied by their spend.

Christian Chabot: I understand the spirit of your question. So far today I have described the technology well, but I haven't told you what we're doing with it. We've targeted data workers with our first product. We now have three products. One strategy we could have taken was to be a visualization layer to the big companies. That would have been the safe business bet. However, it would have had a much smaller market size and with higher average user prices. We rejected that strategy. We decided to invade the entire market below us. Tableau sells rapid-fire business intelligence.

Sramana Mitra: That puts you in competition with Lucidera.

Christian Chabot: I don't worry about them because they are a startup. My philosophy is that startups should never worry about other startups. I want to compete against Oracle and Microsoft. In seven years I have never seen a customer use Lucidera. We have competed against Excel, Business Objects, Oracle, Microsoft, Information Builders, and companies like that.

Sramana Mitra: You have a smaller, faster, cheaper, business intelligence suite. You have very sophisticated visualization.

Christian Chabot: That is very well put. Even though we're not SAS, we are analogous to SalesForce. They were going into a identifiable market market that was very well-known with a very specific buying rule. What they invented was a brand-new way of servicing the market with something faster, lighter, and more affordable. We are almost a carbon copy of that in business intelligence with the exception that we achieved those things by delivering software without being a software-as-a-service model company.

Sramana Mitra: Have you been able to knock Business Objects or Cognos off major enterprise deals?

Christian Chabot: Every day. More important, for every deal we win we have grown the market in another way. We are winning deals where those old solutions were non-starters in the first place. That is why our TAM is much bigger. We are bringing analytics and visualization to a new part of the market.

Sramana Mitra: Why have you not done SaaS?

Christian Chabot: Our next move is a SaaS move. We are going to take our core visualization tech knowledge and start giving it away free on the Web. People will be able to populate and use it on the canvas of the World Wide Web. Our new product will be relevant to virtually anyone who posts information online. Originally, the Web was all text. Then images became a first-class citizen. Then video merged. I argue that the fourth type of content that human beings produce is data. Nobody has cracked that on the Web yet. Nobody has made data on the Web as fun and consumable and beautiful as online video.

Sramana Mitra: Great story. Thanks for your time.

Note: Tableau went public in May 2013 raising over $250 million at a $2 billion valuation riding on the Big Data wave that has swept over the IT industry.

How to Maximize Valuation

Greg Gianforte does not believe in raising money from investors. "The best money comes from customers, not investors," the former Silicon Valley software entrepreneur says.

Greg had to believe that. After selling his first startup to McAfee for $10 million in 1994, he moved to Bozeman, Montana, and launched another software company. But getting funding for RightNow, his new customer-service software company, proved impossible – Bozeman wasn't the tech hotbed or venture capital magnet he'd come from.

"All my business contacts literally threw away my card," Greg recalls. "They thought I was finished when I made the decision to start a company headquartered in Montana." Thank goodness Greg believes in bootstrapping; there was no other way to get RightNow off the ground. He plowed $50,000 of his own money into the company and did all the work himself – from cold-calling companies to training them on how to use the software, which lets customers get answers to questions in a Web-based FAQ. Remember, this was 1997, when Web-based automated customer service was just getting started.

Once Greg got a sense that he could sell the product himself, he hired three sales reps who worked entirely on commission. To further slash RightNow's burn rate he decided against paying himself a salary. Cash was being preserved at all costs, a golden rule of bootstrapping.

Before long, RightNow's revenue was doubling every three months. Two years in, with 150 employees and $6 million in revenues, the company was valued at an astronomical $130 million. Greg Gianforte finally raised venture capital. In two rounds – the first in 1999 and the second in 2000 – RightNow raised $32 million from Greylock and Summit.

When RightNow went public in 2004 the management team owned 70% of the company. Greg still owned 28% of the company when the company crossed the $100 million-mark in revenues in 2006 and boasted a market cap close to $500 million.

How was he able to keep such grip on the reins? Bootstrapping offers entrepreneurs tremendous leverage with late-stage VCs. In early-stage venture capital funding, much of the power and control lies with the investor; in later stage funding, entrepreneurs often call the shots, with VCs falling all over themselves to offer up money.

What I find even more compelling about Greg Gianforte's story is that it proves that distributed economic development remains possible in America. Even though Bozeman is no Silicon Valley, Greg says RightNow has had no problem attracting high-quality engineers. In fact, he managed to lure many away from Silicon Valley – an advertisement in a San Francisco paper garnered some 2,500 resumes. After all, salaries may be lower in Montana, but so is the cost of living. And even an engineer will admit that fly-fishing and skiing trump traffic congestion and rumbling airplanes overhead.

Note: In October 2011, Oracle acquired RightNow for $1.5 billion.

Interview with Greg Gianforte, RightNow

The first time I sat down with Greg Gianforte in his modest San Mateo office, I knew I'd found a kindred spirit. The CEO of RightNow is a hardcore capitalist, and like me, believes that entrepreneurship is the solution to the world's economic problems. But even more precisely, Greg is so concerned about the obsession among entrepreneurs to raise external capital that he wrote a bootstrapping book to teach his hard-learned tricks.

And tricks, he has no shortage of. Industry observers say that RightNow's early product left a lot to be desired. There were other, superior products in the market from companies swimming in venture capital. However, Greg managed to get the last laugh, refining his product over time, while maintaining financial control of his company, and his destiny. This interview was conducted in July 2008.

Sramana Mitra: To start, let's talk about your background.

Greg Gianforte: I'm an engineer. My undergraduate degree is in electrical engineering and my master's is in computer science. I attended school at the Stevens Institute of Technology in Hoboken, New Jersey.

Sramana Mitra: Can you give us some background on Brightwork?

Greg Gianforte: Brightwork was a company I co-founded to develop network management applications. It was founded in 1986 in a sunroom in New Jersey. We developed tools focused on the Novell Netware solutions, since they were the dominant player back then. Ultimately we sold the company to McAfee for about $10 million, hence the Montana retirement before RightNow.

Sramana Mitra: The network market was chaotic at that time. How did you break through as a bootstrapped company?

Greg Gianforte: We had a good product for Novell Netware environments. But sales were terrible. We didn't have a reputation, so nobody would talk to us. We knew we had to leverage somebody else's credibility to break into the market, we just weren't sure how.

Since Novell was the dominant player in the market, and our product focused on the Netware environment, we figured with their endorsement we could get a solid foothold. Since we didn't know how to get their attention, we decided to buy a 48-foot-long billboard across from their corporate headquarters. Novell was headquartered in Provo, Utah, and billboards there didn't cost too much. I think it was $200 a month, including lights.

The billboard had eight-foot-high letters that read, "Don't just network, Brightwork." The very next day we received a phone call from the senior vice president of communications at Novell asking for our PR department. My partner had answered the phone, so he put his hand over the receiver and asked if I wanted to be the PR department. He passed the phone over, and I picked it up and said, "PR department."

I asked what prompted the call and the reply was, "A billboard you have in front of our building. We're trying to figure out who you guys are." To which I replied, "Where are you located?" The answer, of course, was Provo, Utah. I said, "You mean those marketing people put one in Provo, too?" We ended up flying out to meet with Novell, and we left with a distribution deal. All of this occurred in just six weeks.

We shipped $100,000 worth of our product to them, which they put in their warehouses. Two months later they tried to return it; fortunately our contract did not allow them to do so. From that point on we were able to use the fact that Novell was distributing our product as a point of credibility when calling banks and larger corporations around the country. It gave us the start we were hoping for.

Sramana Mitra: What were your revenues at Brightwork?

Greg Gianforte: Ultimately it grew to $10 million a year in revenues.

Sramana Mitra: Nuggets of knowledge you took away from Brightwork?

Greg Gianforte: Brightwork was my first entrepreneurial endeavor, and I had a steep learning curve. I remember very early on looking for mentors to help me understand business. I think every family has somebody who's the "business expert," and mine was no different. Uncle Pete was the one in our family everybody said I had to talk to. He gave me a bunch of advice, which I went off and used. About a month later I came back for more advice because I thought what he had given me was really useful. This time he said, "Greg, you're pouring your heart and soul into this thing; I hope they're taking care of you." I didn't realize he had always been in big business. He had a completely different frame of reference, and it was not appropriate for entrepreneurial startups.

That was my big lesson from Brightwork: find an entrepreneurial mentor, and if you're going to bootstrap, find a mentor who has already bootstrapped a business.

Sramana Mitra: What was your exit from Brightwork?

Greg Gianforte: McAfee acquired Brightwork. At the time we were 50% larger than they were.

Sramana Mitra: Why were they interested in purchasing Brightwork if they were in the security market and you were in the networking market?

Greg Gianforte: At the time, McAfee owned about 67% of the antivirus market compared with Symantec, which had 14%. They were interested in leveraging our sales channel since we had good relationships with network managers and a strong telesales process. McAfee had been selling to very large customers like the government and Ford Motor Corp. They realized they were going to need to start expanding their sales channels in order to maintain their market lead and continue growth. They also needed to change their sales approach, and we had a proven telesales approach that worked.

Sramana Mitra: Your sales methodology at Brightwork was telesales?

Greg Gianforte: Initially, yes. We had a very viable model financially. We hired telesales people, and they would be profitable in 30 days. By that I mean we hired them, trained them, and within 30 days they were covering their costs. We hired sales individuals in classes of five every month until we had 75 people selling.

Sramana Mitra: How long did it take to hire those 75 people?

Greg Gianforte: That occurred over an eight-month period. We also did it organically; we didn't use external financing to fund the growth.

Sramana Mitra: How did that transition to McAfee?

Greg Gianforte: At McAfee we had 300,000 people a month downloading our software. At the time we were the most profitable software company in the world on a percentage basis. The year I started there, it was 72% pre-tax profit. Our job in sales was to get the pirates to pay us. It was really profitable, largely due to our strategy of giving it away and then tracking down the big violators of our licensing agreements.

Sramana Mitra: Can you quantify the results in terms of revenue?

Greg Gianforte: When McAfee bought us they had $25 million in revenues. A year later they had $60 million. It was a combination of telesales and Web sales, but it was largely based on what we did at Brightwork. We were even selected by *Fortune* as one of the "10 Coolest Companies in America" because of our sales approach.

Sramana Mitra: What came after Brightwork and McAfee?

Greg Gianforte: I retired to Bozeman, Montana in 1995. I used to vacation in Montana when I was a kid. I did some backpacking trips there. I decided to retire there because I thought it would be a good place to raise my family. We ended up buying a house outside of Bozeman with a good amount of land. It was a lot of fun at first with all the camping and fishing, but it just wasn't enough. I didn't want my tombstone to be: Dedicated to Fishing! I had the talent for starting companies, and I felt that it was unethical for me to waste that talent. So, I decided to create 2,000 high-paying high-tech jobs in town. I launched an incubator and started mentoring local entrepreneurs. Eventually, I decided I really needed to start another venture, which was RightNow. That company has about 700 employees now, so it's almost halfway to the goal of 2,000.

Sramana Mitra: What is the story of RightNow?

Greg Gianforte: We're a SaaS company – our applications are delivered on a hosted basis. We've had eight straight years of revenue growth and a successful IPO. I think it's a good success story.

Sramana Mitra: Can you walk me through the founding and startup phase?

Greg Gianforte: I started RightNow in an extra bedroom in my house in 1998 with $50,000 cash.

I had a crazy idea that the Internet was going to change how companies communicated with their customers. Consumers used to communicate about products with retailers, but when the Internet came along they started going directly to the companies. Dealing with this increase in direct consumer communication was going to increase costs for companies. I wanted to see if there was a business I could create to solve that problem.

Sramana Mitra: Can you tell us more about the bootstrapping elements of RightNow?

Greg Gianforte: Confucius said you are never in a position to learn until you are totally confused. When I make presentations I tell people there's a process of immersion that's required, and that's where I started. Immersion is done by making a lot of phone calls, so I started by calling companies and asking if the Internet was changing the way they dealt with their customers. What I heard, and I heard it over and over again, was that they were having a hard time dealing with all the e-mails and inquiries they were getting because the distribution channels were collapsing.

When I asked companies how they were going to handle it, the answer was that they were going to hire more people. So I came up with the idea of putting dynamic questions on a Web site which allowed customers to help themselves. It didn't require any special software. I wrote down a couple ideas that I thought companies would be interested in buying, and started making calls. I asked, "If we had a product that allowed us to put questions and answers on your Web site, and this product would make all the e-mails go away, would you buy it?" Now here's a good lesson in bootstrapping: I did all of this before I had a product. When I asked if they would buy it, they said no. Better to find that out early on! I then asked companies why they said no, wrote their answers down, and moved on to the next phone call.

This was an iterative process that took about 400 phone calls to complete, but when I was done I was able to hone in on an initial product.

In just one month, which is how long it took me to make those 400 phone calls, I knew exactly what customers would buy. That's when I went and built the initial product, in just 45 days, because I didn't have to build a huge application, just the pieces I knew customers wanted.

Our first customer was PictureTel, followed by Time Warner. They paid us almost nothing – I think it was $250 a month. It didn't matter to me; at that point you just have to get the cash started somehow.

Sramana Mitra: Indeed. How did you conduct sales at RightNow?

Greg Gianforte: Primarily through telesales, which was combined with Internet-based demonstrations and trial periods of the product. I couldn't afford a phone switch, so we put in separate 1-800 numbers to each person's desktop. By the way, we eventually got a phone switch that we bought used off the Internet. I used to joke around that a new phone switch wouldn't give us a better sounding dial tone.

Sramana Mitra: No, it wouldn't! How did you approach companies? Did you sell to mid-level managers or senior executives?

Greg Gianforte: I had no trouble finding companies that did a lousy job of serving customers over the Internet. Most had a Web site with a button that said "Click here for customer service." Back in 1998, I could click on that and find a phone number. Who goes to a Web page hoping to dial a phone? Nobody, but companies didn't know any other way to work!

My sales reps would search the Web, find customer service numbers, call up the customer service department, and tell them, "I've been on your Web site, and I have a suggestion for how you can improve service for your customers." The rep in the call center couldn't handle that type of request and would transfer the call to their supervisor. Our sales rep then talked directly to the supervisor and told them we had a way to help them improve service. We then approached sales on a trial basis. We let companies try it for a while to see if they liked it, because in order for us to do business they had to recognize the value. Typically, we eliminated 50–70% of the e-mails coming into the business.

So when we came a month later to shut down the trial application, the companies would say, "No! Where do we sign?"

Sramana Mitra: What was your growth like?

Greg Gianforte: In 1999 we did about $440,000 the first quarter. The second quarter we did $697,000. By the third quarter things had really picked up. We did $1.5 million in the third quarter and $3.3 million in the fourth. In 2000 we did $25 million. We passed $100 million in 2006, and we were one of the top IPOs of 2004. We beat Google in total appreciation in percentage basis, although we don't have their market capitalization.

What I like to emphasize is that we doubled revenue and the number of employees every 90 days for three years without outside funding. This is because of our sales process. I hired six salespeople before I hired the first engineer. I had 30 salespeople before I hired someone for marketing. Sales are the lifeblood of a business, period.

Sramana Mitra: True, but in this case, you were playing the role that a good product marketer would play. Not all entrepreneurs know how to do that. They should, though.

Greg Gianforte: I say this a lot:

In war there are only two jobs: making bullets and shooting bullets. In business there are only two jobs: making the product or service, and selling the product or service.

Every other function in the business supports those activities in one way or another. That's why we waited so long to create a marketing department. In my mind, a marketing department should provide sales tools, shorten sales cycles, and develop leads. At RightNow we were going to the companies we wanted, reaching the people we wanted, and making the deals we wanted.

It is important for bootstrappers to know exactly what marketing can and cannot do. Why organize a focus group to ask prospective customers if they would buy a product, when you could just as easily go ask them yourself and build those all-important, one-to-one relationships at the same time? Contacting prospective customers doesn't cost anything, and when you're finished you either have a stack of orders or know what will get you a stack of orders. If no one wants to buy your product, then you've learned quickly and relatively inexpensively that you didn't have a viable business idea.

Sramana Mitra: Is there any particular market segment that you've targeted, or do you simply focus on companies by size?

Greg Gianforte: We have about 1,800 clients who tend to be larger organizations. Over 60% of our business is with corporations that have over $1 billion in revenue. Some of our larger verticals are telecommunications, which accounts for 19% of our revenues, and technology, which accounts for 17%. We also earn 14% of our revenues from government agencies and educational institutions, 13% from consumer products companies, 8% from financial and insurance, and 6% from both manufacturing, and travel and hospitality. We don't have a single client that accounts for more than 10% of our revenues, so our client base is diversified and distributed. This goes a long way to showing our strength as a company.

Sramana Mitra: You sell on a software-as-a-service model, so I'm assuming you have monthly or annual fees and do not offer perpetual licenses?

Greg Gianforte: We did have some perpetual licenses, but those were discontinued in 2007. We're now a SaaS model with a two-year time-based agreement. Customers don't have an obligation to continue service; however, this has not been a problem. We've been growing very strong.

Sramana Mitra: Can you name some of your clients?

Greg Gianforte: Sure. Medicare, Motorola, Black and Decker, Briggs and Stratton, and Nikon are some examples. They are big organizations with a focus on the consumer.

Sramana Mitra: How long is your sales cycle?

Greg Gianforte: It typically ranges from 60 to 180 days.

Sramana Mitra: I know you've expanded into CRM. Could you identify your main products and discuss how they correlate to your annual revenue?

Greg Gianforte: Our CRM solution accounts for about 80% of our revenue. We've expanded this tremendously over the years. RightNow Service provides an integrated, multi-channel customer service capability that captures customer interactions across traditional and online channels. This is the product we have evolved from the initial days, and we have now developed patents on this technology.

We now have RightNow Marketing, which is designed to deliver the functionality needed to manage multi-channel, multi-stage marketing campaigns. It automates standard campaign activities, optimizes resources, and leverages the information captured in sales and service interactions.

Another product we've developed along the way is RightNow Sales, which simplifies the sales process so that sales organizations can more easily manage accounts, track leads, organize contacts, and basically sell more, all while leveraging the customer information that's already in the common platform.

Sramana Mitra: Are all of these products sold via your sales force, or have you now developed partnership programs?

Greg Gianforte: We do have strategic partnerships, which are our indirect channels. At the end of 2007 we had 63 partners in our worldwide partner program.

Sramana Mitra: Can you disclose who some of them are?

Greg Gianforte: They include folks like West Corporation, Lockheed Martin, and Convergys. We also brought on IBM in 2007.

Sramana Mitra: Is your market based solely in the US, or do you serve an international market as well?

Greg Gianforte: We have a significant international market, which is growing. International sales accounted for 26% of revenue in 2006, and 29% in 2007. We plan on having continued growth in international markets.

Sramana Mitra: Have you taken any venture capital funding with RightNow, or has it been solely bootstrapped?

Greg Gianforte: We raised about $27 million in 1999 and 2000. The first key is that our partners were really good. We also were a good size; we had about 160 people on board. We had a $6-million-a-year business, and they gave us a $130 million valuation. On those terms, I would probably raise money again today.

Sramana Mitra: You did two rounds, then? One in 1999 and one in 2000?

Greg Gianforte: Yes, we raised $15 million in 1999, and $12 million in 2000. In both rounds we used Greylock and Summit.

Sramana Mitra: By waiting as long as you did, you were able to gain a great valuation. Did you also maintain a significant portion of ownership in the company?

Greg Gianforte: I still own about 28% of the equity, and 70% of the equity was owned by the employees of the business when the company went public.

Sramana Mitra: You frequently caution people against taking venture capital. Why?

Greg Gianforte: I definitely discourage venture capital in the beginning of a business because it provides a false sense of security. If you have too much money in the company, it removes spending discipline. During the startup stages an entrepreneur should be focused on customers, not on raising money.

Sramana Mitra: Let's move on and talk about your book. What are the core principles of bootstrapping? Why should people bootstrap?

Greg Gianforte: If you get a bunch of MBAs together and ask them how to start a business, they'll tell you to write a business plan, raise money, and then start a bonfire and pitch the money on the bonfire. Hopefully there's a company there before the money is all burned.

Bootstrapping is how most entrepreneurs in the country start businesses. There are hundreds of thousands of businesses started in the US every year, and less than 1% raise money from venture capitalists or professional sources. That kind of begs the question: What did the other 99% do? I think they bootstrapped.

Bootstrapping is a discovery process. Rather than building an ark, waiting for animals to come, and hoping the tide rises – you take an incremental approach and discover a legitimate, real-world value proposition.

That means you only have to build a product that customers will actually buy. I also like bootstrapping because it forces you to start the sales and learning process sooner. The only activity in an early-stage bootstrapping company is selling.

Sramana Mitra: You can only sell what you know you can deliver.

Greg Gianforte: Absolutely. You don't want to mislead anyone, but there's nothing wrong with asking for money because that's how you really determine market demand. If you just pick up the phone, within a few days you'll know if you have a stupid idea or a good one. Bootstrapping accelerates your time to market, which means you start making money faster.

Sramana Mitra: Not only that, but it keeps you in touch with reality, whereas if you have loads of venture capital you can get complacent.

Greg Gianforte: It's hard to have a false sense of security with bootstrapping. The mantra of a bootstrapper is, "There is always another way," because if there isn't, then you won't have any money!

That changes when you have VC money.

Not only is there a false sense of security, but when you raise money you take on a new set of masters. When I start a new business the only master I want is my customer.

I believe entrepreneurs get pushed out of businesses by financial backers because the market timing isn't right, or the strategy was wrong.

It's hard to make a fatal mistake in business when you don't have money. Having venture capital masks the hard questions about business viability. If you don't have VC funding behind you and you need to put food on the table, then you're forced to figure out how to find another customer. I think that's a good thing. I think that's business.

Sramana Mitra: In your opinion, what are some of the typical misconceptions entrepreneurs tend to have?

Greg Gianforte: I think the biggest problem is they think they have to have a perfect product before they can go to market. The reality is that learning does not start until you have some value proposition. When you go through the process of selling a product before you actually have a product, you learn a lot about the wants and desires of your target customer base.

Another problem is that entrepreneurs fail to immerse themselves. You have to figure out who your customers are, and spend time with them. You have to know their industry. When you think you've figured out the solution to their problem, go back and ask them for money. Do not say, "If I had this would you buy it?" Say, "I will do this for you, and I want you to write me a check." When they say no, then the learning begins. You take their input and modify your product concept, then call the next person on the list. This is an iterative process you do until companies start writing checks. The key is not to promise something you can't deliver in eight weeks. Find the feature that delivers critical value. Once you have your customers' commitment, go build it.

I also think a lot of entrepreneurs don't know the equation of business. That's sad. The equation of business is simple: Income – Expenses = Profit. You cannot influence profit directly. You can only influence income and expenses. Your value proposition to your customers needs to revolve around income or expenses.

Sramana Mitra: One of the things that stood out to me when I read your book was your discussion of the "Art of Thrift." Would you mind going over that for my readers?

Greg Gianforte: The first myth is, "I need an office to impress my clients." I don't agree. If you're bootstrapping, you need to spend your money where it can make a difference. Unless you're an accountant or a lawyer, your office is not going to make you money.

Second, don't get caught up in the "I need a really expensive IT system" idea. You can go a long way with used computers, open source software, and hard work.

The third myth is, "I have to pay full price for phone bills." You might be surprised what types of discounts you can get if you ask. You can go out and buy calling cards if the phone companies won't give you a break.

The fourth myth is related to the third. A lot of people think they need an expensive phone system. You don't! You need something that meets your needs, and nothing more. The dial tone does not sound any better on a more expensive phone system.

Fifth, a lot of entrepreneurs think they cannot afford a salesperson. The real question is, "How can I employ someone for nothing?" My first employee at RightNow, Marcus Bragg, was only offered a commission structure. The thing is, he was selling a product that we knew the market wanted.

The final myth is, "I am too small to ask for a discount." That is not true. Call large suppliers and ask for a deep discount. If they turn you down they will do it nicely, so what's the harm? If they say no, then ask them what performance level you need to reach before you get a discount.

Sramana Mitra: You have said many times that business is not just about money. Can you comment on that?

Greg Gianforte: It used to be that if you asked kids what they wanted to be when they grew up, they would say they wanted to be a fireman, policeman, or an astronaut. Today all they say is, "I want to be rich." I think that's really sad. Greed is not a virtue.

There is nothing wrong with making money, but I believe that when you build a business you need some form of higher purpose in the work you do.

Sramana Mitra: Would you describe it as an ethical value proposition?

Greg Gianforte: If you want to describe it that way, yes. At RightNow we help companies serve their customers. I think every one of us is given certain skills, and ultimately we'll be held accountable for how we use those skills. Here in Bozeman the average salary of our employees is $50,000. That's more than double the average salary in the community. I think that's a great accomplishment that resulted from my ability to build a business.

Sramana Mitra: Congratulations, on many levels! This has been an incredible story, and I look forward to watching your company's progress.

Note: RightNow was eventually acquired by Oracle for $1.5 billion in October 2011.

How Marketo Built A Billion Dollar SaaS Company

Marketo was founded in 2006 with the stated objective of building a high-velocity SaaS company focused on a critical (and then somewhat new) business process called *Lead Nurturing*.

In a 2011 interview, CEO Phil Fernandez explained:

"The value proposition is that we help our customers find more prospective buyers, we help to deliver more ready to buy leads to the sales teams, and we help your sales teams be five times more effective, thus driving 40% top-line revenue. We are all about the end-to-end revenue operations in companies. We have increased the revenue of our customers by 40% during their first two years of Marketo use.

We do it by looking at the end to end process where the buyer is in control. We typically sit behind online advertising such as Google AdWords as well as their traditional media.

We start right at the place where our customers meet their prospective buyers. We help their marketing team open up the front end of their funnel. We give them many more names by using the best of the Web, the best of social [media and Internet], and the best of traditional events, to capture their leads into a critical new business process called Lead Nurturing.

Lead nurturing is about how to manage a lead from the date you meet them until the date they are truly ready to buy, and how to do that at scale."

Marketo obviously identified a gap in the sales and marketing workflow. The team came from the world of sales and marketing automation, and had significant domain knowledge.

Phil was well connected in the venture capital world, and raised $3 million on a business plan at the end of 2006. It took until the end of 2007 to develop the first beta product, and they sold their first deal in March 2008.

Phil remembers how:

"My co-founder, Jon Miller, likes to say that he started search optimization before we had a product. He did a remarkable job of finding customers and educating them so that they would be ready for our product when it launched. We sold to 15 customers the month we launched our beta.

Search engine optimization is really content marketing. He started a blog talking about macro trends in the market. He talked about how Google was changing the job of a salesperson and how to conduct new sales techniques. He built a phenomenal blog with classical search optimization techniques to get us found. We had a great website with whitepapers and resources.

We did not have anything to sell, but we had resources for people to register and give us their contact information. As the product got closer, we started doing our own webinars and gave people some sneak previews into what was coming. We became our own beta user. We adopted content driven and social driven marketing strategies, and we did for ourselves what we do for our customers now. The day our product was ready for launch he was able to give our sales people 50 names of potential buyers."

Marketo's target market consists of companies that spend a million dollars or more a year on sales and marketing. The lowest end customers pay $1,000 a month. The largest spend 100 times that a month.

By the end of 2008, their first year of selling, Marketo had 80 customers following the exact strategy Phil describes: eating their own dog food!

In 2009, they acquired 150 customers, and did $4 million of recurring revenue, mostly focused on the small and mid-sized customers.

In 2010, Marketo started selling to enterprise customers.

And in March 2011, they reached the 1000th customer milestone, and did $30 million in revenue.

Phil gave Marc Benioff the credit for developing the market:

“We will achieve the same fourth-year revenue that Salesforce.com achieved in their fourth year. The difference is that they spent $250 million to build that market, and I have spent $17 million. It is radically more efficient to build a SaaS company today.”

This statement highlights the advantage of not being first to market in a sector that is just getting established. Salesforce.com had to overcome a lot of objections about hosted software when they started in 1999. But in 2006, those objections were no longer relevant. So the velocity of Marketo's growth, and its capital requirements were dramatically more attractive.

In fact, there are a number of SaaS companies that are still private, but growing very well, who share this general characteristic.

Marketo went public in May 2013. Its 2014 revenue is about $140 million, and its current market cap is well over a billion.

To get there, they raised close to $100 million in funding from InterWest Partners, Storm Ventures, Mayfield Fund, Institutional Venture Partners, and Battery Ventures.

It is not difficult to raise large sums of money if a venture demonstrates that it can acquire customers efficiently and deliver high velocity growth, both of which Marketo did very early on.

If there is one lesson to learn from Unicorn companies like Marketo, RightNow, and Tableau, it is this: figuring out how to acquire paying customers economically early on, and then creating a repeatable sales and marketing process that scales makes all the difference. Every single software company that has been unusually successful follows this simple, basic tenet.

They do not get enamored with giving away lots of value for free.

Interview with Phil Fernandez, CEO, Marketo

I did this interview in May 2011. The company had just crossed the milestone of reaching 1000 customers, and yet, it was not yet at stratospheric levels. After doing over 600 of these interviews, I must admit that the most enjoyable interviewees tend to be those who have enough proof points and financial success to tell a coherent story, but not those who already inhabit the stratosphere. The latter category, somehow, often, does not have the patience or the humility to get into the level of details I like to get into. However, the real learning is buried in those details, those nuances.

Sramana Mitra: Phil, let's start with your background. Where does your entrepreneurial journey begin?

Phil Fernandez: I'm from Ohio but I grew up all over the place, although I spent a lot of time in California. My entrepreneurial journey started in a serious way in the 1970s while I was in high school in Phoenix. Today, kids often learn to program early on, but back then I had a unique opportunity to learn to program as a teenager and got a job in high school as a computer programmer, which was a pretty serious position.

It immediately became clear that I was in love with computer programming and that my career would be in that direction. I went to Stanford in 1978 and I knew that I would be a computer programmer. The great thing about Stanford is the flexibility to study anything, so I studied history, which was a passion of mine.

Through my connections in Phoenix back from my computer programming days, I got a connection with a company in Sunnyvale called Maxtor Systems. It was a hot venture-funded startup that had began in the late 1970s. The company had about 30 people when I joined in 1981.

Sramana Mitra: What did they do?

Phil Fernandez: They had built a system which was designed for very large data storage needs and had a lot of defense customers using it. All computing was mainframe back then. PCs had not come out yet. Maxtor served the needs of very large companies such as Shell, NASA, and very large banks. They then branched into a second business which was high-speed data networking. They did a lot of the things that we take for granted today on the Internet, and they did it a long time before any other networking product came around.

Sramana Mitra: What did you do there?

Phil Fernandez: I started as a computer programmer. I've always had a business mind. As a result, I had an interesting journey there. The company had signed a very large contract with General Electric to revolutionize the way GE did computing. I somehow got a hold of the program and was put in charge of it. A year and a half after joining I was a director running a 35-million-dollar-a-year program for General Electric.

Sramana Mitra: What happened after that?

Phil Fernandez: The company went public in 1985. Before I worked there I had no idea about the IPO world. Suddenly I was in a venture-backed hot startup that went public in 1985, so I developed a taste for the entrepreneurial dream. I got the bug of building companies and I have been doing that ever since.

Sramana Mitra: Where does the story go from there?

Phil Fernandez: After that I got hooked up with a company that is now TIBCO. Back then it was an incubator called Teknekron Software Systems. Rick Tavan was the chief operating officer, and he was my mentor. He is also the person who hired me at Maxtor and set me on my career path. He brought me into Teknekron.

I spent a year in New York working on the trading floor for Goldman Sachs. Teknekron was building a next generation trading system for Goldman. Jo-Mei Chang and Dale Skeen went on to found Vitria, which became a competitor. There were incredible politics between the leadership and Jo-Mei and Dale. I decided that all those politics were too weird for me, so I left and went to Metaphor.

Metaphor was founded by Don Massaro and Dale Liddle. They were both Xerox Parc guys. They founded Metaphor, which was the first company to use Ethernet. It was the first company to have a bitmap graphics workstation for under $10,000 and the first company to have a SQL database in production use. It was a very interesting company.

I ended up running a project called PatrioPartners. IBM had invested $100 million in the company to reinvent software. It was during the days when IBM and Microsoft were at war. What we did at Metaphor was the IBM contribution to Telligent. I led that project for Metaphor. It was another hot venture-backed company which had a great outcome with the sale to IBM.

After that I lucked into another company called Red Brick Systems. That company had five people in Los Gatos who were building data warehousing. We built that business and raised money from Alloy and Menlo Ventures. It was a great run and one of the top IPOs of 1996. That company was ultimately acquired by IBM, and parts of it are still alive and well. That was my first executive experience where we took the company public. I was the chief operating officer. Those were really good days.

In 1999, I joined Epiphany, and it was a classic bubble company. They went public in September 1999 with less revenue than my company has today. I was employee number 30 there and was chief operating officer for most of the run. We grew from 30 employees to 1500 in nine months because we bought 13 companies. I ended up dealing with a lot of M&A of technology companies. We sold that company to SSA Global and it is now part of Infor where, oddly enough, Chuck Phillips is running the show and bringing it back to life. He has been a good friend of Epiphany for a long time.

In one way or another, everything I did at all of those companies had to do with marketing and sales. That all came together in 1996 when we founded Marketo.

Sramana Mitra: What is the genesis of Marketo?

Phil Fernandez: My previous companies were million-dollar enterprise software companies. They were classic enterprise software companies with big sales forces. Salesforce had not quite burst on the scene but it was getting started. There was a new point of view that there was a whole new software company being built in the enterprise space where success was the race to 100,000 customers, not the race to 1,000 customers. You can build a velocity business in that environment.

The whole idea behind the company I am leading now was to democratize the CRM process. We founded Marketo to take all of what we learned about building products for revenue professionals, and not just the coming products but real product that had an impact for revenue professionals to enable a velocity business.

I raised some money on Sand Hill Road at the end of 2006. We opened our doors in 2007 and have been building a hot company ever since. We are four years into the company and we have 1,000 customers. Over our first four years we have grown as fast as Salesforce and Omniture did. We are on track with the elite SaaS companies.

Sramana Mitra: You said you wanted to democratize the CRM space. What specifically did you have in mind?

Phil Fernandez: We had a couple of observations. The Internet, Google and Google AdWords had fundamentally changed the relationship between buyers and sellers. The job of the marketing professional has traditionally been demand generation. The job of the frontline salesperson was changing, and there are 19 million of them in the U.S. alone. We identified this as a macro trend and determined that we needed to follow in the steps of a company like Salesforce.com to take advantage of the cloud. We knew we wanted to build a SaaS company. We knew it was about velocity.

Sramana Mitra: What is the value proposition of Marketo?

Phil Fernandez: The value proposition is that we help our customers find more prospective buyers, we help to deliver more ready to buy leads to the sales teams, and we help your sales teams be five times more effective thus driving 40% top-line revenue. We are all about the end-to-end revenue operations in companies. We have increased the revenue of our customers by 40% in their first two years of Marketo use.

Sramana Mitra: How do you do that?

Phil Fernandez: We do it by looking at the end to end process where the buyer is in control. We typically sit behind online advertising such as Google AdWords, as well as their traditional media. Google AdWords represents 5% of the average marketing spend in the B2B space. Events and trade shows represent 26% of that spend. We are a multi-channel company.

We start right at the place where our customers meet their prospective buyers. We help their marketing team open up the front end of their funnel. We give them many more names by using the best of the Web, the best of social [media and Internet], and the best of traditional events to capture their leads into a critical new business process called Lead Nurturing.

Lead Nurturing is about how to manage a lead from the date you meet them until the date they are truly ready to buy, and how to do that at scale.

Sramana Mitra: What do you do in the process that directly supports your clients?

Phil Fernandez: We help our clients produce webinars to promote their products or services, even if it is specific to a geographic area. To run a webinar you need to identify the target audience, and you need to be able to contact them, invite them, track who attends versus who has registered, and follow up with attendees afterward. Our product does that.

We send the e-mail invitations, our system interfaces directly with WebEx for the webinar, and we keep track of who registered. We then deliver reports showing who attended and who did not, because even if they did not attend there must still be some interest there. They are still prospective customers, and that is where lead nurturing kicks in. We will send one message to the people who did not attend with a link to the audio recording. We send a different message to the 800 people who did attend.

We have a very systematic process to follow up and engage with everybody. That is the kindling of potential buyer business. We then take that scenario and do it hundreds of times a month in different cities. For a client, that will result in a lot of contacts and names, and they need to know which of the thousands of respondents should receive a call directly from a salesperson. Our systems and analytics measures and monitors enough data points that our clients can determine whom to call. We then drive those leads into the sales team.

It is important for sales teams to know the best prospects to call. We provide the sales teams with a dashboard that shows them a rating system for the contact with one to three stars and one to three flames. The front-line salesperson knows who is most likely to say yes and buy the product before they even make the call. That is a phenomenally powerful ROI for our customers. That dramatically increases the productivity of the salesperson.

Sramana Mitra: Is there a particular size of customer that you aim to support? A lot of smaller companies use services like iContact and DimDim to do essentially the same thing as you are describing.

Phil Fernandez: The company you just mentioned, iContact, is a customer of ours and uses our solution to find more customers. As it turns out, the Marketo product integrates with other solutions. On24 is both a Marketo customer and uses Marketo in its solution to its customers. You can think of Marketo as the orchestra conductor. We integrate with e-mail, SMS, and many cloud engines. We work across multiple channels. If you can interact with a buyer, then we can work there. At the macro workflow we orchestrate the big picture of all your channels and marketing programs and ultimately drive that into contacts for your sales force to talk to.

Sramana Mitra: Are you both a product and a service company?

Phil Fernandez: We are a software solution that is offered as a service. We are a SaaS company. Our tools enable our customers to build and run the scenarios I described. There are many services that are involved in this. A lot of lead generation services use Marketo to provide their services and we have programs to support their outreach. We let them 'Marketo Enable' their services, but we ourselves do not do services.

Sramana Mitra: What is the price point of the offering?

Phil Fernandez: The lowest end customers pay $1,000 a month. The largest spend 100 times that a month.

Sramana Mitra: What size customer do you cater to?

Phil Fernandez: Our targets are companies that spend a million dollars or more a year on sales and marketing. We have a very large presence in venture-backed companies up through some of the world's largest companies like Fidelity, Citibank, Southwest Airlines, and Dell.

Sramana Mitra: What has been your revenue ramp, and what was your strategy to get there?

Phil Fernandez: We opened the doors to Marketo on January 2, 2007. We raised money on a business plan rather than an angel funding because I was well enough connected. We put $3 million in the bank and opened the doors. We had our first beta product by the end of 2007 and sold our first deal in March 2008.

My co-founder, John Miller, likes to say that he started search optimization before we had a product. He did a remarkable job of finding customers and educating them so that they would be ready for our product when it launched. We sold to 15 customers the month we launched our beta.

Sramana Mitra: How did he find those 15 customers?

Phil Fernandez: Search engine optimization is really content marketing. He started a blog talking about macro trends in the market. He talked about how Google was changing the job of a salesperson and how to conduct new sales techniques. He built a phenomenal blog with classical search optimization techniques to get us found. We had a great website with whitepapers and resources.

We did not have anything to sell, but we had resources for people to register and give us their contact information. As the product got closer, we started doing our own webinars and gave people some sneak previews of what was coming. We became our own beta user. We adopted content driven and social driven marketing strategies, and we did for ourselves what we do for our customers now. The day our product was ready for launch he was able to give our sales people 50 names of potential buyers.

Sramana Mitra: Do you recall who the early adopters were?

Phil Fernandez: One was Thomson Reuters. A Boulder, Colorado, company called Simplified was one. Most of them still exist, but a few were small businesses and don't exist today. Most are thriving today with Marketo.

Sramana Mitra: What was your product development strategy?

Phil Fernandez: I am a huge believer in the Agile philosophy. We identified two specific features of our product today. One of them is the ability to rapidly let people create landing pages for Google AdWords. We took that feature and built it into a product. We had that ready three months after we took our venture funding.

We gave that product away. We had a couple of hundred users who had to give us their names in order to use it. That was in April 2007. It was not a revenue-based product but it was part of our demand generation strategy. We used the first year to build the product that we were going to charge for. That went beta in December 2007. We got our first revenue customers in March 2008.

Sramana Mitra: How much revenue did you generate in 2008?

Phil Fernandez: We did $400,000 of subscription revenue.

Sramana Mitra: How many customers did you have?

Phil Fernandez: We had acquired 70 customers by the end of that year.

Sramana Mitra: You had a very nice up-selling pipeline developing during that time.

Phil Fernandez: Exactly. We were up and running right away. We used our own product and technique to drive new prospective buyers.

Sramana Mitra: Would you advise other SaaS companies to focus on getting a larger number of smaller sized deals or a smaller number of larger-sized deals?

Phil Fernandez: A larger number of small-sized deals. I use the term velocity for these businesses. Marketo was all about having people ready to buy the moment we launched. It is also about increasing the number of customers every month as quickly as possible. We are selling a pricey product. You have to adjust the numbers depending on the product and the nature of the industry you are competing in.

Regardless of where you are on that curve, I am a believer that you have to drive velocity in today's market. You need a lot of SaaS customers. In the early days we focused on any customer. We wanted the revenue machine moving. In 2009 we acquired 150 customers, and we did $4 million of recurring revenue.

In 2010 we were prepared to start going into the larger enterprises. We took our sales team that had been primarily selling to smaller customers and we built a parallel sales team to target some of the world's largest enterprises. We gave our sales team slightly different commission structures and by that time our product had matured. We were ready to go after larger, more demanding customers.

While we did focus on scaling up that second line of businesses in 2010, we did not stop developing the smaller businesses. That thought never crossed our minds. That is what velocity business is all about. We continued to have great growth in 2010. In

March of this year [2011], almost two years after we entered the market, we announced our 1000th customer. That is faster than Salesforce.com earned their first 1000 customers, but we are in a different era.

Sramana Mitra: I have huge respect for Salesforce.com because they have paved the way for everybody else.

Phil Fernandez: Whatever [founder Marc Benioff] spent to get there, probably $400 million, a good portion of that is money that I did not have to spend.

Sramana Mitra: The Internet has penetrated business so much more today that it makes life a lot easier. In 2000, the Internet penetration was not as significant. Building SaaS companies today is a lot easier than it was 10 years ago.

Phil Fernandez: I agree. It is a totally different ballgame.

Sramana Mitra: What is your forecast for this year?

Phil Fernandez: We will do in the up $30 million of annual recurring revenue. We will achieve the same fourth-year revenue that Salesforce.com achieved in their fourth year. The difference is that they spent $250 million to build that market, and I have spent $17 million. It is radically more efficient to build a SaaS company today.

Sramana Mitra: You have taken companies public and have broad experience. What is your assessment of the public market as the IPO market opens back up?

Phil Fernandez: Barring some economic catastrophe that we do not foresee, I think there is going to be a sustained period where there is hunger for growth equity. People are looking for growth and for the ability to increase portfolio value.

I don't think that we will go back into a bubble like we had in 2000, but I do think that we will see some crazy stories such as LinkedIn. When I look at companies that people compare to us, Taleo and SuccessFactors, they are only two quarters ahead of us in terms of revenue ramp and they have a billion-dollar market cap.

Sramana Mitra: That market cap number is off. A company that is at your revenue ramp rate getting a billion-dollar market cap is crazy.

Phil Fernandez: That echoes of 1999.

Sramana Mitra: It is concerning because I know there are a lot of solid companies that are in the $20 million to $100 million range. I worry that because of the hype machine, these companies are going to go out and create a crash-and-burn situation.

Phil Fernandez: I think there is some risk to that. Certainly in the consumer space, there are crazy private valuations. There is a chance of a bubble there. In our space, unlike 10 years ago, people are valuing real revenue growth rates. Epiphany went public in 1999 when I was there with far lower revenues than we have today, and they had a $9 billion market cap.

Sramana Mitra: That is what worries me. Companies like yours are solid companies, and if you do it right and grow them properly, there are great options. There are a ton of those companies in the SaaS market.

Phil Fernandez: I have had top quality bankers call me and try to convince me to do an IPO. I am telling them to go away. Everyone points to data points and they want to push the envelope a little more, which is how you get a bubble. At least they are valuing real revenue growth over hype. It is still a little bit of both. We are excited about the opportunity that the door might be open. We are somewhere between the craziness of the last bubble and a nascent bubble that is a bit more grounded.

Sramana Mitra: Very good. Thank you for your time, and congratulations on your success to date.

Note: Marketo eventually went public two years later in May 2013. Its 2014 revenue is about $140 million, and its market cap well over a billion.

Domain Knowledge Drives SaaS Unicorns

Fred Luddy, the founder of ServiceNow, was a classic nerd. After meandering his way through various companies as a programmer, he ended up as the CTO of Peregrine Corporation that built software for the help desk and service desk markets. Peregrine acquired numerous companies and eventually grew to $500 million in revenues, but filed for bankruptcy due to accounting irregularities in 2003.

Fred, however, developed domain experience with the IT service desk market through that process. He decided to start a SaaS company in that space.

"I would like to tell you I had a brilliant business plan which I executed perfectly, but nothing could be farther from the truth. I just knew that the Internet delivery of applications was very simple to use and was going to be a huge wave. Salesforce.com was becoming very popular, and things like My Yahoo! and iGoogle were starting to appear.

Internet deployments were obviously a wonderful way to do business and a great enabler for a significantly larger group of people than client server software had been. When I started ServiceNow I had no idea what area we would attack. I clearly wanted to do something involving forms-based workflows. It turns out the whole service desk area was a wide-open opportunity for us given our Internet posture and delivery model.

There are a set of practices called Information Technology Infrastructure Library (ITIL) which have four disciplines: incident, problem, change, and configuration management. Incident means something is broken and needs to be fixed immediately. Let's say your laptop won't boot up. The problem is, why did the laptop break? A change is how you fix the particular piece of technology so that the incident does not ever happen again. Those are the core disciplines of how most large IT organizations approach problems in this day and age."

Fred had 12 customers during production, which was in the beginning of 2005. It took him 18 months and he had no employees. In July 2005, he decided to turn this into a real company. He wanted to generate revenue, hired five people, and raised a venture capital round of $2.5 million from JMI.

Initially, he started charging $25 per seat and the 12 customers paid up.

"Our very first contract was with a company called WageWorks in San Francisco. It was for $2,600 a year. It took only three months to generate real revenue, so we were ecstatic.

Unfortunately, we didn't have a grand plan or scheme. We worked hard, but I think a lot of it has to do with luck. We first sold to WageWorks, and the guy who bought us there went to work at Edmunds.com. He recommended Edmunds.com buy our product, and they bought at $35,000 a year. It just started to proliferate and spider out from there. We had more and more customers at increasingly higher price points.

At first we thought we would serve the mid-market, but we quickly found out that we were far more appealing to the global 2000. They have large IT organizations and a lot of employees who are the customers of that IT organization. We wasted a full year on the mid-market."

The first year ServiceNow did $850,000. The second year they were at $5 million, and in the third year they were at $13 million. They finished the fourth year at $28 million. In 2010, its fifth year, ServiceNow was about a $45-million-a-year recurring revenue company with 350 enterprise customers.

Fred, however, had a very big vision for the scope of what ServiceNow was to address. In our 2010 interview, he outlined that vision:

"The service desk market is $1.2 billion to $2 billion a year. However, we have a much broader vision. Based on our customer feedback, we believe that there is a need for enterprise resource planning (ERP) for IT. If you look at most large IT organizations, they will have 40 to 50 different processes to manage their operational areas, their application development area, their application portfolio, and demand management. We believe that should all be offered under a single portfolio. We can offer all of that, not just the service desk.

Application portfolio management, performance management, capacity planning, budgeting, and financial aspect cost management can all be done in a single system of records. Upper management in the IT organization as well as the people turning the wrenches at the lower levels should all have an idea of what should be done, when it should be done, who it should be done by, who approved it to be done, how much it will cost, and what risks are associated with doing it. Even though we are in the service desk market, which is a $1.2 billion to $2 billion marketplace, we really believe that our approachable marketplace is probably a lot closer to $4 billion to $6 billion a year."

A lot of water has passed under the proverbial bridge since then.

In June 2012, ServiceNow went public at a market cap of $2.17 billion, raising $210 million.

Two years later, market cap shot up to over $8 billion. Their 2014 revenue is well over $500 million.

Fred Luddy was in his mid-forties when he started ServiceNow. While we hear a lot of complaints about age-bias in Silicon Valley, he did not seem to have had any difficulty raising money from top VCs including Sequoia Capital and Greylock Partners. With only about $7.5 million of funding, Fred was able to deliver spectacular results. From there on, the company was able to raise a total of ~$84 million. Some of the founders and employees were even able to cash out prior to the IPO with the additional capital influx.

I come back to first principle, as I analyze these success stories. Domain Knowledge. Execution. Early paying customers. Show 'em the money!

That, it seems to me, is the long and short of it.

Interview with Fred Luddy, ServiceNow

Fred Luddy founded ServiceNow in early 2004. This interview was conducted in March 2010. At the time, the company was at about $45 million in revenue. It has grown more than tenfold since then. The interview focuses on how the company got off the ground, and built its foundation so that such rapid scaling subsequently has been possible.

Sramana Mitra: Fred, give me some background about your childhood and early career.

Fred Luddy: When I was 16 years old, which was in the early ’70s, I had a part-time job as a purchasing guy at American Standard. They bought a high-end computer, and I walked into the data center where the Hewlett-Packard computer was and never wanted to leave. I was a moth drawn to the flame. Something pulled me in and made me believe that I wanted to be part of this data processing community. I’ve been that way ever since.

For more than the past 30 years I’ve been a programmer. It’s what I want to do every morning when I wake up, and it’s what I do on weekends and on long plane flights to Europe. In a lot of ways I started this company to support my habit, which is writing software.

Sramana Mitra: You are a nerd with a capital “N”.

Fred Luddy: You could spell the entire word capitalized.

Sramana Mitra: What did you do after?

Fred Luddy: I went to Indiana University, where I got a job working for the dean of economics. I was working part-time, which paid for my school. I managed to work for him for 70 to 80 hours a week, and I flunked out of school. I then moved to Montreal, where I got a job working for a French service bureau and had a wonderful time. It was a very technical company.

From there I ended up in Silicon Valley in 1976, before it was known as Silicon Valley. I went to work for the Amdahl Corporation. They built mainframes and I built a couple of software products for the hardware company. They became very successful in terms of the amount of revenue they generated and notoriety gained for the company. They were in the area of mainframe performance. I thoroughly enjoyed the company, and it was a wonderful experience. It was probably the most formative part of my career. There were a lot of very bright people from both a technical and a business perspective. Those people really gave me a phenomenal education to help me through the next 15 to 20 years of my career.

I then went to work for a software company called Boole and Babbage as a consultant. I worked on mount products that they sold, which were also reasonably successful in the mainframe area. At some point in 1988, I got disillusioned. I decided to quit my job and moved to Los Angeles to play beach volleyball. I found out a few things. I learned that I was short, slow and not a good athlete. Beach volleyball quickly went by the wayside and I started a software company called Enterprise Software Associates. It was a cataclysmic failure.

Sramana Mitra: What were you trying to do with it?

Fred Luddy: It was in the area of mainframe software tools. I have advice for any entrepreneur: if you're starting a company and you have a partner, you should first find out if your partner is a convicted felon for fraud. I forgot to do that. I got talked into going into business with a man who did not have a good reputation. It was a very painful part of my career and a very expensive lesson. We racked up the normal amount of debt, which I had to pay as an individual over a three or four year period after the company folded. I became disillusioned with people in general. Fortunately I met up with John Moores, the founder of BMC. He pulled me into Peregrine. My career had an upturn from there.

Sramana Mitra: What were you doing at Peregrine?

Fred Luddy: I was the chief technology officer from 1990 until the end of 2003. We built software for the IT help desk and service desk market. The company grew from $4.5 million a year to $500 million a year. We acquired a lot of companies before Peregrine Corporation had to declare bankruptcy due to accounting irregularities. That was another wake-up call in my career. It happened after I had been working there for 13 years.

In 2003, I saw a phenomenal opportunity to build software that was totally different from what I had done before. It was different in the way I could deliver and charge for it. I started ServiceNow in October of 2003, and I built the initial software myself. We started selling a product over the Internet in early 2005.

Sramana Mitra: Can you explain what your goal was for ServiceNow?

Fred Luddy: I would like to tell you I had a brilliant business plan which I executed perfectly, but nothing could be further from the truth. I just knew that the Internet delivery of applications was very simple to use and was going to be a huge wave. Salesforce.com was becoming very popular, and things like MyYahoo! and iGoogle were starting to appear.

Internet deployments were obviously a wonderful way to do business and a great enabler for a significantly larger group of people than client server software had been. When I started ServiceNow, I had no idea what area we would attack. I clearly wanted to do something involving forms-based workflows. It turns out the whole IT service desk area was a wide-open opportunity for us given our Internet posture and delivery model.

Sramana Mitra: In that context, what software did you provide? What part of that market were you addressing?

Fred Luddy: There are a set of practices called Information Technology Infrastructure Library (ITIL) which have four disciplines: incident, problem, change, and configuration management. Incident means something is broken and needs to be fixed immediately. Let's say your laptop won't boot up. The problem is why did the laptop break? A change is how you fix the particular piece of technology so that the incident does not ever happen again. Those are the core disciplines of how most large IT organizations approach problems in this day and age.

Sramana Mitra: Your customer is an internal IT help desk. Is that correct?

Fred Luddy: Correct. It is not a customer service help desk for washing machines or anything like that. It's definitely for internal IT.

Sramana Mitra: You decided to build a software and deliver it over the Internet in 2003. How long did it take you to put something together that you could start selling?

Fred Luddy: I had 12 customers during production, which was in the beginning of 2005. It took us 18 months and I had no employees. I had one $800 computer, worked out of a Telco closet, and had a borrowed IP address.

Sramana Mitra: Did you bootstrap ServiceNow?

Fred Luddy: In the beginning it was completely bootstrapped. I had a couple guys volunteering who worked on nights and weekends, and they helped me out. However, it was really just me and a dozen customers at that point.

Sramana Mitra: How did you find those twelve customers?

Fred Luddy: I made phone calls and literally drove up and down the coast of San Diego County to talk small businesses into using our product.

Sramana Mitra: How much did you charge them?

Fred Luddy: Nothing. They were customers by virtue of the fact that they used our software and gave us feedback. They were wonderful about giving us feedback regarding what was right and wrong. That's how we went to market. We didn't charge them money.

Sramana Mitra: How did you get to the next level?

Fred Luddy: In July 2005 I decided to turn this into a real company. I wanted to generate revenue. I hired five people and raised a venture capital round of $2.5 million from JMI. We then started trying to sell the software.

Sramana Mitra: How did you sustain yourself between 2003 and 2005?

Fred Luddy: I'm a frugal person, so I lived on my savings. It did not cost much to run a company. Starting an Internet company requires a laptop and 200 pounds of Starbucks French Roast coffee. Anyone with a DSL connection can do it. Anyone can bootstrap an Internet company these days, at least one that's in the SaaS business like ours.

Sramana Mitra: When you went back to your original twelve customers who had been using the software free and asked them to start paying, how did they react?

Fred Luddy: Positively. They signed agreements and agreed to pay us. We then went out and got new customers as well.

Sramana Mitra: How much were you charging at that point?

Fred Luddy: We were charging about $25 a month per seat. We currently charge around $90 a month per seat.

Sramana Mitra: How many seats did your first customer buy?

Fred Luddy: It was a very small deal. Our very first contract was with a company called WageWorks in San Francisco. It was for $2,600 a year. It took only three months to generate real revenue, so we were ecstatic. We could not have been happier.

Sramana Mitra: How were you selling such small deals? You couldn't possibly do those all in person.

Fred Luddy: No, we couldn't, which is why we absolutely had to find something more scalable. We did start out very inefficiently selling direct. We used the telephone, and we were primarily trying to close deals over the phone. We would visit some potential clients. Each deal we earned became larger than the one before. We recently signed deals for multiples of millions of dollars per year. We have many multimillion dollar customers now.

Sramana Mitra: How do you go from selling $2,500 a year deals to millions of dollars a year deals?

Fred Luddy: Unfortunately, we didn't have a grand plan or scheme. We worked hard, but I think a lot of it has to do with luck. We first sold to WageWorks, and the guy who bought us there went to work at Edmunds.com. He recommended Edmunds.com buy our product, and they bought at $35,000 a year. It just started to proliferate and spider out from there. We had more and more customers at increasingly higher price points.

At first we thought we would serve the mid-market, but we quickly found out that we were far more appealing to the Global 2000. They have large IT organizations and a lot of employees who are the customers of that IT organization. We wasted a full year on the mid-market.

Sramana Mitra: Who was your first enterprise customer?

Fred Luddy: We had a couple of big customers very early. Edmunds.com was a big customer of ours, as was Qualcomm. TIAA-CREF was another. Those companies became a beachhead for us to get follow-on customers such as Hyatt.

Sramana Mitra: What year did you land Qualcomm as an account?

Fred Luddy: I think that was in 2006.

Sramana Mitra: That's fairly early in the game to get a marquee customer. What was the revenue ramp from starting your company to getting enterprise deals?

Fred Luddy: Our revenue is a recurring revenue stream. The first year we did $850,000. The second year we were at $5 million, and in the third year we were $13 million. We finished the fourth year at $28 million. We are now about a $45-million-a-year recurring revenue company. Of course, the year is not over and we expect to grow some more.

Sramana Mitra: How much venture capital did you raise in total?

Fred Luddy: We raised a total of $7.5 million in venture capital. We've been cash flow positive for 36 months.

Sramana Mitra: Tell me a little bit about your journey. What was the process of building a team to support a $45 million, high-revenue company?

Fred Luddy: A lot of the people we have hired are people I knew from other companies and whom I worked with. We have also hired people who have worked for some of our customers. At first I hired about four or five people who were friends and very close colleagues from Peregrine. Then we hired some people from a number of different technology companies to grow out the different areas of our business such as support, operations, sales, and marketing.

Most of the people whom we hired who became the core of the company were people I had known for five to ten years. Another bonus is that the people I originally hired have reached out into their networks, and that's how we found our second wave of employees. We have been adding more and more employees ever since.

Sramana Mitra: Talk a little bit about your personal evolution. You said that you liked to program day and night. How has that worked for you as the CEO of a sizable company?

Fred Luddy: One of the great things for me is that we have a wonderful senior management team. They can be relied upon to run the business day-to-day. My job is largely setting the direction for the company from a technology and market approach. I work with various groups of people in different areas to try to take our marketplace up a couple of rungs.

For me, the initial days of the company were a great time. I was able to program 16 to 17 hours a day. That is down to 10 to 15 hours a week now. The balance is very different now. It is very enjoyable for me to meet with customers, come back and meet with the employees, and communicate to them what I sensed about the customer pain points. I influence how we build technology that directly addresses our customers' pain points. It's a very exciting job. I don't get to program as much, but I do get to stay involved in the technology. Overall it has been a good balance for me.

Sramana Mitra: How many enterprise customers do you have now?

Fred Luddy: About 350.

Sramana Mitra: I talk with a lot of CIOs. They tell me that 25% of their architecture is cloud computing. How does the role of the service desk evolve in that scenario?

Fred Luddy: As these customers start to move more and different apps into the cloud, they still have to manage those applications and the vendors.

Sramana Mitra: How do you handle that process?

Fred Luddy: It's about managing the cloud from the cloud. If people decide that they are going to put a bunch of their development and testing infrastructure into Amazon EC2, then they use software like ours to manage the deployment and retirement of their EC2 instances. It goes hand in glove. There are still management challenges from an incident, problem, and change perspective. There are still issues with outages and configuration changes. Our software fits in great with that.

Sramana Mitra: If I'm using a CRM solution and it goes down, then as an IT shop I have no control over that. If it is a vendor-side problem, how does your software help me?

Fred Luddy: You would have users of the CRM system who are going to call your central IT help desk. Those people are going to turn around and talk to your vendor to find out what the issue is. They would manage it in conjunction with the SaaS-based vendor. Once the service is resurrected, they would want to do problem management with that vendor. It requires the same amount of managed work. The difference is that the people doing the work tend to be at a different organization.

Sramana Mitra: Can you talk about your competitive landscape? What was it like when you started, and how has it evolved over the past two years?

Fred Luddy: When we started our competition was either homegrown databases such as Excel and Access or SMB solutions such as TrackIt, which was sold by Intuit. Today our competition is primarily BMC, Hewlett-Packard, Computer Associates, and IBM. In all of those cases their products are very old technologies. We call them Soviet-era technologies. They were built in the 1980s or early 1990s, and they look like Soviet-era technology. They have the feel of a Soviet military airplane. It's unappealing to anyone who uses Facebook at night. These people come back to work and wonder why they have to deal with that.

We are competing with established corporations that have significant relationships with their customers. We are showing our prospects and customers something that we think is several orders of magnitude different from what our competition is selling, and our competition has reacted. I think of the quote from [Mahatma] Gandhi that says, "first they ignore you, then they laugh at you, then you fight them, and then you win." Our competition first ignored us, then they laughed at us, saying that we were just a cute little thing for small companies. Then they started to find out that we were taking a lot of their customers away, and so they started fighting.

When they adjusted, they did the things we wanted them to do the most. They took their client/server products and hosted them at a data center so that they could call it a SaaS solution. It was nothing more than a client/server ASP solution. Prospects see through that instantly.

We think it is wonderful because our competition has validated our market approach. If you look at our competition and our revenue, our revenue is probably equal to the daily pretax revenue of the Hewlett-Packard Corporation. We are clearly buzzing around their ears. Nonetheless, I think these companies have taken notice of us, which is good for the marketplace in general. We have introduced a new way of doing things that has broken up the oligopoly.

Sramana Mitra: Your company has been disruptive to the marketplace, which has forced your competitors to change their entire business model to address your success.

Fred Luddy: Exactly. It's similar to when Southwest came on the scene and dropped a whole new way of doing business for airlines into the market. We have a very different model. We've been very good for the marketplace in general, and we've helped our customers lower a lot of cost. We tell our prospects that if they tell our competitors that they are talking to us, they will get it at discount, so we've already saved them money.

Sramana Mitra: How big is your total available market? What is your assessment of the IT service desk market?

Fred Luddy: The service desk market is $1.2 billion to $2 billion a year. However, we have a much broader vision. Based on our customer feedback, we believe that there is a need for enterprise resource planning (ERP) for IT. If you look at most large IT organizations, they will have 40 to 50 different processes to manage their operational areas, their application development area, their application portfolio, and demand management. We believe that should all be offered under a single portfolio. We can offer all of that, not just the service desk.

Application portfolio management, performance management, capacity planning, budgeting, and financial aspect cost management can all be done in a single system of records. Upper management in the IT organization as well as the people turning the wrenches at the lower levels should all have an idea of what should be done, when it should be done, who it should be done by, who approved it to be done, how much it will cost, and what risks are associated with doing it. Even though we are in the service desk market, which is a $1.2 billion to $2 billion marketplace, we really believe that our approachable marketplace is probably a lot closer to $4 billion to $6 billion a year.

Sramana Mitra: Your strategy is to move into that $4 billion to $6 billion marketplace with a SaaS model?

Fred Luddy: Yes. We are forthright in that we use our customers as our development partners. We ask them where their current pain points are and what we can do to help them. We have a project with Staples Corporation. There is a woman there who is phenomenal at application portfolio management, and she has phenomenal knowledge of how that business is supposed to be run. She is in fact telling us how we should be building out some of our applications so that they reach a broader audience inside the IT organization.

Sramana Mitra: What does the rest of the competitive landscape look like? Are there smaller players who perhaps are addressing some of these areas inside the IT portfolio? Are there potential acquisitions you could make to assist you in opening up this new market area?

Fred Luddy: One thing that makes our company very different is that we have no plans whatsoever to acquire other technology. We believe in organically built software, and we are going to build it ourselves. That is the same approach SAP, PeopleSoft, and Oracle all initially took. We believe that these systems all have to work together which will give us a distinct, almost unfair, competitive advantage against others in those market segments.

Sramana Mitra: Are there even any companies out there that have technologies worth acquiring that are in what you term ERP for the IT market?

Fred Luddy: Some, but not too many. Companies such as Hewlett-Packard and Computer Associates made dozens and dozens of acquisitions. They would approach the ERP for the IT field with five or six acquisitions, none of which are integrated with each other. If you have an ERP system that wants to be a continuum of work and is not integrated into other [systems], then you do not have a solution to a problem. You have a bunch of point solutions that do not necessarily work well together.

In the area of application portfolio management, most of the small companies that were successful in that area have already been acquired. Mercury Interactive acquired a bunch and was subsequently acquired by Hewlett-Packard, or they were ultimately acquired by Computer Associates. We really believe that taking an approach more like SAP's or PeopleSoft's approach, which means building the software organically so it is cohesive, is a much better approach for our customer base.

Sramana Mitra: How many people do you have now?

Fred Luddy: We have 135 employees.

Sramana Mitra: That is impressive. $45 million a year with 135 employees is a very profitable structure.

Fred Luddy: Thank you.

Sramana Mitra: Thoughts about exit strategy?

Fred Luddy: We have never had an exit strategy. John Moores is an initial backer of our company and a founder of BMC. He said that if you have happy customers, continue to innovate, and make a reasonable profit, then there is no need for an exit strategy because everything will take care of itself. We have adopted his philosophy. We did not build the company to be sold or flipped. We may entertain going into the public markets if they look favorable to a company like ours, but when I started the company I had no desire to sell it to anyone. I built it so that we could build a large company through which, in the long run, we could make a difference.

Sramana Mitra: The moment you take venture capital financing you have to exit. Exiting to the public markets may be a good option, but the financial structure of taking VC funding means you have no choice but to exit. That may in fact be required not too far in the future.

Fred Luddy: That is true. One of the things beneficial about our venture financing is that it was at the front end of a 10-year fund. They do not have to show a return for another six years. You are absolutely right. If we do have to have an exit strategy, then it will be an IPO.

Sramana Mitra: Then your exit strategy, in a nutshell, will be an IPO.

Fred Luddy: That is fair.

Sramana Mitra: I enjoyed listening to your story, and I wish you the very best. Thank you for your time.

Note: In June 2012, ServiceNow went public at a market cap of $2.17 billion, raising $210 million. Two years later, market cap shot up to over $8 billion. Their 2014 revenue is well over $500 million.

Valuation Without Revenue

Recently, Unicorns with multi-billion dollar valuations without the revenue to justify them have returned with a vengeance. The frenzy started with Facebook acquiring Instagram for $1 Billion, and climaxed with the same company acquiring WhatsApp for $19 billion.

If there were any analysts that had doubts about Facebook's mobile dominance plans, they have been put to rest. Facebook's monetization plans vis-à-vis these apps, however, are less clear. The same applies to Yahoo!'s $1.1 billion acquisition of Tumblr.

I would like to look at WhatsApp more closely just because of the historic nature of the deal.

Santa Clara-based WhatsApp was founded in 2009 by ex-Yahoo engineers, Brian Acton and Jan Koum. The app delivers mobile messaging capabilities irrespective of a phone's OS by using the phone's mobile broadband subscription. It is available across multiple platforms including iOS, Android, BlackBerry, and Windows. Users are able to exchange texts, images, audio and video content through the app without paying anything to the wireless carrier.

WhatsApp is free to download and does not charge any fees for the first year of the subscription. A year later, WhatsApp charges $0.99 per year to let the user continue to use its services. WhatsApp does not disclose detailed financials, but reports suggest that they were operating at an annual revenue run rate of $10 million at the time of the acquisition. Prior to the acquisition, Whatsapp had received venture funding of $60 million led by Sequoia Capital. Their last round of funding held in July 2013 raised $52 million at a valuation of nearly $1.5 billion.

Obviously, $20 million in revenue doesn't justify a $1.5 billion valuation, and most definitely not a $19 billion valuation. So what calculations did Sequoia do? What calculations did Facebook do? We can only guess, so here's my take at what could have been the thinking.

Whatsapp has seen rapid adoption. As of December 2013, they had more than 400 million registered users and more than 200 million of them were monthly active users. Since then, at the time of the acquisition in February 2014, they had increased their user base to 450 million users. They claimed to be adding over a million users every day. The app was seeing more than 50 billion messages and 500 million images exchanged over their platform daily. WhatsApp's goal is to be available on every single smartphone – that is an estimated 1 billion phones as of 2013.

WhatsApp cost Facebook $4 billion in cash and an additional $12 billion in stock. WhatsApp's founders and employees will be eligible for another $3 billion in stock grants to be paid out if they remain employed by Facebook for four years. This is the biggest acquisition so far by Facebook and is among the second largest tech space acquisition after HP paid $25 billion to acquire Compaq in 2001.

Despite the strength of their messenger, Facebook has been scouting the market for potential acquisitions to increase its presence on the mobile usage front. They had offered $3 billion to acquire Snapchat, but the deal fell through because Snapchat did not want to sell.

WhatsApp was rumored to have been courted last year by both Google and Facebook, but they refused to sell as well. Recent reports suggest that even now, this may not be an easy marriage. Both Facebook and WhatsApp are led by two strong willed CEO-founders who have very different beliefs.

Facebook's revenue source is advertisement powered by extraordinary levels of data analytics and WhatsApp's guiding principle is "No Ads, No Games, No Gimmicks." Where Facebook relies on collecting and leveraging user data, WhatsApp does not collect any other information besides the mobile phone number and the address book. In fact, WhatsApp does not even store the messages that are sent over their platform. Due to his communist country background, Ukrainian founder Jan Koum doesn't believe in invading people's privacy. For now, though, both CEOs have agreed to set their differences aside.

There are several theories on why Facebook really bought WhatsApp. Surely mobile dominance is key. Photo sharing is a big part of that strategy. Facebook earlier spent $1 billion to acquire photo app, Instagram. But at the time of the acquisition, Instagram processed 55 million photos a day. Facebook, with all its might, also processed 350 million photos a day. Compare that with WhatsApp which processed 500 million photos a day. The acquisition will not only ensure that the online photo messaging space is now dominated by Facebook, but will also ensure that the market's "attention" remains focused on Facebook instead of a competitor like WhatsApp or Google.

Facebook maintains that WhatsApp will continue to operate independently and autonomously even after the acquisition. But, I have my concerns with that statement as I am sure that Facebook will want to recover the huge investment by monetizing WhatsApp. Assuming that WhatsApp reaches its goal of being there on every smartphone and is able to monetize 10% of this base, they are talking revenues of nearly $100 million a year (at current subscription rate of $1 per year, assuming a high conversion rate of 10%).

If Facebook were to increase the subscription fee to $1 per month instead of per year, that would help it earn revenues of $1.2 billion per year, which is well within the realm of possibilities. I strongly believe that very soon, the model of free apps will fade as people developing them won't be able to sustain them. App developers will either have to charge subscription fees or show ads and it will become acceptable for WhatsApp to do the same. WhatsApp may prefer the subscription model, but some of their users who choose not to subscribe will have to be willing to be see advertisements as well. Let's say, 10% will subscribe, and 90% will choose to watch ads. The service provides very high levels of value and stickiness. Even $1 a month is quite cheap for most users to pay, to keep using it. So at least a billion dollars a year worth of revenue is well within the realm of possibilities.

I know WhatsApp is in principle against advertising, but now Facebook owns the product and they have not bought this company as a charity. They intend to leverage it, just as Yahoo! will eventually have to monetize Tumblr. And, it is not just Facebook's management. Given that the deal is structured so that WhatsApp founders now have stock in Facebook, it is in their interest to ensure that Facebook's stock rises. It is easy to understand why WhatsApp will need to give in a little to embrace Facebook's advertising-based revenue model. This could generate another billion or two in revenues quite easily.

While the consensus is that the deal is driven to a large extent by fear and panic, I do think that Mark Zuckerberg is emerging as a very shrewd CEO. He has invited Jan Koum to join the board of Facebook. This will expose Koum to the concerns of shareholders, and inevitably, these concerns will be around monetization, revenue growth, and profitability. The solution of charging subscription and showing ads are going to be so obvious to everyone, that Jan Koum will not be able to resist yielding. Very cool psychological move!

Communication, messaging, and photo apps are a dime a dozen on all the major smart phones. Of these, some have come to dominate their markets (example: Kakao in Korea), some have created significant niche user bases (example: TextMe), and there are numerous 'also rans' that will simply go out of business in due course. We can certainly expect more acquisitions in the category by major tech companies, especially the social networks, and perhaps even the mobile platform vendors. We can also expect some acquisitions by the carriers and handset vendors who will try to differentiate with proprietary apps.

But I do not see the current party of free apps funded by gobs of venture capital continuing forever.

And that, in the end, will make the likes of Facebook win.

They will monetize.

The market will play ball.

I don't believe in 'free'. It's against the basic value of capitalism, which I happen to still believe in.

The market will, in time, come to appreciate the wisdom of this simple model: offer value, get paid for it.

Also, startups going crazy over the valuation should remember that 99% of the entrepreneurs who go out to seek financing get rejected. WhatsApp had Sequoia and other VCs bankrolling their growth with $60 million. This is a low probability scenario, and for most entrepreneurs, keeping your feet on the ground would be an excellent idea. That being said, expect to see confused and highly speculative behavior both from entrepreneurs and investors for a while, as the tech industry reels through this shock.

More pragmatically, though, I want to expose readers to the case study of Eventbrite that also has a Unicorn level valuation, but started with a modest and fundamentally sound business model. The company has raised close to $200 million in funding, with the latest round valuing it above $1 billion.

However, the company started with the founders, Kevin and Julia Hartz putting it $250,000 of their own money. Kevin had an exit prior to founding Eventbrite.

Initially, they got early customer validation by offering event organizers the use of their online ticket-selling platform for free. Soon, however, they switched to a freemium model such that for free events they did not charge anything, but for paid events, they charged 2.5% of sales. The model is simple, logical, fair.

By the time the company raised their first million, they already had a proven business model and revenues.

In general, I believe, Eventbrite is a better model for entrepreneurs to follow, unless you are one of the early Facebook or Google employees, and can afford to throw a lot of money around. A case in point is Quora, founded and heavily funded by Facebook's former CTO Adam D'Angelo. The company has raised $161 million and is valued at over $900 million. It does not monetize yet. Competitor Answers.com is already doing $200 million a year in profitable revenue.

Most readers, I presume, are not in a position to follow Adam's example.

Interview with Julia Hartz, Eventbrite

Julia is cofounder and president of Eventbrite and one of the few, very few, female cofounders of a unicorn company. This interview with Julia was done in July 2010. Julia founded the company with Kevin Hartz, her husband. For the longest time Silicon Valley had a huge bias against couples founding companies together. More recently, though, there have been quite a few success stories of couples building successful companies together, so perhaps the bias is eroding somewhat.

Sramana Mitra: Julia, let's go back to your story's beginning. Where are you from? Where did you grow up?

Julia Hartz: I grew up in Santa Cruz. My parents divorced when I was two, but they remained good friends and always lived within blocks of each other. My mother was remarried when I was five. I had one of those idyllic childhoods on the beach. I had no worries about safety like we do today. I was very focused on dance and spent four to five hours a day preparing for competitive dancing in multiple genres. I focused on jazz, but I did tap and ballet as well. Ballet offered the base training, and everything else was layered on top of that.

I went to competitions, and now that I am a mother of a girl, I can see why it is vilified these days. We were just at Disneyland, and these girls walked by who must have been eight, and they were in full makeup with very skimpy costumes. The world I was in has blown into a pageant world where all the girls are over sexualized. I was in that world when it was focused on talent.

Sramana Mitra: I grew up as a dancer as well, and makeup was part of being on stage.

Julia Hartz: It was, but it was to deal with lighting. I remember the false eyelashes, but it was more about the form. I remember being annoyed by makeup. Like everything else, my views have shifted.

Sramana Mitra: The pace at which children grow up is faster today. That is not a good thing.

Julia Hartz: Exactly. I had more time to be a child, and I loved it. When I was seventeen I had a decision to make – to pursue a dance career or to go to college. My parents really did not give me any choice but to go to college, and that was something that I really wanted to do as well. Interestingly enough, my dance partner went the other route and she is now on Broadway. Every six months or so I go and see her in a new show. It is fun to see where she has ended up. We feel that we have both been fulfilled on the two paths we have taken, which is amazing. It is very satisfying to see that.

I went to Pepperdine for college. I went to public school because there was no other alternative. I wanted to go to a private college. I wanted to be with twelve to fifteen students in a classroom. I got to choose my own major, which, when you are seventeen is very early. I thought that I wanted to be a broadcast journalist, which is one of the reasons I chose Pepperdine. They have a very nice journalism school and their own studio.

I went and sat in my first day of broadcasting 101, and I looked around and saw a bunch of Texas debutantes. Pepperdine itself is an amalgamation of people from overseas and people from all over the United States. Most people are very, very wealthy. I was from a middle-class family. I had worked since middle school. I was the only person I knew who had a job in college.

Sramana Mitra: How did your middle-class background impact you at Pepperdine? Did you feel as though you belonged?

Julia Hartz: I went through stages. At first, I went through an envy stage. I have never told anybody this but hopefully you will understand. I felt like wealthy females always had this look on their faces that was completely relaxed, as if they had no stress. I felt that I could tell from their outward appearance that they never had any sort of sorrow or anxiety. I felt they had never worried about anything. Obviously as I went through my college career and got to know those people intimately, I found out it is exactly the opposite. Strangely enough, in comparison I was the one with the ideal life.

As I sat in that first broadcast journalism class, I took one look around and realized that I could not, in good conscience, rack up as much debt as I was about to in order to seek a career on camera. I just knew that it was not something I was really into for the long run. I then switched my major to television production, and being in the environment I am in now I feel so unworthy with that major! I did parlay that into a career. I worked, and I interned during my first semester in L.A.

I was a set intern on "Friends," and I then went on to a few other internships which were all over the place. I found my niche in series development in MTV. Series development is analogous to being a VC in the cable television world. You hear pitches from the creative community and then purchase projects and develop them. I have always had an innate business sense from my parents, and I wanted to find a career that offered a cross between creativity and business.

My brother is incredibly creative. He is the artist of the family. I had this strange passion for business as well. Numbers are fun for me. I get basic business principles naturally. I really loved series development so I interned there for two years. My final year I was interning there five days a week, full time and taking night classes at

Pepperdine to finish my degree. About three weeks before graduation I called my parents and told them that I was not really sure what I was going to do after I graduated but that my plan was to just keep going to MTV. I figured that nobody at MTV knew when I was going to graduate so if I just kept coming they would eventually start paying me.

Sramana Mitra: I think unpaid internships are great. I see all this debate today about unpaid versus paid internships. You should be grateful to have the chance to work on something where you are given the chance to learn.

Julia Hartz: We have a dozen interns at Eventbrite right now and most of them are paid. That is one of the subjects on which Kevin and I differ. He thinks that in order to be competitive and attract the great talent, you have to offer paid internships. I am in the opposite camp because I had to pay for my internships.

Sramana Mitra: When did you graduate Pepperdine?

Julia Hartz: I graduated in 2001. A week before graduation I let those plans slip to an executive at MTV who was a mentor of mine. He said, "Hold on, you can't be serious that you are graduating and don't have a job here! You are a huge part of what we are doing!" I had integrated myself with the department, not because I was angling, but because I loved it. I still to this day feel guilty about this, but there was an assistant who was not pulling his weight and was a nuisance to the department who got fired and I filled his position. I have not reconciled that to this day; it just felt wrong.

Sramana Mitra: Why should it feel was wrong if he was not pulling his weight? You don't get paid to exist.

Julia Hartz: Now as a manager I do not feel that it was the wrong decision, but I did not like the fact that I was involved. Either way, I graduated on a Friday and started work on Monday, which was perfect for me. I quickly rose up the ranks there.

Sramana Mitra: That is good, because 2001 was not a good time to graduate.

Julia Hartz: No, it was not. In some ways I was blessed to not be here in the Valley at the time. Before long, I went from assistant to head of the department. Six months after that I was promoted to an executive. My path to success there was hard work. The entertainment industry is very different from the technology industry in that hard work was a novel idea. Politics and positioning were very much part of the game. I just kept my head down and worked hard. I am a horrible negotiator and a terrible salesperson. That part of my brain does not work.

I could not really figure out how to position myself, so I just did my work and looked for more work. It was refreshing, and I was rewarded by moving up the ranks. Soon I was a protégée whom everyone wanted to claim as their own. I just ignored that and tuned it out.

It was a very difficult phone call to make to my parents that after all the time and work I put in, I was working on a show called "Jackass" and that they should not watch it. Your parents always want to see your work, and my mom has Google Alerts set so she is the first to see everything. If I speak she goes to watch.

After MTV I moved on to FX, where I worked on "Nip/Tuck" and "Rescue Me" as a current executive. When you oversee shows that are already on air, that is what they call you. I was there for two years before I came up here to the Valley. For me that was the evolution of my career.

Sramana Mitra: Tell me about Kevin. He is your business partner and your husband. How did that happen?

Julia Hartz: I sat next to him at a wedding. My boss at MTV married one of his classmates at Stanford. It was in Santa Barbara. It was a very interesting mix of people. There were a bunch of technology people from Stanford and a bunch of folks from the entertainment area.

Kevin went to Stanford and studied history. He then went to Oxford and studied history there for a year. He came back and worked at SGI as a project manager, and that is when he fell in love with technology. From there he founded ConnectGroup with some classmates. That company provided high-speed Internet access for hotel rooms. They were acquired by LodgeNet. After that, he was a seed investor in PayPal. He had gone to school with a lot of those folks. He also joined Outlook Ventures for two years, where he became very passionate about being an angel and investing in companies. He then went on to cofound Xoom, which offers international money remittance. At the same time they also developed the architecture for Eventbrite. When Xoom got funded by Sequoia they had to put all their effort into that company, which put Eventbrite on the back burner.

After two years, it was clear that Xoom was going to be a big financial services company. They decided to bring in a CEO who had done that type of work before. They brought in John Kunze, who was with Plumtree Software.

Sramana Mitra: Is Kevin significantly older than you?

Julia Hartz: Ten years. I met him when I was twenty-three and he was thirty-three. It was more significant for me because it curtailed a lot of mistakes I would have made. For him, at thirty-three, he had just begun to know exactly what he wanted. Our relationship began right when we met, and we were on a linear path that was free of drama and question. When I met him, he was just starting Xoom. We met in May, and they raised funding from Sequoia in the fall of that year.

I started to live the entrepreneurial life through his lens at that time. It proved to be a sneak peek as well, because we raised money from Sequoia as well. Right around the time we brought in James as CEO, it was clear that Kevin and James had different visions for where the company should go. To not be disruptive Kevin stepped out to the board. That was in 2005. I was still in L.A. at the time.

When I met Kevin, I knew that my career in television was on its last legs. I knew intuitively. It is not because I did not like it, but I knew that I wanted to come to the Bay Area. It was intuition; I just knew. I met him right when I was trying to make the decision to stay or leave MTV. I decided to just do it and not worry about career trajectory. In 2005 we got engaged, which was a pivotal point.

Kevin is incredible in the way that he is open to looking at many different angles. He never assumed that I would just leave and join him. He recognized that I had a great career. He was an entrepreneur and did not have a huge company, so he toyed with the idea of coming to L.A. Ultimately I am close to my parents and loved the Bay Area. When we got engaged, I knew it was time to make the move.

I had been having a year-long conversation with the people at Current TV. As they were putting together their team they found where everyone would fit. When they finally found the position where I would fit, they gave me a very low-ball offer. At the same time Kevin had mentioned that there was this platform that they had built for online event ticketing, and he wanted me to come work with him and not make any money. I thought that if working for no money sounded better than working for Current TV, then I was probably trying to force a square peg into a round hole.

Sramana Mitra: Had Kevin actually started working on Eventbrite?

Julia Hartz: Not really. He was still at Xoom. I started working it during his last four weeks at Xoom. We had a rudimentary architecture based on the PayPal platform that was meant to sell tickets. There were early adopters in the tech community who were using the platform. Alan Braverman wrote the initial code for Eventbrite. Alan graduated from the University of Illinois around the Netscape days. He and Kevin met at SGI. After ConnectGroup was acquired, they joined up and started Xoom. However, they wrote the code for Xoom and Eventbrite at the same time. They were thinking about a lot of different businesses, and Eventbrite and international money transfers were ideas PayPal had but never actually implemented. They went ahead and did that out of Kevin's loft and they came up with a few different concepts, of which Eventbrite was one.

Sramana Mitra: During the early days, who kept the Eventbrite platform alive while Alan worked for Xoom?

Julia Hartz: Initially I did that just by answering customer service questions. Now that I think back that is when I began having dialogues with our customers.

Sramana Mitra: Who were your customers and how did they find you?

Julia Hartz: They were early adopters in the technology community. They were having paid meet-ups. There were enough users for us to get some indication and guidance on what type of product we should create.

This was at the end of 2005. We took a month off and went to Bangkok where we volunteered in an orphanage. My parents do this every year. We refreshed and reset our frame of reference in Bangkok and I am glad we took advantage of that time. We came back in January of 2006 and moved into a free office space.

Through somebody at Xoom we hooked up with Renaud Visage who is our CTO and one of the co-founders. He had just come out of Zing and was on his way back to France. We asked him if he wanted to work on this idea with us and we just hit it off. Kevin and I had never been together for more than two days and suddenly we were living together and working together all day in a conference room and Renaud was on his way back to France, so what better time to start a company together!

Despite the craziness, we just focused on building a great product. Kevin and I put in $250K in seed funding. It was the three of us working on the product for two years. The service was live and we iterated on the product by talking to our customers.

Sramana Mitra: How were you making money?

Julia Hartz: We were making money by charging a fee on top of the paid ticket price. In the beginning it was completely free. It lasted for about 6 months before we introduced a freemium model. If I had to tell you what one of our biggest failures was today it would be how we offered a freemium model. We wanted to give everybody all the features. We kept putting features in both buckets.

Sramana Mitra: Could you do freemium on volume?

Julia Hartz: Yes, and that has always been our goal. It was just a curt conversion and we did not understand that until we went to a completely paid service. We experienced very little churn but our event organizer conversions skyrocketed. They no longer had to sit there and make decisions between a base service or if they should choose the paid service. We had so many great features in the basic service that event organizers kept asking themselves what the catch was. That is our revenue model and it has remained since.

Sramana Mitra: What is your revenue structure? Is it a percentage of ticket sales?

Julia Hartz: We charge 2.5% plus 99 cents. It is an industry standard, we just priced ourselves on the lower end. As a startup it is important to get your product out there and get people using it. Initially we based it on the ticket price, but if event organizers entered the ticket prices as $0 then the service could be used for free. We did not think much of that until it became a significant value to us. Users were able to use

Eventbrite and become intimate with how it worked, so it essentially became an open source model for us.

Sramana Mitra: How many paid events versus free events does Eventbrite do in a year?

Julia Hartz: Last year [2009] we did 46,000 paid events and 77,000 free events. We hope to grow both numbers. People have asked why we do not charge for free events, but we have always had a gut feeling that it is very important for our model. Our conversion rate is fairly high. I know that 20% of our free users who attend an event become a paid event organizer. This all stemmed from our being a young company that wanted to undercut the competition.

Between 2006 and 2008 it was just the three of us. The market was very fragmented. We did not worry about specific competitors. During that time I planned a wedding, had a baby, and worked on this company.

Sramana Mitra: When did you have the baby?

Julia Hartz: January 31, 2008. We closed our first angel round of funding from the European Founders Fund on February 2, and we hired our first employee on February 4. For whatever reason, things in life all happen at once. We were in the hospital room signing documents to receive our first $1 million in cash, and Kevin was running over to the office to give keys to the office to our first engineer.

Sramana Mitra: How did the European Founders Fund come about?

Julia Hartz: They are known for backing companies in Europe that are great concepts that have worked in the US. They had been looking at online event registration in Europe. They wanted to do the reverse and invest in US based companies and were very excited about the space. We had not been out fundraising.

Sramana Mitra: Where were you in terms of revenue?

Julia Hartz: We had less than $1 million. The model had been validated. We are very focused on volume. When I give the orientation to new employees I don't even talk about revenue, I talk about volume. I bet most of our company could not tell you what our revenue goal is, but they can all tell you what our volume goal is. Because volume is gross ticket sales, we are helping our customers sell more tickets.

Sramana Mitra: So in 2008 you were working in a free office space with just three of you, and you were pregnant. What else was going on?

Julia Hartz: The owner of the building let us stay there free, but he asked Kevin to help attract other startups to that building. Kevin took that very seriously and brought in nine startups to that space. I was there in my fortieth week answering e-mails while holding my stomach, without AC. It was an interesting time. We had Flixter, TripIt, Boxspeed, and Zynga with a desk. We did not know what they did; all we knew is that they were always collecting checks. We joked with Andrew Trader that all he did was go around collecting checks from everyone. It was a magical time.

We were also getting ready to focus on additional things besides the product. After we raised the money we started to expand our team. At the end of 2008 we had fifteen people. I took some time off to be with the baby, but I was also still working from wherever I was. I was always on my computer in the hospital, and the nurses threatened to take the computer away and move the baby to the nursery. I did not unplug from the business, but I did not go back to the office until I was ready. I worked from home for five months. That gave me perspective regarding our maternity leave in the United States.

Sramana Mitra: What role did your mom play during that time?

Julia Hartz: Two things happened. Emma was born with a birth defect. She had a cleft in her soft pallet that they did not detect in the ultrasound. We found that out the day after she was born. Kevin went into action mode, and he was meeting with experts all over the state within the week after she was born. When you find out about something like that you want to know all the options. Surgery was something she had to have. Her surgery was at nine months.

The second thing is that three months after she was born I was diagnosed with Graves disease, which is hyperthyroid [disease]. My mom had also had Graves disease. It is related to acute stress and hormones. Between the time Emma was born and her surgery, times were very challenging.

My mom was the backbone. She was the reason we survived it. We had a business that was taking off. Kevin and I have a motto which is divide and conquer. He had to go to work the next week, and I had to get better. My parents live in Santa Cruz full time, but they rented a studio apartment across from us and they were going to be there for three months. They ended up extending their lease for a year. My mom lived around the corner from me.

Now we live in a place that has an in-law unit. She comes up one a week and spends the night as part of her regular schedule. Every three weeks she is with us all week because we are out of town for business or something. She is our backbone, and is the reason why we were able to do so much.

Sramana Mitra: You raised your initial set of funds at the time Emma was born. When did you raise money again?

Julia Hartz: Right around the time she had her surgery. The business was about break-even at that point, but we did not have a ton of cash in the bank. We thought that 2009 looked like it would be a bad year, so we thought we should raise some funds to survive it. That is when we went out to our friends and fellow entrepreneurs, and I point to Kevin as the source of this; he pulled together a very impressive list of angels. We raised another $1 million almost effortlessly, and we put in some of our own money again. It is another testament to Kevin's place in that community. He approaches entrepreneurship from the heart. He loves being an entrepreneur. We amassed a great advisory board from that.

We did not know what was going to happen in 2009. We had built a very lean, capital efficient business. Then something happened in January. That was the inauguration [of President Obama]. We had no idea how much related activity we would have on our site, and it was incredible. We saw DC explode after January 2009. It gave us rocket fuel to propel us through the year. We grew to 30 employees in 2009. In September of 2009 an advisor we had brought on our board encouraged us to raise our first round.

We had taken a bootstrapped philosophy as an almost academic decision. We had gone through the experience of raising a lot of capital. Xoom was very capital intensive and a lot of money was raised. In our case we wanted to see how far we could get with almost no money. We spent less than $250,000 in burn between 2006 and 2008. When we went out to raise money it was an incredible experience. With the guidance of our advisor we did something we never do. We went out for three weeks and told people when we were willing to accept term sheets. We were direct and confident.

Sramana Mitra: What was your revenue level when you did that road show?

Julia Hartz: We were around $3 million. More to the point, we were looking to process $100 million in ticket sales in 2009. We met with fifteen to twenty firms and knew most of them.

Sramana Mitra: Why did you approach so many firms?

Julia Hartz: We wanted the Eventbrite story out there. Honestly, it is a bit of a game. At that time VCs were just getting back to putting their money to work, and by our setting the dates we made sure that things did not drag for us, and VCs were able to make sure they saw us and did not miss a deal.

Sramana Mitra: Volume creates pressure.

Julia Hartz: We approached it more naively than that, but in the end that was one of the by-products. One of the things I learned that was astounding is that doing what you said you were going to do is rare, and it made a huge impact for us. We had been transparent with a few of the firms we had casual conversations with a year prior. Sequoia in particular had been tracking us, and they were really impressed that we did what we said we were going to do. I draw a parallel between that and hard work in the entertainment industry. It gives credibility. We ended up putting ourselves in a great position where we could evaluate several term sheets, and we did choose Sequoia.

Sramana Mitra: Did any of your investors question you about the married couple situation?

Julia Hartz: Yes, both times. I found the question to be direct and respectful. The question was asked and the answer was given, that was that. The question was always asked as "How do you work together as a husband-and-wife team?"

Early on in our career we had gone out to a dive bar with some of our friends who had worked together. They said to divide and conquer. Don't ever work on the same project, just the same goal. Work on different parts of the business, and if you have complementary skills that will get you from point A to point B faster. That was valuable advice. That is our motto and that is how we work.

Sramana Mitra: Did they ask you the question about what would happen if you broke up or if the business was not doing well?

Julia Hartz: Once we realized that Eventbrite was going somewhere and we hired people and became a company with employees, I sat Kevin down and asked him what our emergency plan was. For us, that was the prioritization part. We decided that our relationship comes first, and Emma was right there with us. The company had to be second. If anything did, or ever does, start affecting our relationship, I have already decided that I will leave the company. He would be equally sad if I were not there with him every day. We do a lot to make sure we work well together.

I learn a lot from Kevin. He has been my mentor. When we do come down to a key decision that we disagree on, Kevin is our leader. He is our CEO. There has to be a clear understanding of who is the boss. I am 110% satisfied saying that Kevin is our boss. He is credible and I believe in him. We have an extraordinary relationship because he does listen so well. He empowers me to do things I never thought I would be doing.

Sramana Mitra: How do you manage your time between your real baby and your business baby?

Julia Hartz: Our baby runs the house! Emma was born into this Eventbrite world of ours. When we talk about going to Eventbrite, she is excited knowing that mommy and daddy are going off together and that they will be back. She has been to the office plenty and has a lot of friends there.

It is not perfect. A week ago I was getting dressed in the closet when she said "Momma, I don't want you to go to work" and she promptly pulled one of her daddy's baseball caps over her face as if she were embarrassed to say that. I had a moment and had to hold her and maybe shed a tear. I knew that moment was coming. I did not know how I would react after she stated that. She just started a pre-school program two days a week, which makes her feel like she has her own thing.

We have a unique arrangement. Both of our parents are involved. On Mondays her nanny comes. On Tuesdays, Kevin's mother and father come over at 7 a.m. and Kevin and I go to staff meeting at 9 a.m. My mom comes up at 10 a.m., takes over, and stays with Emma overnight. That is Kevin's work-late night, although I come home and have dinner with Emma and my mother. Wednesdays are split between my mom and the nanny, and it is also our date night. Fridays I work from home. I take Emma to an activity in the morning and have the nanny over as well. That is our effort to not be absent parents in her life. Fridays are much more exhausting than just being at the office.

Sramana Mitra: How do you feel about your overall situation? Have you made the right choices?

Julia Hartz: I feel really good about it. I have had very little doubt. I am now terrified to see how we could include another child. Kevin is ready and I am sitting here going, "Hold on," because I just don't see how it will scale nicely and have it all go as well as it does now.

Sramana Mitra: What is your priority? Would you step back from Eventbrite?

Julia Hartz: I always want to be involved in Eventbrite. I think the compromise will come when I have to step down to a lesser role. The title thing is pointless, I can live without a title. It almost puts undue pressure. I just want to help Eventbrite succeed, whether that is what I am doing today, making large, strategic decisions such as recruiting actively and handling the PR as well as the operations, or whether it's processing checks. Truly in my heart, I don't care what my role is. That is what gives me hope. I don't ever want to hinder the progress. I sort of think that Kevin and I have a responsibility to get out of the way as we hire smart people in areas that we do not know as much about.

Sramana Mitra: What is your ownership in the company between the two of you?

Julia Hartz: It is not the majority, but it is sizeable.

Sramana Mitra: If you were both to make the decision to step back and be on the board, you would maintain a significant portion of the company, which is significant as your ramp is around $10 million right now. Is that a decision that is in the air?

Julia Hartz: No. We joke about who would be in charge if we got hit by a bus. We feel very confident that we have proper leadership in place. Julie Thompson is phenomenal, as are as some of our other great people can handle things. We have been through times when Kevin has questioned if he should stay or go on to something else. As a serial entrepreneur you are always going to be enticed by other projects, and he is a serial entrepreneur.

We will not think of an exit plan for ourselves or for Eventbrite anytime soon. We would not see that as a victory. We are not even thinking about it. If I can have another child, stay involved with Eventbrite, and keep everybody happy, then I would call that a win.

Sramana Mitra: Would you trade off the idea of having another child to remain the president of Eventbrite?

Julia Hartz: That is a good question. No, because I do want a larger family. I will probably put it off for a couple more years if I can, but we are a partnership and Kevin really wants another child. I do too, but I think the ten-year difference in our ages impacts his desires. We are a team and I am excited about another child. There are a lot of implications that Kevin may not be thinking about, but his optimism is so refreshing that it gives me hope.

Sramana Mitra: But you are the one who is going to make the sacrifice.

Julia Hartz: Exactly.

Sramana Mitra: A lot of women are struggling with that. They want to hear that they can do it all and nothing has to be sacrificed. I don't think that is the case, and I am sure you can tell them all about those struggles.

Julia Hartz: I recently asked my mom if she ever talked to me about having a family and getting married. She purposely did not talk about that because she wanted me to have my own idea of whom I would marry and if I would have kids. When I got married and got pregnant, I had a moment of feeling like "Hey, when were you all going to tell me that I was going to be expected to keep everything going as it was and be pregnant at 35. That is a geriatric pregnancy!" I was the youngest person in my OB practice to be pregnant at 28. That speaks volumes.

One thing my mom did point out was that the decision is socioeconomic and based on the region we are in. Still, the age difference between me at 28 and the oldest, who was 52, was shocking. I had the realization that our generation was fed "college then career," which I am grateful for. During the 1970s when I was being raised, everyone was questioning what to do. They had been talking about both, but for my generation we are suddenly faced with scenario B and we don't necessarily know how they fit together.

Sramana Mitra: It is incredibly challenging to have a career, let alone be an entrepreneur, AND have a baby.

Julia Hartz: I feel very strongly that I can create an environment where women who have a skill and are talented and driven are welcomed at our company. I just hired a head of customer experience who had a baby eight months ago. I have been talking to a lot of different candidates who had children nine to twelve months ago and feel they are ready to get back into the workforce. They feel that the maternity leave program we have set up in our country is not realistic.

I am personally making the commitment to not be a hypocrite. It is what it is, and I want to accept and acknowledge the fact that there is a huge amount of talent out there that has dropped out of the workforce. It is interesting because I am friends with a lot of women who are extremely talented and driven, and they put it into their kids. This may be controversial, but kids were not meant to be managed. People put their own ambitions into their children.

I think that everyone copes differently. What Kevin and I have cannot be replicated on a number of levels. At the same time, I feel there has to be a happy medium. It is not going to happen overnight. I feel as though women can be empowered, where they can have leadership roles and have a family, and I can be a part of that on a grassroots level. It is definitely not the easiest path to cut.

Sramana Mitra: The question that remains is if you can be an entrepreneur and have a baby on your own, without the support of parents. This question comes up a lot among younger women in the workforce. They want to do it all and think they can. I am conjecturing quite a bit, but most women want to have children rather than have careers. If you are faced with one or the other, that is a difficult choice.

Julia Hartz: It is biology. There is not much we can do about that. I know a fair number of people who have one child because they want to go on with their career. They want the two-year disruption and not the six-year disruption.

I think there should be a partnership in every entrepreneurial venture. Saddling a project on one person has its faults. It does not necessarily have to be your spouse, but to make something really great you have to have more than one mind behind it.

Sramana Mitra: Evidence does not suggest that conclusion. The greatest entrepreneurs are solo leaders such as Steve Jobs. Obviously, you can be successful in other ways, Larry Page and Sergey Brin are not a solo act. If there is a failure in the relationship or partnership, it is much more complex to unravel. As you said, you need clear lines and a defined game plan.

Julia Hartz: Keeping that in perspective, I think we find that most women would choose their own families over their career ambitions. It is a unique situation for each person, but generally women would choose having children over having a career. Funny enough, what is happening now is that women are trying to delay having children as long as possible, and then they run into problems having a child.

It is a greater challenge. If you are an entrepreneur and you have your own family with a child, you have to instill principles of prioritization. My model is to find my vortex of happiness. A woman who is running her own company and has children at home clearly needs a lot of support and must also be willing to sacrifice.

Sramana Mitra: We live in a place that is full of immigrants without family around, or where people do not live near their parents. The situation you have with your mother and in-laws is not available to them, and there may be no choice but to pay for daycare or hire a nanny. There are a lot of choices that must be made that are suboptimal choices.

Julia Hartz: They are also very resource intensive. When you are not making a salary it is hard to pay a nanny. Kevin and I work for below-market salaries. I will never forget when someone who worked with us said, "Hey, Julia's salary goes toward the nanny." I had never thought of it like that, but people do.

Sramana Mitra: Childcare is a major item in one's monthly budget. People do have to think of it, because for most aspiring entrepreneurs, or indeed anyone who works, it is a huge issue.

Julia Hartz: To have your own company, and to be the solo leader of that company, while at the same time having a family and a happy marriage is nearly impossible. I don't want to concede.

Sramana Mitra: You have not had to go there all the way yet because your child is still so small. But the peer pressure . . .

Julia Hartz: I know! I am totally terrified! I understand what you are saying, but it makes me wonder if it is a human issue or is it "the system."

Sramana Mitra: I didn't grow up in this country. This kind of peer pressure did not exist. My father was not coming to my athletic events. They were in the middle of the day, he was an entrepreneur, and there was no time for it. I had no expectations for him to be at my athletic events. My mom used to come from time to time, but not always. I was never upset or focused on the issue. Here, there can be the expectation that your parents will come to all of your games, all of your concerts, and all of your events. That is insane! How do we turn this around? Are children going to feel smothered and grow up resenting you?

Julia Hartz: Therapy bells up to here! We built Eventbrite by putting one foot in front of the other. Maybe that is all we can do in our parenting as well. Think about the challenges facing women. It can be so daunting that some do not even want to try.

Sramana Mitra: I can't blame the young women entrepreneurs who come and tell me that they can't take something on because of whatever list of circumstances they give. I can't blame them.

Julia Hartz: No, and you can't understand them until you have been in their shoes. Dana, who just joined our team, is away from her eight-month old for the first time. I am the only person in the company who asked her how she is doing because nobody in our company has kids. She confided in me that she cuts out at 5 but is back on by 7, and I had to reassure her that I do the same.

It is difficult, and I have the advantage of being part of the leadership team, and my schedule preceded most of the team. The amount of time that someone may spend going to lunch or playing pool, I am feeding my child, bathing her, and putting her to bed. You have to do what you have to do. I feel a bit guilty because I have not been hit with a really tough decision.

Sramana Mitra: I think that is fine. What I find healthy in your story is that you have made the best of the situation. You have taken the cards you have been dealt and you have played those cards optimally.

Julia Hartz: But couldn't that be applied to every situation? Yes, it may not be the most ideal situation. The most brilliant mind could wind up not running the company.

Sramana Mitra: Or the most brilliant mind could choose not to have a child. That is a perfectly fine choice.

Julia Hartz: Why would we think less of that person? That is not wrong.

Sramana Mitra: Society has created all these constructs where women are expected to have children. You are not a complete woman until you have a child. On the other hand, there is also this other monster going on that says

you are not a successful woman until you have a career. If you look at women in their mid-forties and fifties, many of them were married to very successful men and chose not to have careers. Their kids are now going off to college, and some women have a complete identity implosion because they live in a very success-oriented social structure where they cannot hold their own. This is causing huge social problems, including suicide and alcoholism in some women, when their children are gone.

Julia Hartz: In my childhood, my mother always picked me up from school. It was not until I grew up that I realized that my mother picked me up from school on her lunchtime. It hit me like a bucket of cold water that my mother never had a career, rather a series of part-time jobs so that she could be there to pick me up from school. She had never spoken of it or mentioned it. It was not until I went to college that she developed her career as an editor. I am so proud of her, but sometimes I wish she would have made me take the bus.

Sramana Mitra: It is a complex topic, and then there are all these men who want to say that we just need to put a network together and then everything will come into place. They don't have a clue!

Julia Hartz: I came into this conversation thinking, "I can't believe I am doing this, because I don't have the answer to these questions!" I can say that having the moment I had right before I had Emma was very powerful. To get to where I am now, I feel a great sense of accomplishment. What am I going to do? Imminently, I am going to have another child and try to one-up myself. It sounds absurd, but I am excited.

Sramana Mitra: You also have options.

Julia Hartz: I have a lot of options, and that is why sometimes I feel hesitant to speak to groups of people. All I can say is that what has worked for me and I will let others pull anything they can from my experience if it can help them in theirs.

Sramana Mitra: It would be grossly unfair for either you or me to sit here and say "you can do it, no problem." There is a huge problem!

Julia Hartz: Everyone's vortex of happiness is in a different place. It is so incredibly complex. Sometimes I just think we are going to evolve in a circle where women can stay home and men can go back and hunt and gather. We'll evolve in a circle. That does not make me happy, but at the same time having a child is so difficult. It is the most incredible thing to grow and conceive a child, let alone raise one. Are we being short-sighted trying to integrate children into our greater ambitions? I like to think that Emma is a part of our tribe and we are moving toward the same goal.

Sramana Mitra: I am probably ten years older than you are. I have to say that the conclusion I have come to is that you have to honor who you are and make your decisions based on that. If you try to live up to society's expectations, your parent's expectations, your family's expectations, your husband's expectations, or your friends' expectations, then you are bound to end up in a zone. You will be incredibly unhappy.

Julia Hartz: I think I have learned that along this journey as well. I have had to make uncomfortable decisions such as taking Fridays off. I took Fridays off to be a happy mom and wife. I had to have confidence and self-esteem to make those decisions.

Sramana Mitra: I think self-esteem is incredibly important. You have to have enough self-esteem to make the right decision as it applies to you and not to fulfill somebody else's expectations. This has been a very good conversation. Thank you for taking the time to discuss your story.

Fat Startups

Cross Domain Innovation

We started the book with Tableau Software and continue on with FireEye, further elaborating on the general theme of cross-domain innovation.

Christian Chabot, CEO of Tableau, says: "They say that the greatest innovations are born from strange bedfellows." FireEye's founder Ashar Aziz found his sweet spot at the cusp of virtualization, networking and security, industries that he had insights into, and that generally, did not talk to each other. "What we do is a combination of very deep system level work in virtualization and operating systems, as well as network-level packet processing," Aziz says.

And he loses no sleep worrying over the thought that some big giants will come in and replicate what he has done. "Large companies are very busy doing release 6.5 of the previous 6.0 version," Aziz says. "They cannot take many different things and put them together. They do not have the varied domain expertise to put it all together."

You can read the full interview with Ashar Aziz below. This interview (Oct 2008) was long before FireEye took off in the marketplace. But it gives you visibility into some of the core thought processes that went into envisioning what became a multi-billion dollar 'unicorn' company.

At its heart is a real, big problem that Ashar thought was worth solving. It was early, the market hadn't fully started realizing the pain. But eventually, Ashar was right in his bet. In 2011, the company did $33 million in revenue, followed by $83 million in 2012, and $161 million in 2013.

In September 2013, FireEye went public nine years after its founding. The company had raised more than $85 million in venture capital from Norwest Venture Partners, Sequoia Capital, DAG Ventures, Juniper Networks, Jafco Ventures, In-Q-Tel, Silicon Valley Bank and Goldman Sachs.

Note also, that this is not your popular lean startup. Instead, FireEye is a fat startup that had to make intensive R&D investments.

Finally, note that the company did hire an outside CEO, and the founder took on the CTO role. However, during the IPO, he still owned close to 10% of the company that became worth almost $400 million.

The company's 2014 market cap is over $4.5 billion.

While FireEye was heavily funded by VCs including Norwest and Sequoia, the lack of domain expertise to work with cross-domain innovation is a real issue in most venture firms. The level of conviction it would take an early-stage investor to understand three different fields and synthesize the learning in terms of technology, business models, go-to-market strategy and people is rare in today's Silicon Valley and altogether absent elsewhere in the world.

This raises a major question: How does cross-domain innovation get brought to market? Contrary to lean startups and web ventures, high-impact cusp ventures require real investment up front to assemble cross-domain teams and fund extensive R&D. The gestation periods are longer, but so are the impact and the returns. Not all of them can be bootstrapped to validation, certainly not unless the entrepreneur has personal capital to play with. Ashar did not. His previous venture had failed.

Interview with Ashar Aziz, FireEye

Ashar Aziz is one of those rare entrepreneurs who received a $100 million education during his first startup. For his second attempt he has managed to pull a cross-domain venture together. Ashar highlights the entry barrier created against competition when you assemble cross-domain expertise within one company. The cascading set of competitive advantages then includes technology, business models, financing, and talent across domains.

This interview with Ashar Aziz was conducted in October 2008.

Sramana Mitra: To start, take us back to where your story begins.

Ashar Aziz: My story begins in Pakistan. I was born in Karachi, and grew up in Islamabad. I still maintain a residence in that part of the world. When I was 13, one of my cousins told me I was smart and that there was a technical school out there called MIT, which was the best in the world. At the time I didn't know how to get there, but I decided to pursue that opportunity. The way I went about it was a bit odd.

I didn't know the address, so I went to the American Center where they told me I couldn't go there for undergraduate, only grad school. That was completely untrue. But there was a scholarship for a school in Turkey, and I heard if you went there then you could go to MIT. So I decided to try for that scholarship, and I ended up winning it. And true enough, there were two people who went to MIT from that school every year as transfer students. I managed to be one of those two, and transferred to MIT as a junior.

Sramana Mitra: Very entrepreneurial of you.

Ashar Aziz: Yes, my role models where superheroes and entrepreneurs like Ironman. I always wanted to build something and make a difference. I didn't know any better way to do that than by being an entrepreneur. A technologist can either work somewhere or can build something that can have a bigger impact. After I graduated from MIT, I came here to the Valley.

Sramana Mitra: Where did you work?

Ashar Aziz: I ended up working for a small startup, making disk controllers. I then went to Berkeley for grad school, and worked for a little company in Berkeley that did Unix and networking. That's how I got into Sun Microsystems. It was great for me because there were a lot of smart people at Sun and I learned a lot from them. They had the smartest people in the Valley.

I didn't know how to become the entrepreneur I wanted to be, but it did seem to me that I would need some credibility to get there. I decided to pursue the highest technical level possible at Sun, which at the time was Distinguished Engineer. I made that after about four or five years at Sun.

But five years in, I was still spending a lot of time thinking about the idea of getting a business going. I had a lot of thoughts, but I lacked the confidence to pursue my dreams. I didn't know how to execute. The confidence to go pursue something when you haven't seen people around you do it can be a difficult thing to obtain.

Sramana Mitra: How did you finally gain the confidence to launch your startup?

Ashar Aziz: It was completely fortuitous how I finally got off the ground. One of my VPs at Sun became a venture capitalist, and I had a meeting with him in 1998. At that time I felt the computing infrastructure was very inefficient; it was manual, labor-intensive, and not optimized. I wanted to create a virtualized infrastructure.

Terraspring was started over this conversation with him, explaining my concerns. I didn't even have a business plan. He called me afterwards and told me he enjoyed our conversation, and that if I wanted to build a business around it he would fund it.

Sramana Mitra: That was your seed capital?

Ashar Aziz: That's what I used for seed capital. I recruited two engineers from Sun who were working with me at the time, and we started to build the vision, still without a business plan.

Sramana Mitra: How much money did he give you?

Ashar Aziz: He gave us $500,000. In addition to that we were EIRs [entrepreneurs-in-residence] at Mohr Davidow Ventures. We worked there for four months, refining the technology, business idea, and go-to-market strategy. The trend at the time was services, so we started out building a next generation Exodus. We were planning on building intelligent datacenters, not just the technology to power them.

Sramana Mitra: All of the virtualization you were planning on doing would have been executed in your own datacenters?

Ashar Aziz: Correct. We weren't going to provide existing datacenters with the technology. We were overly ambitious because that's how people thought at that time. But the technology was really awesome. Along the way not only did I raise about $70 million in further investments with folks like Hewlett-Packard, EMC, and Accel Partners, but we were at the executive level of all of those companies – we were building the virtualized platform that was recognized as the platform of the future.

The vision was right; we just did it too early. This technology just started to get used in 2008. As luck would have it, the market crashed in 2001, and we had to salvage what we could. We decided to make it a software company, but even there we had problems making the transition from datacenter into software. It was painful, we had to let go of people.

We had a very large acquisition offer from one of my investors. But we turned it down, which was a mistake. It was more of the hubris of 2000. They gave me a $30 million software deal our first year, which was just awesome. So now we had $30 million in revenue – add that to the investments received, and we went through $100 million in my first startup. That was my $100-million education.

Sramana Mitra: A $100-million education – wow! You better have learned the lessons very well!

Ashar Aziz: You can't get that at Harvard or Stanford! The interesting thing wasn't necessarily learning what to do; rather, it was learning what not to do.

Sramana Mitra: Besides biting off too much, what are some of the other things on your list of "what not to do?"

Ashar Aziz: Cash. I was not the CEO, I was the CTO at the time so I can't take full blame or credit, but the lesson is this: cash, cash, cash. We went through a lot of cash. We were spending $5 million a month pre-revenue. It hurts me to think about it because I raised that money. That's part of the lesson I want to carry on. You have to be very, very tight when you spend money. The only time you do an expense increase is when it's absolutely necessary. In the old days you raised a lot of money, then you spent it.

Sramana Mitra: That brand of entrepreneurship is gone.

Ashar Aziz: It is gone now, but it was possible then. In fact, people expected it. So we had a tough time, but then Sun came in and acquired the company. It wasn't the best outcome for the employees or the investors because it was 2002, the bottom of the bust. But I was able to walk away knowing the vision was right. The mistake was biting off too much and requiring too much capital to get to stage one. The higher the capital intensity, the greater the risk of ultimate failure. If you're going to build a business, build it with the lowest level of capital intensity; get into the revenue stage with a minimal amount of cash. You can do three startups with $100 million, which is what's so painful about my first startup.

Sramana Mitra: Your point about capital intensity is very important. First-time entrepreneurs, in my opinion, should not take on capital-intensive projects. They don't know how to manage capital.

Ashar Aziz: No, they don't. They should be given a constraint: "Here's $5 million or $10 million – let's see what you can do with that."

Sramana Mitra: Over the course of time – they should not even get that in one shot.

Ashar Aziz: Definitely, over time. Take two years to spend the money and get to a proof of concept, a product with a revenue stream, and a market validation. That's what needs to be done.

Sramana Mitra: That is a discipline that entrepreneurs need to put on themselves. If they do, they will maintain control of their company. It is a milestone-based, disciplined approach.

Ashar Aziz: That will maximize the chance for success. If you're in a place where you need another $20 million to get to the next stage then things become very hard. I learned that lesson the hard way.

Sramana Mitra: What are the positives you took from the first venture?

Ashar Aziz: I'm gratified now to see that our idea wasn't stupid. When the company was sold I sent a note to all of my investors thanking them for their support. I told them that whether we were the ones doing it or not, I firmly believed our method was how computing was going to happen in the future. And I see that happening now.

Sramana Mitra: Another point we should emphasize is that timing is a critical issue for startups.

Ashar Aziz: A vision is great to have but you get no brownie points for being too early to market. For an entrepreneur it's tricky to balance timing. You can be too early and the market is not there, or too late when there are too many competitors. There is a strike window, but it's not obvious where that strike window is.

Sramana Mitra: You need a lot of luck to hit it just right within that window.

Ashar Aziz: It's like landing a fighter jet on an aircraft carrier; the landing strip is very tiny and moving all over the place.

Sramana Mitra: Have you developed any mechanisms to identify that window of opportunity?

Ashar Aziz: Here is my very generic advice for entrepreneurship, which you can apply to any domain. Generally, an entrepreneur is looking for opportunities. The question to ask is why are incumbents not taking advantage of the opportunity? If there is food at the table, why are the bigger guys not eating it?

My philosophy is that problems create opportunities. Look for problems. There are plenty of problems that already have solutions, so the question is what kind of problems should you be looking for? The answer is that you're looking for new problems. New problems exist where there's change or discontinuity. And new problems create opportunities, but they only exist in a small window. You have to strike at that window. This is where luck is on the side of the entrepreneur. The incumbents are poorly positioned to target something moving and in flux. Gaps open in the market but incumbents aren't nimble enough to jump into that gap because it's not large enough for them yet. Entrepreneurs must have a reason to believe that the gap will get bigger, then jump in.

This is one of the problems when you're a technical entrepreneur. People design something really cool and then think, "I wonder if I can make a company around this?" That is absolutely the wrong way to think. Don't approach it from a design aspect, but rather from a problem aspect.

Sramana Mitra: This is something I have experienced a lot in my consulting life. Somehow Silicon Valley is great at coming up with solutions that are looking for problems. Of course they have no idea what the problem is!

Ashar Aziz: That's a great way to describe it. I also like to point out that the problem has to be the right size. It can't be so large that the big players are already taking it on, but if it's too small it won't sustain a business.

Sramana Mitra: Market discontinuity is vital in this aspect because it drives the timing aspect and keeps new problems coming.

Ashar Aziz: That's when to strike. When it's coming around, jump in. Before you make the jump just make sure the problem size is large enough to sustain a growth period.

Sramana Mitra: The solution also must be architected to take advantage of the existing parameters of the world.

Ashar Aziz: Absolutely! You're not living on Mars! It has to fit into something people are used to doing. You have to become part of an ecosystem, otherwise you're expecting the stars to align for you, and that seldom happens.

Sramana Mitra: How do you, as an entrepreneur, follow your own advice? How do you pursue new opportunities?

Ashar Aziz: I actually maintain a notebook of ideas. I develop multiple ideas in parallel in that notebook. FireEye is one of the ideas from that notebook. The ideas are written there so I can go back and read how this was developed. I had three other ideas developing at the same time, and they were good ideas as well. In fact a couple of them have been launched by other entrepreneurs, and were funded.

Sramana Mitra: If it is a good idea, somebody else must have thought about it also!

Ashar Aziz: Exactly! There are a lot of bright people out there. When I was trying to juggle the sets of problems that were emerging, and trying to quantify the change that I could capitalize on the question I asked was: "What is my unfair advantage in this picture? What skills do I have, what domain expertise or marketplace knowledge do I have, or what is it that I bring to the table that allows me to have an unfair advantage over others?" I applied that filter to all of the ideas in my notebook and I picked this one.

With this startup it's a combination of virtualization, which I did in my previous startup, and my work at Sun, which was network security. I knew a lot about both areas. I combined them to solve a problem, which I knew was going to be huge – the current malware problem. There are multi-billion dollar TAMs around the problem of getting infected via the Internet. Anti-virus and anti-spam products do a poor job of protecting against malware via the Internet.

From the perspective of my previous startup, FireEye is a complete domain shift. Going from a virtualized computing infrastructure to security and deep malware control is a big jump. The interesting part is that while the market is different, I've been able to leverage my domain knowledge in operating systems, virtualization, and networking. That gave me the unfair advantage to come up with the blueprint for this unique approach.

Sramana Mitra: You had a unique combination of domain expertise and technical expertise, which is rare.

Ashar Aziz: It probably is, and it's what gave me the unfair advantage. There are a lot of things out there you can do as an entrepreneur, but when somebody else comes into the picture you have to figure out a way to out-execute them. That's where the unfair advantage principle is useful.

Sramana Mitra: Oftentimes when you straddle different domains, you develop a greater "unfair advantage" because most people spend their entire careers in one domain.

Ashar Aziz: Bingo! This is a great point because multiple-domain disciplines are hard to put together, especially in a large company. Large companies are very busy doing release 6.5 of the previous 6.0 version. They can't take many different things and put them together. They don't have the varied domain expertise to put it all together.

Sramana Mitra: Not to mention they are not cross-functional.

Ashar Aziz: They aren't designed that way. They talk about it – it's a nice buzzword – but they're not designed that way. A startup is uniquely designed to pull different people from varied backgrounds, and build something that straddles domains.

What we do is a combination of very deep system-level work in virtualization and operating systems, as well as network-level packet processing. In the industry these are two very different things. You may have a company like 3Leaf, which is very deep into systems but doesn't have a network-level device. You may also have an IPS, which is doing header processing. Combining those two in a single company is very hard. I lose no sleep over the thought that these giants will come in and replicate what I've done.

Sramana Mitra: Let's talk about the specifics of FireEye. What is the marketplace like?

Ashar Aziz: When I started FireEye I was looking for the boundary of change. I was really looking for a big problem, and getting infected by malware via the Internet is a global problem. I read a lot of literature about how malware could evolve and make traditional defenses obsolete. The blueprint for the bad guys was out there on the Web, but there was no blueprint for the defenders.

In 2004 it was the Internet of random scaling worms – Blaster and others infected millions of systems. As nasty as those were, the reality is they were toys written by children. If you look at the concept of infection and implantation of software without the owner's permission or awareness, it could create complete chaos.

Malware didn't have a business purpose in 2004. Its purpose was to make the kids who were writing it happy. However, their tools were very powerful for thieves. If I'm a thief I have two motives: first, I want to make money, and second, I don't want to get caught. The thief is working through malicious software so evasion must be a very important part of software evolution. The challenge I had was that these issues were building in 2004, but they weren't there yet. I had to start building with the belief that these types of systems would get there. Our business was a pre-emptive strike. It was important for both cybercrime and cyberwarfare, which is something I think we'll see in the future. Both elements are still on the drawing boards.

Cybercrime and the ability to make money come with payloads. The old malware was just like a missile, but there was no payload attached. Now malware comes with payloads, which can download key loggers, steal your credit cards, steal your company's intellectual property, or steal your data. It becomes something you can monetize. Today there are billions of dollars moving around in the underground economy, which is very scary. That means cyber criminals have a large cash cow and thus greater incentive to avoid getting caught.

That was the genesis of FireEye. The blueprint to answer this challenge needed to be created from scratch, which is what I spent the first six months of my time in my living room doing. It was a tough problem because when malware comes across the wire, if you go away from signature-based solutions, which is pattern matching, you don't know what you're looking for. It's going in 100+ gigabit traffic flows, and you don't know what you're looking for, but you have to find it every time, and you cannot have false alerts. That's a very tough problem.

Sramana Mitra: Tell me how you solved that problem.

Ashar Aziz: The ultimate solution was actually quite simple. When you're building a detector, you have to be good with both false positives and false negatives. If you're building an alarm system you don't want the motion detector to go off when there's a fly in the room, but you do want it to go off when there's a thief in the room. The problem is that a thief can be very stealthy. If the thief starts to look like a fly, or moves very slowly, how do you catch that thief?

The only way to do that is to have a very sensitive detector. But the problem with a detector like that is it will trip constantly. We applied that principle as a subsystem in our product. We built the detector as a front-end capture system. It's not the entire system. We intentionally built it to be an ultra-sensitive detector. If there's a fly, it will capture the fly and give it to another system to detect what that fly is.

The goal of the front end is to not miss. Traditional heuristic systems try to minimize false alerts; we minimize missed attacks. We take all of the captures from the front end, which will include a lot of false alerts, and pass them to a set of virtual machines. They act as virtual victim machines. They pretend to be like the real system. The captures from the front end, which could be bullets on the wire, are transparently shot at the VMs. If the VM gets infected then we know it's a bullet. It's almost like a food tester. That's the phase where we get rid of all the false alerts.

Sramana Mitra: Quite elegant and simple. I love that aspect of it.

Ashar Aziz: I can describe it in two minutes to a CIO. There was a lot of hard work from the team that went in to put all of this technology together. The implementation and efficiency of managing that system is what we've focused on for the past three years.

The Web is the most prolific source of malware today. One of the things that happened is the infection vector of malware shifted over the course of a year or two, while I was building this technology. Over the past year and a half we figured out that it wasn't coming in over vulnerabilities on the operating system, it was coming in over the Web. We shifted and adapted our platform to work with malware as it was coming in over a malicious Webpage, affecting your browser, as opposed to coming in and affecting the operating system through RPC.

That product is now on the market. I just deployed it this week at two or three of the largest companies in the Bay Area. Almost as soon as we deployed them, alerts started lighting up like a Christmas tree.

Sramana Mitra: Are corporations now feeling the pain? Is it real?

Ashar Aziz: The evasive nature of the problem is part of my marketing challenge. Old noisy malware rang a lot of bells, but didn't do much damage. Today, malware doesn't ring many bells but it does a lot of damage. They are thieves, and they are trying to be as quiet as possible.

Sramana Mitra: Could I summarize your challenge as solving perception versus solving pain?

Ashar Aziz: That's a very good way to describe it. There are some proactive people who understand there's a gap. As I speak to savvier computer security organizations, I see they're very aware of this. Google did a study on their content cache and found that a substantial portion of their cache is malicious. That means the entire Internet is a gigantic minefield.

Sramana Mitra: How did they do that test?

Ashar Aziz: They ran a pre-filtering algorithm similar to what I did in phase 1, only they were doing it in batch mode. They looked for suspicious pages, ran them in VMs, and were able to identify the malicious logic that way. They have the advantage that the pages are cached, not on the wire. That allows them to analyze as they need to, and they can see the true depth of infection on the Web.

Sramana Mitra: Are you starting to see case studies you can actually share?

Ashar Aziz: We'll have some very soon. Two days ago I installed in another large company and the sensors lit up while I was still there. One of their finance systems was infected and under remote control from the outside. They had to immediately shut off the switchboard – they're a public company. That's a pretty significant example of the type of impact we can have on an organization. Before we came, there were no indications of anything wrong with their systems, but once we installed we were immediately able to show them where the infections were.

Sramana Mitra: You are picking pilot projects at the heart of the company – a great way to break through in this market.

Ashar Aziz: Intellectually, it's a very easy argument to make. I can make that argument to Wall Street or anyone. If we bring the system in, we will actually show the real exposure.

Sramana Mitra: This is a great effort. The Bay Area used to be chalked full of such real innovation, then we fell into the foo-foo stage.

Ashar Aziz: The technology is what inspired me. It was very interesting and challenging to build. Given my background, I had to do a technology project; otherwise, I wouldn't be using my advantage.

Sramana Mitra: Congratulations. I'll keep an eye on your work!

Note: In 2011, the company did $33 million in revenue, followed by $83 million in 2012, and $161 million in 2013. The company was valued at over $4.5 billion in 2014.

How To Navigate The World Of Fat Startups

While it is true that these days, we focus a lot more on lean startups than startups that require capital to get going, 'fat startups' still play an important role in developing large-scale success stories with significant defensible competitive advantage. In the FireEye story, we saw how Ashar Aziz has used cross-domain innovation to build a business that has scaled to an over $3 billion market cap.

The bulk of the industry has moved away from the 'fat startup' category. Investors expect that you will have your product launched, customer acquisition model fleshed out fully, and a team in place before Series A.

However, infrastructure software, hardware, networking, chips – they need capital. Even in cloud software, to build complex technology like personalization and analytics requires some serious investment.

While in the 1M/1M program, we steer people mostly along lean startup paths, I have pondered and investigated the question: How do people fund 'fat startups' these days?

I am seeing a few trends:

One, you need track record to get VCs to write big checks right away, so, often, it is the serial entrepreneurs who get these opportunities.

Two, some VCs incubate such companies with their Entrepreneurs In Residences, who are typically serial entrepreneurs.

Let’s talk about Palo Alto Networks, a leader in cloud security. Founded by serial entrepreneur Nir Zuk, the company managed to pull off a concept-financing round of $9.4 million to get itself going.

Prior to Palo Alto Networks, Nir was the CTO at NetScreen Technologies, which was acquired by Juniper Networks in 2004. Prior to NetScreen, Nir was co-founder and CTO at OneSecure. Nir also served as a principal engineer at Check Point Software Technologies, where he was a lead developer of inspection technology.

Juniper acquired Netscreen in February 2004 for $4 billion. Nir had strong feelings about what was happening at Juniper once he got there, and recommended that the company built a new Firewall product.

“Pretty much the entire world was using technology that we invented at Check Point in 1994. It just did not make sense to keep using ten-year-old technology. Hackers did not sleep for ten straight years, although anti-virus vendors did. It got to the point that firewalls were not really doing anything, and everybody knew that firewalls were not doing anything. Despite that, 80% of the network security budget was spent on firewalls and 20% of the budget was spent on anti-virus products that stay behind the firewall.

As an entrepreneur, I recognized that there was an opportunity. I wanted to build something that would cover 100% of the market. I asked Juniper for $10 million and 25 people to build a new firewall based on the Juniper operating system. I did not even hear an answer back, so I left. I raised $9.4 million from Greylock and Sequoia. We hired 20 people, some of whom were people that I wanted to work with on the project at Juniper.”

It was pretty much concept-financing, he says. "I had five PowerPoint slides, and the next day we had a term sheet. Of course I had connections and background, and I was dealing with top-tier VCs."

Palo Alto Networks started selling the product in August 2007. Bookings shot up to $100 million in 2010. The company spent $49 million to get to cash flow positive, and went public in July 2012 at a valuation of $2.8 billion. In 2014, its market cap is over $6 billion.

Obviously, the path this company followed to arrive at these impressive numbers was not a lean startup methodology. Nir hired 20 top notch engineers right here in Silicon Valley – a very expensive proposition – to get the company off the ground. With deep domain knowledge, they achieved product-market fit early on, and revenues sky-rocketed.

Nir made those choices because he could. VCs were willing to write a $9.4 million check to bet on his domain knowledge and track record as a serial entrepreneur in that domain.

For first time entrepreneurs, the options are more limited.

The most viable option is to bootstrap using services.

Deep domain knowledge in a certain field may also give you access to capital.

A coherent, high-powered team that is willing to work for equity and build a prototype, along with a clear vision of product, customer need, customer acquisition model may, sometimes, work as well.

A few examples from our research:

Ash Ashutosh is a serial entrepreneur who worked as an EIR at Greylock, a top venture firm, and once he scoped out the market need, Greylock gave him the money to build the product. In effect, Actifio, Ash's fat startup, was incubated inside Greylock, the venture firm.

Andres Rodriguez, founder of fat startup Nasuni, has deep domain knowledge in storage and he is a serial entrepreneur with track record. Raising money was based on those two core factors.

Alon Maor, CEO of fat startup Qwilt, demonstrates an interesting use of bridge financing with Series A (typically, the first institutional round of financing) already negotiated. The product was released 20 months AFTER Series A, which means, the Series A financing happened without much other than a clear vision of what the product was going to be and feedback from customers that they wanted the product.

Alon says, "In our case, since we are approaching the carrier space which is a large software-based capital intensive project, the incubation we did was through 15 worldwide carrier references. We had endorsements from those carriers who said they were behind the idea and recognized our approach as the future of the market."

Alon did something very nifty. He went to Silicon Valley VCs and sold the concept, got an idea that they would be willing to fund his Series A based on the proven customer interest. He also put together a high-powered team of 10 people with deep technical expertise ready to join upon funding in his home country, Israel.

Then, and, here the story gets really interesting, he went to a set of angel investors in Israel who knew him from prior companies, and raised a seed round as a bridge into the Series A.

Complex? Yes. Smart? Yes. I would say, very smart.

In this case, seed funding happened because of a combination of factors: domain knowledge, customer interest, VC interest, and evidence of a strong team ready to come on board post financing.

Austrian entrepreneur Alexander Zache has deep domain knowledge in Art Auctions. He is a first-time Internet entrepreneur from a family steeped in the arts business. He managed to raise series A financing from VCs in Berlin on a slide-deck that explained the core concepts, including a phenomenally lucrative business model: Auctionata takes 20% commission from Buyers and 20% from Sellers, competing head-on with Christie's and Sotheby's.

Alex says: "Yes, and we have a very credible strategy for bringing that business online. When I look back at that presentation today, I can see that we have executed exactly what we said we would. We have also hit the revenues exactly as we said we would."

Please note, there are certain VCs who are particularly good at these kinds of investments, especially Asheem Chandna and Vinod Khosla come to mind in the IT infrastructure space. Asheem Chandna's investment in Delphix is a good example of funding a fat startup based on a concept. Delphix was founded in 2008 by entrepreneur Jedidiah Yueh who had earlier founded and sold data de-duplication company Avamar to EMC for $165 million. Vinod Khosla is one of the very few VCs who has not abandoned his interest in Cleantech, a capital-intensive industry where the lean-startup model has limited applicability.

While the industry is obsessed with lean startups these days, I believe there is tremendous value in understanding how to continue to build fat startups as well, alongside the lean ones.

Interview with Nir Zuk, Palo Alto Networks

Nir Zuk is a serial entrepreneur and the founder and CTO of Palo Alto Networks. Prior to Palo Alto Networks, he was the CTO at NetScreen Technologies, which was acquired by Juniper Networks in 2004. This interview with Nir Zuk was conducted in September 2010, three years after their first product went on sale and started racking up serious revenues very quickly.

Sramana Mitra: Let's start by reviewing your background. Where are you from?

Nir Zuk: I was born and raised in Rehovot, Israel. The Weizmann Institute of Science is there; it is one of the top research institutions in the world. As a result, Rehovot is a very scientific town. I was exposed to science throughout my life.

Sramana Mitra: Were your parents affiliated with Weizmann at all?

Nir Zuk: No, my mother was a school teacher and principal and my father was an engineer.

Sramana Mitra: What did you do as you were growing up? What was the path that led you to where you are today?

Nir Zuk: I always liked technical themes. When I was in fifth grade, I received my first computer. I taught myself how to write code and I started to develop software. When I was fifteen I received my first PC and continued programming. Like everyone in Israel, I had to go into the military. I did that service from 1990 to 1994.

Sramana Mitra: What happened after you came out of the military?

Nir Zuk: In the army I had computer jobs in Israeli intelligence. In parallel, I was studying mathematics. A bunch of guys from my unit started a small company called Check Point Software. A few years later when I left the military they recruited me to go work there, so I was one of the first employees at Check Point. Today it is a $1 billion–plus company. In 1997, I came to Silicon Valley when Check Point started an engineering group here. Eventually the company became too big for me, so I left in March 1999.

Sramana Mitra: When you left Check Point, did you know what you were going to do?

Nir Zuk: I knew I wanted to start a company. I was looking for a good idea and ended up starting a company in early 2000. It was called OneSecure and it built the first intrusion prevention system in the world. That is a device which complements the firewall.

Sramana Mitra: How did you start OneSecure?

Nir Zuk: A friend introduced me to Rakesh Loonkar, who was also looking to start a company. He had a term sheet for $25 million to start a company, and he was looking for a technical person to help him start it. It was very easy to get $25 million back then. You really did not have to do anything.

Sramana Mitra: What was the concept behind the company?

Nir Zuk: The idea was to build a security device and offer it as a managed service. We built a service and found it challenging to get customers. We did have a few customers, but they were mainly service providers.

Sramana Mitra:Why was it so difficult to get customers at OneSecure?

Nir Zuk: A few months after we started the company, the [tech] bubble burst. Companies suddenly started watching their money. I also believe there was another key factor. At the end of the day, our managed service would replace the work that was done by individuals within the company. If someone else manages your security, it saves a lot of time and money, which sounds great, but we did not take into count that by doing that we were eliminating the jobs of the individuals who would recommend our service to their employers.

Sramana Mitra: Within the enterprise, who were you selling to?

Nir Zuk: We would sell to the security group or the networking group. Our service had the potential to eliminate jobs in that group.

Sramana Mitra: There should have been a boss of those groups whose job would not have been eliminated.

Nir Zuk: Yes and no. The thing about security is that they like to build and manage empires. They are not interested in giving their empires away.

Sramana Mitra: What did you do when you realized that the premise of your company would not fly?

Nir Zuk: We burnt money. It was easy to burn $25 million.

Sramana Mitra: You burned $25 million and then figured out the business would not fly?

Nir Zuk: Yes. We then raised more money. Some of our existing investors re-invested and we found some new investors as well. It was the 2000s, after all!

Sramana Mitra: Did you decide you were going to do something else at that point?

Nir Zuk: Yes. We decided we were going to stop selling it as a service and start selling it as a product. First, we reduced the size of the company. We did not need the service people and we did not need as large of a sales force. We focused on productizing the product. It took us from July 2001 until the end of 2001 to make the switch from a service-based company to a product-based company.

Sramana Mitra: Did you validate your new proposition before making the strategic shift?

Nir Zuk: Not really. We did validate with a few customers. I think the process of validating before going to market is great and you can do it, but if you look at a lot of great companies their path was different. Their technology was so disruptive and unique that it could not go to customers first.

Sramana Mitra: Who were the customers that you did validate the product concept with?

Nir Zuk: Some of our existing customers. Usually in our space, you focus on large financials. If you win them, you win the market. We did not go out and do a big market validation.

Sramana Mitra: There are always product visionaries when it comes to high tech, and if you know who they are you can have validation without doing a massive validation operation.

Nir Zuk: Certainly. We did a validation, but there are various types of validations. We did not do the type of validation that you see product managers trying to do. We did not go out to customers, showing them the complete feature list. We did know that customers had a pain point with our previous service model, so we had a basis for our evolution. We already had validation of the pain point, and some validation that our method to ease the pain would work.

Sramana Mitra: When you did your validation, did you find any other pain points?

Nir Zuk: The major pain point was that companies were spending a lot of time and money on network security and monitoring security events on their network. They did not have the capability to stop security events. Companies would learn about a security breach well after it had happened. They then had to work to remedy the incident. That would often require a significant amount of work because they had to go to every single machine that had been hacked and fix it. If companies are able to prevent attacks, they eliminate a lot of the need to monitor things.

Sramana Mitra: Nobody had an intrusion prevention system before that?

Nir Zuk: There were intrusion detection systems but not intrusion prevention systems. The detection systems only had to worry about monitoring, whereas when you build a device that prevents attacks it must be built to sit inline with the stream of traffic. It is a much more robust device.

We started selling our system in the beginning of 2001. We sold it for two quarters. The first quarter we did $400,000 in revenue and the second quarter we did $750,000 in revenue. By the end of the third quarter we had been acquired by NetScreen.

Sramana Mitra: How much money did you end up raising for OneSecure?

Nir Zuk: We ended up raising $50 million, and we sold the company for about $50 million. We sold the company in such a way that the investors received some of the proceeds. The employees received a much larger portion of the proceeds. We had earn outs, and back then the stock of NetScreen was depressed. We sold the company for about 5% of NetScreen. The people that stayed with the company received another big chunk of stock, so in total it came to about 8% of NetScreen. Three years later NetScreen sold to Juniper for $4 billion.

Sramana Mitra: How long did you stay at NetScreen?

Nir Zuk: I stayed through until it was acquired by Juniper. I was able to stay at Juniper for only eleven months, which was actually longer than the other executives lasted. I was the chief technology officer at NetScreen.

Sramana Mitra: While you were the CTO of NetScreen, did your IPS vision become a big part of the revenue stream?

Nir Zuk: It did become a big part of NetScreen's revenues as well as its message. However at some point NetScreen stopped paying attention to that solution because we had several more urgent issues, particularly with network management. My company had a lot of people with experience in management systems, so we took those people and built a network management system.

As a result, the intrusion prevention product did not get as much attention as it should have, and that continued into Juniper. Right now Juniper's IPS is considered one of the worst in the industry because it has not changed in five years. It went down from being one of the top three solutions to being the bottom solution on the market.

Sramana Mitra: How did it make you feel to watch your IPS drop to last in the marketplace when you were at Juniper?

Nir Zuk: I did not like Juniper at all. The first day after they acquired NetScreen they came and explained to us that we did not know what we were doing and that they needed to teach us how to do sales, marketing, and engineering. Juniper is a great company, but they really screwed up that acquisition.

They acquired NetScreen in 2004, and I left in February 2005. Before I left I tried to get them to start a project to develop a new type of security device. Juniper was in the process of taking NetScreen technology and converting it into Juniper products under the Juniper operating system. I tried to make that case that if they were going to do such a large engineering effort, they should build a new firewall because it did not make sense trying to do the same thing that had been done for the past ten years. For various reasons they chose not to pursue a new firewall.

Sramana Mitra: Did you make that recommendation because you saw a new opportunity?

Nir Zuk: Pretty much the entire world was using technology that we invented at Check Point in 1994. It just did not make sense to keep using ten-year-old technology. Hackers did not sleep for ten straight years, although anti-virus vendors did. It got to the point that firewalls were not really doing anything, and everybody knew that firewalls were not doing anything. Despite that, 80% of the network security budget was spent on firewalls and 20% of the budget was spent on anti-virus products that stay behind the firewall.

As an entrepreneur, I recognized that there was an opportunity. I wanted to build something that would cover 100% of the market. I asked Juniper for $10 million and 25 people to build a new firewall based on the Juniper operating system. I did not even hear an answer back, so I left. I raised $9.4 million from Greylock and Sequoia. We hired 20 people, some of whom were people that I wanted to work on the project at Juniper.

Sramana Mitra: When you went to raise money, was it purely concept financing?

Nir Zuk: More or less. I had five PowerPoint slides, and the next day we had a term sheet. Of course I had connections and background, and I was dealing with top-tier VCs. When I look at VCs, I prefer to work with ones who have been entrepreneurs. Those MBA types do not always understand reality.

Sramana Mitra: How long did it take you to get the product out?

Nir Zuk: We started working in January 2006. It took us one year and three months to get our beta version out. We knew we wanted to build a new type of firewall, but we were still missing the go to market strategy. We did not know how to go to companies that had invested tons of money in firewalls and convince them that this little startup from Silicon Valley had a product that was significantly better. That was a huge barrier.

We then devised a go to market strategy which was to build a device that sits behind the firewall that customers would find compelling enough to purchase, and later on we would go ahead and consume the firewall. Some customers bought it as a firewall, but most did not.

Sramana Mitra: What did your new product do if it did not replace the firewall?

Nir Zuk: The fact is firewalls could not see the traffic. They looked for IP addresses and port numbers. A lot of applications were built in such a way that they would bypass the firewall by going through port 80 or 443. The firewall was not able to differentiate.

Sramana Mitra: Who were your first customers? Were they in the financial industry?

Nir Zuk: No, the finance industry is hard to get into. Our first customers were high-tech companies here in Silicon Valley. One of our first customers was SanDisk, a cutting-edge company. We also had an Constellation Energy, a Fortune 500 company on the East Coast. We found that new customers came on quickly because companies started to recognize that their existing solutions were not solving the problems they were facing.

Sramana Mitra: What changed?

Nir Zuk: We became pretty good at convincing customers to evaluate our product. We would get them to commit to having our product on their network for one week, in a completely unobtrusive way. Once they had our appliance on the network, they were able to really see what was going on. We had compelling marketing and great customer references. Once you have that, it is like a snowball.

Sramana Mitra: What happened after you gained your first few customers?

Nir Zuk: We spent most of 2006 working and started selling the product in August 2007.

Sramana Mitra: How have your sales ramped up?

Nir Zuk: Today our bookings run-rate is north of $100 million. Our plan is to more than double revenue in 2011.

Sramana Mitra: What is an average deal size?

Nir Zuk: We have many six figure and even some seven figure deals happening every quarter now. In the early days we sold directly even though we are a company that conducts 100% of sales through channel partners. My people had to do the hard work in the early days to build momentum for our channel partners. Today, most deals come from partners.

Sramana Mitra: How long did it take for you to build up your channels?

Nir Zuk: Our channel partners were interested even before we had a product ready to sell. We were completely stealth about what we were doing, so the only people who knew what was going on were people who we had worked with in the past. They were people who had sold for us at Juniper and Check Point.

Sramana Mitra: However, your product was behind the firewall, so you were not going against Juniper and Check Point, correct?

Nir Zuk: In the early days we were sitting behind their products. We did not want to wake those companies up or provoke them. We sold our product as a complementary item. Our channel partners were having problems making sales with Juniper because Juniper was taking a lot of sales directly. Check Point kept squeezing their channel parnters as well. That led to us getting a good number of hungry channel partners.

Sramana Mitra: What is the next big milestone or inflection point in the history of Palo Alto Networks?

Nir Zuk: Until the beginning of 2008, we were running the company with an interim CEO. At that point we realized we needed a professional CEO. I have seen the process of bringing on a CEO work in some companies and fail in others. We as founders had to recognize that we were not necessarily the best people to actually run the company.

Dave Stevens was brought in by Sequoia. We wanted to have a business partner and we spent a good deal of time in our search. We did not just meet with potential CEOs; we tried to sit down and work with them. Our business plan was not complete at the time, so we would have them work on that with us. I did believe the company had some key values and I wanted to make sure the CEO shared those values.

Sramana Mitra: What were those values?

Nir Zuk: One value which was hard to find someone to support was that we, as a company, would be 100% U.S.-based. It was very important for me that we did not offshore or outsource. We do all our development and manufacturing here. That was important to be for several reasons. I am a U.S. citizen, even though I did not grow up here. I want to support the United States, not India and China.

I believe that it is a social responsibility of entrepreneurs who were educated in the United States, or learned how to be entrepreneurs in the United States, to give back to the United States. They should not take their skills to China or India. The second side of that is that I just do not believe in offshoring. In the early days of a company, everybody needs to be in the same building. It is easy to find a partner who says they will share that philosophy. It was hard to find a partner who would make that fight with investors.

Sramana Mitra: Was it a lot more expensive to do it all in the U.S.?

Nir Zuk: I think it is cheaper to do it here rather than to offshore it. The perception is otherwise, and it is hard to convince investors. We built a product with 25 engineers that is much more feature rich than anything our competitors have.

Sramana Mitra: Cost of development is also attributed to quality design. Perhaps you gained significant savings because of that?

Nir Zuk: We saved money because we were able to hire extremely high quality engineers in the United States. You can't hire the same quality of engineers in China or India. You can find them in Israel, and you can find them in parts of Europe.

Sramana Mitra: There are plenty of successful Indian companies that have done extremely complex software engineering tasks. Zoho has a thousand engineers and has replicated the entire office suite.

Nir Zuk: You don't need a thousand engineers to do that. I heard the exact same story when I started this company. Check Point has 600, Juniper 1,000, and Cisco 3,000 engineers working on their security products. I have 60 engineers today, and they are all in the United States. We are competing very successfully against all of those companies with a fraction of the number of engineers.

Sramana Mitra: I definitely agree that you do not need an excessive number of engineers.

Nir Zuk: Yet that is what ends up happening when companies go to India. Companies hire thousands of engineers because they can afford it.

Sramana Mitra: Yes, they do hire more engineers there because they are more affordable. However, if you wanted to find 25 high-quality engineers in India or China you could do it. I cover that space extensively and can give you thousands of successful examples. You are right that companies starting out of India and China struggle and that is because they do not have the product marketing skills and go-to-market strategies. They are too far removed from the customer base.

Nir Zuk: It will be extremely hard for you to retain them in India. I know only the space that I compete in, and every company that has used that model has failed. There is not a single successful company in that space. Juniper failed in that model. When they acquired NetScreen their engineering was almost 100% U.S.-based. Today, they are almost 100% based in India and they can't compete anymore. Startups in our space have failed using the same model. My philosophy is that you need to be where the market is. I believe very strongly that in the early days of a company it all needs to be in one space. That is another key aspect of my philosophy.

Sramana Mitra: I don't think the entire company needs to be in one spot. The design team needs to be close to the market. Management of your development is a skill set. If you do product architecture, product management, and product positioning close to the customer, then you can do development offshore if you are good at management. I think what is important out of this is that you found investors who shared your values and strategy.

Nir Zuk: Yes, it was very important to me. Another value I had was to only hire extremely good engineers. That means spending money and equity on engineers. I had arguments with my investors on it. I don't do business by giving engineers 0.1% of equity.

I met a bunch of potential CEOs who came from large companies. They immediately started talking about building a team, and we did not even have a product yet. I needed a CEO who was willing to get his or her hands dirty. We needed an early-stage CEO who understood that they would later be replaced one the company became successful. That happened in 2008.

Sramana Mitra: How did that transition go?

Nir Zuk: It went OK, but our early-stage CEO left before we had a new CEO in place. As a result, our VP of marketing stepped in as CEO and left the company as well once our permanent CEO was hired so that he could go be a CEO at another company. We had a few issues with lead generation. Few companies fail to recognize that lead generation is the most important aspect of marketing, and our new VP of marketing is extremely good at lead generation.

Sramana Mitra: Today, does Palo Alto Networks still sell just one product?

Nir Zuk: Yes, although we have added a lot of features to it. We have mid-range and low-end platforms.

Sramana Mitra: How much money have you had to raise to get this company running?

Nir Zuk: We have burned a total of $49 million to get to a cash-flow positive position. That is unheard of for a systems company, and we are doing it all in the United States. We raised more money than we needed. Our first round was $9.4

million, which got us through our prototype and to shipping of the first product. We then raised $18.6 million, which was easier to do because we had good customer feedback by then. The second round took us through our second year, followed by a third round in which we raised $26 million. When we closed that round the market started going south. The round was oversubscribed, so our investors told us to take an additional $10 million on that round just in case. In total, we raised $65 million and have used only $50 million of it.

Sramana Mitra: Now that your company is generating cash, how do you view your available market?

Nir Zuk: I think we will reach the point where we are doing $1 billion in sales. Right now, we have 2 percent of the firewall market. About 70 percent of our business is replacing firewalls and the other 30 percent of our business is replacing other devices in the network that supplemented firewalls and are no longer needed. Typically, our customers save 60–80 percent of their network security budget over three years. We offer customers not only innovation, but cost savings. You can't build a company on cost savings alone in our market.

Sramana Mitra: What are your plans for the future? I don't know that you can get to a billion dollars in sales off one product.

Nir Zuk: Not one product, but we can get there in one market. My goal is to get there in less than five years. Our plan is to go public, but we have to do it at the right time. The right time to go public will involve many factors. There is a board to consider. The market needs to be ready. I don't want to go to public too early and become an acquisition target.

Sramana Mitra: Your are fortunate because your company has not been around a long time. You can take another three or four years because your investors are not itching yet.

Nir Zuk: That is true. The way companies are being valued in public markets depends on revenue. Doubling sales does not always double the value of the company because of other factors. A company with a billion dollars in revenue will be treated differently. Going public is a milestone, not a target for me. The main reason to go public is to have currency to grow via acquisition and other means.

Sramana Mitra: What percentage of the company do you still own?

Nir Zuk: Between 5 and 10 percent. I think that is the right level. It was very important to me that our early employees and engineers get compensated well which meant I needed to give up equity. I am fine with that. I believe that when you spread the wealth it pays back.

One thing we do not allow at Palo Alto Networks is egos. There are companies that hired the best engineers in the Valley and later found out they have egos the size of the moon. At Palo Alto Networks, everybody does everything. When I hear somebody say "this is not my job" I will take them at their work. We need people who do everything. We don't hire people because of their political skills.

Sramana Mitra: Human beings are inherently political and social.

Nir Zuk: There is no way to avoid it, but there is a way to delay it and mitigate it. I see my role as a founder of the company to delay it as much as possible. I don't allow people to play politics. Small teams help, but they are not always possible. There have been a few politicians who had to leave the company. Right now, it is manageable.

Sramana Mitra: Good luck, this is an excellent story!

A Latin American Unicorn From Argentina

There is a market of 500 million people – nearly 8.6% of the world's population – that the business media all too often neglects, serving up story after story on China and India. Forgotten is all of Latin America.

Between 2000 and 2007, the number of Internet users in Latin America grew from 18.1 million to 122.4 million, a compounded annual growth rate of 32% compared with only 12% in North America during the same period. Average penetration across Latin America was approximately 21.5%, compared to 71.4% for the US. Even with such low penetration, Latin America's Internet population represented close to 10% of the world's Internet users.

Fast forward to 2014, numbers have exploded, touching 300 million. Analysts forecast 393 million users in 2017.

Not surprisingly, Latin America is developing its own collection of Internet stars. One of those is a Unicorn: MercadoLibre, which translates to "free market", is an online marketplace that facilitates the buying and selling of computers, electronics, photography equipment, household items, even cars. Stanford Business School graduate Marcos Galperin started it in 1999 in Buenos Aires, Argentina. MercadoLibre invited me to visit the company in the autumn of 2007 and advise them on strategy. What I learned impressed me. Although MercadoLibre had a rocky start, the company is now delivering stellar results, with a market cap close to $5 billion.

The moral of this story: It takes patience to build a great company, even in Internet time.

In its original incarnation, the company had a pure auction platform modeled after eBay. Galperin and friends, despite originally being from Argentina, weren't sure what the Latin American market would tolerate. Sitting around the Stanford University campus in sunny and wired California, they could not possibly have imagined that it would take so long for the Internet – let alone online auctions – to gain adoption in Latin America. Silicon Valley, after all, is a reality-distorting environment that makes us entrepreneurs extrapolate wildly!

Latin America had less than 3% Internet penetration in 1999, and already 40 companies were doing exactly the same thing as MercadoLibre. While MercadoLibre had some venture money and was developing software, they had to wait for customers to materialize. And during that Godot-like wait, many of their competitors went out of business.

Ironically, Galperin believes the dot-com crash actually helped MercadoLibre. "There was no more financing. We were lucky, because we were able to do our second round of financing just after the crash in May 2000, and we closed out a $46 million round." Other companies were short of cash, except for DeRemate, a direct competitor started by some Harvard University graduates. The funding crunch lasted for almost five years. "All of the smaller competitors died away. It helped us tremendously," Galperin recalls.

Even Mercado's backers were skittish and threatened to shut the company down and take back their money. Venture capitalists are not known for their patience. They tend to get really anxious when markets don't develop really quickly. Other entrepreneurs had their doubts, too. Luis Riviera, a native of Venezuela, who later became Chief Executive of Lyris, was asked to join MercadoLibre in 2002. He turned the company down, citing lack of market maturity in Latin America.

But gradually the market itself, once a dream, became a reality. Revenues started to materialize for MercadoLibre. "After the drought between 1999 and 2002, I believe we did $4 million in 2003, and $12 million in 2004. In 2006 we did $52 million," Galperin says. For the year ended Dec. 31, 2007, MercadoLibre's annual revenue increased by 63.5% to $85.1 million.

That was the year the company went public – in the midst of another financial crisis. "We were quite unlucky in that we did our road show in the middle of the subprime crisis," recalls Galperin. "The day we priced, the market broke 400 points. And the day our stock went live was the day the Fed, the European Central Bank and the Bank of Japan, all intervened in the markets and gave liquidity, which was something that had not happened since Sept. 11, 2001." Despite that, the stock performed well.

MercadoLibre has become the No. 1 online marketplace for Latin America. It facilitates the buying and selling of merchandise in the same way eBay and Amazon do. Items range from computers, cameras and MP3 players to furniture and household items, even Toyotas. The business, unlike eBay's auction-based model, is primarily driven by fixed price transactions. In that sense, they are closer to Amazon. MercadoLibre also has an online payment offering a la Paypal called Mercado Pago, which is seeing good adoption and has huge potential to facilitate commerce in the Latin America market.

MercadoLibre has evolved into a strong brand that many people on the street recognize. Its team is well set and stable. Unlike Silicon Valley or other "hot" markets such as India or China, attrition is low, making it easier for the company to bank on the talent base that has been trained and matured on its clock.

Some of MercadoLibre's strength came from simply outliving its local competition. Language and culture, I believe, are substantial barriers to international competitors, as multinationals like Google and Yahoo! have discovered in China. (Even so, eBay had a 20% stake in MercadoLibre – a smart strategy for the US company.) The region does not have an active venture capital industry, so competition has continued to be limited. Those factors give MercadoLibre a nice, clean runway to build a dominant Latin American e-commerce business without a lot of interruption.

The moral of this story is that in an emerging market, if entrepreneurs can get in early, and get a group of deep pocket investors to back them with a very long term view, gigantic companies can be built. The same story is playing out with Flipkart in India, which we will discuss next in the Unicorn series. Other geographies that offer such opportunities are Africa, Indonesia, and Russia.

The trouble is, investors seldom have the confidence to bet on a strategy like this, and for entrepreneurs, it is an uphill task to convince them.

Interview with Marcos Galperin, MercadoLibre

I first heard of MercadoLibre when I received a call from the company, inviting me to Buenos Aires to help with their strategic planning. This interview with Marcos Galperin was conducted at the cafeteria of the company's Buenos Aires headquarters in December 2007, during the lunch break on one of the days during my visit. In the basement of a tall building, the cafeteria was bustling with hundreds of people – all MercadoLibre employees – and we found ourselves a corner to sit down and talk.

Over the course of the days I spent with the MercadoLibre team, one thing became obvious to me: Latin America is ripe for an entrepreneurial outbreak akin to what India and China have experienced.

Sramana Mitra: Let's go back to the story before MercadoLibre. Let's start with your background – where did you grow up?

Marcos Galperin: I grew up here in Buenos Aires. When I was 17, I went to college in the US. I studied at the Wharton School at the University of Pennsylvania from 1990 to 1994. When I graduated I came back and worked for an oil company which was the largest oil company in Argentina. I did Finance there for three and a half years. Afterwards I went to do an MBA at Stanford. When I came back I started MercadoLibre.

Actually, I started it when I was at Stanford. I wrote the business plan and contacted investors in a class there. One of my professors put me in touch with one of the founders of a private equity fund; he let me drive him back to the airport after he came to speak to our class. I gave him an abbreviated business plan, and he thought it was great. That is how it all started.

Sramana Mitra: Your co-founder was also in your Stanford class, yes?

Marcos Galperin: Hernan [Kazah] had accepted a job at a different company which was also a startup, but he agreed to help me out with some marketing ideas. He basically never stopped, and he became my co-founder.

Sramana Mitra: And your idea at the time was eBay for Latin America?

Marcos Galperin: That is exactly how we thought about it. Through Stanford, we contacted classmates and people at eBay to get a sense of where Latin America was on their radar, to see if it made sense for us to launch something or not.

Sramana Mitra: Did you get the sense that eBay was not focused on Latin America? What was the Latin American Internet market at the time? What kind of Internet penetration?

Marcos Galperin: It was very small. There was 3% penetration, roughly. Today it is 20%, so it can still grow a lot. Out of that 3%, e-commerce was probably 10% or less. It was very, very small. One of the things I think we did right, relative to the rest – there were 40 companies doing exactly what we were doing – some of them raised more funds than we did. But all of them spent all of their money doing mass marketing, doing the Pets.com strategy.

We saved our cash and developed our products. From the very beginning, we focused on building a good product and our IT backbone. That is a very big difference between us and everyone else in the region.

Sramana Mitra: Which other companies were able to raise financing besides you?

Marcos Galperin: There were a couple of others. DeRemate was founded by a Harvard group, so it was a huge rivalry.

Sramana Mitra: Harvard people do not make good entrepreneurs?

Marcos Galperin: At least these ones didn't. They were very big on spending money and doing PR, but not very good at building their company and building a good platform.

Sramana Mitra: What was the source of your technical expertise?

Marcos Galperin: The second person to join the team was my cousin. He was the CTO, and had a very technical background. He was with us for a few years and then he stepped out. He groomed our current CTO before he left.

Sramana Mitra: What were some of the early milestones that gave you the indication that you were starting to be successful?

Marcos Galperin: At the beginning there were not that many!

Sramana Mitra: Having just 3% Internet penetration must have been very frustrating!

Marcos Galperin: Exactly! We tried to focus more on milestones which were operational but not necessarily revenue. We still remember the first time someone came and paid their bill at the office. We still have the PDF of the scanned check. We tried to focus more on the platform, and expanding to other countries and ensuring we had a team in every country. The business was a very small business in the beginning.

We always have fun reading the eBay story. Checks started arriving to Pierre Omidyar's home because the guy who hosted the site for him told him he was having too much traffic and they would need to start charging Omidyar, so he sent an email [to customers] saying that he would have to start charging because he was being charged. Checks started arriving in such a large quantity that he realized he had a business – he actually hired someone just to take care of the checks. In Latin America, that would never have happened! We spent a lot of time waiting for the checks.

But we did two things well. One was to focus more on the platform and less on mass marketing. The other one was to understand the differences between implementing a business model in the States or Europe versus implementing one in Latin America.

Sramana Mitra: What were some of those key differences?

Marcos Galperin: The way buyers and sellers interact is different. eBay was very big into ensuring buyers and sellers could interact before the transaction. We felt that if we let them interact before the transaction we would never collect a payment. Instead we created a Q&A message board which ended up having very important side benefits. The message board is a great community generating tool. It is a great customer service tool for the seller who only answers questions once. It is great for buyers because you see questions which you perhaps may not have thought to ask, but which will make you feel more comfortable knowing the answer to.

It ended up being great at preventing phishing and fraud schemes to sellers. In the old eBay system, if you could contact the seller then you could solicit information from the seller. eBay eventually disabled the ability to send an email to the seller. Fraud rates are very, very low on our platform and we believe that is one of the reasons why – nobody can ever get our sellers' email addresses.

Sramana Mitra: What was your platform in those early days – an auction platform or a fixed price platform?

Marcos Galperin: Complete auction platform, and today it's a 90% fixed priced platform. Another thing we did different is that we did not like the Buy It Now feature on eBay. We used it as a transition from pure auctions to a fixed priced environment, but very rapidly we took it away and just left two options – auctions or fixed priced. Overwhelmingly, and across different countries, sellers were choosing to use fixed prices for their items, with the exception of used products or items where the market prices were difficult to determine.

Sramana Mitra: Is it a C2C or a B2C business?

Marcos Galperin: It is mostly B2C, with small businesses. 75% of the items sold are new items and we believe most of them are small businesses which are selling them.

Sramana Mitra: Do you have any idea as to what percentages of small businesses in South America are using MercadoLibre as a platform to sell?

Marcos Galperin: I cannot give you an accurate answer there.

Sramana Mitra: It is an interesting metric to look at, since retail is a relatively weakly organized sector in the region.

Marcos Galperin: I think we could get a good estimate of the number of small businesses in a region, and then see what number of sellers we have in a region. That could give us a percentage.

Sramana Mitra: Your business, the vertical penetration of the business, is it primarily consumer electronics and gadgets?

Marcos Galperin: I would say 50% is consumer practicals – gadgets, computers, photography equipment, etc. The remaining 50% accounts for all other services and sales.

Sramana Mitra: You also have a strong automotive category.

Marcos Galperin: Car auctions are very strong for us.

Sramana Mitra: Did the dotcom crash in the United States impact you here?

Marcos Galperin: Yes, because there was no more financing. We were lucky, because we were able to do our second round of financing just after the crash in May of 2000, and we closed out a $46 million round. Nobody else was able to access cash, with the exception of DeRemate – they were able to get more funds. Most companies were not able to get financing for 4-5 years, which gave us a great advantage. All of the smaller competitors died away. It helped us tremendously.

Operationally, before the crash, it was all about building the platform. After the crash, it was about building the business. From 2000 to 2003 is when we grew the most. People here continued to adopt the Internet, the telecoms continued to invest in broadband.

Sramana Mitra: What was Internet adoption like in 2003?

Marcos Galperin: I do not remember year by year. I think the evolution was somewhere around 10% per year.

Sramana Mitra: What type of revenues were you seeing in 2003?

Marcos Galperin: I believe we had $4 million in 2003. I would have to check that number, but 2006 was $52 million, and in 2005 we had $28 million.

Sramana Mitra: You raised $46 million in financing in the middle of 2000! I find that unbelievable.

Marcos Galperin: Exactly. Two years later we only had $2 million in revenue.

Sramana Mitra: How did the investors feel about that?

Marcos Galperin: In 2001, we barely managed to avoid one of our major investors shutting down the company. The founders still had a good number of shares, so we were able to outvote them.

Sramana Mitra: How did you manage to keep a good number of shares with a $46 million preferred share investment?

Marcos Galperin: The valuation was quite high.

Sramana Mitra: No kidding! What was the valuation?

Marcos Galperin: We do not disclose that.

Sramana Mitra: That is an amazing deal. The investor in that round was a private equity firm, you said.

Marcos Galperin: The lead investor was Goldman Sachs. Others also invested, such as Chase Capital, GE Bank, Banco Santander Centro Hispano, a large bank in Europe and throughout Latin America.

Sramana Mitra: In 2003 you had $4 million in revenue, and $12 million in 2004. Were the investors starting to warm up to the idea?

Marcos Galperin: Yes, they were wanting us to be profitable as soon as we could, but eBay was a shareholder by then and they believed it was more valuable for us to continue gaining market share and growing our top line rather than focusing on whether we made or lost half a million per year. We agreed with that. We could have become profitable in 2004, but we decided not to. We became profitable in 2005.

Sramana Mitra: How many employees did you have by 2005?

Marcos Galperin: I believe we had about 200 people.

Sramana Mitra: Is it expensive? How much does the workforce cost in South America?

Marcos Galperin: It varies by country, but it is typically much cheaper than what it is in the US. It depends on the type of person you are looking for.

Sramana Mitra: Are the technology skill sets easy to find?

Marcos Galperin: The technology market in Argentina, where we hire most of our people, has heated up a lot. It is getting harder to hire people.

Sramana Mitra: So you grew well through 2006, and in 2007 you went public. How was the IPO received in the investor community?

Marcos Galperin: Very well. The stock went up quite a bit. We were quite unlucky in that we did our road show in the middle of the sub prime crisis. The day we priced, the market broke 400 points. And the day our stock went live was the day the Fed, the European Central Bank and the Bank of Japan, all intervened in the markets and gave liquidity, which was something that had not happened since Sept. 11, 2001. Despite that, the stock preformed – we went out at 18, and the stock is now trading at above 40.

Sramana Mitra: Your investor base is mostly institutional investors, right?

Marcos Galperin: Mostly US institutional investors.

Sramana Mitra: US Mutual funds?

Marcos Galperin: Today we do not have a very clear picture of exactly who holds our shares. During the IPO, Tiger and General Atlantic both put a relatively large allocation. We need to see results of the most recent quarter. We believe there are other large funds which have been buying our shares, but we have not been able to confirm that.

Sramana Mitra: Is there a particular type of analyst who is responding to the stock, such as Latin American analysts or technology analysts?

Marcos Galperin: Mostly it is the technology analysts, and recently we have received some Latin American coverage. In our road show, we have focused much more on the technology global growth investors. We think as shareholders, they are much more likely to add value. They have seen different stories in different parts of the world, and understand the differences in business throughout the world.

Sramana Mitra: They won't panic either.

Marcos Galperin: No, they won't. They understand the challenges and know what we are doing to address them. They can also see where the future market is going.

Sramana Mitra: What is the plan going forward? The IPO went well, the market is going well, adoption is increasing – where do you see yourself headed?

Marcos Galperin: Continuing to focus on what we are doing. We got into our industry in the very early stages in Latin America. We want to continue being very concerned about the trends going on. We need to focus on regional trends to ensure we know what to change and where to adapt to successfully grow in the region. I think for the next 5-10 years we will continue to focus on that rather than anything else. We have our open payments platform [Mercado Pago] in Chile. Originally it was a closed system with an escrow component, and would not work outside of MercadoLibre. We converted that to an open system, much like the PayPal model, and we believe that is a powerful business opportunity.

Sramana Mitra: Does PayPal operate in South America?

Marcos Galperin: You can withdraw money but you cannot fund a PayPal account. They do not have a Spanish speaking site either.

Sramana Mitra: What is your dynamic with eBay today? Competitive or collaborative?

Marcos Galperin: They own 18.5% of MercadoLibre. They are a very big shareholder. We have a very good working relationship with them. We have had very good best practices sharing in the past. Our non-compete agreement expired in September of last year, but we continue to do best practice sharing. They are focused right now in regaining momentum in the US and Germany, their two biggest markets where growth has slowed a lot. As we were saying earlier, the markets we compete in are different, and the formulas work differently. I think they are happy to be minority shareholders and have a local team that drives business at this stage. That is also what they ended up doing in China. They were a minority shareholder, and then they bought everything, then went back to being a minority shareholder.

Sramana Mitra: In India they bought the largest provider, Bazee.com.

Marcos Galperin: I think the group in India was much smaller than we are though.

Sramana Mitra: They were. Am I reading this right - that you are the type of team that is more interested in building the company as opposed to flipping it?

Marcos Galperin: We have been building it for 8 years now, so we better be into building!

Sramana Mitra: Are you tired?

Marcos Galperin: No, I am not tired at all. We just had our end of year party, and I gave a message there. We have opportunities now like we have never had before. Unlike other periods when we were losing money, or as we were saying before, just focusing on the platform, but the business was not there, now the business is there and we are growing and we are profitable. Everyday we have more cash in the bank than we did the day before, which is a good feeling for us because for many years that was not the case. Now we have the cash, we have the team, we have a very strong platform, and we have a very strong brand. Add to that all the opportunities there are in this space, and it is an exciting time.

Sramana Mitra: How does the entrepreneur network in Latin America work? Are there many entrepreneurs in Latin America now?

Marcos Galperin: Yes, there is a foundation called Endeavor Foundation. They select entrepreneurs in their region and then support them. This foundation was founded by Linda Rosenburg and Peter Kelner, two Harvard graduates. They got the big private equity investors, Latin American market investors, and emerging market investors, and they involved them in the founding of this organization because they wanted entrepreneurs to have access to these people. They do an incredible process of selection.

Sramana Mitra: Is it like an incubator?

Marcos Galperin: No, not exactly. They do a process to select you, which is really competitive. Potential entrepreneurs present their business plans to different panels in their respective countries. This is now in place in 12 countries. Each country sends their finalist to a final panel in Miami. This organization started in South America, but it is also in Turkey and South Africa now. It will continue expanding in the Middle East as well.

The judges are big investors, entrepreneurs from all over the world. A consensus vote is required – just one vote against the entrepreneur means they are not elected. By the time you are elected, you have really gone through an extensive process. Once you are elected, you are plugged in with all of the entrepreneurs in Latin America, South Africa, Turkey and the other expansion areas that the Foundation plays in. This is very useful. The board of each country is made up of very influential people. When an entrepreneur encounters a problem, they are able to take it to their network and really get help dealing with it.

Sramana Mitra: It sounds like a great model.

Marcos Galperin: It is a very interesting model. It has been thought of as the best way to help emerging markets. Rather than giving money to poor people, the support goes to the people who give jobs to the poor.

Sramana Mitra: Have there been a lot of success stories?

Marcos Galperin: I just went to the ten-year anniversary in New York because we were the first Endeavor company to do an IPO.

Sramana Mitra: You are the poster child of the Endeavor program, that is great!

Marcos Galperin: Thank you, it has been a great experience building MercadoLibre.

India’s Unicorn Company Aims High

We discussed already that emerging markets can offer tremendous opportunities to build significant businesses if investors are willing to be patient, which they are not known to be. Let’s look at India’s e-commerce market as a case study.

Relatively speaking, the Indian e-commerce market has grown at a slow pace.

Compared to India’s 2013 market of ~$2 billion, the Chinese market was ~$300 billion, surpassing the US as the world’s largest e-commerce market.

Forrester says, India had a total population of 1.28 billion in 2013, of whom, nearly 16% or a little over 200 million are online. Only 14% of the online users currently purchase online (~30 million).

Forrester expects the online buyer population in India to grow to 128 million by 2018.

Many factors stand of the way of India’s online shopping adoption. For one thing, Indian consumers do not like to pay with credit cards for merchandise they shop for online. Remember 1993 America? Consumers were slowly getting comfortable with putting in their credit cards on online shopping sites. India’s situation is not so different from the 1993-95 America. Whereas China has made a gigantic, concerted leap into the 21st century, India is still muddling along with a low-trust society that prevents high velocity business growth, a terrible infrastructure with poor logistics and supply chain capabilities, and an overall lack of reforms that can accelerate growth.

All this has created an advantage for Flipkart, the market leader, to create a strong brand, invest in supply-chain, and get ahead. Flipkart was founded in 2007 and bootstrapped for two years by Sachin and Binny Bansal, before receiving its first institutional financing of $1 million from Accel Partners in 2009. Once Accel invested, and Flipkart was able to position itself as the horse to bet on for the Indian e-commerce market, money started to flow in, even though the e-commerce market was not growing at a fast pace.

Investors decided they would basically invest in 'making' the market – a decision they seldom make.

A financing bonanza followed: $10 million in 2010, $20 million in 2011, $150 million in 2012, $360 million in 2013, and over $1.2 billion in 2014.

In July 2014, the company raised its most recent round of $1 billion financing valued at $7 billion.

Of course, investors do not build companies, entrepreneurs do. Flipkart's run rate has crossed $1 billion in 2014, so the entrepreneurs have executed well so far. They have also followed a roll-up strategy, acquiring players like Myntra, a strong player in the Indian fashion vertical. They have built an immense logistics infrastructure, something the Indian market lacks completely. There is no equivalent of UPS for reliable delivery!

While the policy malaise thus far in the retail sector has worked in Flipkart's favor, giving them a strong competitive position, I happen to be of the opinion that if major foreign retailers were allowed to come and do business in India, they would make solid investments in improving the logistics, supply chain, as well as increase the overall TAM for e-commerce.

Ultimately, Flipkart and other Indian retailers would benefit tremendously if India's consumers got more used to buying products online, without the need for sand in the gear like cash-on-delivery, having to build their own delivery service, etc. If, for example, hundreds of e-commerce businesses were doing billions of dollars of business, strong logistics companies would also get built with robust financing and growth.

And finally, Internet adoption itself has been slow. China's Internet population has surged to 564 million (75% on mobile). India is at less than 1/10th the number. The e-commerce number can only grow fast if the Internet penetration grows sufficiently fast.

Recently, a couple of exciting things have happened. Amazon responded to the Flipkart financing announcement saying that they would invest $2 billion in the Indian market.

Also, the election of Narendra Modi as India's prime minister is likely to ease the protection for the retail sector, opening the market up further.

All this should accelerate the market, offering strong opportunities for growth, and new e-commerce companies to be created.

Interview with Sachin Bansal, Flipkart

Flipkart is India's flagship e-commerce success story. This October 2010 interview is a conversation with Sachin Bansal, the architect of that success, on how he and his partner Binny got started.

Sramana Mitra: Sachin, let's begin by exploring the genesis of your story. What is your background?

Sachin Bansal: I am originally from Chandigarh, which is the capital of Punjab. My business partner, Binny, is also from Chandigarh. We are not related in any way, it just happens to be a coincidence that we are now working on Flipkart together. We both grew up in Chandigarh and went to the same schools yet did not know each other well. I went to the Indian Institute of Technology in Delhi, where I studied computer science, and that is where I really got to know Binny because he was studying computer science as well.

We graduated from IIT in 2005, and we took different jobs in Bangalore. I joined a company called Techspan. Our paths converged again in 2006 when we both joined Amazon, India. Amazon was building Amazon Web Services which is very big now. We built things like Amazon S3. Their services have powered more than half of the startups in the United States.

Sramana Mitra: When did you begin thinking about doing your own startup, and was your original concept Flipkart?

Sachin Bansal: We started thinking about that in the middle of 2007. That was driven by the fact that everybody we knew in Bangalore was working hard building great technologies, but they were building them for U.S. companies. We could not relate to that. Amazon is a great business, but as users we could not relate. Binny and I decided to start something on our own and see how it went.

Sramana Mitra: You wanted to build a company that catered to the Indian market?

Sachin Bansal: Yes. We wanted to have customers we could relate to. We thought about our parents, friends, and cousins. We wanted to build something that they could use.

Sramana Mitra: Once you had decided what type of company you wanted to build, what path did you take to build it?

Sachin Bansal: We both approached the problem from a typical software engineering mentality. We felt we could write some code and make a million dollars. We did not want to make something that requires a lot of running around. We wanted to write some code and make a successful company, and we felt we could do that with a comparative shopping engine.

Sramana Mitra: Why did you decide to write a comparative shopping engine?

Sachin Bansal: They were big in the U.S. but there were not any in India. We started doing some market research. We found that there were almost no other sites to compare against. Rearden Commerce was the only company that had any real offerings in India, but it was not really doing a good job. We concluded that comparative shopping in India would probably be a bad thing because there was no user market.

Sramana Mitra: It could definitely have been a sign that the market was immature.

Sachin Bansal: Exactly. That is when we decided to just build an e-commerce company. It was just two people who knew nothing about business starting a business out of their homes. We were good only at writing code and we had a basic idea of how to provide a customer experience. We had limited capital. We had to figure out if two guys sitting at home could do a better job than a whole team of engineers in a well-funded startup. We were very optimistic and thought we could. We both quit our jobs in September and launched the site in October 2007.

Sramana Mitra: When you launched your e-commerce site, what were you selling?

Sachin Bansal: We were selling books online. We had searched for product categories to focus on, and books came out as a very strong category for a small business like ours. The cost of setting up an online bookstore is lower, and the risk of products getting lost in the mail is lower as books do not cost as much as other items such as cameras. Books don't get damaged easily in transit. Books are also a very high margin business with the benefit of negative working capital. Finally, they are not very expensive, so the amount of money a customer has to spend to try out your service one time is very minimal.

Sramana Mitra: Explain how it is a negative working capital business. How did you source the inventory, and what were the terms?

Sachin Bansal: We spoke with a lot of book suppliers in Bangalore. They were distributors who had been supplying inventory to bookstores throughout the area. We approached them and explained that we were a small company and asked them if they would be willing to work with us. The first time they all said no. They had two people like us coming to them almost every day and asking the same types of questions. They could not differentiate which offers were serious and which ones were not.

We re-approached them and demonstrated that we were indeed good with technology. They had also heard that before. We then asked them to simply tell us their terms. We managed to get deals with two suppliers out of 25 in the city. We just started with them.

The terms required us to pay in cash every time we placed an order, and that we had to go to their warehouses to pick up our orders. In the end we did most of the heavy lifting because we were the new faces to the suppliers.

Sramana Mitra: How much money did you put into acquiring inventory to sell?

Sachin Bansal: They had computer systems which maintained inventory of their stock. We received a download of that every day.

Sramana Mitra: So you were taking orders online and then going to the suppliers and fulfilling orders from their warehouses?

Sachin Bansal: We would just pick the books up at their warehouse, but we had to take them to our place to pack and ship them.

Sramana Mitra: In terms of working capital, however, you did not have to buy an initial inventory.

Sachin Bansal: If we had to buy that inventory it would have taken a lot of working capital.

Sramana Mitra: Were you able to get the entire inventory of both suppliers listed on the Flipkart website?

Sachin Bansal: Yes.

Sramana Mitra: That is very resourceful maneuvering and a good example for Indian e-commerce. How did you acquire customers for the front end of the website?

Sachin Bansal: Customer acquisition was a challenge. We did not have a clue what we were doing there. At that time our only philosophy was to provide good customer service to entice customers to return, and that did start happening, but growth was slow. We studied other websites around the world and a big thing that came out was the need for us to solve SEO. Any online business has to solve that to be successful.

We taught ourselves how to do SEO, and we learned Google AdWords from scratch. We were able to drive a lot more traffic to our site. A lot of people just continued, but some customers did make a purchase and tried out the service because our costs were so low. Once they tried us out, they continued to use us.

Sramana Mitra: How did the business ramp up in terms of sales?

Sachin Bansal: The first three months were very tough because we would sell only about five books a day. After the first three months business started picking up because of word-of-mouth advertising. We hit our breakeven point in six months. It was still just the two of us, but we were still working out of the house so that is when we finally found ourselves an office. We also hired our first two employees. One job was to handle the operations and to pick up the books so that we did not have to do it ourselves every day. The other handled marketing initiatives. Both are still with us today.

Sramana Mitra: What was your 2008 and 2009 revenue?

Sachin Bansal: Our revenue in March of 2008 was quite low. Our March 2009 revenue was about 2.5 crore (~$560,230).

Sramana Mitra: Let's fast forward to March 2009. How have the relationships with the distributors and the operational mechanics of your business changed?

Sachin Bansal: We actually opened another distribution center in Delhi. To our surprise, almost every distributor in India knew about us, so it was not hard to make a new relationship in Delhi. We had multiple suppliers in Bangalore and had just finalized some arrangements with international suppliers. We were a well-known company throughout India and were regarded by many as the best online bookstore in India. Today we work with more than 500 suppliers and have operations in five cities, with distribution centers in Bangalore, Delhi, Bombay, and Calcutta.

Sramana Mitra: It sounds like you were a well-known brand throughout India and had become part of the book distributors' [network] as a high-volume retailer.

Sachin Bansal: We were definitely a well-known brand, and we were receiving the best terms the distributors could offer us. Today we receive better terms than almost every other bookseller in India.

Sramana Mitra: How does that industry work, and how were you able to improve your terms?

Sachin Bansal: We started with 35% margins on the manufacturer's recommended price (MRP) in 2007. Today, we are able to get anywhere from 40% to 60% margins based on discounts from suppliers. We started by paying for all items with cash in advance. Today, we enjoy a credit line of three to six months.

Sramana Mitra: In March 2009 you had about $560,000. How did the numbers grow in March 2010?

Sachin Bansal: In March 2010 we did about $6.76 million.

Sramana Mitra: How do you compare with the major bookstore chains in India?

Sachin Bansal: Our numbers today are comparable to theirs. We sell more than

$1.128 million worth of books a month. We are all in the same ballpark in terms of volume. I don't know the major bookstore numbers exactly, but our common distributors tell us that we are a bigger buyer than they are.

Sramana Mitra: Tell me more about your international strategy. You are the only retailer in India that carries the international versions of my books.

Sachin Bansal: We found that dealing with international suppliers was much easier than dealing with Indian suppliers. International suppliers are much more organized, they are larger, all of their systems are automated, and they use a lot of technology in their operations. They are extremely predictable. We signed our first international deal with Ingram Books in 2008. Today we work with three U.S. suppliers and two suppliers in the UK.

Sramana Mitra: What were your terms like with international suppliers?

Sachin Bansal: That has also improved a lot. We started with a three-day credit line, and now we have the best credit lines they offer. I cannot disclose the discounts we receive from them, but our discount terms have improved over time.

Sramana Mitra: Internationally, the book industry is going through huge changes. Now that you have years of experience in the book industry, what are you hearing in terms of dealing with e-books and e-readers? Amazon expects that e-books will overtake paper books in the near future.

Sachin Bansal: I have been following that, but as I am focused on India I follow that news in terms of the Indian market. India is slower moving with e-books. It would take some time for India to use digital in the way the rest of the world does. The majority of Indians are not very tech savvy.

Sramana Mitra: The infrastructure does not exist. There is no ubiquitous

broadband like there is in the United States.

Sachin Bansal: That is one challenge that India faces. The cost of devices are also too high for the Indian market. A book that is $30 in the United States will be distributed in India at $6 to $7 as a paperback.

Sramana Mitra: That is one of the reasons that I chose not to do another deal with Hachette India, which published my first two books. I did not want to play that game. I produce high-quality content, and I want readers to pay for it. I am not willing to discount the price of the book that much. Hachette offered me a bad deal, so I turned it down. They were very angry about that.

Sachin Bansal: The per-capita income in India justifies the different book prices in India.

Sramana Mitra: The people who buy my books are making money. The software and technology industry employees in India make enough money to buy my book.

Sachin Bansal: It is a question of demographics, because those industries do get higher pay. If the target market is the entire populace, then it makes sense to price it lower. If the target market is one like yours, then there should be different considerations. There are other authors who are priced the same in India as they are in other parts of the world.

Sramana Mitra: I did not know the book business, so I played the game for the first two books. Once I learned the business, I changed the way I played the game.

Sachin Bansal: We are more than happy to sell your books in India!

Sramana Mitra: Let's talk more about e-commerce in India. How has the

ecosystem and market evolved in India when it comes to e-commerce adoption? How have the macroeconomics changed?

Sachin Bansal: When we first started we met with a lot of VCs. They all told us that India did not have enough buyers online to support e-commerce companies and that we should wait for buyers to come online. We just could not understand how VCs expected buyers to come online if there was nobody willing to sell to them. In my mind, the issue with Indian e-commerce is for the sellers to become better. If you try to copy a model from China, South America, or the U.S. you will find it does not work.

Sramana Mitra: What do you think is different about the Indian consumer as far as e-commerce is concerned?

Sachin Bansal: The main difference is trust. Indian consumers are more cautious buying online. They were burned a lot when the first companies came out seven years ago. Building a service which people can trust and enjoy is very important. It is not like opening a street shop. With e-commerce you are asking the consumer to trust you with their money before they even see the goods. That is not traditional in India.

Sramana Mitra: What you are describing happened in the U.S. in the mid-1990s when Amazon started. The notion of giving a credit card to a website was foreign to the consumer, but now it is normal.

Sachin Bansal: Yet the U.S. had an advantage because e-commerce is an extension of mail order. That was a huge industry. People were OK sending money knowing they would receive a product. The mail order industry does not exist in India and people do not have a lot of money to spend, so they buy very cautiously.

Sramana Mitra: At this point, India has developed a digitally savvy consumer base which is very affluent. How will this impact the future of Flipkart?

Sachin Bansal: I expect that people will adopt e-books, but at a rather slow pace. The digitally savvy consumer base may have money, but most of them have the same background as ordinary Indians and have kept some of that mentality. They are misers. They want reassurance that if they give their money to a company, they will either get the product or receive their [money] back. E-books make for a very quick purchase cycle, so that helps, but the price of the devices must drop.

Sramana Mitra: What is the size of the e-commerce market in India? How many consumers are buying and selling online?

Sachin Bansal: It is still a small population. I do have a lot of hope, however, because travel and education are both very strong online markets in India. It is estimated that in the past year 2 million to 3 million people have transacted online in India.

Sramana Mitra: Does that include the online travel market?

Sachin Bansal: It does not include that market, and overall it is a rough estimate.

Sramana Mitra: Based on your customer base and your knowledge of their behavior, what do you think will happen over the next five years?

Sachin Bansal: We see the market doubling in size. As a company, we expect to have a customer base of ten million people.

Sramana Mitra: How will you attract this customer base? Are you still focusing only on SEO, or are you advertising as well?

Sachin Bansal: We still do not spend a lot of money on marketing. Word of mouth is our strongest method of advertising. We have a very high customer retention rate. Those same customers bring us the best quality new customers, and most of those new customers become repeat customers.

Sramana Mitra: You have now decided to take venture funding. What was your reasoning for that decision?

Sachin Bansal: We determined that now is the ideal time to capture the market. Most companies have not figured out how to do e-commerce in India, while we have figured out how to do some things right. We want to use this funding to build a long-term business.

Our plan is to use the money we raised from the VCs to invest in growth. We need to expand our infrastructure to support e-commerce. We also need to improve our physical warehouses throughout India.

Sramana Mitra: What has been your experience with the logistics infrastructure in India?

Sachin Bansal: The delivery infrastructure is not in good shape, and it is the largest challenge we face today. We are working with all delivery companies in India, and we are working to help them become better. We do not know about logistics, but we do know about customer service. We provide input to our delivery companies about their performance and how it impacts our customer experience. Nobody has ever thought about customer experience in India.

Sramana Mitra: Does your customer base access Flipkart only through desktops and laptops?

Sachin Bansal: We have mobile commerce, but it has very little traction.

We believe strongly in working with great people. We are now ramping up the company, have 300 employees, and will have 1,000 within a year.

Sramana Mitra: What do you need 1,000 workers for?

Sachin Bansal: Our employees are divided across many areas. We have our management team, customer support, software engineering, salespeople, and warehouse operations.

Sramana Mitra: How large is your software team?

Sachin Bansal: We have a small team, but it will expand as we grow and need support. We are a technology company at the core. We try to solve as many problems as possible with technology. We have optimized our warehouse operations and our customer support by using technology.

Sramana Mitra: Are you reinventing customer support and warehouse systems rather than buying off-the-shelf systems?

Sachin Bansal: We are not buying commercial systems. We were not able to find any that met our requirements. Developing them ourselves gave us flexibility. As a company we are learning 10 or more new things a day. By developing our solutions, we have the flexibility to adapt our solutions to our needs.

Sramana Mitra: You are illustrating a very Indian mentality by reinventing the wheel at every level. There is one philosophy of management that wants you to build everything yourselves, and another philosophy that wants you to focus on what you do well. In your case, you do Indian e-commerce very well. You should use the ecosystem for the rest of your needs.

Sachin Bansal: The more we have looked, the more we have not found an ecosystem in India for e-commerce operations.

Sramana Mitra: There is an international ecosystem. When you play at the high level of the game, you should be purchasing those systems from international players.

Sachin Bansal: Indian consumers are different and have needs unlike those of any other consumers in the world. The systems that work for other countries do not work in India.

Sramana Mitra: You can try and sell me that ideology, but right now I am not buying it. Indian companies believe they have to do everything themselves.

Sachin Bansal: Our understanding is that the systems that are available on the market will not do what we want them to do. We want our growth flexibility incorporated into our systems.

Sramana Mitra: What does your competitive landscape look like today?

Sachin Bansal: Our brand is well known today. A bunch of other companies have started after us, but we are the largest, especially in books.

Sramana Mitra: What other segments of e-commerce are maturing well in India?

Sachin Bansal: Electronics such as mobile phones. The market is still segmented, and no clear dominant player has emerged yet. We hope to compete there as well. Some people are trying to sell apparel online, but that will be very hard to do in India.

Sramana Mitra: What percentage of the book market in India have you been able to capture?

Sachin Bansal: The online market is about 10% of what the established retail book market is. We have more than half of the online book market. The remaining online book market is segmented among very small e-commerce companies.

Sramana Mitra: This is a great story, and I hope you go much further. Good luck!

Resurrecting The Dead

Building A Unicorn Company By Resurrecting The Dead

If you've been around long enough, you've heard this narrative before: The market is grinding to a halt, the IPO window shut, and only a few brave souls dare venture out into the turbulent seas. The mergers and acquisitions market is adrift as well; public companies are under stock price pressure; further down the value chain, the startups – especially the venture-funded ones – are stuck in an exit-starved no man's land.

You can sit around, depressed, or as some technology startup veterans will tell you, you can pick up great technologies at rock-bottom prices and build businesses out of them. Big businesses.

Lars Dalgaard, former chief executive of San Mateo, California-based SuccessFactors, a maker of talent management software, could offer you a blueprint. In the dotcom carnage of 2001, Dalgaard, fresh out of business school, bought several companies – among them, eAlity. Believe it or not, he bought two of these Web-based software companies at an auction in Redwood City, California. "I don't remember how old I was, maybe 31, and I was taking on $3.2 million in debt to own this company," Dalgaard recounts. "I figured I would do whatever I could to build it up."

And what did all this debt get him? A big, scalable on-demand platform built by three Chinese supercomputing geniuses stationed in the supercomputing labs of the University of California, Berkeley. "They had built this twice already. Talk about pioneering On Demand – they were way before anyone else," Dalgaard says. "These guys had built an outstanding, one-code, scalable supercomputing platform, but they didn't have a CEO."

They also did not have much of a product vision, which Dalgaard brought with him. He wanted to build a company that developed Web-based software to manage human resources functions.

Foundation Capital had invested in eAlity early on, so the natural bridge was already in place for Dalgaard to seek funding. But Foundation turned him down – he wasn't a Silicon Valley guy. Originally from Denmark, Dalgaard had spent most of his career at Unilever in Europe. Dalgaard, however, caught the ear of the legendary David Strohm of Greylock, who remained skeptical at first. "He just sat there and looked at me like, 'Who the hell are you, and what do you know about anything?'" Dalgaard says. But Strohm was involved in one of the other companies Dalgaard had bought at auction, and Dalgaard's passion turned infectious.

"I'll give you a million," Strohm told Dalgaard, "and you see what you can do with it. That's it. You're never going to get anything more if you don't do something incredible with it."

Dalgaard took eAlity and turned it into SuccessFactors. But the timing wasn't good; the company launched its first product three days after the September 11 attacks.

But Dalgaard made SuccessFactors cash flow positive soon after, and from there on funding was easy to come by. Dalgaard also became an adept fundraiser, raising $45 million over multiple rounds from Greylock, TPG, Emergence Capital, Eric Dunn at Cardinal Venture Partners, and others between 2003 and 2007. A year after going public in 2007, the company boasted a market cap of over $650 million. And in December 2011, SAP acquired SuccessFactors for $3.4 billion.

Lesson to learn?

Our valley of geeks has always built wonderful, rocket-science technology, often without any idea what problems the technology would eventually solve. Other times, these visionaries have built technology with an idea of what problem to solve, but set out with a flawed market strategy. From sophisticated artificial intelligence algorithms to chip testing at 45 nanometers, these engineers' achievements are always humbling. But they need business savvy to make and sell products.

Venture capitalists have plowed millions into such ventures, and many are now approaching a breaking point. Either the VCs want an exit, or the founders – after years of muscling their companies forward – are exhausted. These ventures are starved for new leadership to rejuvenate them, or in some cases, resuscitate them.

As Lars Dalgaard has proved, you can actually build a unicorn company on top of technology developed by entrepreneurs who have spent millions of dollars of venture capital, but have failed to achieve market success.

Interview with Lars Dalgaard, SuccessFactors

Think you need to have Silicon Valley DNA to become a successful technology entrepreneur? Lars Dalgaard proves it ain't so. Lars was the CEO of SuccessFactors, a SaaS company which went public in 2007 with explosive energy.

Dalgaard's personal success factors are rooted in that same inextinguishable energy that powers his adventures. Call it passion, call it arrogance, call it a desire for excellence – his level of intensity rarely leaves you indifferent.

Lars is now a General Partner at Andreessen Horowitz. You will read the full March 2008 interview about the startup to IPO phase of SuccessFactors below.

Sramana Mitra: Lars, I want to start with your personal background – tell me who you are.

Lars Dalgaard: You don't have that much time! I was born in Denmark – I have a Danish passport. I lived in Denmark until I was 18, with a brief stint in England from 13 to 16.

Sramana Mitra: Did you come to the US when you were 18?

Lars Dalgaard: I wasn't smart enough to get a scholarship to the American schools, and I didn't have any money to afford it on my own. Out of undergraduate I started working for Novartis, a pharmaceutical company. They had 70,000 employees. I went to work for them in Switzerland, which was a very interesting experience. I also worked for them in New York for a while before returning to Switzerland. It was a very global experience in a very short time.

Sramana Mitra: What were your functional areas of work?

Lars Dalgaard: Novartis has a program where they select two people every year who they think have the potential to become managers of their core business areas. They take them very young – I was the youngest by about 10 years, and somehow I got in – and they train you.

They made me a corporate controller first, which meant I had to learn all of the accounting bugs. Pharmaceutical companies make a lot of money, particularly the top three which Novartis was at the time, so they are very concerned about how they control the cash. They teach you a lot about the inner workings of the businesses.

It's funny because I haven't thought about that in some 15 years, but that is one of the reasons I drive my company with so many metrics – that was how they did it. Their process evolved over many years. They've gone down to a level where they want each pharmaceutical pill to cost nothing so they can spend billions in research and development and have a high profit, which of course they do.

After that they send you to the US, as a training ground. The entire program is like a two-year boot camp where they drop you in and see if you survive. It's that principle the whole way through. You're put in sales school, then sent to the field to be a sales rep. In my case I was a foreigner, and I ended up selling cardiology products to cardiologists in New Jersey in the biggest hospitals.

Overall, it was a very simple process – if you survive, you are one of us; if you don't, then find another job.

When you were done being a sales rep, they sent you to the head office to become a product manager where you learned advertising and media. After you make it through that, they send you back to the head office for more advertising and brainwashing. You're then supposed to be sent out into operations. By that time, however, I was really bored.

Sramana Mitra: How many years were you with Novartis?

Lars Dalgaard: I think it was two-and- a- half or three years.

Sramana Mitra: So you moved through all of those functions in just two-and-a-half years?

Lars Dalgaard: That's how they do it ; once you're in that group they want to promote you.

Sramana Mitra: That is great – a crash course in business!

Lars Dalgaard: I'm the luckiest person in the world. It is absolutely fabulous. I am very, very blessed with that.

Sramana Mitra: What years are we talking?

Lars Dalgaard: That was 1991, 1992, and 1993.

Sramana Mitra: Right before the Internet struck.

Lars Dalgaard: That's right! And I was stuck over in Switzerland somewhere skiing.

Sramana Mitra: What happened after you left Novartis?

Lars Dalgaard: This all ties into how I ended up starting my company. I remember being headhunted by Unilever, a big company with 320,000 employees and $60 billion in sales at the time. I remember walking into the global VP of HR at Novartis and telling him, "Hey, you probably don't care, but I'm going to join Unilever, and I'm leaving today."

He exploded, started saying, "Hold on, hold on!" I swear to God, he got this key out of his pocket that was on a little string, and he went over and opened a closet and pulled out this huge three-ring binder, skimmed through it, and pulled out all these org charts. "See, here you are," he said. "You're going to be running Portugal in two years!"

I was standing there – "What? What are you talking about?" He came back and said, "Well, that's not the only one. I have you in Germany, but that's a lower job. I also have you–" and he started going through all these pages. I was shocked; I was standing there thinking, "This is how they manage careers?"

Sramana Mitra: What job were you going to be taking at Unilever?

Lars Dalgaard: I was going to run a product globally, which was very exciting. I had just gotten into Harvard Business School, and I turned it down because I couldn't imagine anything more exciting. At the time globalization was what everybody was talking about.

Sramana Mitra: You left to run a product globally, but what happened after that? How long did you stay?

Lars Dalgaard: I was supposed to stay in that job for four or five years, but I got promoted a year later because the product had become very successful. It became a $200 million product. I was lucky because I was 26, and they sent me to Germany to run a company of 60 people. That is extremely lucky to run a company at such a young age. It was a great learning experience for me because they had already put a lot of structures in place.

Sramana Mitra: Was that a subsidiary of Unilever?

Lars Dalgaard: Yes, it was. They had 13 subsidiaries at the time, and each had hundreds of little companies inside.

I remember listening to the CEO's speech at a conference, and somebody asked how many companies they acquired a month. He said it was at least one or two before the CFO pulled him over to tell him it was 13 a month.

Sramana Mitra: Did they integrate them, or let them run under a general manager?

Lars Dalgaard: Sometimes when they were big they integrated them. However, when they were small pockets, they just let GMs run the company. That was one of the biggest learning experiences of my life. That was the first time I experienced the power of Web technology.

We were doing something as boring as cleaning Coca-Cola factories. I don't know if you can imagine that mammoth. But you can feel comfortable opening and drinking that product because it's made in such a sterile environment. That's the product we delivered, but here's the interesting thing: in Germany where I lived, there were 22 Coke plants, but we distributed from one central location. What we created was what the CEO was really worried about, because if he did not have hygiene, it was game over. Remember when there were rats in some Wendy's in New York? That's what it was like for these guys – they would *die* without hygiene.

We created the ability for him to sit in his home, on his laptop, and see what was going on in all of his factories. I will never forget his face when I gave him that laptop. His eyes freaked out, and I told myself right there that I was going to do something in technology. The guy was paralyzed! "I can control all of my Coke factories from my home?" he said. He could not stop talking about it. That was the second place where I learned the value of technology.

Sramana Mitra: How long did you stay in that job at Unilever?

Lars Dalgaard: I moved back to the head office after a year, which was unfortunate because I really liked that job. They moved me back because we bought our biggest competitor, and they asked me if I could travel around the biggest countries and understand whom we should keep and whom we should fire, and then merge the two companies into one.

After that I went to Denmark, still for Unilever. We bought a company there, and I ran that acquisition. I then began managing that company, and shortly afterwards we bought five other companies, and I had to put them together as well.

Sramana Mitra: What kind of companies were you buying in Denmark? Did any of them have anything to do with technology?

Lars Dalgaard: One had kitchen cleaning products – nothing at all to do with technology. I did build technology products in my own little world for my groups.

For instance, I would come in and sit down with my team, who were all 20 years older than me, and ask them what goals they were working on. Every one of them, within my first week of being there, had come to me to say someone else was not doing something they should be. It sounded like a kindergarten, and it gave me a headache. I called a meeting to get them to talk to each other, and we talked about overall strategy. We then put it into Lotus Notes, and each team could track their progress.

It fundamentally changed the execution of the group. It seems that for 5 to 10 years they had been fighting each other, and now they were finally working together. They'd grown uncomfortably numb fighting, thinking it was OK to fight every day. That was not something I wanted to be a part of, so I built this product where we aligned people and gained clarity about who does what, how they report, what they're supposed to be doing, what is expected of them, how they can get rewarded, and what type of career you can have. What started there was the foundation for the product we've built today, which is the biggest on-demand product in the world with three million users.

Just like Jim Collins says in his book, *Built to Last*, most innovation comes from frustration. I was frustrated with all of the companies Unilever and Novartis had bought, and I felt there was no clarity of purpose, and no clarity regarding what you were expected to do.

Then I basically restarted my career, just like the restart button on my computer; I just clicked it, held it for a long time, ate some humble pie, and started all over at Stanford Business School.

Sramana Mitra: You were at Stanford from 1999 to 2001?

Lars Dalgaard: I graduated in 1999, and it was a pretty tough time. Were you involved in technology at the time?

Sramana Mitra: I did three startups between 1994 and 2000.

Lars Dalgaard: You're a veteran! We're the same, then; we've survived the same battles.

Sramana Mitra: Your technology background is nominal by Silicon Valley standards, it seems.

Lars Dalgaard: Absolutely. At that time I was a little more humble. I thought technology was intimidating even though I had used it in my different jobs.

For example, when I was doing that merger of all those companies, people were talking a lot about the Internet, and it was funny how they were talking about it. Take the multibillion-dollar food distribution company Sysco –

I'm trying to explain to the CEO of my company about Cisco, and he thinks I'm talking about Sysco. I was talking about routers, and he was hearing food distribution.

That's what it was like in big business and why Jack Welch had an initiative called *e-business* as if it were some sort of big, fancy thing. It was just a very different world.

I knew I had to figure out what the potential really was. I had a subscription to *Wired* magazine, and I found out about the Netscape Developer Conference. I decided to attend the conference in San Jose, which was the greatest thing in the world for a guy like me who had no technology background. I found a little project called NetObjects that you could build an org chart with, and I took it back to Unilever in Holland.

The VP of HR was always such a loser – he would just sit there and whine in the board meetings. I asked him finally, "Why are you always whining?" and he said, "Because nobody wants to talk to me, and everybody is always moving people around without telling me." "What the hell is wrong with you?" I said. "It's not interesting when you show up with binders of meaningless stuff; it's already outdated the second you print it."

So I brought back the NetObjects program, built everything out myself, and went to the IT department and said, "Hey, I need a server because the instructions here say I need a server." Their immediate reply – "No! We can't give you a server because we're waiting for NT." I learned that NT was something Microsoft was releasing in two years, and of course that was not going to work. I then went out and bought my own server down at the local store and charged it to the company and built a dynamic org chart and gave it to our VP of HR. It fundamentally changed his role in the company.

He could now sit there and show everybody where people were moving. The whole process gave me a feel for the power of technology.

In a sense, that's how we started SuccessFactors. Through some friends at business school, I was able to find a company that had built a really great little product over the Web, and a very scalable one.

Sramana Mitra: Before we go there, what filled the gap between 1999 and 2001 – before SuccessFactors?

Lars Dalgaard: I thought I had to learn what all the technology was about. Another Danish guy, who'd joined some bioinformatics guys from Stanford, had started a company two years earlier, and they felt they needed some more business leadership. That's where I came in.

The other Danish guy was the CEO, and he had come over from Affymetrix. I told him I wouldn't mind being his VP because I felt I could learn a lot, although it was a big step backwards in my career to be a VP of a little startup after I had twice been CEO of a real company. But

I didn't care about the title; I cared about learning.

I met a bunch of really great engineers, and I really loved them. They were from China, India, Wisconsin, and everybody was just working together. In my own bones I started to feel the infrastructure of Silicon Valley. I had no clue about any of that; you don't read about that anywhere! The CEO was at McKinsey, then business development at Affymetrix – he had never run a team, ever, and that was something I'd been doing for five years already. People could not talk to him; he built this little box for himself, and would sit inside his office while all the engineers came and found me to find out what they were supposed to be doing.

I learned how to manage engineers. Engineers think differently; they are so much smarter than the average bear. If you don't argue extremely succinctly and exhaustively with them and explain all the data, and you try to just tell them business speak, they don't listen to you. But if you can explain the basics, all the data from the ground up, and give them the true logical answer regarding why you are doing something, then you have them bought in, and they'll work incredibly hard for you.

Sramana Mitra: When working with smart people, it always pays to explain the *why*.

Lars Dalgaard: Exactly, and they'll ask 15 questions to get there if they need to. To this day I adore them. They cannot do anything until they know why. I love that. That was the biggest takeaway for me: how to manage an engineering team. I didn't know what I was going to learn; I knew I would learn something, but I didn't know it was going to be that.

But I just could not get along with this guy who was the CEO, because he couldn't see the value I brought. He would say that we just needed to get people to do stuff, and that's not how it works, at least for me. I have to get people involved and engaged. We had a big split, so I left.

I was sitting around thinking, "What should I do now? I guess I'll have to start my own company." That's what I always wanted to do, and now there were no more excuses. That was it; I started SuccessFactors.

Sramana Mitra: What was the genesis of SuccessFactors? How did you bring people together? You're not an engineer, so you weren't the person building the product.

Lars Dalgaard: I was lucky that a business school friend helped me. That was the whole idea of going to business school, so that worked.

At that time, in 2001, if you can remember that, I felt that most venture capitalists were just scurrying and running away from class action lawsuits, so afraid of getting caught. There were *a lot* of class action lawsuits at the time. It was like bargain hunting time. Nothing cost anything because people didn't think of ventures as a cost; they thought of them in terms of "How can we get out of this? How can I get rid of it?" There were a bunch of great technologies out there, but they didn't have any great products coming out of them.

The first thing I discovered was that these technologies were run by people who had never managed anything. It took me two minutes to realize. I would sit there with the CEO of a company I wanted to buy, and I could see straight through him. Out of respect I would ask, "What's your background?" and I would get an answer like, "I used to run customer success at Symantec." I would then think, "Oh, OK. Now you're the CEO? What the hell are you talking about? Those things have nothing to do with each other!"

It was like that everywhere I went. I would ask their venture capitalists and be told they had just run out of CEOs. That was my advantage – I knew how to manage. So I basically bought two different companies that were completely broken.

Sramana Mitra: Could you explain how you bought them? Where did you get the money?

Lars Dalgaard: I didn't have any money, so I got clever. I went to an auction in Redwood City, and they were selling these dotcoms every three minutes, and it was the greatest thing. If I had had more brain power and capacity, I would have stayed around and bought more stuff.

What had happened was all these credit companies had gone and taken ownership of these broken companies; they had secured rights in the company. It's called a UCC 1 filing. When you have a UCC 1, you have the keys to the castle; you own everything – IP and the whole freaking thing. They just shut these companies down, but they wanted something in return, so they'd try to sell them at these auctions.

I just went in there and made a credit bid, which means I said, "I'll take on the debt for this company personally."

I don't remember how old I was, maybe 31, and I was taking on $3.2 million in debt to own this company. I figured I would do whatever I could to build it up.

Sramana Mitra: Quite a show of courage! How did you find this particular company that you ended up acquiring?

Lars Dalgaard: From a friend who sat next to me in business school. He was at a venture firm, so he knew all the good companies that simply didn't have leaders.

Sramana Mitra: Which venture firm?

Lars Dalgaard: It was Foundation Capital. He told me about the first one, and the founding father of Foundation Capital told me about the other technology firm – a big, scalable, on-demand platform, which is really the most interesting thing I bought. The other thing I bought was really worthless; it had a little bit of sales, maybe $100,000 or $200,000. But non-event.

Sramana Mitra: What was the name of the on-demand platform?

Lars Dalgaard: It was called eAlity. I was as lucky as it gets, but at least I was smart enough to jump on it. The guys that built that were three Chinese supercomputing geniuses who had all come from Hong Kong and met at Berkeley. They had built this twice already. Talk about pioneering On Demand – they were way before anyone else. They had a Concur-like product before Concur did. These guys had built an outstanding, one-code, scalable supercomputing platform, but they didn't have a CEO. They had that customer success guy who did nothing for them.

The interesting thing was that the other company I bought had some interesting applications, but the apps server was complete crap and could not scale. We had two Pentium 286s that would run this proprietary architecture that was such crap that when we had more than four customers, who had in combination 800 users, the computers would just stop.

Sramana Mitra: Why did you buy that one?

Lars Dalgaard: I thought the applications were very, very interesting. They had very clever content on how to do a writing assistant. That's the thing that still survives in the company we have today. It lets you sit down and write a review for somebody when you don't know exactly what to write.

Sramana Mitra: So, in this portfolio of "stuff" you bought, you had the distributed computing infrastructure, and you had a tiny bit of the SuccessFactors application. Is that correct?

Lars Dalgaard: You nailed it. I'm amazed that with all the garbage that's come out of my mouth that you get that, but that is exactly what happened.

Sramana Mitra: I'm in the business of synthesis.

Lars Dalgaard: You're cutting right through. I bought a bunch of shit, and two things came out: a distributed architecture and a little bit of a product.

Sramana Mitra: Was Foundation out of the game at this point?

Lars Dalgaard: That's the funny thing. My friend left Foundation because they didn't pull the trigger on SuccessFactors. And I just felt he should have gotten something, so before the IPO, I gifted him some shares. He e-mailed me yesterday after the earnings call and said he still thinks about that point seven years ago when they had the chance to own 40% of SuccessFactors, and he still cannot believe Foundation could not pull the trigger.

Sramana Mitra: The venture business is full of stories like this.

Lars Dalgaard: Oh my God, it is. It is incredible. The super geniuses and the wonder boys just ignored me while I was presenting my life's dream. I was just sitting there thinking, "Wow, these guys have gotten way too rich, way too early to completely ignore me this way."

Sramana Mitra: And by having done way too little.

Lars Dalgaard: Exactly – so imagine I'm standing there presenting what I've been preparing for 15 days for these big, important venture capitalists, and they're playing with their shoes.

Sramana Mitra: What you're bringing up is an issue many entrepreneurs have experienced: a total disrespect and arrogance on the part of the VCs. They forget that the sole basis of their existence is to *serve* entrepreneurs, not the other way around. So, who finally funded your dream?

Lars Dalgaard: David Strohm from Greylock.

Sramana Mitra: How did you get to David?

Lars Dalgaard: He was involved in one of the companies, and he was the most skeptical – that's why I liked him. I don't like people you can win over easily. He just sat there and looked at me like, “Who the hell are you, and what do you know about anything?”

Sramana Mitra: You probably didn’t know anything about anything.

Lars Dalgaard: I didn’t, and that’s exactly what I said to him, and that’s how he tells the story. He just says, “OK, I’ll give you a million, and you see what you can do with it. That’s it. You are never going to get anything more if you don’t do something incredible with it.”

Sramana Mitra: Then what happened?

Lars Dalgaard: We launched the product three days after 9/11. That seems to be the theme of this company. We went public when the markets were down 9% more than they had been in five years. We’re used to it now.

Sramana Mitra: Were you able to funnel in all of the ideas of aligning arrowheads, appraisals, etc. into the product?

Lars Dalgaard: Yes. That’s what I’m most proud of in my career. We have truly built a product where people can say, “We can see everybody’s goals, and everybody knows what they are supposed to do.”

Sramana Mitra: Is that the value proposition of SuccessFactors?

Lars Dalgaard: A big part of it, yes. Another aspect of it is that you get employees engaged at a level they’ve never been before. We’ve found that it drives top-line performance 2–3%. It’s incredible, but it’s so simple. Have you heard of the band Dire Straits?

Sramana Mitra: Sure.

Lars Dalgaard: He has a song, "Industrial Disease." It's like this industrial disease that you don't care about your employees anymore, and it's OK not to care about them. First of all, that's pretty inhuman not to care, but aside from that, it's a dumb business decision.

Why would you not focus on these assets, which are 70% of your costs? Why would you not sit down and look them straight in the eyes and say, "Are you part of the future? Are you in? Because if not, please go somewhere else. Otherwise, let's get together around this."

It is such a basic principle, but companies have allowed themselves to stop doing it. Bad companies certainly have.

Sramana Mitra: You're now taking your solution to companies and helping them with this rather key alignment function that nobody else does.

Lars Dalgaard: That's right. From that, we drive 360-degree reporting, succession planning, and a very nice interactive org chart where you can see who's at risk of leaving and who wants to be promoted. You can put in, "I want to go here, I want to go there."

You can actually manage your team. You can determine which people go on which seats on the bus – that's a new product we built three years ago which has had a lot of success. In fact, Goldman Sachs and Healtheon both started with that product before they went to the alignment products.

I'm always confused what to answer when people ask if our value proposition is only alignment. That is where the company started, but some of these other products have gotten real traction and are a real percentage of our sales.

Another one that a lot of companies start with is compensation. The compensation product was very hard to build, but it's something I had in my very first product in Lotus Notes, where if you do your goals you're probably going to ask what you're going to get out of it. I will tell you what you're going to make if you meet your goals, what you're going to make if you exceed your goals, and what you're going to make if you fail on your goals. It's really simple.

I'm not that money hungry, but I always told my bosses that I want to know what I'm going to get paid. You're going to be extremely clear to me about what I'm going to make.

You would be amazed how many people do not know how much more money they can make on bonuses.

Sramana Mitra: The "mush" factor in corporations is amazing.

Lars Dalgaard: That is a beautiful word for it.

Now we have products through which you know what people you need in different roles. Now you need to recruit people to fit into those slots, so we built a recruiting product to get them into the right places and get them on board in the right way, where they have clear expectations when they get into the job.

Then we have products that allow us to track what happens when you fire somebody. How is it that we are losing people in engineering, and we are not losing anybody in sales – is that hurting us?

Then we have a career development tracking tool to make sure people can see that they have a career. We also have an internal directory; apparently people have never built easy-to-use directories which use a lot of fun technology where we have tag clouds – it's very much like an enterprise Facebook. We use it over the Blackberry so you can find different people, find out who they work with.

Sramana Mitra: It's an internal LinkedIn.

Lars Dalgaard: That's exactly what it is.

Sramana Mitra: Do you also have people outside the firewall of the company, like consultants and partners?

Lars Dalgaard: We do on one of the products, the 360.

Here people link with others in the network as a whole, and they can link outside of the company on that. I met the CEO of a very small company who said we had changed his company. I asked him how, and he said, "Over the last 10 years I had entrusted my company to another guy and sort of felt there was something going on but never really knew what it was. But then I got these 360 reports with outside vendors, accountants, and everybody commenting said he was an asshole. Everybody! So I found out I had hired a guy who was an asshole, and I was like holy shit – he's not an asshole with me, but he is with everybody else!"

Sramana Mitra: A 360 is a very powerful tool.

Lars Dalgaard: It changed my career.

Sramana Mitra: How do you view your competitive landscape right now? The HR, human capital landscape is moving online and becoming very big, penetrating more of the mid-market and small businesses. How do you view the rest of the players in your ecosystem, and how do you position?

Lars Dalgaard: Let's just look at the facts – I'll talk to you like an engineer because that's how I've learned to speak now. We are in 13,000 opportunities at the moment, and the competitor we've met the most, we've only encountered 17 times. Our biggest competitor is not another software vendor; it's companies doing nothing.

Sramana Mitra: Who was the competitor you met 17 times?

Lars Dalgaard: That happened to be Kenexa. But we have very little in common with them. They're a big recruiting firm, and they do a lot of surveys. They're a 20-year-old company – now they claim to be an On Demand company.

I can promise you, you don't change a 20-year-old company in three years, which is why they missed a quarter two quarters ago, in a big way, and their stock got completely slammed. You cannot miss a quarter like that if you have a true on-demand company, so in my mind that clearly settled that they are not an on-demand company once and for all. They're in a bunch of deals where we're replacing them, like MetLife and American Airlines.

Sramana Mitra: There are a lot of opportunities – companies just aren't doing anything in this space.

Lars Dalgaard: Yes! Over 80% of our deals are people who are sitting there with a spreadsheet, and we come in and talk to them and tell them to try something else because it's just so quick, so cheap, and it transforms companies.

Sramana Mitra: How do you view Taleo?

Lars Dalgaard: I think they had a lot of success with enterprise accounts in recruiting, then they bought RecruitForce, which was a complete copy of SalesForce.com, and now they've just started to launch something in our space because they see what we're doing.

Launching and doing are different things, though. I'll tell you what we have – we have 100 companies with 10,000 users. This is something SalesForce.com can only dream about. I have seven VPs from SalesForce.com, and they say they'd die to have 10,000-user organizations – they have two now.

The impact we've had over the last seven years, the traction we have, the depth and the brand recognition, that means it'll be really difficult for somebody to catch up.

The second part is that a lot of companies do not care about people, but we do at this company. I hired every single person up to 300 myself, and most of them are still here.

Sramana Mitra: How many people do you have now?

Lars Dalgaard: We have 700. The first three years of this company's life was cash flow positive. We saw what we had: a doubling of customers every year. We knew when SAP and Oracle saw this they were going to go crazy, so we knew we had to run. We embarked on a very aggressive strategy in 2004. I mean it was *very* aggressive. It was to completely dominate the market in terms of products, markets – small, medium, large – and geographies. That's something I am not confused about. I ran global products at Unilever. I was on the board of a global company. For me it is not hard to think about being global.

When we launched the product, we already had users internationally. Today we have it in 22 languages; it is being used in 156 countries. We don't just have a sales rep or a channel partner; we have our own people on the payroll doing implementations.

Sramana Mitra: How did you go from 2001, with $1 million in financing, to the scale you are today? Didn't you have to finance the company further?

Lars Dalgaard: I basically didn't have a life for six years.

Sramana Mitra: Didn't you also need more financial resources?

Lars Dalgaard: When you're cash flow positive, you don't need any more money. That's the funny thing. For the first three years, we didn't spend any more money. I got a new investor in from Texas Pacific Group in 2003, and I still remember him in every board meeting saying, "I can't believe it; you still haven't spent any of my money."

Sramana Mitra: Who was that?

Lars Dalgaard: That was Dave Whorton.

Sramana Mitra: I thought so.

Lars Dalgaard: You know him? Do you like him?

Sramana Mitra: Yes, he's a good guy.

Lars Dalgaard: I think he's a great guy. I'm an investor in his new fund. He had me at hello. I'd decided I wasn't going to take any more money from anybody, but he changed me. He came in and said, "Wow, this is emotional intelligence on steroids over the Web." "Now you're flirting with me," I said. "This isn't fair!" We spent six hours in a conference room discussing, and I finally said, "OK, you can invest." He was the real deal.

Sramana Mitra: How much money did you take from Dave?

Lars Dalgaard: I think it was $5 million.

Sramana Mitra: All in all, in the history of the company, what kind of investment have you required?

Lars Dalgaard: I did get comfortable raising money, unfortunately. I raised another

$45 million. I got Eric Dunn in at that time. What we decided to do with Dave is that we would go for the big bucks and we would go all out.

We began investing in the mid-market. In 2003 and 2004, that seemed like a very ambitious project as it was essentially trying to do two things. Something I had learned at Unilever is if you give somebody a real responsibility, give them a budget, then you can make things like that happen. We separated out and built a business in the mid-market, and it did well.

Since it did well, I was comfortable going to Europe, but I didn't want to destroy the focus of the company, so I did it on my own and let the team do what it was doing. I went to Europe every week on my own, and I didn't even tell my board because they said Europe was too complicated. Then I closed a $2.5 million deal in December 2005 with Lloyds Bank in London, and the board changed their tune.

Then we decided to invest more boldly and took $5 million from Eric Dunn. We saw that this stuff was working, and we had enterprise and mid-market – we were doing Europe, so should we try Asia and should we try channels? We decided to do it, and we did that with Eric Dunn's money, and it worked as well.

We then saw this business was really working. Should we try to go into small business, which is the biggest market in the world? Eric Dunn knows the small business market, and he felt we could do it. Small business doesn't have the luxury of having a huge staff to help them, so the product ideas are so crisp, clean, and lovely that it was worth doing just for that.

Sramana Mitra: You don't face as much competition in small business, either.

Lars Dalgaard: No, you don't. There is no competition. That was Eric Dunn's decision point on the board. We brought in Emergence Capital, who focuses on On-

Demand and SMB. They put in $10 million, and we really built a small business "company" inside the company. We hired the VP of sales from SalesForce.com, Shelly Davenport, to run it. That's now our fastest growing business; we have 50 reps there, and it's going really, really well.

Sramana Mitra: What is the revenue split between small, medium, and large businesses?

Lars Dalgaard: Out of new business, US Enterprise is 60%. The other key areas, small, medium, and Europe, are all close to 10% each. The rest is split between Asia Pacific and Channels. We'll do deals with IBM and EDS. We just did a fantastic deal with Marriott.

Sramana Mitra: What's the structure of the deal with Hewlett or EDS? Is it that they have BPO operations, and they use your systems to power it?

Lars Dalgaard: What happened since 2001 is that the BPOs all gave up having their own products. They had enough problems making money on their BPO structures. They literally take our stuff, put it in their brochures, and we do everything from there on out. They're pretty nice deals.

Sramana Mitra: You're basically outsourced BPO for them?

Lars Dalgaard: You could say that. They're 10-year deals.

Sramana Mitra: So they're channel deals?

Lars Dalgaard: Yes, they are. That's it. It's a pretty basic story. We're now three million users in 156 countries. We went up from one and a half million in 16 months. We announced that we are the fastest growing on-demand company in the world – 95% year on year.

Sramana Mitra: Talk about the highlights of your earnings that you just announced.

Lars Dalgaard: That is one highlight right there – we grew 95%. We grew faster than Omniture and SalesForce.com going into the IPO, and coming out of it we just announced this 95% growth.

The other key elements are that we felt very strongly that we have no negative indicators. All of the deals are up, our seat prices are up, our products are all selling, so we're blessed. It's been a lot of hard work for a long time. Now we're investing a lot of money. The positive is that we have $46 million in bookings in Q4, which actually only translates to $19 million in revenue – just so you can see how conservative we are. Bookings are money we collect immediately, so it's not like it's not real. It's first year value. We cannot recognize the revenue because we're very conservative on that. Unlike NetSuite, we decided not to stop doing long-term deals. They decided to stop doing long-term deals so they can recognize everything immediately.

Sramana Mitra: You have the advantage of backlogs.

Lars Dalgaard: Exactly! We love it. So what if Wall Street can't understand it in the short term.It doesn't matter; we're in it for the long term.

Sramana Mitra: Very early on in this conversation, you mentioned your devotion to metrics. Talk about metrics you track, metrics you manage your company by.

Lars Dalgaard: We can start with late-stage pipeline coverage. That's how I know our business is healthy. Late-stage pipeline coverage of each area and each sector is probably how we have been successful in all these areas.

You asked about Taleo, and I think that's because you met with their CEO, so you're close to that business now. They talked on their earnings call about how they made a massive investment in SMB, how they have 12 reps, but we started in 2003 and in small business alone we have 50. We also have a bigger mid-market business, so that tells you a little about the investment we've made; it's almost 10 times what they have. I don't decide to address those things in my earnings call, but that gives you a feel for the size and the scope we have.

How we get successful metrics is by tracking every single rep. I have all of these employees who worked at Oracle and other places, and when I asked them what their pipeline was, their answer would be, "Oh, it's big." I would then ask, "No, what is your late-stage coverage ratio on your quota?" They looked at me like a deer in headlights: "What?!" I then repeat, a bit slower, "Late-state coverage ratio on your quota?" and usually get something like, "Well, that's a lot of math!" My answer: "Let's talk again when you've done the math."

That's how I run the company.

I ask what the average price per seat was, per module? Nobody does that. They just say, "It was a big deal!" But so what? That does not matter. We need to know if we're going to make money on it, so let's break it apart.

If you work at a blue chip, top performing Fortune 10 global company, that's normal for you, but every single person I have working here, including the three best sales reps from Taleo, and we just hired the best one from Oracle, and two guys from SAP in Europe, they come over and talk about the big deals. But what I want to know is if they were profitable, or did you give the product away? They look at me and they know I'm talking about the right thing and that they're going to learn a lot because they're going to work at a very different level.

We consider ourselves some sort of mixture between the Navy Seals and McKinsey, and that's how we go to work.

We actually had the head of the Navy Seals come and speak to us at our last all-hands meeting, to give you a feel for how we operate and how we think of ourselves. Across the business we track metrics like that.

We track productivity; we track things we've invented ourselves such as *ramp sales equivalents,* which talks about how much a rep should be producing right now. Not just if he's a good guy or a bad guy, but how long has he been here compared to everybody else. With this internal ramp sales metric, which we use for both professional services and customer success, we can talk about the capacity we expect from a particular person, from a region, from an aggregation of regions, from all the VPs – that is how we run the company.

Sramana Mitra: What does it cost to buy a SuccessFactors solution?

Lars Dalgaard: It ranges. We have multimillion-dollar deals. We just told Wall Street – we want to ensure they know we have a good future, so we did something we normally would not do – that in the first five weeks of 2008 we did a million-dollar deal in retail because we know that sector has been hit very hard. And we did a million-dollar deal in financial services. At the same time, I saw a deal done yesterday for $5,000 for a 10-person company. It really depends on how many products you buy and how many seats you take.

Sramana Mitra: Monthly or yearly?

Lars Dalgaard: Per year.

Sramana Mitra: What has been the impact of the market slowdown? It seems

like financial services and retail have both produced good deals in the middle of all this.

Lars Dalgaard: We're not a transactional company just sitting and figuring out where people work in the company; we're at the core of the company, deciding how to run the business. That's why people find we can help them drive top-line sales 2–3%, and do it cheaper. When you do both of those, even in a tight economy, people want to buy your stuff.

Sramana Mitra: How much backlog would you predict right now?

Lars Dalgaard: Our deferred revenue went up to about $101 million. In addition, we have the off–balance sheet backlog, clients like Yahoo! and REI. They bought a five-year deal, which means we have this non–balance sheet lock-in backlog that we don't talk to anyone about. We continue to excite investors for the long term, and we don't need to blow ourselves up. Nobody in the world is growing faster than us right now, and we have another secret that we're going to reveal later.

Sramana Mitra: Your growth strategy is organic?

Lars Dalgaard: 100% organic.

Sramana Mitra: I'm curious if there's anyone you want to acquire.

Lars Dalgaard: Unlike many in the Valley, I've had numerous experiences with mergers and acquisitions. I've asked many people, and there just aren't that many successful acquisitions done. When you have a good thing going, you can destroy it by doing acquisitions. I would never say never, but it's not on the top of my mind.

We did $112 million in bookings in six years. We talked about Kenexa, which is a 20-year-old company who just barely did $100 million, and they bought two recruiting companies that were struggling. I had the opportunity to buy both of those firms; they called me up and asked if I was interested in acquiring them. I told them, "I'll take a look at you, but I'm warning you I'm going to go very deep and look at every single one of your metrics you've never looked at yourself. I'm going to send you a spreadsheet, and I would like you to fill that out; if you fill that out, then we can talk." Just watching them fill that out tells me whether I can work with them, or if they're already choking.

Sramana Mitra: Were they willing to fill out the spreadsheet you sent over?

Lars Dalgaard: Most people are like, "This is insane – what are you, a root canal?"

This is just how I do business. Everyone in this company knows this. I finish every single all-hands meeting committing everyone to outstanding performance. It's an unbelievable rush; there is so much passion it feels like we're in the NFL. I ask, "Are you passionate about what we're doing? Are you committed to working harder than you ever have in your life? If not, you should get the fuck out the company because I don't want to work with you. If you're a slacker, find the government or some other startup – we're the real deal."

Getting that kind of commitment from people means you can routinely ask for data and they give it to you.

We go to other companies who are like, "Huh? What?" If they're asked about the pipeline by the board, they say, "It's up." What does that mean? It is very easy to get leads. You can send out a Web campaign and get people to respond. An offer for a free iPod will get you 10,000 leads, but it can be a local farmer, not someone that will help your business.

Sramana Mitra: I'm going to ask one last question, which is more a macro question about the segment and how Wall Street is just learning to understand

these SaaS companies. What is your experience with that?

Lars Dalgaard: My experience is that they are doing exactly what you just said: they are learning. There are a bunch of them that get it. Look at us. In recognized revenue we are at $32 million for 2007. You can say Taleo and Kenexa don't do what we do, but if you consider them an HCM, they are both $100 million and $200 million companies respectively, and they are valued the same as we are. Somehow, even though technically they look bigger, Wall Street is recognizing some of the potential we have since we're receiving the same exact valuation of $500 million. I think if you look at Omniture, it has really been valued richly.

Sramana Mitra: Concur has been valued richly also.

Lars Dalgaard: I think you're right. Wall Street is trying to get it, but they're very confused. Companies like Kenexa don't really help them. When Kenexa tells them they're an on-demand company and then they miss a quarter by 20%, it's obvious they are not.

Sramana Mitra: I don't know if you saw my *Forbes* article, but I wrote about that. A true SaaS company should not be missing quarters.

Lars Dalgaard: I read that article; I didn't know that was you! I loved that article. I showed that to my whole company because it was nice that somebody finally freaking gets it!

Sramana Mitra: It has been a pleasure, Lars.

Lars Dalgaard: You too. I thought your energy was fabulous, which is why I got so engaged here today. You're a lot of fun to talk to and obviously know what you're doing.

Large, Complex Business Processes

Large, Inefficient Markets Generate Unicorns

One of the greatest inefficiencies the U.S. faces is the $250 billion a year that it spends on health care administration, trying to resolve the information flow between physicians, hospitals, patients and insurers. Archaic systems and processes cause disputes, paper pushing, numerous phone calls and injustice.

A number of companies, however, are trying to streamline health care administration and reduce costs.

Athenahealth, one of the most successful among them, offers a software-based subscription service to doctors' offices that helps them collect reimbursements from insurance companies. Athenahealth, based in Watertown, Mass., processed $11.7 billion worth of claims in 2013. The company takes a percentage of the collections. No upfront fee; no set-up charges. All insurance company rules are codified into Athenahealth's system, making the reimbursement filing fast and seamless. Doctors see the tangible benefit of collection-time dropping from 75 days to 45 days, not to mention the additional benefit of transactions not falling through the cracks due to lack of follow-up and organization.

Athenahealth serves over 50,000 physicians and manages over $12 billion a year in revenues on their behalf. The company went public in 2007 and the stock soared 100% upon opening. It had generated over $100 million in revenue that year. In 2013, Athena did over $595 million: a successful, high-growth company by all counts. Their 2014 market cap is around $5 billion.

Bryan Roberts of Venrock Capital, an early investor in Athenahealth, estimates the total health care-claims processing market to be $10 billion.

Since its IPO, Athenahealth has broadened its offering to Electronic Health Records (EHR), Physician Practice Management systems, etc.

There are a couple of notable observations from this case study: First, the healthcare IT market has generated several Unicorn companies. In this volume, we have two, including Athenahealth and eClinicalWorks. As Girish Navani, CEO of eClinicalWorks mentions, currently, 80% of the healthcare providers have adopted at least some basic level of digital system. Many are looking to upgrade and look at second-generation systems. This is good news, and will offer more opportunities for healthcare IT vendors.

Second, and this is worth paying close attention to: Athenahealth not only offers software, but also outsources the entire business process of claims processing. This, in my opinion, is going to be a trend going forward, in building Unicorns around complex business processes. There is a general scarcity of trained resources across the board. Businesses want to reduce complexity and outsource more and more of their non-core business processes. SaaS-enabled BPO is a robust opportunity for entrepreneurs thinking about building next generation cloud businesses.

Interview with Jonathan Bush, AthenaHealth

Jonathan Bush has taken the health care claims-payment bull by the horns to build an excellent company. But to arrive at the right problem that would support a substantial enterprise was not a direct path. Several suboptimal ideas powered through a market validation phase, until Jonathan found the one that really resonated.

This interview was conducted in March 2009.

Sramana Mitra: Jonathan, let's start with your background – your personal story.

Jonathan Bush: I grew up in New York City. Medicine was the only career that nobody had done in my family, so I figured that would be a good career for me. I could be the best in my family in my profession, and I wouldn't have to be all that bright to do so!

Actually I've always been interested in health care – it's a place where you can do well and do good. But when I got to college, it occurred to me that you had to know a lot of science to be able to go to medical school, and I wasn't that good at it. It just wasn't my natural fit; I'm more of a social creature, an idea person.

In an effort to learn more about medicine, I got a job driving an ambulance in New Orleans. I found that while the doctors I ran into were incredibly competent, they were bored from time to time. They'd learned an enormous amount of information, and now that they knew it their only calling in life was to continue delivering against that same body of information. It seemed that the connective tissue between patients and the very bright and capable doctors was really poor. It was a disaster.

I figured that no matter how bad I was, I could find a way to do better. That really got me excited about the delivery system over the actual science of medicine. I wanted to be the innovator of a functional delivery system. At first I thought I was going to start an ambulance company, and that the ambulances would do more in the field to reduce unnecessary emergency room admissions, but there was already a company rolling up ambulance companies and I didn't think I could play at the same time. So we decided we'd try to manage practices ourselves. athenahealth actually started as Athena Women's Health, and we acquired an interest in a women's health practice.

Sramana Mitra: Was Athena your first job?

Jonathan Bush: It was my first job out of business school. I had worked for the George Bush campaign in 1988, I drove an ambulance, and I was a combat medic in the Army. Then I was a consultant at Booze Allan Hamilton and worked at my dad's investment firm, but I never did any one of those jobs for more than two years. It was an awkward ramble through those parts of life.

Sramana Mitra: When you were rambling through those possibilities, did you have something of the nature of Athena, no matter how nebulous, in your vision?

Jonathan Bush: Yes. I wanted to do something where I was at the end of the food chain. I wanted to be touching actual patients. I didn't want to be selling tools or capital. That's about the only thing I really knew at the time. I remember doing informational interviews, looking for a job, and I spoke to a McKinsey partner. I asked him if McKinsey had an actual health care practice and he said, "Of course, it's actually quite strong. We work for Johnson & Johnson and other companies like that."

"No," I said, "I mean actual health care where there are doctors and patients."

"We have a not-for-profit," he replied. "You can do pro bono work on your spare time for hospitals."

I found it very odd that the formal practice of McKinsey, that you could build your career on, was selling the construction of drugs and devices, but if you wanted to help the delivery it had to be done pro bono. That got me turned around. At one level I thought it was ridiculous, and at another I thought it was wonderful because here was my opportunity.

Sramana Mitra: What year are you talking about?

Jonathan Bush: That was my last year of college, so probably around 1993.

Sramana Mitra: Bring me to the genesis of athenahealth. What year was it, what was going on in the marketplace, and what happened in your head that led you to Athena?

Jonathan Bush: I really wanted to do something entrepreneurial. I didn't want anybody to say that I was given it all because I had a wonderfully sheltered and supported childhood. The idea of starting my own company and having it turn into something seemed like a good way to make a man out of myself, or not.

Sramana Mitra: OK, so you had come to the point at which you were going to do something entrepreneurial, health care related, and close to the doctor/patient ecosystem, correct?

Jonathan Bush: Right. The closest I got to that doctor/patient ecosystem was at Booz Allen Hamilton, where they were starting a health care strategy practice at the same time I was looking around for a first job, and that sounded like a good fit. I wanted to find some great health care leader, and carry his bag and write his or her thank-you notes. Of course I couldn't find it, but Booz Allen gave me a great opportunity to learn about the space, so I spent a couple years there.

I did a ton of work for health plans that wanted to get directly into the delivery of health care. They wanted to recruit physicians onto their side, a bit like Kaiser. I thought it was interesting and exciting, but it didn't work.

But I had a buddy at Booz Allen named Todd Park, and I figured we could do it. We started talking about it one night when all the cubicles were empty. We started talking about how it could be done properly, how the insurance companies weren't doing it right. They needed better information technology and a unique service approach. This was also right when Starbucks was exploding, and we loved how Schultz had been a barista and had gotten every single bit of the service right. You never saw anyone do that in health care.

So we decided to find a sector of health care that had a retail component but was complicated enough that really good information technology would help. We ended up with OB/GYN because there were deliveries, surgeries, but also because women choose their own OB/GYN. You often get handed an oncologist or cardiologist by your primary care doctor, but you choose your OB/GYN. We liked that because a better service experience would lead to more market share.

That's how we started. I left Booz Allen and went to business school. I spent a year and a half writing a business plan for a women's health practice management company that was going to revolutionize birth. We were going to treat birth as a wonderful, healthy experience during which you sometimes get ill, as opposed to an illness, which is how most American women get treated. We got very excited by it, we built a unique clinical model, we validated it with research, and we found the people doing the research and got them to be our first partners.

It was very exciting until we realized we couldn't make payroll because we had to file those bloody medical claims. Each needed its own unique footprint of various kinds of information, and it changed all the time. All kinds of bureaucratic garbage got in our way. We ended up building a Website internally to try and keep track of what was going on in our own clinics' front desks. That was the actual genesis of athenahealth.

I'll never forget going around trying to raise money for a women's health clinic at a $5 million pre-money valuation. A VC from Texas offered me $11 million for the rights to athenanet, so I figured that meant that either athenanet was worth a lot more than I thought or that my company was worth negative $6 million. That was a wakeup call. Todd and I went through a very painful series of conversations where we realized that some of what we were doing was so far before its time that it wouldn't happen, but that some of what we were doing was just enough before its time that it just might take hold.

Sramana Mitra: What year was that?

Jonathan Bush: That was in 1999.

Sramana Mitra: The Internet was already starting to gain a foothold. What did athenanet do that the VC found so appealing?

Jonathan Bush: I don't know what he saw in it, but it was unique. It was Web native, which meant it would run on a modem connection. In 1999 wide scale broadband was not available. This thing worked leanly and quickly. It kept track of the little details that the hourly workers, who make most of the decisions in medical practice, control – and in very simple terms. It didn't even do billing at the time; it just kept track of what you could bill and what information you needed to eventually bill.

Sramana Mitra: You essentially built a patient information system.

Jonathan Bush: Exactly. We had plans to eventually start billing, and by 1999 we were well on our way down that route. In early 1999 we made the decision to stay in business as a management service, but we were going to narrow our management service for a while so that it would only be claims-related. We also decided to broaden our target market to any doctor.

Sramana Mitra: Is that the thesis on which you raised your venture funding?

Jonathan Bush: Todd went out and looked for doctors while I went out and looked for venture funding. By October of that year we had more VCs than we needed and five customers. The first customer went live on January 3, 2000. On a side note, don't start an Internet company on Y2K day. That was a mistake.

Sramana Mitra: When you signed up your first customers, how were you charging them?

Jonathan Bush: We owned an interest in two medical practices. In a way you could say our first two customers were ourselves, whom I refer to as our alpha customers. We charged them a percentage of profits. The other three were our beta customers, who we charged a percentage of revenues because we weren't in charge of how many people they hired and what they paid them.

Sramana Mitra: Your value proposition was that you would retrieve their claims?

Jonathan Bush: Correct. We wanted 3% of what we retrieved for them. We would provide them the system, training, and do all the work associated with getting them paid.

Sramana Mitra: Help me understand the way you designed the system through the years. Walk me through the innovation.

Jonathan Bush: The original vision of the company was management infrastructure that makes health care work the way it should. When we changed, it became information infrastructure that helps health care work the way it should. The idea was to work towards a national utility that could be used to innovate health care.

Another key aspect was to build for the public good. We tried to have all our software development work be on projects that benefited everyone on the network. There are a lot of software companies that boxed themselves out of existence by building unique feature upon unique feature for their best customers. Soon their software was unrecognizable.

Sramana Mitra: What are some examples of software development that you did that eventually proliferated to your entire customer base?

Jonathan Bush: Rules development. Every time a claim is denied for any one doctor, it goes through a check. If it looks like a candidate for rules development, analysts get a hold of that claim and really dig in until they get to a root cause. Once they have the root cause, they work with programmers to build a change into athenanet that prevents anybody from ever getting that denial again.

There are now 40 million different scenarios in which a rule such as the one I just described will correct some hourly medical office worker – sometimes before the patient has even arrived – and get them back on track. It may only be relevant to one insurance company, but it applies to every doctor who sees patients from that insurance company. Little by little those rules accumulate into a very elaborate national knowledge resource.

Sramana Mitra: Your rules enhancement is entirely hand-coded?

Jonathan Bush: That is correct. It involves business trips out to health plan headquarters, statistical analysis, and some automated algorithms that look for similar claims. If we can find a range of similar claims that have all been denied, then perhaps there's something deeper we can explore.

Sramana Mitra: But you still have a master database of rules against which physicians can file their claims, and from the sounds of it you have a database that is very well cleaned.

Jonathan Bush: That is exactly right. Physicians don't actually file their claims; they just do their work. The rules engine is sitting under the surface of every step. It sits inside the scheduling module, so if you make an appointment that requires an authorization and we find that you don't have an authorization in your authorization file, it will alert you right then.

Sramana Mitra: Help me understand the interface between you and the practice management system. Are you the entire practice management system for the physician at this point?

Jonathan Bush: That is correct. We handle registration, scheduling, check-in, and check-out. There are two levels of service: collector and clinical. If you have both, then everything that happens in the exam room and all the orders, results, follow-up with the laboratories, and posting of the results that come back from the laboratories, including those by fax, are covered. We're the only health care IT company that deals with the portion of health care that is not online. That turns out to be most of health care.

A doctor who just spent $50,000 on electronic medical records has not changed the fact that every laboratory he or she uses has not gone and bought their EMR. Thus all the results they receive will come in via fax machine. That puts them in an awkward predicament because now someone on their staff has to sit there and digitize it. We actually forward the practice's fax line to our data center and automate those connections as part of the service in the background. We layer on optical character recognition and queuing theory to approximate the accuracy and speed of an electronic connection. What we have emerging in the background, without anyone paying for it directly, is the first national health information backbone.

Sramana Mitra: What kind of market penetration do you have?

Jonathan Bush: From the physician point of view we have about 2% of the market share. There are 700,000 physicians in the US – 600,000 who we believe practice medicine. We have about 13,000 MDs and 19,000 medical providers. We can send a claim electronically to 85-87% of insurance companies, which is more than anyone else. We can receive remittance electronically from about 75% of insurance companies. And we can receive results from 15% of the nation's labs. The rest we have to go out and handle via a queue of PDF images that come in over the fax line. Little by little those percentages have been going up every year.

Sramana Mitra: You have the beginnings of a very efficient national health care system. Now all we need is the political will to make health care an efficient system. Let's explore your sales model.

Jonathan Bush: Our sales model is based on direct sales forces. There's one for small practices: 40% of practices are in groups of three doctors or fewer. Then we have a small enterprise group that handles the large hospital chains and national accounts. In all cases, we sign a contract and set up each practice on the network ourselves. In the small practices that can happen largely online, without anybody showing up at a small practice office.

The biggest obstacle to scaling at this point is that nobody has heard of us. That's why I'm so excited to talk with you and go on shows like CNBC, or anyone else who'll get the name of athenahealth in front of people. Most physicians don't know there is such a thing as a software-enabled service that does billing and medical records over the Web for a fraction of what they expect the cost to be. Once we've convinced them we can do what we claim, it's very easy to sell to them.

Sramana Mitra: From an innovation standpoint, what are the other pieces of the dysfunctional health care system, besides billing and claims processing, that are on your radar?

Jonathan Bush: The first piece of the supply chain is the lifecycle of the medical claim – we have that well in hand. The next piece is the lifecycle of a physician's order. A physician can order another physician's time, or a prescription, or a blood test. Those supply chains are out of control. Most doctors have no idea if their patients go and get the things they order, and many times they never get the results back, so they can never follow up with their patients. A recent study found that 35% of the women who had annual exams and had abnormal Pap Smears never found out.

Sramana Mitra: That is scary.

Jonathan Bush: It is. The Institute of Medicine has documented these kinds of error rates for years, and it's devastating because the doctor still gets paid. It's what a doctor would refer to as an unfunded mandate. We think by automating the supply chain we can save the doctor funding and fill the social gap. Over time, that may make the doctor more money because people won't be able to sue as easily.

The third supply chain is the lifecycle of patient interaction. A huge amount of unfunded work for a doctor comes in phone calls from patients asking questions, trying to change their appointments, getting directions to the office, or asking questions because they don't understand their bill. Most patients are frustrated by their inability to communicate with a doctor; most doctors are frustrated with the cost and confusion of being available. By the end of the year we'll roll out a patient-communication service to improve those issues.

Sramana Mitra: Do you plan to implement technologies like knowledge bases, automated Web self services, and other similar systems?

Jonathan Bush: Bingo. The first thing you do in health care is solve existing problems. Once you have the solution implemented, then you can start asking how to improve the solution, and you do that on your own time. All doctors care about is that we'll answer the phone on the first ring and they won't lose as many appointments. After that we'll have to illustrate that many patients would rather just hit a Website to change their appointments or look up lab results themselves.

Sramana Mitra: In many ways the technological innovation we are talking about has been around for a long time.

Jonathan Bush: It definitely has, but it hasn't been packaged in a way that makes the doctor more money.

Sramana Mitra: It has not been applied in the context of the health care industry.

Jonathan Bush: That's right. I think the primary reason for that is the packaging. Lots of people put out technology, they even give it away, on the pretense of making things better for society. But they ask doctors to use it at their own expense, which will cost the doctors time without helping them make more money. That's no way to do business.

Doctors are business-savvy. They're good men and women, but at the end of the day they need to make money. They're in business.

We talk about the plutonium sneakers at athenahealth. The plutonium sneakers are the hospital that says, "We have access to all these plutonium sneakers, and in order to win our physicians' loyalty we're going to give them out to all the doctors in our community." The CEO then sees the doctors and says, "Hey doctor, I noticed you're not wearing your free sneakers we gave out, why?" And the doctor says, "They have plutonium in them!" "Yeah," the CEO says, "but they're free!"

Sramana Mitra: Jonathan, what has been your key to understanding and cracking this market? There have been a lot of failed attempts at it.

Jonathan Bush: The secret today for an entrepreneur is to do work for actual people, and use the Internet to help you. Providing tools or Web apps, and hoping to get licenses, advertising, or page views isn't a very current business model. People have complicated work to do. The Internet won't solve it alone, but if you use the Internet you'll improve the work.

Sramana Mitra: What you are promoting is a technology-enabled service business model instead of technology as a service.

Jonathan Bush: Correct. SaaS is dead, long live SES, or software-enabled service.

Sramana Mitra: How will all of the political drama around healthcare affect the visibility of healthcare IT?

Jonathan Bush: We've been hard at work bringing about the death of the old-fashioned software companies that dominate healthcare IT. Their business models and companies should be dead – they've been doing a great job of falling apart. Now, thanks to the federal government, they'll be given another five years to live, which will slow us down and prevent the evolution of software-enabled service business models. Eventually they're going to die because at a fundamental level they do the wrong thing.

This is a long-term lesson about how important it is for marketplaces to disrupt themselves. It is more important to get into new business models than squeeze the last ounces out of old ones.

But overall it won't hurt us. In fact, it has brought a lot of attention, energy, debate, and focus. That may allow the best model to win yet.

Sramana Mitra: You have a large TAM and the right solution – it is basically just a matter of building in a pure capitalistic way. I like that a lot.

Jonathan Bush: That is certainly what we hope ends up being the ultimate story.

Sramana Mitra: I look forward to following your successes. Good luck.

Identifying Large, Inefficient Business Processes

Cloud-based expense report management software company Concur was recently acquired by SAP for $8.3 billion. Long before this acquisition in September 2014, the company had gone public back in 1998, at a time when cloud software was an unknown concept.

Founded in 1993, the company provided licensed software to enterprises and SMEs, and focused squarely on solving a cumbersome business process: expense reporting. At the time of the IPO, they were doing only $6 million a quarter.

They hit a rough spot in the 2000-2001 period, and made the tough choice to switch to the on-demand SaaS model. This was a pivotal decision, and the rest, as they say, is history. It was a tough, messy switch, and the stock hit the ground. But it was a brave, correct decision.

Since then, through acquisitions, as well as organic product introductions, Concur has created integrations with airlines, hotels, credit card companies, etc. to manage the travel expense business process extraordinarily efficiently.

With another recession on the horizon in 2008, corporations started reining in information technology spending. But Concur saw revenues jump 33% to $129 million in 2007. "We help companies enforce travel policies throughout the organization, and during a recession, organizations can control costs using our system," recalls Concur Chief Executive Steve Singh. "Large chunks of employee travel budget can be reduced, and Concur makes sure that the budget is adhered to."

At the time of the SAP acquisition, Concur forecasted revenues of nearly $862 million for the fiscal year ending September 2015, and was valued at close to 10X that amount. Clearly, Steve's recession hypothesis worked out spectacularly well.

Concur has created a sustainable leadership position in the business travel management and expense reporting market over the last 20 years. In the meantime, the market has gone through major shifts from licensed software to cloud computing, and they had to manage the shift as a public company. But their core value proposition has not changed. It has improved, become more comprehensive, more compelling, but not different.

The market is large. Corporate travel is a $1.2 billion dollar industry. Concur has 25,000 businesses as customers, and over 25 million users at the time of the acquisition.

The lesson? Identifying a large, cumbersome but mission-critical, business process offers opportunities to build strong businesses.

Interview with Steve Singh, Concur

While Salesforce.com was built upon the idea of a business model disruption, Steve Singh had to absorb a business model change from Enterprise Software to Software-as-a-Service (SaaS) as an already public company. Steve tells the story of how he made the hard decisions and came out stronger in the long run, despite the stock's plummet from $30 to 28 cents. This interview was conducted in August 2007. A second interview was added a few years later. Both conversations are offered below.

Sramana Mitra: I would like to trace the story of how you built the company, but first, let's start with your personal background. Where do you come from, where did you grow up, and what was your early career?

Steve Singh: I am happy to cover that, although it will probably be boring! I was a product of India, but I grew up in Michigan. I spent the early part of my professional career in Silicon Valley working for a division of Apple. I also went off and started a company that became a part of Contact Software which is the maker of ACT. I did a brief stint at Oracle, followed by a stint at Symantec. Most of these changes were due to being acquired. After Symantec I came on board as the CEO of Concur, which was February 1996.

Sramana Mitra: What roles were you playing during your earlier stints? Did you come up the marketing track?

Steve Singh: No, I was in the development track. I am an engineer, so I started off writing code on the Apple Macintosh platform. I and Mike Hilton, the co-founder of Concur, were the original developers on MacWrite II. We were also the folks who developed what became ACT. My professional background is very engineering oriented. I happened to have a passion for the business side as well, so I migrated in that direction.

Sramana Mitra: Did you found Concur?

Steve Singh: I didn't found Concur – I was an original investor in Concur. Rajiv Singh, my brother and also the President of the company, and Mike Hilton, the Chief Technology Officer, founded the company. I had the chance to invest in the company and was a very active board member in the early days.

Sramana Mitra: What year was Concur founded?

Steve Singh: It was founded in 1993. It just goes to show how long it takes to build great companies.

Sramana Mitra: What did the company do in the beginning?

Steve Singh: We have always done the same thing. We have always been focused on automating the expense reporting process.

The way the company got started is interesting. When Mike and I were at Contact Software, in the last 9 months of our tenure there, as we were selling the company, I was traveling a fair bit. The bankers who were involved had me traveling a lot talking about the technology, about where we could take it, to potential buyers, and with all that travel I never got around to filing my expense reports.

When we were dealing with Symantec to acquire Contact software, I had a chance to take a breather and one of the things the CFO told me was I had a week to get my expense reports in before the acquisition closes, and if I didn't I was going to lose out on my expenses. As it turned out, I had about $150,000 in expense reports to file. It literally took me a week to sit down and go through every single receipt, and put it on the form our company used. I am sure I lost money in the process.

As I wrapped that up, I talked with Mike and said, "I can't believe there is not a better way of doing this!" I had a three year employment contract with Symantec to honor, but I told him if you want to go start this company I know Raj is interested and I would be happy to help fund it, so let's go solve this problem. That is the basis on which we started the company.

Mike and Raj are the guys who made a reality out of the concept. They originally built a version of the product that was sold through retail stores. This is back before there was a concept of the Internet. We always knew this would end up being enterprise sales, so we made a version for the enterprise which was a web-based solution. We were one of the first web business applications ever written.

In 1998 when we went public, we were the first web applications company to go public. We have always been at the forefront of our industry. With time it was very obvious the enterprise software licensing model had limited growth opportunities. Not every company in the world can afford to buy a license for a piece of software, then pay all of the consulting fees required to deploy it, as well as the ongoing maintenance fees.

We looked at the business model, and realized the ideal business model is one that looks like the payroll industry; something where the customer got all the benefits of the services, complete enterprise level functionality, but in a cost model that was comparable to outsourcing payroll. It had to be something that was deployed quickly, low cost, and used on a transactional basis. In this way, you are only paying for what you use.

Sramana Mitra: What are your pricing guidelines now?

Steve Singh: We actually don't share that publicly, but it is not too different than payroll processing costs. The core point is if you look at the paper model, and you go to companies and ask them how much it costs to process an expense report via paper, it is about $45 - $50 per transaction.

Sramana Mitra: When you say that, is it because people have to manually write it down, and place it into the computer – is that what you are quantifying?

Steve Singh: No, in fact our buyer is the CFO or controller of a company. They do not look at soft-dollar savings, so your time and my time are not factored in. What they do look at is how many people in the accounting department who receive your paper expenses enter them into the general ledger system. What does it cost to do paper-based checks? How much do you save in supplier contracts? What benefits can you get in reducing the transaction processing costs? We can take that from $45 - $50 down to well south of $10.

Sramana Mitra: What was the revenue of the company when you went public in 1998?

Steve Singh: We were a lot like every other dot com. We had a modest amount of revenues, we were probably doing about $6 million a quarter back then, all licensed revenues.

Sramana Mitra: Were you profitable?

Steve Singh: No, we were not. A lot has changed over the years. Keep in mind this is right before the bubble.

Sramana Mitra: How did you fund the company? Was it bootstrapped?

Steve Singh: No, like a lot of companies, after we got it off the ground with our own money we took some venture capital money. We were fortunate to have some incredible venture capitalists, Brentwood Venture Capital, which is now a part of Redpoint. Institutional Venture Partners, Mayfield Fund, RRE – those are some of the venture capitalists we worked with.

Sramana Mitra: What happened after going public?

Steve Singh: The company did well in the public market for a period of time. One of the major changes for us was in April 2000, before the bubble burst.

A true story, which gives you some context about us: I was headed out on a much delayed honeymoon. I had a chance during the flight to read all of our management reports. When you step back you get a chance to see where the business is going. We had acquired into some businesses that we were not executing very well on – things like HR and Procurement.

At that point you can choose to address those issues or you can choose to ignore them. As I went through this, I had a chance to see where we wanted to take the business. I saw we were excelling in the expense management side, but we were not doing well in the Procurement or the HR side, and even on the expense side there was limited future on the growth of the licensed software model.

As I thought about it for a few weeks I came back and I pulled the team together. I told them that we owed it to the shareholders to build something that held great value for the long-term. Even if it means we have to go through some pain in the short term. We charted out a business plan that said we would have to move to an on-demand business model. Keep in mind, back then the idea of an on-demand model did not exist in the tech industry. The concepts and the parallels were there in places like payroll processing, but not in software.

We charted out a path, we made the changes to the business model and the business planning process. We shared our desire to change with our investors and obviously caused a very negative change to our stock at the time.

But I knew it had to be done, and we did it.

Sramana Mitra: Well, Wall Street is very short term focused. They don't have the same instincts as the operators in terms of major changes in the business due to changing market forces. So you changed course in 2001?

Steve Singh: The change actually happened in 2000, and the market did not like the idea of us changing our business model. We hit a low point of 28 cents a share after the announcement, and the stock before was $30.

Over a period of a couple of months we saw the stock descend rapidly. We were a very thinly traded stock, so when we saw one of our larger shareholders get out, the stock took a very significant hit. It also recovered shortly thereafter.

The point is, we told our investors, the right way to capture this market and build long-term value was to align the economics and the delivery model in a way that was beneficial to the customer.

One of the things I will tell you that I am happy about is that every quarter since that change – literally every single quarter now for seven years – our business has improved.

Much of the hard decisions we made in March of 2000, other companies had to make in March of 2001. Our view is that you must confront the issues that exist in your business as soon as humanly possible, and solve them.

Sramana Mitra: Looking at the stock price chart you hit bottom from 2000 to 2001, and started rising when other companies dropped in 2001.

Steve Singh: That is right. It took a long time. Some investors are more risk oriented than others, but it took a long time to re-earn the trust of our investors at that point.

Sramana Mitra: It is difficult to make those types of changes as a public company.

Steve Singh: It is. Honestly, when it comes down to it you really have a very simple decision. Either deal with the challenges, or hide from them.

Sramana Mitra: And you were CEO through this timeframe?

Steve Singh: Yes, all of those mistakes were mine.

Sramana Mitra: How did you change the channel at this point? Shifting to an on-demand model, you would have then had to make changes to the channel as well.

Steve Singh: The changes were pervasive, and they were not related just to the channel.

First, the entire executive team had to change. If you looked at the executive team back then, it was 17 people. All but Mike and I had to be changed out. You had to start thinking, fundamentally, as a services company and not a software company.

The way you built the software was different; the way you dealt with your hosting operations was different; the way you delivered the software was different; and the way you serviced it was different. The whole business model changed, and the whole sales model changed. Instead of sales executives who were used to selling big enterprise software deals, two deals a year and you make your number, we had to change the model to find sales executives who knew how to sell more deals per year. We then had to find sales executives out of companies like ADP and Paychex who were used to selling 20-30 deals per year to make their quota. Much more transactional sales.

Sramana Mitra: So you probably moved more toward telesales.

Steve Singh: Yes, exactly right. We went from a 700 person company to a 300 person company, which then further went down to 250 over the course of the next 8 months, and we started rebuilding from there.

Sramana Mitra: OK, so the focus has been on-demand expense management solutions. That has been the case from 2001 until now, right?

Steve Singh: That is exactly correct.

Sramana Mitra: What is the plan now? How are you going to manage growth at this point, what is the market landscape?

Steve Singh: In January of 2006 we hit another inflection point in our business. It was an inflection point which, when we took the bet, we were alone in the marketplace in making such a turn.

Our competitors looked at the change, didn't think it made sense, and didn't think customers would want it. It reminded us very much of the change we made in 2000, although not as big of an impact from the stock point of view.

We have two separate processes today: booking travel and filing your expense report. In January of 2006 we acquired a company called Outtask for $88 million. The whole premise behind the acquisition was: Why are these business processes separate? Why are they not integrated to make a better experience for the business traveler?

When people got paychecks at their pay periods, they were literally paper based checks. You received them, took them to your bank, and a week later the money would show up in your account. Today, we get our paychecks and they are automatically deposited into our accounts and they are available immediately.

Look at the expense reporting process, the vast majority of the world, 93-94%, use paper to file expense reports. We looked at this and asked why we couldn't effectively do away with the idea of filling out expense reports. Why can't we integrate travel booking and expense reporting in a way so that while you travel, your expense report is being filled out?

Sramana Mitra: Most of the expense reporting is around travel. However, there are other expenses to be incurred, right?

Steve Singh: That is exactly correct, there are expenses which occur outside of travel, but the same solutions can be applied whether for business travel or taking a client out to lunch.

The core point is that as you are conducting business – why can't we intelligently gather the right information so you really have to do very little to file your expense report? That is why we acquired Outtask. We combine these processes together as one and then, say as you book a trip, we will capture all of that itinerary data. We already capture all of the credit card data, so we will reconcile the itinerary data to the credit card data and then we are going to introduce this novel concept called Smart Expenses.

These take the itinerary data, the corporate card data, and also the e-receipts we capture from suppliers. We combine these three things together, which are completely reconciled; we know you booked it, it showed up on the credit card and here is the electronic invoice from the supplier. We know everything we need to know about this expense so we are going to put it in the expense report for you. You don't need anything, not even the paper receipt anymore. That was a big change a year ago, and our competitors looked at it and said it would not fly with our customers. What we have seen is the exact opposite.

Sramana Mitra: Whom do you consider your competitors?

Steve Singh: If I were to look at the competitive landscape, the ones we spend our time worrying about are American Express, SAP, Oracle, IBM, Carlson Wagonlit, EDS, and Accenture.

Sramana Mitra: Accenture because they build custom solutions?

Steve Singh: They build custom solutions and they are also very big into BPO solutions.

Sramana Mitra: When you compete with SAP, what is your competitive pitch?

Steve Singh: Obviously SAP has incredible mass and distribution. They will oftentimes price the solution, at least the software side, free, leaving you to pay only the consulting and maintenance costs. It is a very tough competitive situation to be in.

We are finding that we can win a significant portion of the time because of a couple of things. First, the solution we provide is just fundamentally better. The experience is so much better that the customer looks at it and does not find the other solutions nearly as compelling. Second, we provide the solution at a cost structure that is so compelling it is hard to find a way to do it cheaper. Fundamentally, those two things will always win in the market.

Sramana Mitra: This is probably not one of the business processes which SAP has started delivering as an on-demand solution yet either.

Steve Singh: That is exactly right.

Sramana Mitra: You are winning on the delivery model as well. So where is the future of the company? Great management teams cannot just focus on today, they have to look five years down the road.

Steve Singh: Which leads to exactly why we did the Outtask solution: we have to build scale. We have a great reputation in the travel market and the expense market, but we have to also face some very big competitors. Although we are doing very well as a company, we look for opportunities to add scale and value added services, like payment processing, which is why we did the Gelco acquisition.

Sramana Mitra: What is the payment processing service?

Steve Singh: This is one area we believe adds great value. As an expense report is processed, they will actually take money out of your corporate bank account and pay your employees on your behalf. As an employee you are getting paid very quickly.

Sramana Mitra: You are then completing the loop.

Steve Singh: Exactly, it is procure to pay.

Sramana Mitra: Very interesting.

Steve Singh: With our booking product, we have the procure side of it, expense reporting is the processing side of it, and with Gelco we have the pay side of it. So, procure to pay is a start to finish solution.

Sramana Mitra: Help me understand your customer base a bit. Are you focused on Fortune 500, Global 2000, or are you focused on smaller companies?

Steve Singh: Early on we were focused on global accounts. However, one of the great things about an on-demand business model is you can drive your cost structure down to the point that it is very compelling for companies of any size. We have customers as small as the Los Angeles Philharmonic with their 20 users. On the other end of the spectrum, we have customers like AT&T which have thousands of users.

Sramana Mitra: You must have a strategy of how you approach the market. How do you segment the market?

Steve Singh: True, we do segment the markets, but our strategy is we would like to focus on a vertical set of services for travel and expense management, procure to pay. That is our segmentation. From a customer size point of view we do not segment.

We have 5,000 customers. Once we complete the acquisition of Gelco we will have another 1,200 customers. We will have 6,200 customers which will range from some of the smallest companies in the world to some of the largest companies in the world.

Sramana Mitra: How does that break down – what are the percentages?

Steve Singh: You will find the breakout is very comparable to the distribution of corporations across those sizes. There are a lot more companies in the 100 to 1000 employee segment, than there are in the 1,000 to 10,000 segment, and in the above 10,000 segment. The distribution of our customers matches that distribution.

Sramana Mitra: You do not have any bias, one way or the other?

Steve Singh: Not at all. Our distribution strategy is to reach customers of any size. We have no concentration of revenue, by customer or by market segment that is overly significant. If you think about payroll, it is similar. ADP serves customers who are as small as a two-person company, and customers as large as you can find.

Sramana Mitra: I don't think they do a lot in the two-person range, but there is a small company called PayCycle that is going after the under 20 employee segment, and Paychex seems to be going for the middle market.

Steve Singh: That is fair. I know the folks at PayCycle and they are doing a great job.

Sramana Mitra: The reason I am pushing on this is that there are variations in how you sell to a small company versus a larger company.

Steve Singh: There are, however, I maintain that those variations are changing as web technologies become more pervasive. Today we think of the web as a delivery model in terms of how you use the software, as a person or a corporation. However, I think you also have to think about it as a delivery model for sales and marketing. Why can't you market and sell directly over the web? You yourself are a great example of reaching customers over the web, so if you look at businesses in the next 5 to 10 years you are going to see a big push by business to market and sell to customers directly over the web.

Sramana Mitra: When you are doing a 10,000 user deal, or a 100,000 user deal, versus a 5 to 10 user deal, is there a difference? With the larger accounts you have to have a sales force to close deals in person.

Steve Singh: Of course, and I see what you are saying. We have a sales force which is in the field that calls upon larger accounts.

Sramana Mitra: Smaller deals, in the 1-20 range, you can probably close them all by phone and even in the mid-market you could close many of them by phone. You do not need the high touch sales.

Steve Singh: Your instincts are right. I think you understand things that a lot of folks don't. The cost of distribution is substantially cheaper in a Telesales model as you come downstream in the market.

Sramana Mitra: Your earnings would be different depending on the model you are leaning toward. If you are leaning more on the SME side, it would be a lot easier to compete with SAP and Oracle. You won't even see them in the accounts anymore.

Steve Singh: In fact you run across different competitors in different segments. You are absolutely right. One of the reasons we generate the operating margins we do is because we have a nice distribution of where the revenue comes from. You can absolutely expect our ability to generate more aggregate profits in the middle markets and the smaller markets, than in the upper end of the market segment.

Sramana Mitra: This might be slightly out of line to saying this, but if I were to present this company, I would say two thirds of my customers are from the mid- and small market, and it is more profitable to transact in that market.

Steve Singh: I appreciate the comment you are making, but the issue for me is that we serve customers across the entire spectrum.

My audience goes well above and beyond the financial community. I want to incorporate that into our message. At the same time, smart investors will look at comparable companies like Paychex and say, "Look at the profitability Paychex generates in serving smaller accounts where the cost of distribution is lower and more efficient."

Sramana Mitra: What I think is exciting, and the reason I have started covering the on-demand space in a lot of depth, is because it is a delivery model that allows software companies to tap into the mid-market which was basically a no-man's land for a long time.

Steve Singh: I think you are absolutely right. In fact one of the things we used to pitch five years ago, back when I first started talking to investors about the on-demand model, was the predictability of revenues. That is still the case; however what we are pitching today is not just the predictability of revenue.

Sramana Mitra: No, on-demand opens up a whole market, one that was not accessible before.

Steve Singh: Exactly. Additionally, it actually should increase profitability. One of the great things about this model is you should be able to drive down the cost for your customer while increasing your profits. That is fundamentally different than in the traditional software model.

Sramana Mitra: What is your next step now that you have acquired Gelco?

Steve Singh: We have a lot on the plate right now. However, if we look at the broad perspective, our job is to take the travel and expense supply chain and fundamentally re-engineer it to make it more efficient.

If we can make it more efficient, we can get great customer adoption and our business will continue to grow progressively. After the acquisition of Gelco we will be at 6,200 customers. We need to get from 6,200 to 50,000 over the next decade. That is what we are going to focus on. Obviously if there are additional services we believe we can get to our customers, we are going to tackle that. We are spending a fair bit developing new services, and you are going to see that over the course of the next year or so.

Sramana Mitra: What about partnerships. Are you working with SalesForce.com?

Steve Singh: Mark Benioff and I certainly know each other, and I think there is an interesting opportunity to partner on the SME market.

Sramana Mitra: SalesForce.com's customer base is directly in your sweet spot. People who have to travel a lot and deal with a lot of expense reports. It seems like perfect synergy to me.

Steve Singh: I think you have good insight.

Sramana Mitra: I also sense a little bit of reservation.

Steve Singh: No, not at all. None at all. You have great insights. We have announced so much in the last couple of weeks, we should focus on that. We do not have a formal relationship with SalesForce yet. I could not agree with you more that there is an amazing opportunity there.

Sramana Mitra: Anything else you would like to share?

Steve Singh: I think you have done a very good job of covering this. You have an insight into our business which I think is pretty unique. You are absolutely right, especially about SME customers and the profitability increase. Also it opens a whole new market segment traditional software companies could not tap into.

Sramana Mitra: Good luck to you, thanks for taking the time, Steve.

Steve Singh: Thank you for your time as well, I appreciate it.

I spoke with Steve again in May 2012. Here goes the second interview.

Sramana Mitra: Hi Steve. We talked some time back, and of course, the cloud industry — when we talked — was still kind of hitting its stride. Now, the momentum is in full force. Give me an overview of what you see around you to kick this off, and then we'll double click down on major things that you see.

Steve Sing: Sure. I would say that cloud computing was still pretty nascent back when we talked – in 2006 or 2007 – when folks at Salesforce or Concur were talking about it, it was still a missionary sell, not only to corporate customers but also to the broader financial and industry communities. It's something that I think people understood the basics behind but took a wait-and-see approach to. Obviously, here we are half a decade plus later and at this point, people get cloud computing, but just as important, they see it as central to the next evolution of the technology industry.

It's very easy for people to say today, I get how cloud computing took off in the consumer world, but now I'm starting to see concrete, sizable examples in the enterprise world. So, that part is now well written, well defined and it doesn't take a lot of courage to be a believer in cloud computing anymore. Even in the financial markets, billions have been made investing in cloud computing companies. We created around a $3.5 billion market cap. Salesforce is around the $21 billion market cap. You see Success Factors being acquired for about $3.4 billion, Taleo for $1.8 billion or $1.9 billion. So, you see real money being made in this sector of computing. Having said that, I would say that it's, literally, just getting started. I think what you're seeing in enterprise cloud computing in the next decade is applications companies like Concur or others turn into things way beyond applications companies. They'll turn into content and commerce companies, in addition to being applications companies.

That's the way we see Concur unfolding. Today, we're the second largest cloud applications company. We think in the next decade, not only will we be a large applications company but we'll also be a content and commerce company. As you take all these big trends like cloud and mobile and social and local and big data, as those things all intertwine, you're starting to see some interesting problems being solved and some interesting companies being created from that.

Sramana Mitra: On the topic of cloud computing, cloud companies evolving into content and commerce companies, could you elaborate further on what you see and where you see that going?

Steve Singh: First of all, you look at all of these enterprise cloud computing companies, and they've certainly picked up some interesting scale. But if you think about the problems that they're solving, there tend to be very significant processes being automated that are pervasive across the enterprise. So, you have a lot of people who actually engage in that particular business process, whether you're talking about sales automation or employee management or travel and expense management, as is the case with Concur. If you think about what we do as an example of that, our products are used on one side to book travel. And then we have another part that is used to manage the itinerary as you travel. And then our expense products are used to reconcile that trip information and file an expense report on your behalf.

As you take the next couple of steps on this, what you see is a tremendous opportunity to – in the travel part in particular or, for that matter, even the itinerary portion – to be able to say, look, why can't I integrate content in a way that is well above and beyond the traditional mechanisms of integrating content? For example, you look at the Expedia's of the world where you can say, that's clearly a commerce play in a consumer application. What you saw was commerce being integrated in what I would call integration generation one, effectively, not very intelligent commerce. It's just, here's a set of choices and oftentimes, those choices are biased, based on where the company, Expedia, makes money.

What if you could imagine a world where all of that content's available but not biased in any way, shape or form? It's all available to you but made available to you in combination with big data. So, where we understand your spend patterns, your preferences, your companies policies, we intelligently deliver to you the things that you're most likely to want to purchase in corporate travel. Somebody like me, for example, I'm not likely to stay at a Motel 6. I'm a business traveler. I'd be likely to stay at a Starwood property or something similar to that. And I have a certain price point in hotels that I tend to spend because it gives me the amenities that I'm looking for, whether it's Internet or whatever. It could be that I'm looking for Internet plus gym facilities. So, I have a certain spend pattern, and if I can integrate that content in where it's not just an understanding of my spend patterns but also being able to tie in what the supplier wants to deliver …

Think about how much a supplier knows about you as an individual. Even United Airlines with its global services people, only has a limited amount of information about you. How much does United Airlines know about what you spend at American or Delta or whatever? How much does Hilton know about your spend patterns with other hotels? If you can combine big data in a model with cloud computing that says, I can intelligently provide information about both the spend side and the purchasing side, you've effectively got a commerce opportunity.

Sramana Mitra: A personalized commerce opportunity, yes.

Steve Singh: Completely personalized. It's personalized down to the individual level. It's not a company level. It's down to the individual person. It says I know about you. I know how to meet your needs, and I know how to make your trip a better experience. So, what we see happening is we see all these applications companies, and they will take all this rich data and deliver it back to the customer and to the end user and to the supplier in a way that makes it a more efficient supply chain for the supplier and frankly, a better experience for the traveler.

Imagine a LinkedIn in that model. How might that work? Well, you've got an incredible eco-system where people are trying to figure out how to make connections for the purposes of networking and job searching. Imagine LinkedIn one day – and I'm not saying they're going to do this – [ends up] owning a talent management company, an HR talent management application company and integrating that in such a way that you could not only provide a robust set of tools to help you understand your internal needs within a company but then also to link it up against all the available people who might fit that need. There're real commerce opportunities.

Sramana Mitra: I think it makes a lot of sense for LinkedIn to get into that sector, the talent management sector. That's a very astute observation.

Steve Singh: It's just one example.

Sramana Mitra: Another example that we talked about in commerce, one of the companies in your space, Rearden Commerce, came out more on that commerce side and got into more enterprise applications, coming at it from the commerce side. Right?

Steve Singh: They actually started out on the enterprise applications side. They tend to re-position the company a fair bit. They came at it from the enterprise applications side the same as we did. Then they went over to the commerce side. The thing that's important here is that neither one of these things works on its own. You have to be great on the application side in order to be on the content side in order to be great on the commerce side.

Sramana Mitra: And the data.

Steve Singh: And on the data side. None of this works without the other components. In fact, that's why when we look at global and mobile and local and social and cloud, it's not that one works independently of the others. They, in fact, are tightly intertwined, and you won't be able to separate them out over the next five years. They're completely and utterly intertwined and interdependent, and they actually build value upon each other so that you have a much richer experience as an individual using these products.

Sramana Mitra: Yes. You guys have been around for a while now. You do have a ton of data in your system, at various instances of your system, what are you doing on the big data side to take advantage of that and provide this kind of personalized experience?

Steve Singh: On our last journeys call, we just started out learning our big data plans. The very first place that industries think about when they think about big data is in terms of business and growth intelligence. They think about it in terms of a Cognos or Business Objects where a company might buy a set of tools to analyze all the information that exists within its various systems. I would argue that that's about 10% of the opportunity. If you think about it, 90% of the world's electronic data has only been formed in the last couple of years. And most of that is not sitting within typical financial systems and HR systems. It's actually being created on mobile devices and social networks and being deployed and used within mobile devices. So, imagine creating links between that information and the internal systems that exist within companies … at least within the enterprise sector. We think that big data applications will exist within [other] applications, within a sales force cloud or within an HR cloud. That's where the big data applications will really start to materialize. It won't be in the context of a replacement cycle to Cognos or Business Objects.

Sramana Mitra: Right. Where you are sitting, the specific value proposition that you deliver, just by virtue of doing that for many years now for your clients, you have already accumulated a lot of this data. My question was do you have the technologies to be able to analyze that data and draw these personalization inferences.

Steve Singh: We do. Where I was going is you will see that actually being integrated deeply into our products. For example, all of our data sets are in Hadoop now. So, we're able to use this information not just for the purposes of being able to analyze trends but then also feeding it back into the application set. For example, when you log on and say, "hey, I'd like to book a hotel," the reality is that as you use our product, you always had the option to say, "give me more choices," but when you use our product, the hotel choices that you get will be constrained by two variables. One is what is your corporate policy? And two is what are your preferences within that?

Now, if you don't have a corporate policy it'd be entirely constrained by your spend patterns and your preferences. What's relevant to you? So, that information will come back in a way that makes it very easy to select the things that you actually prefer. Or if you say, "expand my parameters by x, y, and z and give me more choices," that's easily done within the interface. But what we're trying to do is figure out how do you do that within the actual normal experience of our applications, within the normal booking of travel.

Sramana Mitra: What do you see happening to the business model? Today, you're still selling per user, per month, per year subscriptions, right?

Steve Singh: Today, it's still a subscription model. I think what you're going to see is that the business model will evolve to include additional revenue streams. For example, in the managed travel segment, which is where we sell to larger corporate clients, you'll see not only an opportunity to continue to deliver our subscription services but also an opportunity to deliver economic value to suppliers, which may show up in transactional fees.

Sramana Mitra: How does the enterprise react to that? You are monetizing the employees of the enterprise in that scenario. How does the enterprise view that? Or would they want a cut of that?

Steve Singh: It's far more important to look at it and say, "are you doing this in a way that actually helps the enterprise? Are you doing this in a way that actually helps the employees?" As long as you are, I think the reality is that this will be embraced. In fact, we're finding that it is being embraced because of that. If you think about it, today, more than 35% of all travel expenditures are outside of policy … outside of your corporate rules or corporate policies and any suppliers you might be using on a corporate basis.

Most enterprises don't even know what's being spent outside of that 35% of spending. They have no idea where it goes.

Sramana Mitra: So, you think that by streamlining all of that, you can actually apply algorithms of group buying and stuff like that, that would bring efficiency to the enterprise that would then be the incentive for them to let you monetize them on transaction basis.

Steve Singh: Exactly. Also, think about this. The reality is that what you want as an enterprise is to understand where your [money] is going and how to best leverage spending. The challenge is that oftentimes, they don't know where that [money is being spent]. Therefore, they can't leverage that spending in any way, shape or form that's material, especially when they have 35% to 40% of expenditures that aren't even captured. So, if you use tools like ours where you make a process smoother and a better experience for the end customer, then not only is the end traveler using our applications but we're also capturing all those expenditures. And as you're capturing it, by the way, you're also lowering your distribution costs for the suppliers. Now, if you're lowering the distribution costs for the suppliers, our argument is that the end buyer and the corporate customer ought to get a benefit from that. So, they do, in fact, get an economic benefit.

This is exactly why we look at this and say, as we move from being an applications company to being an applications, content and commerce company, we're adding value not just to the supplier but also to the end corporate customer, which is the customer that we serve.

Sramana Mitra: What do you see in terms of gaps and opportunities for early stage entrepreneurs to look at, based on all the things that we have discussed?

Steve Singh: It's interesting. I don't know that I've ever seen a better time to be an entrepreneur within the technology industry. The level of engagement that exists today between individuals and computing is a magnitude above and beyond anything I've ever seen in my life. A lot of this, of course, is being brought on by mobile computing and the cloud computing services that cater to mobile devices. This is an amazing time on the consumer side and the enterprise side to be in the technology industry. Obviously, you have to decide: Hey, look, what particular business problem do I want to solve? And how do I go about solving it? But today, if I'm a young entrepreneur starting out, all my resources would be devoted to mobile computing and solving whatever business problem I want to solve, whether it's consumer or enterprise, I'd solve it via the mobile device.

Just to give you some perspective on that, a year ago, when we just got going launching our mobile products – and we, obviously delivered natively on the Apple iPhone and iPad and, of course, Android devices – our usage – we had 17.5 million users of our Web-based cloud services – our usage in mobile at that point was nearly zero. Today, just a little bit more than a year later, we have 2.5 million mobile users. If you think about it from an enterprise perspective, we might be one of the largest, if not the largest deployments of mobile applications for enterprise software anywhere in the world.

Sramana Mitra: Part of it is also because the nature of your application is very much something that people would want to use on the go.

Steve Singh: Even though that's true, I think the reality is that people embrace mobile applications because of the convenience around them, and they offer a level of functionality that traditional computers don't. We'll come back to that in a second. Mobile is where transactions will move, whether you're talking about applications or content and commerce. Coming back to the point around mobile devices providing more functionality, if you think about it from a developer's perspective, there's a level of technology that's available on mobile devices that's above and beyond what I can get on laptop computers, not the least of which are GPS, NFC functionalities that say, look, I can get more understanding of where you are and what you're doing. Imagine NFC chips used to open a hotel room door. What if once you land, we could, within Concur, check you into a hotel, get you the right code, pre-program it into the NFC chip on your phone and that allows you to walk into the Sheraton in Manhattan, go up to room 1602 and this phone has the right code to open up this door?

You're going to see a set of functionalities that are inherent to these types of devices that are above and beyond anything you could do on desktop or notebook computers.

Sramana Mitra: I think payment on the mobile phone is improving by leaps and bounds.

Steve Singh: Yes, absolutely. In fact, I think you're going to see … the traditional things you have in your pocket are your keys, your mobile phone and your wallet. I'm going to argue that in, given another three years, the only thing I'm going to have in my pocket is my mobile phone. It'll have my keys within it. It'll have my wallet, my identification mechanisms all built in within it. They only thing that you'll need is your phone.

Sramana Mitra: Interesting vision. Besides these kinds of convergences that you're predicting, the mobile phone, the wallet and the security key, where else do you point young entrepreneurs or early stage entrepreneurs to look for opportunities?

Steve Singh: I think the other thing that's critical is to say, hey, what business problems can I solve, on a mobile device, in a cloud computing model that were too expensive to solve prior to that? For example, just to give you a quick reference point on that, go back to a client server or Web server-based applications. You couldn't cost-effectively deliver even expense management to a wide range of companies in a client server model. It's just too expensive to deploy it, customize it and roll it out to all the different users within a company. You move to cloud computing and that becomes imminently cost effective and easy to deploy. So, processes like travel booking and expense reporting weren't even possible until you got to cloud computing. That same analogy has to be considered when you go to mobile computing. What are the things that you'd be able to automate or make easier that today are largely manual? What processes are made easier and cheaper because of mobile computing and cloud-based computing? There are literally thousands of examples around this.

You saw Instagram as a simple example of it, taking pictures and uploading them to your Facebook account. That's the way you have to think about it. What things are largely un-automated today, whether it's enterprise or consumer, and how can I think about them in the context of a mobile device?

Sramana Mitra: All right. Switching topics, I know you have been doing acquisitions as well. When you are looking at acquisitions, what is your organizing principle or how are you thinking about acquisitions right now?

Steve Singh: For Concur, we're focused on travel and expense. So, any acquisitions that we do are squarely within the travel and expense market or markets that help advance the travel and expense market. For example, we invested in a company called Yapta, which does price assurance. It will track the tickets that you buy, and if you have an opportunity to re-purchase or refund that ticket and get a cheaper one, Yapta will alert you to it and tell you exactly how to get it done, or you can use Yapta's service to actually get it refunded for you. Others are things like RideCharge, which has a great application called Taxi Magic, which allows you to book a taxi or sedan, GPS follow it from its current location to you, get in, pay using your cell phone, and it will automatically show up on the meter of the cab or sedan, showing that the rider paid this much for the fare and this much for the tip. And then it will automatically feed your expense report into Concur. So, we either acquire or invest in companies that advance the travel and expense marketplace on a go-forward basis both at a local level and a global level.

As an example on the global side, we are the largest investor today in a company called Cleartrip in India, which is the second largest OTA in India behind MakeMyTrip. What we love about this company is that this is an amazing organization that not only said, "Look, let me show you how to deliver a great experience to the end traveler as far as booking" but also went out and built the world's largest content database for hotels and air for India. Cleartrip has a richer set of air and hotel content for India than any other company in the market. In fact, when you go out and say, look, I'd like to be able to book hotels in India to the extent that you can actually book it within a booking tool, you're probably accessing Cleartrip's content. These are the kinds of companies that we invest in.

Sramana Mitra: Are you going to start investing in or acquiring companies in the travel content, vertical search or commerce space in the U.S. as well?

Steve Singh: I can't speak to what we will do. I can speak to what we're interested in, and we're absolutely interested in content. We're absolutely interested in commerce and absolutely interested in mobile. So, TripIt is another example of that. We look at TripIt as a company that at the time had about two million users of its free product, but was on an incredible growth trajectory to increase the number of users. In fact, today, less than a year later, it's got five million users of its product. What's amazing about TripIt is that it's loved by the individual, and it's an amazing opportunity to engage with an individual on a regular basis on his mobile device. Let's think about that for a second.

Think about the apps that you have. I'll bet you can count on one or two hands the number of apps that you engage with on a regular basis. So, what was critical to us was to make sure that we have a real user engagement model on those mobile devices. Of course, if you're filing or approving expenses, it makes sense to use our product on a mobile device. But if you're on a business trip, managing your itinerary and engaging in that process was really being done in apps like TripIt. TripIt is clearly the leader there. So, we acquired this company. What's been great is that we can now take the 30 million plus itineraries that we generate in any given month and if you have a TripIt account, we'll feed it directly into TripIt.

We think this is an amazing place for us to start adding value, like linking to other services like the Avis car rental service or the Choice Hotels mobile applications. Just to give you an example on that. If you linked your TripIt account to your Avis account, when you book your air fare, Avis will automatically make an aggressive offer to you, saying, "Hey, look, we noticed that you're going to be in San Francisco on this day. Would you like to rent a car from Avis? Here's our special promotion just for you."

Sramana Mitra: You're going to do a promotion platform?

Steve Singh: We don't look at it as a promotion platform. We want to make sure that whatever you get is relevant to what you would actually want to receive. What we don't want to be is Groupon. We don't want to give you so much information that you look at us and say, this is not a productive use of my time, or this is not respectful of our relationship.

Sramana Mitra: At the same time, from Avis' point of view, you do offer a targeted opportunity for the company to place those promotions.

Steve Singh: Exceptionally targeted. But we ultimately control all the interactions with the end user based upon that user's spend patterns and preferences and history. We want to make sure that anything that gets placed into either your mobile application or your Web applications that you interact with, it's something that you wanted to be there.

Sramana Mitra: Yes. Cool, very cool. Anything else that you want to add in terms of trends, opportunities, points that you want to highlight?

Steve Singh: No, I think we've covered it. This is just an amazing time in computing. It's rare that you see not just one or two big trends but three or four of them happening together.

Sramana Mitra: Very unusual times, absolutely. Very exciting times.

Steve Singh: Yes.

Sramana Mitra: Well, thank you, Steve. I've enjoyed talking with you.

Steve Singh: Thank you, Sramana. I've enjoyed it, too.

Roll Ups

Building Unicorn Companies Using A Roll Up Strategy

Kayak made it to the billion dollar Unicorn Club by using a roll-up strategy. We also look at two other roll-ups that have the potential to become Unicorns.

Google is powerful, no doubt.

But is Google invincible? No more than Microsoft was until the Internet came and shook it to the core.

On the weaknesses side of Google's ledger, I see Vertical Search Engines as the most potent long-term threat. Imagine you are looking for a hotel near Piazza di Spagna in Rome in the price range of $250 to $500. Formulate the query in Google and you'll get pages of results, but the Hassler Villa Medici – voted Rome's No. 1 luxury hotel by readers of Travel+Leisure – won't be among the top.

Now try the same exercise in the vertical search engine Kayak.com. The Hassler is right there.

Kayak.com delivers more precise results because it is customized to search for hotels. Such customization is only possible when the user's context is already known by the search engine.

While Google has stubbornly defended its admirably simple one-bar user interface, a host of significant Internet brands have developed context-sensitive search engines in major vertical categories.

Kayak is one of them. It helps users comparison shop across travel portals and airline sites to find the best deals on tickets, hotels and car rentals.

In January 2008, Kayak raised $196 million in financing to complete a merger with SideStep, its top competitor. The combined company came to be ranked as the fifth-largest online travel operator, managing transactions estimated to be worth $3.5 billion with revenues nearing $85 million post-merger.

CEO Steve Hafner explains the rationale: "At Kayak we are an engineering driven company. We did not have a sales force, a display ad business, or an email business. SideStep did. It is a bit like Google buying Yahoo. The one thing we knew at Kayak is that our systems scaled better, our algorithms monetized the website better, and we fundamentally had a better product which provided a better user experience. SideStep had an audience albeit one that was a third of the size of Kayak. They also had a commercialization aspect we did not have. I approached their CEO in October of last year with a simple email that said "Do you want to get married?" and he wrote back, "Let's talk". In the course of three weeks we hammered out a deal and signed an agreement in mid December. We raised money and closed the deal within two weeks which is unheard of. It required a lot of time and effort by our legal staff and technology guys."

It was an all-cash acquisition that brought together the two major players in the category to go after a massive market opportunity in online travel advertising.

In July 2012, Kayak went public at a billion dollar valuation. They had raised a total of $223 million from Accel, Sequoia, Norwest and other investors.

And in November 2012, Kayak was acquired for $1.8 billion by Priceline.

This strategy of rolling up major players in a promising category is not easy to execute due to a lack of clarity around relative valuations. Two private players, to come together, have to agree on valuations, which is often an extremely contentious issue. However, Kayak and SideStep did manage to agree.

In recent times, I have seen two such private roll-up deals that I believe are both extremely promising: Elance's merger with oDesk, and Pluralsight's merger with TrainSignal.

Elance and oDesk are both freelancer marketplaces, and both, also, have small businesses on their platforms both posting projects and bidding for them. Both companies have raised substantial venture capital from top VCs, and while each have grown well, neither is ready to go public. Elance has been around for over 15 years and has raised $94.8 million. ODesk has raised $46.7 million over nine years.

The combined entity, however, brought together 8 million freelancers and 2 million small businesses who are transacting on the two exchanges. At the time of the merger in December 2013, the two combined would have a $750 million total billing, which translates to around $75 million in revenue. It is reasonable to expect that the company will achieve a billion dollars worth of billing, $100 million in revenue, as well as a billion dollar Unicorn valuation in short order.

What's more, with the roll-up strategy, they could also bring together other exchanges like 99 Designs, Envato, Freelancer.com (also following a smaller scale roll-up strategy of their own), etc.

Over in another sector of the industry, Pluralsight and TrainSignal, which have since merged to bring together a good $25 million+ in revenue, were both pursuing bounties in the online technical education (programming, mostly) space that has been quite hot of late. Both were bootstrapped up to significant revenue levels before Pluralsight raised money and acquired TrainSignal. Although smaller, I believe the roll-up has tremendous potential, and can eventually emerge as a *Unicorn*.

I have also included the story of another vertical search company, Trulia, in the roll up section, although their journey is slightly different. They are a leader in the real estate portal market.

Trulia was founded by Pete Flint in 2005, and went public in September 2012 at about a $450 million market cap. Two years later, Trulia was acquired by Zillow, one of its largest competitors, for $3.5 billion.

Currently, the Trulia-Zillow combination is the largest player by far in the online real estate space.

Interview with Steve Hafner, Kayak

One of the hardest things to pull off in the world of venture capital funded companies is a private-to-private merger, otherwise known as a roll-up. Steve Hafner not only managed to seduce his largest competitor to the negotiating table, but completed the transaction. I spoke with Steve soon after, in May 2008.

Sramana Mitra: Steve, I would like to start with some details about where you grew up, and how you got into all of this?

Steve Hafner: I'm originally from Austin, Texas although I've lived all over. I was born in Lima, Peru. My mother is Swedish and we moved around a lot. I have lived in Peru, Guatemala, Costa Rica, Texas, Sweden and ultimately went to college in New Hampshire. I got my MBA at Northwestern. I went down the consulting path and worked for a couple of consulting companies. I then helped start Orbitz.

Sramana Mitra: How did you end up starting Orbitz? What was going on in the market that captured your interest?

Steve Hafner: It was an interesting time. It was post-bust and I had been working for BCG for 4 years. I was being billed as an e-commerce expert yet I did not know much about e-commerce at the time, which did not stop us from overcharging for my services. We had a couple of clients in Delta Airlines and United Airlines who wanted to create a competitor to Expedia. They retained BCG for an initial 60 day period to help them think through the strategy and the business case. I was sufficiently impressed by the strategy that I left BCG to help start it.

Sramana Mitra: How many years did you spend at Orbitz, and what were the nuggets from those years?

Steve Hafner: I was there from inception in 1999 until two weeks after the IPO in September 2003. While I was there I led business development, advertising, marketing and product development. Basically everything that had to do with the consumer website except for customer service and the engineering of the code.

I saw a company start from a few PowerPoint pages and grow to the point that when I left it was booking $4 billion a year in tickets and hotel rooms. It was a great experience. It was a wild ride.

Sramana Mitra: What gave you the idea for Kayak?

Steve Hafner: Orbitz was a great company, but it never fulfilled its original mission which was to help consumers find great airline and hotel deals. The reason it did not fulfill its original mission is because we could not convince every airline, hotel, and rental car company to list their products and services on Orbitz. Half of all the consumers who came to Orbitz were just doing a search and then booking directly because they did not want to pay an additional fee to Orbitz.

I thought it was odd that we were really a search service which did not do search very well, and we were definitely not giving consumers what they wanted which was the ability to book direct.

That was the genesis of the concept of Kayak. I bounced my ideas off of the former CEOs of Travelocity and Expedia. They all agreed that none of the companies fulfilled the vision of a one-stop shop. So, we all decided to start a new company. Just two weeks after I left Orbitz we incorporated Kayak.

Sramana Mitra: Tell me the story of Kayak. How long did it take you to assemble a team and get your service launched?

Steve Hafner: It is a bit funny how things change the second time around. I had the benefit of doing Orbitz first. I knew how to build a team and structure contracts. I knew how to build an organization. As a result Kayak built a whole lot faster than Orbitz did. We incorporated within three days of the initial PowerPoint presentation. We had twelve employees on staff within 10 days. We had our first distribution agreement with AOL within two and a half months. We did not have business cards or a company name yet! We launched the Alpha site five months after we started. The public launch was about 10 months after we started.

Contrast that with Orbitz. We started in 1999 and we did not launch to the public until June 2001.

Sramana Mitra: You said your observation coming out of Orbitz was that consumers did not have a one-stop shop, so what exactly did you do at Kayak that addressed that issue?

Steve Hafner: Kayak is not a booking site, it is a search site. We help users find deals from all of the other travel websites. There are thousands of travel websites out there, so depending on when you ask the question and how you ask the question, you are going to get different answers. We thought by doing a bit of what Google does, which is build a very simple and sleek interface which goes out and searches on behalf of consumers and brings the results back in a comprehensive display, we would give consumers a choice of where to buy. We felt that would enable us to give the consumer great service, and so far that seems to be working.

Sramana Mitra: When did you launch the service?

Steve Hafner: It was October 2004.

Sramana Mitra: Can you give us an idea as to what kind of ramp you saw in terms of traffic building and adoption? The vertical search concept was still new in 2004.

Steve Hafner: There had been folks who tried to do it in the past but they did not have the scale or traction needed. They were not ambitious enough, did not have the right capitalization, and did not have the engineering talent to do it right. It is very hard to do, if you want to do it right. When we launched, everyone was aware of the deficiencies at Expedia, Travelocity and Orbitz. Everyone saw the value of the consumer proposition but the big question was how to commercialize it. How do you get paid for those referrals? How do you get consumers to become aware of your website and visit it?

The big online agencies spend hundreds of millions of dollars a year getting people to their websites and they already enjoy 90% brand awareness. In the first year or two of Kayak we focused on building a great product. We felt if we built a great product consumers would stumble on it, like it, and tell their friends. When Orbitz launched we spent $20 million in the first month on TV adds. As a result it was the biggest internet launch ever. When we flipped the switch on day one at Kayak we did 15,000 searches. In the first month we did about 500,000. Contrast that with this month where we will do 14 million searches. We are half the size of Orbitz in terms of search volume yet we spend next to nothing in marketing.

Sramana Mitra: You didn't buy any traffic from Google?

Steve Hafner: The problem with a traffic arbitrage based approach is that it gets competed away. Traffic becomes expensive. We are of the mentality that for every dollar which could be placed into marketing we would rather place it into engineering and make the product better. If you do that then you will always have the best product. That means your audience will be more loyal than the next guy. You won't have to spend money on Google, Yahoo! or offline TV advertising. One of the things that struck us about Expedia is that they will spend about $1 billion on marketing this year but their website, which is essentially their company, has not fundamentally changed in 4 or 5 years. We would much rather invest in the website than marketing.

Sramana Mitra: So you have built traction with organic word of mouth?

Steve Hafner: It is a page out of Google's playbook. Build a great technology, syndicate that out to other affiliates like AOL who already have audience and then keep innovating on the product to make folks come back to you directly.

Sramana Mitra: What other affiliate deals have you done besides AOL?

Steve Hafner: We have over 10,000 affiliates. Our biggest are AOL, Comcast, and USA Today.

Sramana Mitra: Do they drive a lot of traffic to your site?

Steve Hafner: Not really. They used to. Affiliates are great at building a significant piece of business, but affiliates never grow. Once you plug in AOL they do not grow their traffic channel for you although your organic traffic does grow. If you were to go back over the past four years and plot the affiliate share of Google's total volume you will see that the Google traffic is growing much faster than the affiliate component.

Sramana Mitra: Let's discuss the competitive landscape. What was it like when you started, and what is it like now?

Steve Hafner: The market has evolved quite a bit but not as much as we expected it to. Initially, the only competition came from two companies. One was called FareChase and they did not have a consumer facing application. It was mainly used by travel agents to find Southwest Airline's fares. There was another company called SideStep which did not have a website. Instead they had a downloadable toolbar that would launch automatically when you visited an airline or agency website and it would show you fares on the side. Neither company was well capitalized and neither company had more than 30 employees. The competitive landscape was pretty insignificant and the product offerings were not that great either.

When we launched it attracted a lot of attention because of our top tier talent. We had a lot of financial backing and a big distribution deal with AOL. As a result we grew much faster than they did. To their credit there was a lot of cross-pollination of ideas once we launched. We borrowed things from them, they borrowed things from us, and ultimately consumers saw a lot of improvements in a very short period of time among all three companies. Yahoo! ended up buying FareChase in late 2004. We recently ended up buying SideStep at the end of 2007.

Sramana Mitra: More competition has emerged in the past three years.

Steve Hafner: On the Internet there is always going to be a lot of competition because it is easy to build a website. The hard part is making that website scale. There are a lot of international travel search engines that have tried to emulate the Kayak model. They do not have good brand awareness, they are not well capitalized, they do not have good supplier relationships, and ultimately their technology platform won't support 50 million queries a month. We built our architecture to support a billion searches a month. A lot of these other companies are just scraping websites in real time.

You are right though that the competitive landscape continues to evolve. Just this week Microsoft bought FareCast which was founded two years ago. We refer to them internally as the Kayak JV, but they actually have a really good tech team. They were acquired for $100 million. Kayak is 20 times their size in terms of search volume.

Sramana Mitra: You have mentioned capitalization a few times as being a vital part of your strategy. What was your capitalization and financing strategy?

Steve Hafner: It was to take a lot of money from various smart investors by selling them on the goal of becoming the number one travel site. The top travel sites at the time we launched were Expedia, Travelocity, and Orbitz. They made money by charging both consumers and airlines booking fees. They also collected a booking fee from a technology vendor called a GDS. As a result they were only paid when someone booked travel through their website. They biased their displays to show providers who paid them more. Their functionality was not terribly inspiring.

Our goal was to create a company that did search better than these major players and we knew it would require a lot of capital. At Orbitz we raised $205 million before we turned profitable. At Kayak we have raised $230 million to date although we turned profitable after burning just $15million.

Sramana Mitra: What was your source of financing? Can you break it down by rounds?

Steve Hafner: Our first round raised $6.5 million, which was a pretty large Series A, especially since it was on a PowerPoint presentation.

Sramana Mitra: Did you put in any of your own money?

Steve Hafner: Paul English and I put in $1.5 million each. Paul co-founded Kayak with me.

Sramana Mitra: Who where your first round investors?

Steve Hafner: General Catalyst Partners. They really knew Online Travel. Our second round was done by Sequoia Capital which brought our total raised capital to $15.5 million.

Sramana Mitra: How far did you get with the A and B round of funding?

Steve Hafner: We had already launched the product by the time we did our Series B, and shortly after closing the deal with Sequoia we turned cash flow positive. We have built the base of our business with this funding.

Sramana Mitra: Obviously you made a big departure from established business models in the travel industry.

Steve Hafner: Our business model is very similar to Google's. We get paid for the referral. We are unbiased which is great for consumers because when you have an advertising driven model the incentive is to have more comprehensive search results.

Another key aspect of our business model is that we are very lean. Today we only have 56 people. We can charge very little to our advertisers. Since we charge little and have a large volume of queries we can make a decent living and provide tremendous value to those marketing on our website. Our ratios are much better than traditional OTAs like Expedia or Orbitz. The difference is where Expedia will do $12 billion in gross bookings we will only do $150 million in gross revenue. However we will have a much higher profitability than they have.

Sramana Mitra: Is your business model in competition with Google, or is it a complimentary model? Expedia is obviously one of the biggest advertisers on Google and they are probably big advertisers on your site as well.

Steve Hafner: In the Internet everyone competes for consumer attention. In some ways Google is the biggest travel site on earth. People go there for their entry into travel research. Expedia is certainly the biggest travel site in terms of bookings. We would like to do a little bit of both. We want to be the best place to find travel information and we want to be the best place to find the supplier of your travel needs. I think we compete with Expedia and Google for audience, but ultimately we are not taking share from either because the transaction has to happen somewhere.

Sramana Mitra: By raising two rounds of funding you were already cash flow positive. Why did you have a Series C?

Steve Hafner: That series was led by Accel Partner's London office. At that time we only operated in the US and we wanted to export Kayak abroad. The Series C was designed to help fund the international expansion. The US was the least expensive, most efficient market to get started in. In Europe the marketing channels and the language requirements make it much more capital intensive.

Sramana Mitra: How big was the Series C, and what did it provide in terms of international presence?

Steve Hafner: We raised $18 million. We are in seven markets now. We launch a new market every 2 months. International is still less than 10% of total sales, however that is primarily because the US business is just so big. This month the US will bring in north of $12 million in revenues, which is up 15% month over month.

Sramana Mitra: What was the reasoning for your recent purchase of SideStep, and have you benefited from the acquisition?

Steve Hafner: At Kayak we are an engineering driven company. We did not have a sales force, a display ad business, or an email business. SideStep did. It is a bit like Google buying Yahoo!. The one thing we knew at Kayak is that our systems scaled better, our algorithms monetized the website better, and we fundamentally had a better product which provided a better user experience. SideStep had an audience albeit one that was a third of the size of Kayak. They also had a commercialization aspect we did not have. I approached their CEO in October of last year with a simple email that said, "Do you want to get married?" and he wrote back "Let's talk." In the course of three weeks we hammered out a deal and signed an agreement in mid-December [2007]. We raised money and closed the deal within two weeks, which is unheard of.

Sramana Mitra: Can you talk some about the negotiation of a private to private merger? Those deals are always tough in terms of valuation.

Steve Hafner: There are two ways to approach it. The first is on a relative valuation side. If you can agree on relative valuation then sometimes you can just issue your paper for their paper. We could not agree on relative valuation.

We then looked at how much money is invested in their company and the expectations of their VCs around valuation. We were able to get clarity in terms of cash expectations, and get comfort in terms of the metrics to validate those expectations. We then agreed to give them cash and subsequently went out and raised cash based on Kayak's trajectory. We raised cash at a high enough valuation that we were able to get over the relative issues. So, ultimately, it was an all cash acquisition.

Sramana Mitra: What did that mean for the SideStep team? Did you want to retain that team or not?

Steve Hafner: We wanted to retain their sales and marketing teams. At the time Kayak had 46 people and SideStep had 83 people. When all the dust cleared we had 7 or 8 of their people left.

Sramana Mitra: The major gains from purchasing SideStep were adding their display advertising business and their email marketing platforms?

Steve Hafner: That is right.

Sramana Mitra: How big was that business for them?

Steve Hafner: It was half of their revenues. At Kayak we are much less commercialization focused. I am personally not a big fan of display ads. We are very careful how we take SideStep's commercialization approach and apply them to Kayak. You will see some changes on the Kayak website based on insights we picked up and assets we gained from SideStep, however these changes are done in a very measured and controlled way.

Sramana Mitra: Their revenue was approaching $35 million when you bought them?

Steve Hafner: It was at $30 million.

Sramana Mitra: Is that revenue stream continuing for you?

Steve Hafner: That revenue stream is much higher now.

Sramana Mitra: What kind of ramp did you see in the first six months after purchasing them?

Steve Hafner: It was a very impressive ramp. Going back to the analogy of Google buying Yahoo!, just imagine Google powering the ads on Yahoo!. The user experience does not change all that much but Google is able to monetize 30% better than Yahoo! because their targeting capability is so much better. That is not a bad analogy when applied to how much better we can monetize the SideStep traffic.

Sramana Mitra: Let's talk about applying a Vertical Ad Network within Kayak.

Steve Hafner: One of the items in the secret sauce of Kayak is our ads along the right hand side of our search results pages. These ads look very similar to the search result ads that Google or Yahoo! provide. They are three lines of text and a hyperlink. The difference is that our ads are based on the actual search parameter. We know that Google doesn't know the city pair and the travel dates. When American Airlines buys ads on Google they are buying out the keyword pairs. They buy phrases like "cheap Chicago flight". The person might be searching for a flight from Omaha and American may not fly that city pair. American has wasted their money and the consumer has wasted their time. If the consumer does click the ad they get to a page on American Airlines which does not have that much information on it because American Airlines didn't know they were starting in Omaha.

With the Kayak model American Airlines ads will only show up on the routes they fly. When someone clicks on that ad we pass the search parameters on to American. The result is you get a search results page on American that contains the actual city pairs. The ads are targeted, which means they are more useful for the consumer and the results page is more useful as well. The net impact of that is a much higher ROI for

American Airlines as well as for all of the other advertisers. It is also a much better consumer value proposition and it monetizes much better than Google does.

Sramana Mitra: What is your read on some of the other travel Ad Network players out there? There are some Vertical Ad Networks which have been reasonably successful so far.

Steve Hafner: There are three things you need to do to have a viable Vertical Ad Network. You need to get a set of publishers, you need to get an audience, and you need to match them with technology. It is my observation that Travel Ad Network has a network of publishers and they are distributing display ads. They do not have the technology yet. It is primarily an outsourced sales effort for display ads. I don't think that approach works long term.

Sramana Mitra: Most of the Vertical Ad Networks out there work like that right now.

Steve Hafner: Which is not sustainable unless you have a technology that scales. The difference with our approach is we are building the platform and the technology to allow our advertisers to manage their own campaign and determine where their search results show up.

Sramana Mitra: So far what you have talked about is specific to flights and hotels. There is a lot of publisher inventory out there that is not transaction focused such as travel guides.

Steve Hafner: Absolutely. It is a less targeted business and as a result the CPMs are much lower. I believe the most valuable consumers are the ones at the point of purchase. If we get that piece right it is much easier for us to go up the food chain into the consumer's research cycle than it is for a publisher to come down into our space.

Sramana Mitra: What do you think of Mobissimo?

Steve Hafner: Not much. I think Beatrice is a great person and a pretty good CEO but they are undercapitalized, their technology does not scale, and they have not gotten any traction over the past three years. I would say Mobissimo is an example of a travel search company which built a product with a small team, got it out there, and received a little bit of press coverage. They don't have the capability to turn that into a mass market product.

Sramana Mitra: What else do you see out there in terms of travel related sites?

Steve Hafner: There is still a lot of innovation going on. The social networking sites are interesting but they do not monetize well in the travel space. There is room for someone to tell consumers where the best rooms are in hotels. There is a lot to be done on reducing friction in the check-in and check-out process. There is plenty of room for better utilization of mash-ups.

Sramana Mitra: My main problem with the travel category is that it is still a fragmented experience. I have to hop from site to site. You don't solve that problem.

Steve Hafner: We don't even solve cross-shopping on rates yet. What Kayak has been able to do is reduce the number of sites you have to visit when shopping for fares.

Sramana Mitra: Are you going to try to get content in context eventually?

Steve Hafner: We will have to do that to become the number one travel site world-wide and fill consumers' comprehensive needs. Those are our goals. It is a question of prioritization and time.

Sramana Mitra: The next big thing for Kayak is the Vertical Ad Network and getting international business to ramp. Is that going to be mostly organic? I don't think there is a lot to acquire outside of Mobissimo.

Steve Hafner: They do not have an audience. Their audience is really limited to cheap international flights. There are very few companies that have an audience. We are going to have to build our solutions from scratch.

Sramana Mitra: I don't think there is a Vertical Ad Network available to acquire.

Steve Hafner: The beauty of a Vertical Ad Network is if you get the right launch partners and you have 8-10 of the largest advertisers to buy coming out of the gates you have a very vibrant ecosystem within a month of launching.

Sramana Mitra: Is there anything else I should have asked you that I didn't?

Steve Hafner: No, this has been a fun interview. I really did enjoy the article you wrote on Forbes. I thought it was very insightful and spot on with what we are trying to do.

Interview with Pete Flint, Trulia

Pete Flint founded Trulia in 2005 and took it public in 2012. This interview was conducted in April 2009.

Sramana Mitra: Take me back to where your story begins. What is your background?

Pete Flint: I was born just outside of London. My father is a professor of chemistry and my mother is an ancient history high school teacher. My background was very academic and studies were a big part of my life. My entry into technology, and how I ended up in Silicon Valley many years later, is a good story. I have always been interested in technology. I did a physics undergrad in England at Oxford. Physics was interesting.

Sramana Mitra: And hard. What kind did you do?

Pete Flint: It was a mixture. I found it quite interesting because it gives you a good framework to see the world. It is either cosmological or quantum. It misses out the bit in between which is you and me, people, and physical stuff. I was unsatisfied with it, although it was interesting. I left physics and moved on into business as that was more about people and less about numbers.

Sramana Mitra: What did you do after your undergraduate degree?

Pete Flint: During my undergraduate years I did a lot of internships at places like IBM. In the summer of 1995 I worked at JP Morgan. They told me to look into this Internet thing. Netscape had just gone public. Due to the nature of the technology being so new, I quickly became the local expert.

Sramana Mitra: There was not that much to get up to speed on back then!

Pete Flint: Very true! Not much going on in 1995. It was being in a financial environment that made it all the rage with the investment bankers. I didn't necessarily enjoy working in investment banking; I was there for the money. I wanted to buy books and have a good time.

Sramana Mitra: Were you doing your internship at JP Morgan in London?

Pete Flint: Yes. I didn't want to do investment banking. A lot of my friends had gone that route. I saw the Internet thing, and Netscape was all the rage, and I had skills so I decided in 1995 that I wanted to work with the Internet.

Sramana Mitra: What was the next step?

Pete Flint: I networked my way into a job that was a joint venture between British Telecom and News Corp. It was my first proper job. It was an AOL killer for the UK. Telecommunications was provided from British Telecom and content was provided from News Corp. I spent a year there. It was a great introduction and we had great people.

One of my colleagues left, wrote a business plan, and raised some capital. I joined him as a first employee of a company called LastMinute.com. After working for a larger company for a year I joined a very small startup that only had a business plan. It grew from two of us to what is now Europe's largest online travel company. That was a wonderful journey. It was a very special journey from business plan to the March 2000 IPO. There are a lot of success stories in the US but there are very few in Europe.

Sramana Mitra: What roles did you play when you took that journey with LastMinute.com?

Pete Flint: I did a bit of everything. Initially it was business development. In a small company you do everything. I did business development partnerships to drive audience and content as well as other commercial relationships. I ran a bunch of product lines including mobile TV and voice services, and I ran the German office for six months. I did all sorts of marketing.

Sramana Mitra: You got good cross-functional experience.

Pete Flint: I gained tremendous cross-functional experience. I shadowed the CEO for many years, and he was a great mentor. I saw how to build the business from the inside. I learned the good and bad things to do. It was a phenomenal journey from March 2000, when we had our IPO, down to September 11th and all the terrible things that the attacks brought to the economy and travel, and then back up. I left in 2003, and in 2005 the company was sold to Travelocity for over $1 billion in cash.

I did OK even though it did not make me hugely wealthy. It did give me a bit of a cushion to think about what to do next, and that was very valuable. In 2003, I felt it was time to move on. I had been very focused on one technology, one vertical and one industry. I wanted to have a breadth of experience so I applied to business school at Stanford to get that learning and to go to the Mecca of technology.

After spending a year at business school, during my summer break, I got intrigued by the real estate industry. Real estate in 2004 was not only a huge, booming industry, but it was also full of frustration. Even though the industry was making a lot of money, it was just covering the actual frustration.

Sramana Mitra: What caught your attention? How did you discover the dysfunction?

Pete Flint: I was trying to find somewhere to live. The first year I spent on campus. The second year you have to find somewhere to live, so I went to the Internet to figure out if I should rent or buy, and where I should live. It is an important financial decision. The web was really useless. There were one or two good sites, and that surprised me given how important these decisions are.

I also spent some time researching. I went to a conference in San Francisco which opened my mind to what was going on in the industry. The thing that was most appealing was that what I liked to do was solve big, meaningful problems. I looked at the real estate industry as something that was big. There are billions of dollars spent on advertising and tens of billions of dollars spent on commissions. Second, it is meaningful. It touches everyone's lives and it passes the dinner party test wherein what you do is interesting to others and something they can have a perspective about.

Finally, it was definitely a problem that consumers experienced. Agents and brokers were frustrated. Those are big problems, which means good solutions are needed. I teamed with a classmate, Sami Inkinen, who was a fellow European entrepreneur. We were good friends and we spent a lot of the first year bouncing a lot of ideas off each other. We teamed up, started researching and spent the entire year getting up to speed with the real estate industry. We launched in 2005.

Sramana Mitra: When you launched, what was your thesis regarding your ability to solve the various problems you identified?

Pete Flint: Initially we were very focused on the consumer side. That was our perspective, and we felt it was the primary problem which needed to be solved. We approached the challenge from two key perspectives. First, a phenomenal user experience. Switching costs on the Internet are very low. It is a Google versus Alta Vista comparison. If there is a better product, Internet users will simply switch. That is why our first axis was to develop a phenomenal user experience.

The second piece was content, information and transparency. We really wanted to have as much content as possible to empower consumers to make better decisions. We try to present as much content as we can to allow consumers to do a ton of research about the real estate transaction, neighborhoods, schools and anything else.

Sramana Mitra: Did you get funded right away?

Pete Flint: In the early concept stages, the funding was done via an angel round. We had folks like Ron Conway, Kevin Hartz and other angels. We raised venture capital later on.

Sramana Mitra: How much did you raise in your angel round, and what did that allow you to do?

Pete Flint: We raised $2.5 million. It allowed us to get proof of concept out. We developed the underlying search technology, the user interface, and establish early relationships with the industry. We launched with five people. The first version of the site cost less than $50,000.

It was a stark contrast to when we launched LastMinute.com. We raised a similar amount of money, but that site cost 10 times as much. The economics in 1998 were ten times higher than they are now. Everything has gotten cheaper and open source software really helps.

Sramana Mitra: Let's drill down on those early days. Your thesis was that you would provide the richest content about the real estate buying process. What were the sources of data that you were putting in front of the consumer?

Pete Flint: Primarily it was listing information. The primary need for consumers was showing information about properties for sale in an easy to navigate way. The second piece was telling them about properties which were sold in their area. It has evolved significantly since then.

Sramana Mitra: How were you finding the listings that you were showing your users?

Pete Flint: In the early days we were crawling, and that enabled us to get a critical mass of listings. As the business evolved we stopped crawling and started submitting feeds into the site. There are so many brokers who submit content to us directly that we do not need to go out.

In the early days, when you tried to ask a broker to submit a feed they had no idea what I was talking about. Crawling was a good way to seed but the data quality was not as good. Crawling data is dirty data. Flipping the model and getting the data straight from the brokers was key.

Sramana Mitra: How long did it take you to flip that model?

Pete Flint: About a year, perhaps 18 months. One of the interesting things about 2005 is that properties were on the market for a couple of weeks, and then they were sold. Now properties are on the market for hundreds of days before they are sold.

Sramana Mitra: You were also providing information regarding the price surrounding properties had sold for. Where was that data coming from?

Pete Flint: Initially it was coming from listing agents who said they sold a property. They were promoting the fact that they had sold the property, so we simply tagged the property as sold and gave the credit to the real estate agent. Soon after we started licensing that data from county assessor offices, and we publish from there now.

Sramana Mitra: How much coverage were you able to build up over time? Did you start on a state-by-state basis?

Pete Flint: We initially launched in California. We then went to New York, Florida and Texas.

Sramana Mitra: Do you have America fully covered now?

Pete Flint: Yes. Every single state is covered. We have the vast majority of properties for sale in every market in the US.

Sramana Mitra: Aside from listings and price information, what other information do you provide and where do you get it?

Pete Flint: The evolution went from search listings of individual properties to cities and neighborhoods and the data side of real estate. If you are wondering if you should buy in Menlo Park or San Francisco, you really need to understand the data side, the dynamics. They are very different on a qualitative level. We give the data behind the individual markets.

The next evolution was then to community. No search engine or database at the time could ever answer some of the community questions. Everything from schools in a particular neighborhood to first-time homebuyer stimulus offers in certain areas. We even got into questions of whether a new store being built in a neighborhood was going to increase or decrease prices. We put those questions out to the community in 2007. We launched a Q&A service, which offers a way to answer those community questions in a way nothing else can.

Sramana Mitra: Is it like Yahoo! Answers, just specific to real estate?

Pete Flint: Exactly. There are many Q&A services but the differences are around the depth of knowledge. We categorize by location. If I just want to know about questions in my neighborhood, I can look them up by ZIP code. I can also receive email alerts for specific questions asked in that neighborhood.

Sramana Mitra: On the business model side, is it a pure search engine model?

Pete Flint: It has evolved a lot. We launched at the same time Google was going public, and they had a phenomenal model. Initially we were very keen on the idea of cost per click. It appealed to our analytical nature. It has since evolved very differently.

Today we make revenue from selling ads on an impression basis to local companies or national brands. We also sell subscription services to professional users. If you are a real estate agent you can buy Trulia Pro for $39 a month, which gives you a marketing solution. It provides feature listings, agent spotlights, premium positioning and agent directories.

Sramana Mitra: How many real estate agents are there in the United States?

Pete Flint: There are 2 million licenses but about 1.2 million who are realtors with the National Association of Realtors. There are even fewer who are practicing.

Sramana Mitra: What percentage of that total addressable market have you been able to penetrate with your pro service?

Pete Flint: The pro service is very new. It was listed just six months ago. It has been an early success, but we don't look at it in terms of market penetration yet. We do have around 350,000 real estate agents who are using our services. They have created profiles within the site. That is a market we can conceivably monetize very well.

Sramana Mitra: How many consumers are you touching right now?

Pete Flint: Over 5 million unique users monthly. Trulia is one of the largest real estate sites in the US and is growing very rapidly. We want to grow more.

Sramana Mitra: What guidance or metrics can you provide in terms of company performance?

Pete Flint: We are not profitable yet, in terms of revenue, but we are not far off. Given we are in a recession and this is the worst housing market decline we have ever seen, we are happy with how revenues are growing.

Sramana Mitra: How much money have you raised so far?

Pete Flint: We have raised $33 million in four rounds. The last round closed in Q2 of 2008, and we have not touched most of that money. That is a good war chest for the next few years. We are in a very strong financial position for the next few years given that we have around 85 people. We are not burning through that money, either, as we are almost profitable.

Sramana Mitra: Who are your principle investors?

Pete Flint: Our Series B was led by Accel Partners. Our Series C was led by Sequoia Capital, and our last round was led by Deep Fork Capital. They have invested in a number of Sequoia portfolio companies.

Sramana Mitra: How are the real estate market doldrums impacting your business? What is your perspective on this situation?

Pete Flint: There is always a bit of good and bad with change. Real estate is going through a fundamental dislocation. I look at it in parallel with other vertical markets. I look back at recruitment and the tech crash of 2001. It really changed the way that traditional recruitment was done. It moved from offline to online in a big way, and offline never recovered. Out of that came Monster, CareerBuilder, and HotJobs.

In terms of travel, there were obviously some terrible events in 2001. That dislocation changed the market forever. There were huge amounts of inventory on the market. There were plenty of people who were interested in travel and who needed to travel, and we saw the online sites grow and grow. It created a unique position for suppliers and consumers.

I think the same thing is going to happen in real estate. Right now is the tipping point of the online real estate industry. There is significant consumer usage. We have seen usage rise up and up. Every month is a record month in all metrics for us. Consumer demand is growing and growing because there is an increasing amount of confusion surrounding decisions to rent or buy.

Sramana Mitra: People are coming to your site regardless to do research?

Pete Flint: Exactly. There is significant pent-up demand. Housing as we know is never going to be superseded by another technology. Housing will always be around. What is fundamentally changing is the way research on housing is being conducted. There are some amazing sites out there today that did not exist a couple of years ago.

Our fundamental thesis is that the consumers are online and the advertising dollars are offline. The advertising dollars are going to follow the eyeballs. It has happened that way with every single medium. What has happened in the last couple of years is that advertisers have come off offline media. They are no longer paying $10,000 a month to the San Francisco Chronicle.

Sramana Mitra: Newspapers are definitely struggling, especially with their top classifieds such as jobs, travel and real estate.

Pete Flint: That market is absolutely gone for them. Most of it has moved online; some of it has evaporated. Total spend has come down.

Sramana Mitra: Let's talk about revenues. Given what has happened in the market, what have you seen in terms of your advertisers?

Pete Flint: Revenues are growing month to month. Sure, they are growing less than we forecasted a year ago but they are growing. From an advertiser's perspective, you can take that $10,000 you were spending with a local newspaper, cut it down to $3,000 a month and get better ROI.

Sramana Mitra: Are you seeing that shift?

Pete Flint: Definitely. We are seeing offline media going online across the board. That gives us the business model. It is like falling off your bike. When you fall off, you make sure you wear your helmet next time. Sometimes it takes big market relocations to force companies to change their advertising allocations. That has happened in recruitment and travel. It is now happening in real estate. Marketing directors are not spending their money with the local newspapers. They are figuring out how to work with search engines and real estate websites.

Sramana Mitra: I have been writing about this for a couple of years now. My entire Web 3.0 thesis is predicated on the verticalization of the web.

Pete Flint: I think local is very interesting as well. Historically, local was about a newspaper that served real estate, automotive, and recruitment. Locally is not about serving San Francisco; it is about serving real estate consumers who happen to be in San Francisco. The real estate vertical business is more like consumer services businesses. They can provide a much better service than the newspaper businesses.

While we compete in some respects with newspapers, we have built a surprising number of partnerships with them as well. We announced a big relationship with the Washington Post wherein we power their real estate portal. We provide them with a world-class solution to help them provide real estate information to their consumers. We also collaborate with them on advertising sales.

Sramana Mitra: Is that a revenue-sharing deal?

Pete Flint: Primarily yes. The Washington Post deal is a bit more complex because it is a significant deal. We also have 150 different local media partners. Those relationships are such that we provide our technology free, we keep a couple of advertising spots, and they promote a white label version of our service on their site. No money actually changes hands. We spent tens of millions of dollars developing our technology and we can provide it to partners for very little cost.

Sramana Mitra: What is happening from a segment point of view with foreclosed properties and inventory coming onto your site?

Pete Flint: It is really a strange market. The median sales price of every property in Denver is less than $10,000. That is an extreme end, but the same thing is happening all across the US. Investors are coming in and buying up streets of foreclosed properties. It is dramatically changing housing values.

Every market has experienced some form of decline. Some have been just incredible. The boom areas such as Las Vegas and parts of Florida are down incredibly. Other areas are relatively stable.

Sramana Mitra: Are you seeing a lot of transactions in very inexpensive real estate?

Pete Flint: The annualized transaction rate is 5 million units right now. That compares to 7 million at the peak. It is a fairly steady pace. In certain regions 80% of all transactions are distressed, meaning they are either short sales or foreclosures. It is crazy, but at some point it is going to pick up.

Sramana Mitra: This cleanup needed to happen. It was not sustainable.

Pete Flint: It is like the aftermath of a forest fire. The forest has been decimated, but I am starting to see greener shoots all around. While the fire is not totally out yet, I do think there will be a lot of green shoots later on this year.

Sramana Mitra: What are you going to do with this money you have raised?

Pete Flint: We are really not going to spend a lot of money. We are going to hire engineers and build the team up. We have 85 people right now, and we will have 100 by the end of the year.

Sramana Mitra: What is the distribution of your workforce?

Pete Flint: It is around 50% product and engineering.

Sramana Mitra: How do you handle your ad sales?

Pete Flint: We do them internally.

Sramana Mitra: What is your growth strategy?

Pete Flint: Our growth strategy is threefold. First, our goal is to build a phenomenal product. That is fundamental. Managing all of the pieces is increasingly complex. We have community, search, listings and data, and all of those have a long way to go.

The second piece is getting the word out. We have had a lot of very good publicity and PR. We are not going to buy advertising; we never have. We are going to get the word out through press releases or other data we present to consumers. It is just staggering, the amount of people interested in real estate right now. It is very topical and will remain so for many months.

Sramana Mitra: The data you have is valuable. You can provide some systematic release of what is happening in the mortgage market, what the

transaction volumes are, what the median prices are, and other similar data points. That would provide a good pulse on what is happening in the industry.

Pete Flint: There are huge amounts of data. We have only scratched the surface of it. A lot of what you see about Web 2.0 companies hinges on data as the fundamental asset. The metadata and insights you can build around it are hugely interesting. We have not invested a lot around that, but there are many interesting things we believe we can do.

The third piece of our growth strategy is partnerships. Service relationships like that with the Washington Post is part of our plan. We think it is a unique time to partner with local or national media. It will help provide information, revenue and content streams.

Sramana Mitra: This has been a good story. Good luck with your future.

Built To Enjoy

Built To Impact

Bootstrapped Unicorns

In the fall of 2007, I met Sridhar Vembu, CEO of Zoho, for the first time. At that time, no one had heard of him. He was flying under the radar of Silicon Valley. Sridhar had a small network management tools business that basically functioned as a highly profitable cash cow. It was not an earth shattering idea. But it gave him cash to play with.

And play he did. He decided to go after Salesforce.com with a Software-as-a-Service Customer Relationship Management product at a price-point that was one sixth of what Salesforce.com, the market leader, charged. He offered the product to small businesses, and customers lapped it up.

VCs started chasing him from every corner of Silicon Valley. Acquisition offers started floating in. Fast-forward to 2014: Zoho is doing over $300 million dollar a year in revenue. It has been built without outside capital, entirely.

If you value the company today, it would comfortably justify a multi-billion dollar valuation.

If you analyze this case study, what strikes you is that Sridhar's first business idea was not fundable. He bootstrapped it by selling to customers as early as he could. He grew the business organically, with revenue and profits, not outside capital.

But once the business started generating decent profits, Sridhar decided to go after a potentially bigger opportunity.

The moral of the story is that even an entrepreneur with a smaller idea that is not fundable can build a Unicorn company. The initial cash needs to come from revenues, not financing. But later, as the business finds its stride, generates profits, it can offer the opportunity and cash for pursuing a bigger idea.

Zoho is definitely a bootstrapped Unicorn, an even rarer breed of technology companies than the already rare venture-funded Unicorns.

A similarly rare bootstrapped Unicorn company is eClinicalWorks. Founded in 1999 by Girish Navani, the company operates in the healthcare IT space, offering practice management and electronic health record systems as Software-as-a-Service.

As of 2014, the company does over $300 million in revenue, and if it were to be valued, it would easily be a multi-billion dollar company.

A third example of a built-to-enjoy company that has way better monetization than many companies out there getting Unicorn level valuations is Veeam. Ratmir Timashev founded the company after he had a good exit with his prior business.

The company identified a niche opportunity to sell cloud-backup services to virtualization administrators early on. The market grew rapidly. Today, they're approaching $500 million in revenue, targeting a billion in 2018. That is revenue, not valuation.

The total investment that has gone into this company is $5 million.

I've had lengthy conversations with Sridhar and Girish over many years. Neither cares about market cap because they are not interested in selling these businesses. Each, in his own way, is creating value, which is primarily what he cares about. Sridhar is experimenting with some radical methods of recruiting and training young people in

India, while Girish truly wants to change the face of healthcare administration. Both of them are personal heroes of mine.

I don't know Ratmir quite as well, or for as long. However, I find his story absolutely fascinating.

I have deliberately chosen to include their stories here, to offer a slightly unorthodox perspective to the classical venture-funded exit-focused thought process. I hope you enjoy their stories as much as I do.

Interview with Sridhar Vembu, Zoho

I first spoke with Sridhar about his rather unorthodox but extremely successful entrepreneurial journey in July 2007. I have always admired fiscal discipline in entrepreneurs. Sridhar exemplifies this quality, which has allowed him to attain a position of tremendous negotiating power at the highest rungs of the venture capital industry.

In one of our conversations, Sridhar posed the question, "How much money does one need?"

The question itself gives you an idea about this entrepreneur's value system.

This interview was conducted when Zoho had just launched its CRM product to compete with Salesforce.com. Today, Zoho has become a formidable player in the CRM space with revenue upwards of $300 million.

Sramana Mitra: I would like to start by tracing your background.

Sridhar Vembu: I was born in India, went to Madras IIT for my undergraduate and came to Princeton to do my PhD in 1989. In 1994, I joined Qualcomm in San Diego. My PhD is in electrical engineering, so I really do not have a software background. I worked on wireless communication with Qualcomm for two years. On CDMA, power control and some very detailed issues on wireless communications. That is how I got started in the tech industry.

My brother, who was also at Qualcomm as a software engineer, wanted to return home to India. Software is a great business to start in India, so he moved back and I moved to Silicon Valley to drum up interest in our fledgling venture, which later became AdventNet.

We ended up partnering with Tony Thomas, who had some network management software and was experienced in the area. We created a development center in India and started selling our software to customers in the Bay Area. To Cisco and folks like that. It was a great time to be selling that piece of software because there were a lot of networking companies getting started in the Bay Area in the late '90's.

Sramana Mitra: Tony had written this software already and you got yourself the distribution rights?

Sridhar Vembu: He had written a very early piece. We set up a development center in India and we started adding more to that core. He had developed some software by himself, but we came together and developed it further.

Sramana Mitra: How did you fund your early initiative?

Sridhar Vembu: It was all bootstrapped. My wife worked, she is also an engineer, so I was able to stay home and work on the venture. Tony had taken a buyout from his job. At the time Lucent bought out a lot of smart people, meaning they gave them money to leave. That is how it all started.

There was no investment money of any kind, only some family and friends. The software started selling well, we stumbled upon an opportunity and sold a lot to companies here in Silicon Valley. We also had a good market in Japan. Japanese companies would buy the software, customize it, and ship it with their equipment. That was our early phase of growth through 2000. We had grown to 115 engineers in India and we were 7 people here.

Sramana Mitra: What kind of revenue were you doing in 2000?

Sridhar Vembu: We were doing about $10 million by 2000. Then in 2001 and 2002, the networking business had a huge meltdown. By then, however, we had a huge exposure to the optical communications business. A lot of the networking equipment was moving to optical. We had something like 100 optical startups, and you can imagine what happened to us when the whole optical sector collapsed in the 2001–2002 timeframe.

We had a lot of engineers and now they were idle because the software was not selling anymore, so there was no need to keep investing in what we were doing. We had all of these resources, so we just had to figure out what we were going to start doing next. We looked around and decided to go in two directions. With the first, we took the same network management software and converted it to a more enterprise model, as opposed to the OEM model we originally sold in. We also had an on-demand effort, so we put some engineers on that path. That is how Zoho got started.

The network management engine that we call Manage Engine is now doing well again. Both of these paths were born around the same time, 2003–2004, because the seeds were planted in the downturn. Throughout all of this we had abundant resources which we had built up during the previous bubble. We had a very engineering focused company, and we did not want to let anybody go – it was just better to re-focus and re-design ourselves.

Sramana Mitra: Did you have to take a revenue hit between 2000–2003?

Sridhar Vembu: In 2001 we still experienced growth. In 2002 we took a hit. By 2003, although a lot of the startups were gone, we had successfully transitioned the core of our business to well established companies. By 2004 and 2005 this network management software had really taken off. Of course, we had a head start – we already had the technology.

Sramana Mitra: What is Manage Engine?

Sridhar Vembu: It competes with the likes of HP OpenView and Computer

Associates and does network monitoring. The main difference is that it is geared toward the mid-level markets, not the high-end enterprise segment.

Sramana Mitra: How were you selling into the mid-market?

Sridhar Vembu: This is a very interesting story. By 2004, the Google advertising model had taken off. We found we could reach customers directly. Today we have thousands of new customers per month, most of them through the Internet. Resellers also – maybe 50% of our sales are from resellers. That market has also changed. It has become much easier to supply companies directly. The Internet is allowing us to reach all of these customers.

Sramana Mitra: You have Manage Engine on one side and Zoho on the other – what is the revenue split?

Sridhar Vembu: Zoho is new, so it has not yet contributed any revenue. Our OEM model is reviving as well. Interestingly enough, optical networking products, which really struggled in 2002, revived in the 2004 timeframe. Things like wireless, WiMax, have taken over from optical as well to a certain extent.

Plus, our business is built on a stronger foundation because there are not so many shaky startup companies on our customer roster. The players now are business-model focused companies. The market has stronger companies, it has recovered and we are doing good business. Not a hot business, but a good business. Manage Engine is doing really well in its market environment. Zoho is invested in the on-demand future model.

Sramana Mitra: Before we go into the details on the Zoho story, let me make sure we get on the same page. What is the revenue level from the OEM business and what is the revenue level from Manage Engine?

Sridhar Vembu: I would say OEM accounts for 30% of our revenue, while Manage Engine, which we started in 2003, is now accounting for 70% of our revenue. Zoho is really small right now, and there are only two products which are even priced.

Sramana Mitra: Can you position Zoho for me?

Sridhar Vembu: Zoho is an on-demand application offering. We are offering a competitor to -Microsoft Office on demand, meaning online. We also have a CRM and an application creator online. We just call it the ability to work online. That is our vision – to provide a comprehensive suite for a mid-sized customer. We want mid-sized customers to be able to have their IT needs met online.

Sramana Mitra: This is a crowded field. On one hand, you have Microsoft Office and on the other you have Google coming out with their competing suite. With CRM you have Salesforce.com and Rightnow. With Project Management you have eProject. With Web Meetings, you have Webex and Citrix all going after the same space.

Sridhar Vembu: There are obviously going to be a lot of players, and it is obviously going to be a huge market. There are going to be tens of billions of dollars available in the market.

Sramana Mitra: What is your strategy – different offerings, different pricing?

Sridhar Vembu: There are two things we are playing on. The first is to have the most comprehensive offering. If you look at our suite, we have a full comparison to Microsoft Office. All of these differentiate us from each of the other players. SalesForce only offers CRM, which they are trying to combine with an application creation functionality. We already have it. That is one differentiation. Our main strength is that we have an incredible engineering team. SalesForce has maybe a 100-strong engineering team, we have 600 engineers in our office in India.

Sramana Mitra: How can you say SalesForce does not have enough engineers?

Sridhar Vembu: You can check their R&D and their spending reports. They have 2000 employees, but only 100 are engineers. That in itself is an interesting phenomena. It tells you a lot about their business model. All of these guys have become too marketing-oriented, and not enough engineering-focused.

Sramana Mitra: So, Zoho has more engineers than any other type of employee, while SalesForce has more … well, sales force?

Sridhar Vembu: Exactly.

Sramana Mitra: I will push back on that and say that the mid-market is a place where the channel is the big differentiator rather than engineering. That has historically been a market which is very difficult to reach, though as you've pointed out it is becoming easier.

Sridhar Vembu: With Manage Engine we have already seen some of this – we faced companies 10 or 50 times our size, but we built our profitability around capability. An online oriented strategy lets us compete.

Sramana Mitra: Yes, but Manage Engine is an IT product. You are now moving to an Office suite – that is hard-core consumer capability. It is a prosumer product. This is not the same game.

Sridhar Vembu: There are different sides to this. The prosumer side is that people are savvy and are spending their money and time online. The second is that we are already reaching the IT departments of the mid-sized marketplace through Manage Engine. We know we are reaching IT directors in those mid-market companies. On the consumer front, we will reach the ones who are savvy. Zoho CRM is a good example. We have signed up 50,000 subscribers with no advertising at all.

Sramana Mitra: What do you price that at?

Sridhar Vembu: It is $12 per month per user. SalesForce's is $65 per month per user. We get most of our customers because the first users are free, so most of our 50,000 are free users, but it is gaining momentum at an extremely rapid pace. We have a lot of SalesForce conversions as well. People are converting because of the price. They sign up for the free account, try it for 6 months, and feel confident migrating over.

Sramana Mitra: How many customers does 50,000 users translate into?

Sridhar Vembu: About 3,000 businesses.

Sramana Mitra: In terms of selling into these accounts, is it the IT personnel making the decisions?

Sridhar Vembu: It is mainly the sales management who are really coming in now. Initially they come over for price reasons.

Sramana Mitra: They are already sold into the on-demand concept?

Sridhar Vembu: Exactly. I am really not ashamed to compete on price. That is our main strategy.

Sramana Mitra: On the CRM side that will work. I think the office suite is a lot more difficult.

Sridhar Vembu: Yes, I would agree. We have about 300,000 users signed up already. But you are right that today I cannot persuade a large customer to adopt the suite. A lot of their employees are doing it one at a time, and there are a lot of university students and professors coming on board, and those types of adoptions spread widely.

We can also break up the portfolio. It may not be the office software you want, but you would like a really good meeting software. We provide an online meeting capability which is affordable. We are never going to charge for the personal edition of our software.

Sramana Mitra: The meeting software, which will compete with WebEx and Citrix – what are you charging for that?

Sridhar Vembu: It is free right now.

Sramana Mitra: The only product you are pulling in revenues on right now is the CRM suite?

Sridhar Vembu: Correct.

Sramana Mitra: What type of numbers do you have on the whole project?

Sridhar Vembu: The free is huge. I am completely comfortable with the open source model for 90% of the users. Keep marketing costs low. That is really the strategy. If you do the SalesForce economics, 75% of their revenue is spent on acquiring customers. There should be a better way of doing business than charging the customer for acquiring him. Why not give it away for free, if all the money will be spent on acquiring the customer elsewhere?

Sramana Mitra: I like your model. I think many Indian companies could replicate this model in other domains or on other applications. It's the low-cost manufacturing model that China has perfected. Once upon a time, flat panel monitors were expensive. But today, we buy purely on price. I have a no-name monitor by a company called SOYO sitting on my desk, looking just as slick as an HP or an Apple. The functionality is standard. I care only about the price. Software will likely also go there, and if Indian entrepreneurs can play their cards right, they will be able to build businesses using the exact same model as

what you have just described.

Sridhar Vembu: Exactly right. We are in a very different phase of market maturity today, and how you build companies will be very different.

Sramana Mitra: So Sridhar, you have done a remarkably good job of building your company without any external financing. For the next phase of growth, now that you are taking on more ambitious goals, do you intend to raise capital?

Sridhar Vembu: Absolutely not. We plan to keep doing this with our own money. Our OEM and Manage Engine businesses generate enough cash to allow us to bootstrap the Zoho piece.

I believe, most attrition happens from boredom related issues.

Sramana Mitra: You have 600 engineers in Chennai. Do you face attrition problems?

Sridhar Vembu: We don't. I believe, most attrition happens from boredom related issues. We try to keep our team motivated and challenged with interesting work, and as a result, they don't leave. Of course, we have good compensation, a strong bonus plan, etc. You see, we don't intend to sell the company, so there is no stock option plan, because it is meaningless. However, we have a great bonus plan, and people learn and grow with us. It works.

Sramana Mitra: Boy, you really are a contrarian, Sridhar! Good luck to you. I will watch your company with great interest.

Sridhar Vembu: Thanks, Sramana.

Sramana Mitra: To conclude, a little side note – when I subsequently wrote his story for Forbes, Sridhar called to say his father would be very uncomfortable with the feature. "He has always taught me modesty, humility" – asserted the son, as I'd tried to showcase him as a role model, especially for young entrepreneurs in India.

Note:

Since I did this interview during the summer of 2007, Sridhar has scaled Zoho manifolds. The basic logic of the business, however, has not changed.

I speak with him often. In our most recent discussion, Sridhar shared that his vision is to build an 'operating system' for running a small business in the cloud. Today, Zoho has 25 cloud apps including CRM, marketing automation, email, accounting, web site building, and a host of others. The company has around 75,000 small businesses as customers, and rapidly approaching 100,000. It is well within the realm of possibilities that they will cross a billion dollars in revenue by 2018. A 2500-person workforce largely comprising of R&D teams powers this highly productive software machine.

Sridhar Vembu and his work with Zoho remains one of the greatest inspirations for me, personally, as an entrepreneur.

Interview with Girish Navani, eClinicalWorks

Girish Navani is the CEO and co-founder of eClinicalWorks, which offers unified electronic medical records and practice management solutions. I spoke with Girish first in February 2010, and then again in September 2014. In that span, the company went from $100 million to $300 million in revenue. Girish bootstrapped the company using a paycheck, a technique that we espouse wholeheartedly in 1M/1M.

Sramana Mitra: What is your personal story? Where do you come from, and what prepared you for this path?

Girish Navani: I am originally from India. I moved to the United States in 1988 to pursue higher education. I earned my master's in manufacturing engineering from Boston University. My bachelor's in India was in mechanical engineering. I then found a job in Boston working for Teradyne, which was a semiconductor test company. I was attracted in part because of my experience in software. In school, I was writing software to drive robots that manufactured parts.

Sramana Mitra: How long did you stay at Teradyne?

Girish Navani: I was there for three years. I was excited by the fact that I could write software that could affect a lot of people and significantly change the status quo of manufacturing operations within a very respectable semiconductor company. At the same time, there was a lot of activity in downtown Boston. Fidelity Investments was becoming a respected name to work for, primarily because of all the people there who were leveraging all the high tech you could imagine at the time. These were the days when CORBA, DCOM, and similar software technology platforms were about to emerge. From the outside, it looked like Fidelity was a great place to go work with technology.

I joined Fidelity for three years and learned a lot. It was an exposure to technology like no other. I worked in two different groups. One group was in the Institutional Investment Business and was where Fidelity interacted with other financial institutions like Citi. I also worked in the IT department, supporting fund managers.

Fidelity became too big for me. It did not matter what I did or accomplished; it would never make a real impact. The company was just too big. At the end of the day it was a financial services institution. While technology would play a key role, it would never 'be' the company itself. In 1997 I decided to join a software company in town named Aspen Technologies. It was a company in supply chain manufacturing. This was a high-flying area, and at that point in time they wanted to build a dot-com business. Every company in existence at that time wanted to build a dot-com business.

Aspen wanted to build a Web platform for trading. The plan was to help oil traders and the chemical part of the supply chain to do better work with the available tools. A company called PetroVantage was started under Aspen Technologies, and I was asked to be its chief technology officer.

It was exciting putting together a team and building a company. We ended up with a few customers like CITGO, Enron's oil trading side, and a few other Fortune 500 customers. Another exciting part of the job was going to London for four weeks to work at BP. I never felt uncomfortable in front of their executives, nor did I ever feel that they knew how to run businesses better than I did.

Sramana Mitra: At PetroVantage, did you focus primarily on technology or did you have a business strategy role there as well?

Girish Navani: Technology was one aspect, but I was also exposed to leading a team and making business efficient. I stood my ground quite comfortably when I was exposed to senior executives in other companies like I was during my four weeks in England.

In early 1999 I went to Geneva to attend a conference on wireless technology and its impact on different applications. That is when the whole game changed. I heard a speaker present his vision of wireless technology and the impact it would have on healthcare. He put together a slide showing a patient and doctor inside an examination room. His vision was that wireless would allow the doctor to record information at the point of care and allow it to be a seamless operation. The impact was the physician-to-patient eye contact. They would be able to have a conversation, and the doctor could capture data just like he was doing it on a piece of paper. Wireless technology could support the doctors in the manner in which they were already working.

Sramana Mitra: Was the hand-held computer that the doctor was holding providing reference material?

Girish Navani: He did not go into that level of detail. He saw it being used to write a prescription and order a lab. It was not the depth of the application as it was the user experience that impressed me about the presenter's vision. Fortunately, I had not gone on that trip alone. I had two other colleagues with me, one of whom is a physician. To have that experience in the early afternoon and then be able to talk with a physician in the evening about what went on inside his office was very interesting. I saw the contrasting viewpoints of what happened in real life versus what the vision was. With my background, I thought in terms of automation. I worked at Teradyne and Fidelity. Digital automation was how I thought. Healthcare in 1999 was not automated. It was archaic.

Writing software was not new to me. I had been writing software on the side for a long time. It was a hobby of mine. I had just written an application prior to that experience which was sold for $10,000 to a small business that used it to create a $5 million business. When I asked them if they should pay me more for what I did for that small business, the owner told me that I should not have sold it in the first place. That is when I decided that the next time I wrote software, I would not sell it to someone else and that I would build a company with it myself.

Sramana Mitra: Is that when eClinicalWorks started?

Girish Navani: That is when it started. I had two other guys who were with me in Geneva who also found the scenario as interesting as I did. I decided to bootstrap the business, and I had the two of them start working out of a small office. I funded them out of my salary and my investments.

Sramana Mitra: At the point when you were founding eClinicalWorks what was your intent and vision?

Girish Navani: It was not very difficult for me to visualize the goal. What I was hoping to do was digitize healthcare just like finance and telecom had become digitized. We did not set out to build an EMR or a billing system. We just wanted to get rid of paper from a doctor's office and make every single connection for the doctor digital - to the pharmacy, to the lab, and to the doctors supply chain. It just fit my background and I believe in supply chain automation. The intent was to digitize the communication and workflow between a physician's office and the rest of healthcare so that doctors could efficiently communicate with the world outside.

Sramana Mitra: What was your market strategy and what reality did you encounter?

Girish Navani: The market reality that I encountered at that time was one which had plenty of naysayers. They would say that doctors would not want new technology in their offices. We also heard that we should not waste time going after small doctors because we would not make money. The consensus was that small doctors would not spend money on technology and even if they were willing to spend money it would not be enough to make a profit on it.

Sramana Mitra: What about the physicians themselves?

Girish Navani: We took a simple ground up approach to solving the problem. I would visit a doctor and be at their homes and offices, whenever they wanted, to convince them that it would change their lives. It was not obvious to them that this was technology that they needed. They knew they needed a billing system. They did not have any expectations of introducing technology on the clinical side. You had to explain why they even needed to consider that type of solution.

We did not get demoralized because we never really thought we would build a very large company out of this. The goal was to build a small, sustainable company that would survive for the long term. We did not mentally put a price tag on how big it would get. We were perfectly comfortable convincing one doctor at a time that we could help.

We never actually went with a broad sales approach. That is one of the reasons we never went with venture capital, thank goodness. We did not want to borrow capital to spend on sales because we would have burnt all of the cash only to find that when we really needed it that we had nothing left.

Sramana Mitra: When you did visit doctors one on one, were you able to resonate with them?

Girish Navani: That is the secret why we are so successful even today. When physicians actually looked at what we had developed they found that it resembled the way they practice medicine. We built it with my friend Dr. Raj at the center of the puzzle. As a result the software turned out to be what a physician really aspired for. They realized that it was not much different from what they were doing on paper and that if they could do it electronically then it could work for them. The challenge was for them to decide if they wanted to spend money on it and how much money they would want to spend up front.

Sramana Mitra: When you first started selling to individual physicians, how much money were they willing to pay? Typically, when you bootstrap a company, you need to make money quickly in order to survive.

Girish Navani: To be completely honest, that is one area where I completely lucked out. I ended up making a significant amount of money buying and selling options in a big storage company. I ended up having enough of a safety net to know that my wife would not be upset for at least another year. That gave me some time. I could have always parked that money and never worried about it, but I made the decision to use it since it was money that I had made from investments anyways.

We never got nervous with the profitability side of it. I had not left my job yet, and we were working on a very simple premise. I had a pretty significant income stream which could support my lifestyle as well as the business operations. We were not going to go out and burden ourselves where a time bomb would go off earlier than we wanted it to go off. We did not want to have the burden and pressure of getting to market too quickly and have a situation where we would not be ready with a product that would capture imaginations.

Sramana Mitra: How long did it take you to get your first product out?

Girish Navani: We had Dr. Raj using it by the end of 1999. A few of his friends were able to use it then as well. We didn't even have to let the first doctors use it for free because we had a pricing model that was a no-brainer. We had set a price point where a doctor would not say no. We sold it for $250 a month. We still charge that same price today.

Sramana Mitra: What functionality does a doctor's office get for $250?

Girish Navani: They are getting a full EMR that will pass any certification and can be deployed in any number of situations that you can imagine. It does everything from scheduling to faxing, scanning, progress notes, drug interactions, lab ordering, prescription writing, and numerous other functions. It is a full, comprehensive EMR.

Sramana Mitra: Can you describe the user interface? Are there people other than doctors entering data?

Girish Navani: There are multiple ways to do data entry because we know doctors do not think similarly to each other. Some doctors like the point-and-click interface on a tablet PC. Very early on we started with a focus on tablet PCs, and we are very friendly to those environments. We allow you to dictate using voice recognition software like Dragon. We support the handwriting recognition software that comes with many PCs. You can hand write and have the data entered automatically. Of course, we also support keyboard entry. Physicians can mix and match any of those methods as they choose.

Sramana Mitra: How do you compare with Epic?

Girish Navani: I think we are two good companies that focus on different market segments. One focuses on integrated delivery networks and large hospital organizations and the other on outpatient and ambulatory doctors. At one time we used to focus only on small physician practices. That changed by 2005. Now we have large institutions with more than 600 doctors. We do not do any inpatient software. Epic does a lot of inpatient work with some ambulatory offerings.

Sramana Mitra: In 1999 when you went to market, how were you actually selling? Were you knocking on office doors?

Girish Navani: The sales model is the same as it is today. When we sold to one customer, they would refer us to four or five other people they knew would be interested. That has made us an inbound sales company from the very early days. We have 34,000 physicians, and the majority of them are happy. They tell their peers [about us].

Sramana Mitra: In 1999 you did not have 34,000 paying physician customers. What were you doing then?

Girish Navani: In the first three years we had 500 doctors. We found them by going to small regional shows and conferences. From there, word of mouth carried it. It was peer-to-peer sales versus a software company pushing its product. Because of that, growth has been steady. We never lost patience because we had recurring revenues. Our EMR was $250 a month and our practice management is $150 a month, which makes $400 a month for everything. At that price we were adding enough doctors that we could sustain our company.

In 2003 we won some national recognition. That is when the box really opened up. Then came Facebook and social outlets. A physician decided to open up a group of eClinicalWorks users without asking us for permission. It was open and unregulated. He started inviting all of the other doctors he knew through his professional associations. That group mushroomed into a 'doctors finding doctors' phenomena. That portal is still running today, and it has all the good and bad about us. That portal makes it very easy for physicians to decide why an EMR is good for their practice and what it will do for them.

Sramana Mitra: What kind of revenue ramp did you see through those years?

Girish Navani: When we received national recognition in 2003, that became our breakout year. We ended that year in $1 million in revenues. We went from $1 million to $6 million in 2004. In 2005 we hit $18 million. That rose to $38 million in 2006, $63 million in 2007 and $83 million in 2008. In 2009, we had $106 million in revenues.

Sramana Mitra: Do you still own 100% of the company, or have you taken institutional investments?

Girish Navani: The company is owned by the three founders.

Sramana Mitra: Do you host the solution yourself, or do you have a different delivery model?

Girish Navani: We host it, but the customer has the choice. We have 10 data centers in the country, and we are the largest SaaS EMR in the country. Nobody has the customer volume that we have in the SaaS model. We like that model because of the recurring revenues. That makes the company profitable. On the flip side, we understand customer needs. Many of our customers do not have reliable broadband.

Sramana Mitra: From a SaaS operations perspective, how did you manage that ramp?

Girish Navani: First, we have never burnt a CD in our life. If you do a standalone installation, you still download the application from the Internet. When I was with Fidelity, I built systems that were used by 500,000 people, and those were considered small systems. Building a scalable architecture was not difficult for any [member] of the founding team. We knew software and were able to develop a scalable solution, and we utilized the full capabilities of the Internet to distribute that solution.

Sramana Mitra: What does the cost structure of the company look like?

Girish Navani: Our goals are different from those of most other companies. We are not focused only on profits. Our focus is on building a company that has a long-term, positive economic impact on both our customers and the people who work here. Over 90% of our employees are based in the United States. We are headquartered in Massachusetts, where we have about 550 employees. We also have offices in New York, Atlanta, and San Francisco, and a reasonably small office in Bombay. Our cost structure is really a pure American cost structure.

The real key to our success is recurring revenues. Our sales costs are less than 6%. We built the product on Java. It does not cost an arm and a leg to license the technologies we use, and that lets us sell our product for less. The most important part in any innovation-driven company is how you organize the company itself. At one of the companies I previously worked for, there were nine layers between someone who joined the company and the CEO.

When somebody joins our company today, there is no more than one person between me and that person. There is no hierarchy. Employees are broken up into teams, and all teams have a leader. Teams get together and collaborate. Smart people get together and find ways to solve hard problems. That is as much a part of our innovation as our product itself.

Sramana Mitra: Going forward, are you looking to keep this company private?

Girish Navani: I think that is our goal, at least as long as I am tenured at the company. I don't foresee leaving the company for at least 10 years. I would like to leave it a private company with no external investors and absolutely no thoughts whatsoever about Wall Street. I am having fun and take great pride in my freedom. There is no reason I would give that up.

We are a cash flow positive company. We have recurring revenues and no debt. We have a large customer base that is growing exponentially. We have 50% volume growth in 2009 over 2008 and expect that to continue. I have no reason to believe that we will change our corporate financing structure.

Sramana Mitra: What does the market landscape look like in electronic medical records for you right now? If you have 34,000 physicians using your system and there are about 500,000 in the United States, then you still have room to grow.

Girish Navani: Depending on the surveys you read, some say that the TAM is 20% penetrated and others say it is 26% penetrated. It is somewhere in that range. It still has about 70% to go.

Sramana Mitra: What is your market share position today?

Girish Navani: If you look at it from a 20% number, we have 34% of the market. If you look at it from a 30% adoption rate, then we have 16% to 17%. It is still significant because the market is fragmented. There are 150,000 independent doctors' offices [in the country]. If I had to speculate, I would say it is anywhere from 17% to 22%.

Sramana Mitra: How does the stimulus bill affect you?

Girish Navani: The initial stimulus bill ended up dedicating anywhere from $39 billion to $46 billion to the adoption of electronic medical records in the Unites States. Do I like that? Part of me doesn't. I wish we had just stayed the way we were without external catalysts because we were succeeding. However, the other part of it is that $39 billion to $46 billion will flow into an industry that is no more than $5 billion today. It is going to change the landscape. We will see an adoption curve like no other. Between 2010 and 2015, we will go from 20% adoption to 85% adoption. Along the way eClinicalWorks will grow five- to tenfold depending on what the execution terms are. We are prepared to surf that tidal wave.

Sramana Mitra: Let's assume we do reach 80% adoption in the next five years. What does that save in terms of healthcare administrative costs?

Girish Navani: Regardless how I answer that question, somebody is going to object; however, I have a simple premise here. If you eliminate paper from any industry, the efficiency has to improve. There is a lot of communication among doctors in this industry. I cannot imagine how an electronic system cannot transform.

Having said that, I must confess I have not done an analysis on what it will save. I will tell you from my perspective where it will save and the significance of these savings. Let's look at two aspects. One is drug costs: because you can now prescribe medicine that are on healthcare plans, doctors will prescribe medicines which cost less. Doctors will be much more educated in what they prescribe, which will reduce pharma costs, which is one of the big components of healthcare costs.

The second component is orders: labs, X-rays, and diagnostic studies. EMRs will eliminate duplications. That is the second largest component of healthcare costs. Taking on those two will tackle two of the three largest cost structures in healthcare. I think that this will have a significant impact. The key is finding out how to give some of the money that has been saved to the doctors. Primary care [physicians] in the United States need to get a boost in their income levels to compensate for what they do.

Sramana Mitra: I recently was told the savings associated with the industry moving to e-claim processing and healthcare plans paying providers electronically would be $90 billion.

Girish Navani: Then you can double that savings for lab orders and medications.

Sramana Mitra: This is incredibly low-hanging fruit. I am astounded it is still an electronic process.

Girish Navani: The reason is twofold. There are obviously some physician concerns that adapting to the system will take them more time. I challenge that notion simply by pointing to the fact that we have added 34,000 doctors. We would not have grown if one doctor did not hear from another doctor that our solution was valued.

Sramana Mitra: I don't have a problem accelerating the process with a stimulus because the macro picture of the waste in the system is really awful.

Girish Navani: Isn't it amazing that we are in 2010 with a healthcare system that is still 90% paper?

Sramana Mitra: It is annoying!

Girish Navani: Excellent choice of words!

Sramana Mitra: I am delighted to hear your story. I love bootstrapping case studies and people who have the grit to succeed without taking millions of dollars of outside financing. It will be inspiring to other entrepreneurs.

I spoke with Girish again in October 2014. By that time Girish had built a $300M+ private company in Healthcare IT that would be valued at over $3B if he were to take it public. We continue the discussion here.

Sramana Mitra: Let's pick up from where we left off about four years ago. Of course, you're one of the key players in the healthcare IT ecosystem and started way before most of players in the current landscape. Catch me up on what's going on and how you've progressed. I want to set the context of what I love about your philosophy of building the company. You've kept it private. When we talked in 2010, you already had thousands and thousands of customers and had substantial revenue.

Girish Navani: People think the first five years of starting the company are probably the most hectic. I think I'm probably running faster today than I ever did. There's a lot of exciting things. If you follow eClinicalWorks' journey, we put the physician in the middle and we try to put everything else around it. I still think that's the core to the company to a big extent. Everything is streamlined from a physician's workflow. What has complemented that is that we've put the patient also on the same footing.

I'll talk about how I manage growth now while not making it bigger and bigger and slower and slower. I try to keep the culture agile. Over the four plus years, we have focused on the patient being an equal centerpiece. It's like the MasterCard commercial. You've got two circles and they intersect. We've had success on one side of that circle with physicians and we'll continue to. The exciting part is to make a similar impact on the consumer/patient.

Sramana Mitra: Let's take those two circles and double-click down. The physician side is relatively straightforward. You probably, metrics-wise, have made a lot of progress there.

Girish Navani: Very true. It's a hard industry but nonetheless, I think it's consolidating. The business today is not the same business from 15 years ago. 15 years ago, there were a lot of green fields where physicians did not have electronic records. Today, the landscape's different because many times, companies come up from different parts of the country. We've had customers adopt lots of different systems. As markets mature, you'll find consolidation because of many reasons. We're in that phase. Most of our growth now is coming from a customer base that is already on a first-generation system. I see that market continuing to evolve for the next five years.

Sramana Mitra: What is the penetration of EHRs into the physician marketplace right now?

Girish Navani: I'd speculate it's above 80%. But I'd also say that 30% to 40% of them are going to pick us. That happens in every industry. We love to talk about how healthcare has got challenges. If you look at every industry with a microscope, you'll find that it went through that same trend. As the market continues to evolve, you need to invest heavily in R&D and in services. Having a customer has its own responsibilities and not everyone comes through with it. I still think the market is going to continue to grow for the ones that want to innovate.

Sramana Mitra: When we talked sometime back, you were basically going into a virgin territory. Now, you're seeing customers switching.

Girish Navani: Eight out of 10 customers are switching. We actually have a program called *Make the Switch*. It's pretty popular. It's not only moving from one software to another, but also moving to the cloud. Those are the two trends that I see.

Sramana Mitra: If you were to look at the physician market, what percentage of the physician market has made that shift to the second-generation system?

Girish Navani: That's actually an intriguing question. I think it's still in the early phases, early in the sense that we are 18 months into that cycle.

Sramana Mitra: So probably less than 10%?

Girish Navani: Yes, I think so. I'm actually looking at next year with a lot of optimism. It will be the first year in five years that we won't have a government mandate. The market will then try to take its own shape. That's something that entrepreneurs find very exciting. I'm looking forward to it.

Sramana Mitra: Then let's switch to the other side of the circle, the patient side. Tell us what those are.

Girish Navani: Two things are happening, which are I think the stimuli for this becoming a reality. One is, employers have started moving to deductible plans.
So patients are picking up part of this expense through their own pockets, which was not the case 20 years ago when we all had insurance cards and assumed there was no patient pay other than the co-pay. Today, co-pays are not the only reimbursement that many employers are putting on their clients. Sometimes, it's $1,000. Sometimes, it's $2,000. The consumers are asking the question, "Is this the best care I can get for the money I'm spending?" That, I think, is a trend.

The other one is that we're moving reimbursements on the care delivery side from fee-for-service to outcomes. An ACO report says bonuses were paid to practices and groups that had achieved good outcomes while not spending the same amount of money as their peers. Both these trends now put the patient into focus. One, allow them to manage their care. Make them aware of what care is costing. Engage them in such a way that they get preventive care or avoid unnecessary care. Either of those two can result in positive outcomes.

That tells us that you need to have technology for consumers now. You can hail a taxi using Uber. I think you should be able to, at least, look up online what your MRI is going to cost. These are basic things you should be able to do. We are investing heavily. We've committed $75 million in R&D in this business unit. It's called Healow (Health and Online Wellness).

Sramana Mitra: For that business, what is the business model?

Girish Navani: It's an intriguing question. If you go back to our original interview, you asked me that question. I've always thought about making a difference first and then figuring out how to make money from it. eClinicalWorks wasn't that different. People didn't think you could get an EMR for $250 a month. We said they could. I think the long-term business model for patients is saving costs.

Sramana Mitra: For the physicians?

Girish Navani: For both sides – patients or providers. Saving costs, yet obtaining outcomes. Don't compromise the outcome. In fact, the outcome should get better – not worse. The business model might translate into reminders to patients. There might be a monthly model because rather than having to sit there and make manual phone calls and come up with archaic ways of communicating, technology could do it through text messages, voice reminders, or app notifications. There could be a model on just matching supply and demand. If I found a doctor a new patient, would he pay for that new appointment? We do that in all e-commerce settings.

Sramana Mitra: It's a marketing vehicle for doctors.

Girish Navani: Yes, and we're doing that. We've launched it nationwide.

Sramana Mitra: Are they willing to pay for it?

Girish Navani: For an appointment, yes. If you have an unused, open slot, you now get to fill it.

Sramana Mitra: What are the numbers of the business? You can give me ranges. In 2010, you were already at $100 million.

Girish Navani: We forecast this year that we will reach $320 plus million in revenues.

Sramana Mitra: You still don't have any desire to exit this company and take it public? You want to run a private company, right?

Girish Navani: Yes.

Sramana Mitra: That's great. I'm actually working on a book on Unicorn Companies right now. I would love to include you in that. The definition of this Unicorn Company is a billion-dollar exit. The truth is if you were to exit in the market today, you would be over a billion dollar in valuation easily.

Girish Navani: Easily. Maybe multi-billion.

Sramana Mitra: It's probably more like $3 billion plus valuation. You've probably seen my work in the last four years that we've launched One Million by One Million. Our philosophy is entrepreneurship equals customers, revenues, and profits. Financing and exit are optional. That's a very simple and powerful change in the way entrepreneurship is viewed.

Girish Navani: I wish more would do it.

Sramana Mitra: Over 99% of the companies out there who seek financing actually get rejected. We need role models like you and, another of my favorite entrepreneurs who is following the same philosophy, Sridhar Vembu. I don't know if you've met him …

Girish Navani: No.

Sramana Mitra: Sridhar Vembu is doing Zoho. Zoho is probably over $300 million in revenue. He has no desire to exit – 100% self-financed company and has no interest in exiting.

Girish Navani: I'd like to someday meet him.

Sramana Mitra: I'll be happy to introduce you. It's a different way of doing business. It's a different way of thinking about business. You guys are building gigantic cloud companies that can stand on their own two feet.

Girish Navani: I think you're right with cloud computing and business models that have recurring revenue. You don't need to go public and you don't need to exit. Exits are for professional careers. At 47, I have no desire to do that.

Sramana Mitra: That's the other thing. I'm glad that you brought it up. I actually have nothing against venture capital. I've done venture-funded companies. This one, I'm not doing as a venture-funded company—at least not at this point.

I think it's important to put more of your style of role models out there where you can build self-sustaining companies with customer money as opposed to investor money. I think it's an important thought process that needs to come into the industry.

Girish Navani: You, at least, have a different decision making in this business. Profit margins are important but they're not primary. You need to run a profitable business but you tend to look at customers and employees in much different ways than you would if you were a publicly traded stock.

Sramana Mitra: You also don't look at growth the same way. You don't have to grow at all cost all the time at the fastest pace.

Girish Navani: That's true. We have got four business units right now–Big Data analytics, patient that we just talked about, revenue cycle management, and then obviously the core business of EHR. I do it because I like to do it, not because I have to do it.

Sramana Mitra: You are investing sizeable amounts of money in R&D.

Girish Navani: Big time.

Sramana Mitra: That is eating into your profit margins.

Girish Navani: That's fine to me.

Sramana Mitra: I've only seen one public company making the case for not making profits and still convince shareholders to stay with them. That's Amazon.

Girish Navani: Amazon.

Sramana Mitra: Most companies can't get away with that but they do. These are very interesting differences in how you make decisions and how you build companies.

Girish Navani: It is no different than sky diving. It's no different than taking adventures that when you watch them on GoPro cameras, you'd go, "I can't even watch it." Wanting to stay private is no less adventurous than what I just discussed.

Sramana Mitra: I like it very much. The other thing that you said that, personally, philosophy-wise, I'm also very much in agreement with—I'm not interested in retiring. I love work. I love to do what I do. That's my primary focus.

Girish Navani: I wouldn't know what to do if I retired. I'd get bored. If I had to stop working for more than two weeks, I'd be in some form of withdrawal syndrome. Work is addictive.

Sramana Mitra: I think for people like us, work is how we add value to the world.

Girish Navani: True.

Sramana Mitra: Relatively speaking, we are very young. Having an exit and getting a chunk of money and then what? You can't eat money.

Girish Navani: Very true. Then what? People ask the question, "Girish, why don't you exit?" Then I ask the same question you asked, "Then what?" None of those answers have been exciting. I have found a cause with healthcare. In healthcare, there's a purpose – we can help somebody live a better life, live a healthier life, or get diagnosed sooner because technology created that platform. Beyond profitability, we've done something for society even though it's a for-profit and not a non-profit.

Sramana Mitra: If you can add value to society in a for-profit mode, I think it's a much more sustainable model.

Girish Navani: Very true.

Sramana Mitra: I don't particularly like the idea of having to go raise foundation money and all that.

Girish Navani: I think you're right. Innovation creates value. Use that to generate both growth in the company and growth in the principle. You have mentioned Amazon. I have a fascination for their business model, which is doing everything between consumers and supply.

Sramana Mitra: Vertical integration.

Girish Navani: Yes. I expect to see eClinicalWorks as a vertically integrated company for healthcare and even wellness. That'd be exciting. It's short of owning the delivery standpoint itself or owning the practice of medicine, which we won't get into. I think we'll close into that practice and connect it all the way to the consumer.

Sramana Mitra: Let's take the thought process a bit further. How do you view the industry right now? When you look at the different players who are trying to serve the same purpose of making the healthcare world better using technology, who stands out as making interesting progress and contribution?

Girish Navani: What is fascinating to me, and I encourage this, is for the first time in a long time, I am seeing a significant excitement for healthcare and technology innovation. Technology in healthcare was not considered to be so cool 15 years ago. It was dull. It was for the geeks. It wasn't for hardcore entrepreneurs.

Sramana Mitra: Healthcare IT has seen a renaissance.

Girish Navani: Big time. That renaissance will really merge companies that you and I don't necessarily talk about today, but their business models are appealing—find me physicians wherever I can, find the cost of care, transmit my medical records to my provider of care, allow the doctor to do telemedicine versus trying to do traditional medicine, allow providers to communicate with other providers but not through traditional health information exchange models, which I think are primarily there to hide the duplication. This is in contrast with patients carrying their information on a Smartphone to another provider of care. These business models are going to take shape.

I think we've finished the first or second innings of a baseball game of digitizing healthcare. About 80% to 90% now have an EMR in the hospital or in the doctor's office. We just think that's the first leg of doing anything substantial. It's too early to say which five companies are going to have a big impact. Companies that are focusing on using cloud and this idea of tying consumers to suppliers and suppliers to other suppliers and break the mould of this traditional payer-based system of healthcare will create a big, dynamic difference. We expect to be one of them, but we do fully expect many, many more.

Sramana Mitra: AthenaHealth is doing good work.

Girish Navani: They're doing well. But many others are not. You should not just look at these five to six companies including us as people that can make a difference.

Sramana Mitra: There are small companies.

Girish Navani: 15 years ago, we were nobody. I remember this day when we went on stage in 2002. Siemens presented before us and GE presented after us. There were five of us at that show, and that was 95% of our industry. We were the nobodies of this industry. Today, those two companies in healthcare don't have the same presence, if you're being very polite.

Sramana Mitra: They have other roles to play in medical imaging. In the equipment sector, they're big.

Girish Navani: Yes, not in healthcare IT. This is the fun part and also the nerve-wracking part. As an entrepreneur, you have no fear because you have nothing to lose.

Sramana Mitra: Given your structure, what are your thoughts about acquisitions? One way that people deal with that threat is to bring in people from the bottom.

Girish Navani: I agree with the idea of having individuals whose focus is exclusively in that particular objective. You can do that through acquisition of teams and bringing them in. I have always enjoyed building a team or building a company that goes ahead and excels in R&D and service. We have started becoming, in a way, our own investors. We invest in ideas and then give these ideas a lot of freedom and a lot of entrepreneurship. We give them lessons learned. I participate on Thursdays and Fridays in these discussions called LEAPs – Leadership Acceleration Programs. Many from eClinicalWorks have moved into those teams. Many have come from the outside. It doesn't really matter.

Sramana Mitra: That's an Intrapreneurship model.

Girish Navani: I like that word actually. I've never used it – Intrapreneurship. These business units that I just mentioned are directly done that way. Rather than looking at other companies to see if we can acquire, we try to build on cool ideas.

Sramana Mitra: Intrapreneurship is very hot right now. We're doing a lot of Intrapreneurship work in partnership with major corporations where we set up a formal 1M/1M incubation program inside corporations to encourage Intrapreneurship and teach people how to bring the product to market.

Girish Navani: It's hard, but I think we have figured it out. It took a year of my almost constant staying on top of it all. All of these business units are starting to become successful. They have significant customer base. They are starting to generate revenues, but we also think that they're now competing with the "individual entrepreneurship companies" head on. In population health analytics, we were nobodies 18 months ago. We were non-existent. Today, we think we're among the top two companies in analytics for healthcare. This was an internally funded initiative.

Sramana Mitra: What does the R&D operation look like? Is it still primarily Boston-based?

Girish Navani: Yes, because I am there. I'm still the software engineer that has learned how to run the company. The biggest difference I bring to eClinicalWorks is the ability to take customer needs and put technology and engineering together, and come up with products that have an appeal. We have offices in Atlanta, Chicago, New York, Boston, and India. R&D will still stay in Boston. It doesn't mean that it can't be done outside of Boston. It's just that I find it to be that much faster with me being able to work with them hands-on.

Sramana Mitra: How many people do you have in Boston?

Girish Navani: Boston's about 800 plus people today.

Sramana Mitra: The whole company?

Girish Navani: 4,000. In our business, I think I've learned that customer service and customer implementations take up a big part of our company.

Sramana Mitra: Do you have a professional services unit then?

Girish Navani: Very big. In healthcare, I can't sell technology and not go on-site to help them implement it. Even though it's a SaaS model with recurring revenues, we still give services. Not necessarily charged on a per-day basis. In our recurring revenue fees, we will bundle in X number of days of on-site presence to implement it. I think we also provide a lot of free online support.

Sramana Mitra: Implementing well prevents churn.

Girish Navani: Yes. Either I do that or I immerse in sales. We chose to invest in service because it will result in a customer telling another. Our sales team is still very small, while our service and implementation teams have grown significantly. R&D has grown as well.

Sramana Mitra: Is there anything else that you want to discuss?

Girish Navani: I think we will see a different healthcare system where the payer is not necessarily the one clearing a bill without telling you someday what it costs. I'll tell you something new that we're doing next year. We just went live with it inside our company. I think there's a business model for it outside of eClinicalWorks. We mandated that our insurance company gives us our claim files, which was a tough one to get. It got to a point where it was frustratingly being ignored. They would say, "I don't have it today. I'll give it to you day after tomorrow." It went on for about four months until it came to a point where I said, "Either I get it or I'm going to another company." We got our files then.

We built technology to allow each one of our employees to look at that data and see what it costs when they go and get a lab, a flu shot, or an MRI done. We have an employee who went for a brand name prescription. The doctor recently switched it to a generic. Her son didn't react well to the generic, so she had to go back to the branded one. She asked the doctor if she could do anything to manage the co-pay because co-pays are different for branded and generics. One of the employees in the company who had watched this data point in claim files then told her that Walmart is cheaper than CVS. It turned out to be true. She now saves $20 on every prescription she fills.

Employers helping employees create wellness and visibility along with technology companies providing consumers tools at home can change healthcare. It'll take time because it's regulated. There's a lot of bureaucracy.

Sramana Mitra: Some of this stuff does not really need a lot of regulation change like optimizing the cost structure of a patient, which you just talked about.

Girish Navani: It does not. What needs to change is price. The initiatives coming out next year, because of government mandate, are still not going to give you the exact price for care. It's going to be a reference range. But I still think that'll go a long way. Getting price visibility and preventing sudden changes where the status quo gets challenged and people start getting into network contracts are good signs of a big tidal wave coming in. It'll happen a little bit slower than it happened in the cab industry because there were lesser regulations, but I think it'll happen in two or three years.

Sramana Mitra: I think what's very encouraging about healthcare IT right now is that we are well within striking distance of the whole system digitizing.

Girish Navani: Yes.

Sramana Mitra: We are also well within striking distance of the healthcare administration costs becoming optimized significantly. There has been a lot of wastage in that area. All those add to the healthcare system becoming more efficient and being able to deliver care at a lower cost.

Girish Navani: And then we have population health analytics. New York City is doing something interesting. New York City has technology that is allowing them to understand outbreaks every 24 hours. They're able to push medication recalls into provider and patient inboxes. They're also able to understand chronic care management matched up against social, economic, and ethnicity breakdowns. This was not doable before. We take credit for the technology side because we put it in. But when you combine whatever we just discussed – consumerism in care with population health-analytics, I do think we might actually live healthier and at a lower price point than what it is today. That will be a fun experience in life.

Sramana Mitra: What is your perspective on end-of-life care because one of the big chunks of the cost structure problem is in end-of-life care?

Girish Navani: Personal experience tells me that I can say whatever I want today but if your relative or family member ever had to go through that, you would try everything to see if it can work.

Sramana Mitra: I experienced this with my grandmother about five years ago. This was in India. She was in a coma essentially and she was not responding. It was about 18 days. We would have been happy to let her go but no one would let us do that. She was 87 years old.

Girish Navani: I won't say it's easier, but some of them are more rational. I don't know about this one because I have actually struggled with it internally. I like to tout the idea of health and wellness and I have somehow tried to avoid such situations. Maybe the person inside me doesn't know how to react when faced with a decision like this myself. I would always say that if it's better for the patient in terms of pain and outcomes, then it's an easier one. If it is not, then which way do you go?

Sramana Mitra: It's a tricky one.

Girish Navani: If you look at why we get two X-rays done for the same tooth when we visit two different dentists, one for our initial and one for the oral surgery, you're costing the system twice and you're getting no better outcomes.

Sramana Mitra: Those are unnecessary.

Girish Navani: Those are unnecessary. Those should go.

Sramana Mitra: There's a tremendous amount of optimization to be done just in the system that would dramatically cut down cost just by moving things properly, quickly, and efficiently.

Girish Navani: With better drug trials leveraging this health technology to try and see which meds have better appeal, I think technology can create that big change that it needs. You and I can still come back to end-of-life and deal with it.

Sramana Mitra: Take the low-hanging fruit.

Girish Navani: Let's take the person who's living healthy and try and have them live healthier.

Sramana Mitra: The trend lines are all very good. This is encouraging. There are all sorts of bad things happening in the world—ISIS and nonsense like that, but this is a very good trend line that there is actually technology adoption and cost reduction. All these things that need to happen in the healthcare system are all happening.

Girish Navani: Since you brought up international, we have an interesting customer that has signed up with us. They're based in Israel, but they are healthcare providers in the US. They allow international patients to seek second opinions online and they're going to use eClinicalWorks technology for it. This is amazing. You get a specialist in US who is probably the thought leader in that space and knows a lot about that domain being able to provide an online second consult to somebody else in the world. It's fascinating.

Sramana Mitra: What is the business model?

Girish Navani: The patient pays for getting their second consult.

Sramana Mitra: It's a private consult.

Girish Navani: Yes, but nonetheless it is something that creates value. There are intriguing models coming up like this and will be fascinating to have someday. I hope we can cross state lines in terms of healthcare delivery regulation. I don't understand. If you can be a doctor in Connecticut, why can't you be a doctor in Massachusetts?

Sramana Mitra: Yes, then there are other possibilities of course, because if everything is possible digitally then you can train your software to be able to

take that data, analyze that data, and come up with diagnosis and all kinds of things. If the doctor can do it, then the software can do it.

Girish Navani: I'd get into trouble for saying that. I'll say this, technology can definitely assist healthcare.

Sramana Mitra: Come on! We're computer scientists. Doctors memorize and learn what the algorithm and the heuristics are.

Girish Navani: So technology is helping physicians with better decision-making. We start giving them some understanding of outcomes based on prior historical data, which can be computed a lot more quickly.

Sramana Mitra: This is not in the 5 to 10 year-timeframe but it's definitely in the 50-year time frame. There is a much bigger role that software plays in the diagnosis process.

Girish Navani: According to Harvard Business Review, robots are going to be helping in surgeries a lot faster. Actually, my neighbor sells into this space. He believes that robotic surgery is evolving very fast.

Sramana Mitra: It is. That was a great discussion. Thank you very much for your time.

Interview with Ratmir Timashev, Veeam

Unicorns like Tableau, FireEye, RightNow, PaloAlto Networks, Kayak, Flipkart and several others tend to get a tremendous amount of media coverage. Here's a company that gets little coverage but is performing at Unicorn levels. The media tends to use funding as the metric determining coverage worthiness. It's an incredibly stupid practice! I spoke with the CEO in August 2014. Veem expects to do $1 billion in revenue – not valuation – by 2018. If the company were to be valued today, it would be priced at over $5 billion.

Sramana Mitra: Ratmir, let's start our discussion by reviewing your background. Where are you from? What are the roots of your entrepreneurial journey?

Ratmir Timashev: I was born in Russia in 1966 in the mountains between the European and Asian region of Russia. I studied physics in Moscow and I attended the top science school in Russia. I was working on my PhD when Perestroika came into being. Science was very prestigious under the Soviet Union and when Perestroika happened, all that changed. Government funding suddenly stopped. The economy collapsed and science did not make sense. A lot of my friends who were studying science went to work in other areas.

Some were entrepreneurial and started their own businesses. I also tried some entrepreneurial activities in Russia in the late '80s and early '90s. I enjoyed entrepreneurship and was pretty successful. I started by selling computers and ended up doing construction work. I did all of that as a PhD student because I had a wife and a son and did not make enough money as a PhD student to support them. I worked over the weekends and summer breaks.

I found entrepreneurship has some of its parallels to science. Both have goals you set out to achieve. In science, the goal is discovery and recognition, in business, the goal is money. Both have ways to measure achievement. I thought that in terms of the game, the business world was very similar to the science world. These activities created a lot of adrenaline and drive.

Those side jobs led me to discover that I eventually wanted to become an entrepreneur. I decided to go to the United States in the early 1990s to learn the language and culture. I was still a graduate student at the Moscow Institute of Physics and Technologies, the MIT of Russia.

Sramana Mitra: Are you still based in Russia?

Ratmir Timashev: No. Veeam is headquartered in Switzerland. Our first company was started in Columbus, Ohio. I went to the US in 1992 and the best way to get there was as a graduate student. I figured before I started a serious business, I had to learn the US culture and language. I wanted to go to the US for a few years and then return to Russia.

I attended the physics program at Ohio State University. I had to do my PhD work and in 1995 I got my green card. I was now more or less free and I did not have to stay at Ohio State anymore. I didn't finish my PhD but instead did a second masters. I then started my first business with a partner.

Sramana Mitra: What year did you leave school to start your first business?

Ratmir Timashev: I left in 1995.

Sramana Mitra: In 1995 the Internet was starting to take off. What kind of business did you start?

Ratmir Timashev: It was the early days of the Internet. I started that business with Andrei Baronov who has been my business partner for several businesses. We also had a third partner in our first business. I remember in 1994 when he had his email address on his business card, I thought that was crazy and that nobody would want to do business with him. Only students had email addresses back then. We were doing an offline business and I told him I wanted him to remove his email address from his business card, because everybody would think that he was just a student.

We read in local magazines that the Internet was coming. We set out to build an online store. We were students from Russia with little business experience and no money. We had a very small apartment on campus and we built our online store from that apartment. I invited my college roommate Andrei Baranov to help. He had just finished his PhD in Russia. I knew that he could build anything, because he was a technology genius. Within six months, we built our first online store.

Sramana Mitra: What were you trying to sell?

Ratmir Timashev: We were selling computer parts to our friends in Moscow. We were a reseller for Tech Data. Every month we would have a CD from Tech Data that listed all 35,000 items that they had for sale. It had keyboards, mouse, memory and everything else. We had access to the best database on the market.

Our idea was similar to Amazon, only we did not know about them. They were on the West Coast and were very sophisticated. We were just poor students on campus. We built a front-end shopping cart that listed the items for sale on the CD. The order went directly to Tech Data electronically and they shipped it directly to the customer. Back then, there were a lot of small shops assembling computers. Today, we have IBM, Dell, and HP do that for us. Our primary customers were the small shops that would buy different computer parts because our mark-up was very low. We just added 10% onto the price we received from Tech Data.

The idea was the exact same thing that Amazon did. They did not have inventory or warehouses for the first several years. They never touched the books; they just had agreements with the publishers.

Sramana Mitra: How much revenue were you generating your first year?

Ratmir Timashev: We were making $500 a month, which was good money for students. Our online store would have grown into a nice business, but my partner Andrei got bored. Additionally, I was managing the marketing and sales and I was still a student. Our marketing was very simple. We would just spam newsgroups on the Internet.

Sramana Mitra: How far did you take the e-commerce business?

Ratmir Timashev: The good thing is that we decided to build our online store on the Microsoft Windows NT platform, which was a business operating system and the first stable server. It became Windows 2000 and is now known as Windows Server 2012.

My partner became a top expert on Windows NT during the process of building that store. He began posting a lot of advice on forums and news groups. He wrote a couple of tools to manage Windows NT websites and Windows NT networks. He started selling these tools on his personal website for $20 in late 1996. Immediately, those two product sales exceeded our profits from the website. That led us to focus our time and effort on the software instead of on the computer parts commerce site.

From there, we started to create more tools that Windows NT administrators might need to do their job. We ended up founding Aelita Software in 1997 to sell Windows Server systems management software. That business grew much faster than our online store so we dropped the online store. If we were in Silicon Valley, we probably would have gained investors and been billionaires by now.

Over the next nine years, Aelita Software grew to $33 million. In 2004, we sold that business to one of our prime competitors, Quest Software, for $116 million. Two years ago, Quest was sold to Dell for $2.36 billion. Our products probably create close to $500 million in revenue for Dell.

Sramana Mitra: What did you do after you sold Aelita Software?

Ratmir Timashev: When we sold it in 2004, I became a general manager in Quest for the new Windows Enterprise Management business group for application management, database management and Windows management.

Sramana Mitra: When did you leave Quest?

Ratmir Timashev: I left at the beginning of 2005. I stayed there to make sure the transition was successful and it was very successful. Quest was a company that was built by acquiring other companies. My company was their largest and most successful acquisition. They probably acquired 40 companies over the years, but we were their most successful acquisition. We made sure that we integrated the products and people to ensure a smooth transition.

Sramana Mitra: What did you do when you left Quest?

Ratmir Timashev: We left in 2005 and for the next year, we took our time to look around and find the next big idea. We saw that virtualization was the new big trend. I have some good friends in the venture capital community who told me that virtualization was the big new thing.

We decided to do something similar to what we had done for Windows NT but for the Virtual Machine world. We wanted to create different tools that VM administrators would need to do their day-to-day jobs. In mid-2006, we started creating different tools that involved things like monitoring, administration management, and finally a backup tool that we released in 2008.

The backup tool has been the most successful tool that we built. We ended up getting rid of most of our other products and keeping only our backup tool product. We still have a couple of management products, but the backup product creates 95% of our revenue. Our primary focus is backup data protection and a new product category that we call *Availability*.

Sramana Mitra: There are all kinds of cloud backup products out there. Can you do an ecosystem map for me?

Ratmir Timashev: There is a traditional market for backup. Gartner estimates that market to be $5 billion globally. Symantec owns 32% of that market. The other major players are IBM, HP, EMC, and CommVault. Recently, Veeam was named the sixth largest vendor in this backup space.

There are probably 60 other players in this market. Most are smaller. The traditional market comes from the physical server. That server needs to do a backup at least once a day. In the event the server crashes and the data is corrupted, then you have a capable backup. The traditional market started for Intel platforms in 1995. In the traditional market, you install an agent and once a night that agent will run a backup process.

However, in the last seven years, the data has grown very fast. It has been growing anywhere from 30% to 60% a year. Business requirements have changed dramatically. Several years ago, it was acceptable to not have access to a website or email for a day or two. Today, businesses need access to data and applications from any device at any time from any place. They do not tolerate any downtime. If email is down for more than 5 or 10 minutes, IT will get yelled at. Business requirements have changed dramatically when it comes to access to data.

Tolerance for data loss is also very different today. Ten years ago, people understood that they might lose a file every now and then. Today, that is not OK. You need to backup data at least once an hour, not once a day like it was 10 years ago. It would be preferable to backup data every 10 to 15 minutes. If a server crashes, then you only lose 15 minutes of data, not an entire day's worth of data.

Sramana Mitra: How has the change in industry tolerance and culture affected your marketplace?

Ratmir Timashev: These changes in business requirements have made the legacy solutions by Symantec and IBM less effective. Access to data should be almost continuous. You can only tolerate a few minutes of downtime and data loss should also be minimal.

Everybody needs access to data at any time, from any device, and anywhere that person is at. That is why most companies over the past five years have started projects that change their data center. They are modernizing their data centers to meet these requirements by leveraging server virtualization, network virtualization, and storage virtualization.

They are using new storage technologies that are cheaper, hold more data, and store data faster. That is a different set of cloud technologies. There are private cloud, public cloud, and hybrid cloud technologies that allow you to provision the services for businesses faster and restore services faster.

That has resulted in three fundamental technology blocks: virtualization, storage, and cloud. The modern data center is built on these new technologies. Once companies build these new data centers to meet those requirements, they realize that they can provision more services to businesses faster. They can deploy new services to new business units faster. What used to take six months or 12 months can be rolled out in months or even weeks. In some cases, it can even be rolled out in hours.

Companies would deploy these new data centers and find that everything was working fine. Once a disaster event of some kind happens, such as a server crash, these companies realize that although they have modernized their data center, they were still using legacy backup products to provide the protection layer. That legacy technology takes hours or days to restore an application.

This has led companies to start looking for new solutions that can restore an application within minutes and with minimal data loss. They often find that the only viable option here is Veeam because Veeam is a young company that was designed specifically in the past six years to sit on top of the modern data center and meet current business requirements. Veeam plays in the traditional data market that Gartner and Forester describe as Enterprise Backup and Recovery, a $5 billion market growing at 10% a year.

Enterprise Backup and Recovery is part of a larger market, which is defined as Data Management. That market includes data analysis, data archival, data de-duplication, data reduction, and so on. We are playing in the bigger market, which is estimated to be a $15 billion market. What's interesting is the lines between the various markets within Data Management are blurring. We are the leader in the new market. We are taking market share from legacy vendors and are growing very fast.

Sramana Mitra: When you founded Veeam and entered this market, there were all sorts of different players in different segments of the market. You were able to create a differentiated position for Veeam. What was the process of understanding and analyzing the market that allowed you to create your positioning?

Ratmir Timashev: Part of that insight is seen in how we refer to the market. The old market is data backup and recovery. We call the new market availability. What I saw was a trend of businesses being "always on". Businesses created a new market where recovery and data loss needed to be dealt with in minutes. The old market was trying to address those problems, but it was obvious that it really needed a new market.

When we entered the market in 2007 and 2008, we started with our core customers who are VMWare administrators. We did not phrase our technology as availability at that time. We termed it backup and we did it only for virtual machines. We were specifically built for VMWare virtualization.

VMWare administrators understood the benefits of virtualization, virtualization enabled provisioning and so on. That core customer immediately understood the benefits of what we were doing by building backup only for virtual servers. What really made it easy is that they did not have to change anything in their datacenter. They just had to use Veeam on their VMWare servers for this small part of their datacenter. In 2005, companies were only virtualizing 10% of their datacenter.

Our competitors did not pay attention to virtualization. It was only 10% of the datacenter, so they did not care. By the time they started to care it was already too late. They called Veeam a niche player, however our niche grew from 10% to 50% in 2012 and 70% in 2014.

In a technology business there are two things that are really difficult. First, it is hard to identify the niche that will become very big in the next five years. The second difficult thing is creating a brilliant product. Sales, marketing, and channel is very important, but that is all a lot easier to do.

You don't have to be the first to the market to win. When we came to the market, there were two other companies doing what we do. They had already started educating VMWare administrators that they would need a specialized tool for their environment. They had been doing that for two years. Over the past six years, we grew from $0 to over $300 million with over 100,000 customers globally.

Sramana Mitra: How did you choose to finance Veeam?

Ratmir Timashev: We self-financed. My partner and I jointly invested about $5 million in the company. It did not take that much money to finance the company. If we had put in less money, we would have grown even faster. We had money, so we started wasting money left and right. If we had less money, we would have been more focused.

Sramana Mitra: You have a unique situation in a founder-financed company. Where do you see things going in the future? Are you going to take a traditional route and look for an exit?

Ratmir Timashev: Our current vision is to continue growing as a private company. We don't need venture capital funds to keep growing. We are almost at $500 million in revenue and we have publicly stated that we want to do $1 billion by 2018. We are not applying for an IPO and we are not actively looking to sell the company.

We believe the most difficult part is to find a niche market and build a great product. My partner and I have proven time and again that we can do that. We have created great products in the market at each company we have founded.

Sramana Mitra: Where is your sweet spot? Is it with enterprises, SMBs or somewhere else?

Ratmir Timashev: We started with SMBs and we have grown into the mid-market and enterprise in the last three years. We just announced that we have 111,000 customers at the end of Q2. We are adding 3,500 new customers every month. Our current customers are also extending their virtualization projects which means they are buying more licenses as well. We have 94% of the Fortune 500 as customers.

Sramana Mitra: How do you sell?

Ratmir Timashev: This market is defined by VMware, which is a channel company. We decided to build a channel company. Anyone who resells VMWare should resell Veeam. That strategy worked very well. We have a very powerful channel that sells. Our engagement model relies on a sophisticated and complex sales and marketing model. We have inside sales and field sales. We also have channel and direct sales. We have inside sales reps who work only with the channel partners and we have direct sales who work with the direct customers, but they also work closely with the channel sales partners.

We have over 25,000 reseller partners and a very large number of extremely happy customers. Our customers would buy anything if we opened a second or third product. Our customers trust Veeam. Backup is the technology that you absolutely have to trust, and they trust us. It's a good time for us to look at buying adjacent technologies as a strategy for selling.

Sramana Mitra: Is your differentiation still virtualization backup?

Ratmir Timashev: We want to go mainstream. We no longer say that we are just built for virtualization. We are promoting availability. We are in a transition away from our initial messaging. Microsoft also has a competitive product with Hyper-V, which is also growing very fast. That is another very big market for us. Our target is now the modern datacenter, not just VMWare backup.

Sramana Mitra: How do you price?

Ratmir Timashev: We license our product the same way that VMWare licenses. We license by the CPU socket. Most of the servers today are shipped with a motherboard that has two sockets. That may support 30 or 60 virtual machines. We are priced based on the power of the physical host. That is also how Microsoft licenses.

Sramana Mitra: I found this conversation extremely interesting. Thank you for sharing your story. I look forward to following your success.

Epilogue: Future Unicorns

As I think about where future unicorns are likely to be, what trends present the characteristics of opportunities that can scale to that extent, I have a few observations. I have had the opportunity to discuss these observations with a number of thoughtful industry leaders, and this chapter synthesizes some of those conversations in brief.

If you review the types of companies in this book, they span a few specific industry sectors: Cloud / SaaS (Marketo, ServiceNow, Concur, Zoho, eClinicalWorks, RightNow, SuccessFactors), Big Data (Tableau), E-commerce (Eventbrite, MercadoLibre, Flipkart), Vertical Search (Kayak, Trulia), Healthcare IT (AthenaHealth, eClinicalWorks), etc.

Of these, Cloud / SaaS is a mature market. Both horizontal business applications and vertical business applications are maturing. New opportunities tend to come from discontinuities, and mature markets don't necessarily present those. That begs the question: where are the discontinuities? The best answer to think question comes from the dynamics of small businesses consuming technology at a much faster clip than before. For every enterprise cloud app, you could, conceivably, have an equivalent offering for the small business market. Marketo, for example, is interested in larger customers, you could build an equivalent product and sell it to the low end of the market.

Mobile / Smartphone penetration globally is a major discontinuity, so consensus is that there will be new opportunities in this realm. Uber is an interesting example of a mobile app that is essentially a front-end for calling cabs and limos efficiently. Currently, there is a frenzied search among entrepreneurs and investors for the next

Uber-style mobile app that offers a hybrid between an online and an offline service – transportation, in Uber's case.

In fact, the convergence of mobile and cloud is an area worth exploring as well, especially for apps that take advantage of the geo location capabilities of mobile devices.

Less frenzied is an area that I believe has a lot of discontinuity, and a great deal of opportunity, although it is an operationally complex category. Similar to athenaHealth, business services that not only provide cloud software, but actually outsources an entire business function – SaaS-enabled BPO – is one that I am bullish about. Especially, when you look at the current trend of modular, ultra-light small businesses, where solo entrepreneurs build $5 million revenue businesses by outsourcing EVERYTHING, it is easy to see that there will be entrepreneurs catering to this trend.

Similarly, Big Data is a very hot sector right now, and there too, I expect to see large companies emerge who will not only provide software, but also services. Many Big Data offerings are extremely complicated to use. Customers buy them, but then, use only 10% of its full range of capabilities. Why buy a Ferrari if you are going to drive it like a Toyota? Perhaps, the answer lies in offering the drivers as well, not just the cars. Or, to extend the metaphor further, driverless cars may be the holy grail of big data and machine learning!

E-commerce, although mature, continues to be an area rife with opportunities. One of the largest in this area is online fashion, a gigantic industry that is yet to fully feel the shift into e-commerce. It is becoming dramatically cheaper to build new brands starting with an e-commerce specialty store with a differentiated user experience, interesting merchandising, personalization, use of mobile shopping capabilities, etc. I fully expect to see Unicorns emerge in this corner of the digital universe. As an entrepreneur who started one of the first online fashion companies on the Internet back in 1999, I am watching this space with great interest.

Also, the global opportunities are significant today, which is why I included Flipkart and MercadoLibre in this collection. Entrepreneurship is globalizing at an exhilarating scale, and even though Silicon Valley tends to think of itself as the center of the startup universe, who knows what the future has in store?

Finally, the domain of Artificial Intelligence is progressing fast, and it would be safe to say that it will disrupt many fields from medicine to law to marketing, introducing automation at a scale unknown thus far. A computer has a more powerful memory and much better processing power to take imaging, lab, and other test data, run them against powerful algorithms, and do a much better job diagnosing patients, prescribing treatments. Media buying decisions online are already seeing real time buying as the primary trend, something impossible to do by hand. Unicorns will be born from such extensive automation for sure, although the societal impact of such massive scale automation is likely to be painful.

By no means do I claim to have any grand view into the uniquely wonderful minds of entrepreneurs who are or will be building the next set of Unicorn companies. All I have tried to do in this volume, as I have done throughout the *Entrepreneur Journeys* series, is to simulate for a large, global audience of entrepreneurs, the experience of having a cup of coffee with people whom they would likely not meet in that capacity.

There is much to learn from each of them.

Final Word:

Entrepreneurship = (Customers + Revenues + Profits)

Financing is Optional

Exit is Optional

You can build Unicorns with or withour external financing.

In fact, many Unicorn builders have bootstrapped first, raised financing later, and at terrific terms, giving them control, most of all, on their long term vision.

Also, many entrepreneurs who have gone on to build Unicorns later started with a smaller idea, gained access to cash, and then took on something bigger.

Author Bio:

Sramana Mitra is the founder of the One Million by One Million (1M/1M) global, virtual incubator/accelerator that aims to help one million entrepreneurs globally to reach $1 million in revenue and beyond.

She is a Silicon Valley entrepreneur and strategy consultant, she writes the blog Sramana Mitra On Strategy, and is author of the Entrepreneur Journeys book series and Vision India 2020. From 2008 to 2010, Sramana was a columnist for Forbes, and currently syndicates to numerous venues including Harvard Business Review and Huffington Post.

As an entrepreneur CEO, she ran three companies: DAIS, Intarka, and Uuma. She has a master's degree in electrical engineering and computer science from the Massachusetts Institute of Technology.

On Social Media:

Twitter: @sramana

LinkedIn: http://www.linkedin.com/in/sramana

Facebook: https://www.facebook.com/sramana.mitra

One Million by One Million Mission

One Million by One Million (1M/1M) is a global virtual incubator/accelerator that aims to nurture a million entrepreneurs to reach a million dollars each in annual revenue and beyond, thereby creating a trillion dollars in global GDP and ten million jobs.

Founder

Silicon Valley entrepreneur and strategy consultant Sramana Mitra founded 1M/1M to create a framework for Capitalism 2.0, which she envisions as distributed, democratic capitalism. The program was born out of her 2010 New Year Resolution.

The Program

We offer a case-study-based online educational program, video lectures, lean, capital-efficient methodology guidance, online strategy consulting at public and private roundtables, as well as introductions to customers, channel partners and investors. The public roundtable is a free program accessible from anywhere in the world. The rest of the services are for our paying members only. Please note that we focus on business strategy and execution; capital is optional, and may or may not be appropriate for your particular business. Less than 1% of businesses that seek funding are actually fundable. However, we are perfectly happy to help the other 99% build sustainable businesses as well, irrespective of fundability or interest in external financing. 1M/1M is a for-profit business, not a foundation or a non-profit.

Meet some of The One Million Club members, and review the Quantified 1M/1M Value Equation.

If you are looking to start or expand an incubator, please look at our Incubator-in-a-Box program.

Free Public Roundtables

As part of the 1M/1M initiative, Sramana Mitra offers [free online strategy roundtables] for entrepreneurs looking to discuss positioning, financing, and other aspects of a startup venture every week.

Only the first five who register to pitch will be able to present their business ideas. These roundtables are public forums and recordings of all sessions are available here.

"There are large numbers of people that want to start web-based companies but don't know where to begin. Your curriculum should be mandatory. It has enormous value by itself, but when coupled with the Roundtables and 1M/1M community there is no substitute." — Dan Stewart, CEO, HappyGrasshopper

Sramana requests that entrepreneurs use the 1M/1M Self Assessment Tool to help to prepare their pitches. Your roundtable pitch should be no more than three minutes, and consist of four slides.

Register at http://1mby1m.com

Contact: support@1mby1m.com

Twitter: @1mby1m

Facebook: https://www.facebook.com/1Mby1M