

EPISODE 458**[INTRODUCTION]**

[0:00:00.7] JM: An engineer who wants to start a business using investment capital needs to understand the expectations of investors. The market for the business needs to be huge. The team needs to have a differentiated understanding of the market or a differentiated product. The CEO needs to have the determination to continue operating the company even when things get very difficult and the price needs to be right for the investor.

Even if you're just working for a startup or considering joining a startup, you must understand how the investment market works. From a raw financial standpoint, it only makes sense to spend your time at a startup that has equity with a high expected value. Your equity will only have high expected value if the company continues to exist long enough to have an exit. The company must either go public or get acquired.

In order to make it down, the long and winding road to an exit, a technology company often needs to raise money on multiple occasions. That money is used to pay employees like you. If the company can't earn enough revenues or raise money, you're going to get fired, and then you may not have the spare cash to execute your stock options. You might lose the rights to the equity that you worked so hard for. The best way to avoid this is to learn to think like an investor, because as an engineering working for equity, you might as well be an investor.

Semil Shah is an early stage seed investor with Haystack, a fund that he created. He also works with GGV Capital, a venture firm investing out of the United States and China. Semil has been blogging about technology for many years and eventually he evolved from being just a commentator to an investor himself.

In this episode we explore the dynamics between investors and founders of early stage technology companies. We explore the strange market of podcasting. Semil worked at a company called Concept.io that built a podcasting app called Swell and concept was acquired by Apple for \$30 million. We've done other great shows with engineering investors like Chris Dixon and Adrian Colyer and you could find these episodes by downloading the free Software Engineering Daily app for iOS or for android.

In the other podcast players you can only access the most recent 100 episodes of Software Engineering Daily. With these apps, we are building a new way to consume content about software engineering. These apps are open sourced at github.com/softwareengineeringdaily. If you're looking for an open source project to get involved, we would love to get your help and bring you into the community.

With that, I hope you enjoy this episode.

[SPONSOR MESSAGE]

[0:02:53.0] JM: Spring framework gives developers an environment for building cloud native projects. On December 4th through 7th, SpringOne Platform is coming to San Francisco. SpringOne Platform is a conference where developers congregate to explore the latest technologies in the Spring ecosystem and beyond.

Speakers at SpringOne Platform include Eric Brewer, who created the CAP Theorem; Vaughn Vernon, who writes extensively about domain-driven design, and many thought leaders in the Spring ecosystem. SpringOne Platform is the premier conference for those who build, deploy and run cloud native software.

Software Engineering Daily listeners can sign up with the discount code `sedaily100` and receive \$100 off of a SpringOne Platform conference pass while also supporting Software Engineering Daily. I will also be at SpringOne reporting on developments in the cloud native ecosystem. I would love to see you there and have a discussion with you. Join me, December 4th through 7th at the SpringOne Platform conference and use discount code `sedaily100` for \$100 off of your conference pass. That's `sedaily100`, all one word, for the promo code.

Thanks to Pivotal for organizing SpringOne Platform and for sponsoring Software Engineering Daily.

[INTERVIEW]

[0:04:23.8] JM: Semil Shah is an investor who runs a fund called Haystack. He also is associated with the venture capital firm GGV. Semil, welcome to Software Engineering Daily.

[0:04:34.4] SS: Thank you for having me, Jeffrey.

[0:04:36.0] JM: The reason I want to have you on the show is because you write a lot about the intersection of software companies and investing, and I think you have a lot of advice that's useful for anybody who is in the ecosystem. Most of the people who are listening to the show are software engineers, but there are people in other categories. I think the show is going to be useful even to software engineers, and I want to start on a topic that will be particularly useful to software engineers, and that is your post that's called The Market Ignores Inputs.

The thesis of this post is that people often put lots of work into something and they expect to be rewarded based on their inputs, but if this work doesn't produce outputs, it actually doesn't matter. I found this relevant to me, because I've started so many side projects that went absolutely nowhere and then you don't get rewarded for those even though they take a ton of input effort, and I think this can be particularly problematic for engineers, because they get in to a certain mental state and they're like, "Okay. This is a project that's going to save the world. I'm going to put a ton of work into it," and then it goes nowhere.

How do you identify the right things to focus on that will lead to output rather than wasted input?

[0:05:53.9] SS: Let me just clarify that I meant that post from an investment context and I think people who are creating something, whether they're baking in their kitchen or creating software for the joy of creating of software, like many of your audience members are people who like to paint in their free time. The joy of doing it should be the ultimate driver. I think where things kind of get messed up or out of balance is when someone wants this external validation or they want it to work or they want investment for it or they want to sell their painting or start a birthday cake business out of their kitchen and the market isn't there.

The reason I wrote that post was just sort of a reminder, it's like when you enter into that commercial world, the market necessarily won't care as much about the craft of how you got there. They'll start to care about what the output is, "Is the birthday cake good?" "Does a

painting work in my office or in my home?” “Does the software actually help me?” “Does the software do what I need it to do?” The craftsmanship that people put into it and especially in the software engineering context, that can be jarring for people.

[0:07:17.2] JM: Now, in 2010 to 2013, you were more of a commentator than an investor, but you went through your own founding process as you made that shift from someone who is more almost a journalist/you're working at some startups, but you made your way to becoming an investor and it was very deliberate. How did your writing change as you went from a mere commentator to an investor, because throughout this whole process, you were an eloquent writer, and I think that was part of why you became a successful investor was because you were able to communicate your ideas clearly. How did the creative process change as your external life changed?

[0:08:04.5] SS: There were maybe two or three things that changed. One is just the writing and sort of this reflection of what you experience in your environment on a day-to-day basis. Maybe when I was working at startups, and working on mobile app creation, mobile distribution, mobile marketing, that's what I'd be writing about. How do you take what's coming out of the new iOS update and use it to your advantage? How can you use Bluetooth low energy to your advantage?

Then as I started to like work on professionalizing my investment activity, I spent more time with LPs learning their business model. I started to learn more about fund management. I started to learn about how larger funds manage their funds, and so that would be reflected in the writing. I'd say that's kind of a gradual shift of like kind of this quote, like, “We covet what we see in a daily basis,” which are creatures of proximity. That's more of a general comment.

I would say a specific comment of something that changed was that I noticed in 2015 or so, I'm very fortunate that a lot of people in the ecosystem read and share what I write, and I think I write in a way that I would be speaking to you now, hopefully, which is accessible and sort of to the point. I started to notice that some people or quite a few people in the ecosystem would describe even more weight to the words I was writing than I had thought of, and that when you do pair the power of the written word and the tone with money and influence, I have to be a little more careful in what I say. Partially because it is a very privilege role to be in that you're an

allocator of capital and people are entrusting you to allocate it. Also, because people may take what you're saying in 100X the weight to it, and you can't control that.

If you think about some of the investors who are the most experienced, most successful in the world in venture, they either don't speak often, or when they do, they're pretty careful about what they say, because I think they know intuitively that people are going to hang on their words.

[0:10:20.6] JM: Yeah. Especially in today's environment where it seems like everybody has a heightened sense of awareness and some people are just waiting to take things out of context and blow it out of proportion. At the same time there is value in taking some risks in what you say and being willing to say things that other people might not be able to say.

[0:10:45.7] SS: I'm pretty lucky there, because I have one person employed in my fund fulltime, and that's me. I think a lot of other people at funds, depending on the fund, they may or may not want to say certain things, because it then reflects on their partners, and so they have to take that into consideration.

[0:11:04.6] JM: Now, last year you wrote that you were going to need to learn some harsh lessons as an investor before you felt more seasoned. Since last year, have you learned any of those harsh lessons?

[0:11:17.1] SS: Yeah, I mean I think there's the harsh lessons around raising a fund, a professional fund and the aggregating of capital from institutional sources. It's a really hard thing to do. Then I think the harsher lessons around like what the outputs are, again, like no one at the end of the day is going to care about, "Why did you do this deal?" or "How did you help out this company?" They want you to be helpful. They want you to be thoughtful in investing. Really, the outcomes are so random and so hard to control that the results in that investment context are going to be harsh. You're going to through some harsh times because you don't have control over the outcome.

[0:12:03.0] JM: Do you have any examples of harsh lessons?

[0:12:06.0] SS: On the fundraising side, sure. I mean I thought I would raise an institution fund for my third fund and only got to my fourth fund when I had to like learn all the lessons from raising fund three that I applied to fund four. I would say in investment context, I haven't really had the harsh lesson yet, although I'm sure I will. I think it will relate to like ownership and multiple of like when you're early in a great company, but you don't have enough capital or awareness to like keep investing or maintain a position. You can get really diluted, and so you may think the initial money you put in is worth this, but when you start doing the math and the waterfall, it can decompress pretty completely.

[0:12:47.1] JM: This is something that I've heard you talk about in some of your interviews where one of the really important things to understand in the investing environment is that investors, they don't want to just put in money in one round, because you hear about these different rounds. There's like the angel round or the friends and family round before that, and then the seed round after the angel round, and the series A round after that, and the series B round. The earlier investors want to be able to follow on their investments with further capital.

From the early investor's point of view, in order to follow on with additional capital, they actually have to hold some capital in reserves, so it kind of becomes a bankroll management problem for somebody who's managing a fund. If you're looking at all these interesting deals that are coming in at the seed stage, you constantly have to be thinking, "Okay. I could do this deal, but then am I going to be able to make my follow on bet in HashiCorp or whatever when they're raising their series A?" Am I describing things accurately?

[0:13:53.1] SS: No, it's true. Let me share with you how I think funds do it. The larger fund that you have, the more capital and management in the vehicle, the more pressure there is to generate a return. It's kind of a logarithmic thing. If you have \$100 million fund and you want to generate a 3-X net return, you've got to take that 100 million and turn it into 400 million. If it's 200 million, you've got to do that. You've got to turn it into 800 million. The problem is turning 1 into 4, versus 2 into 8. It's just exponentially harder.

What happens is these funds accumulate capital and earn fees off the capital, great, which there's whole perverse incentive there we can talk about. They end up needing to put a lot of money behind the one or two big companies, and so they don't often know, and so there's this

scramble to figure out, “Okay. I’ve invested in these 25 companies. How do I pick one or two,” as like the main horse to put the money in.

Often times, there’ll be a tussle with the founder and the early investors who may want to continue to follow on, and then there’s all these provisions that I don’t even fully understand that come aboard, like preference stacking and who gets paid back first in the event of a sale and all these kind of stuff. Usually, the last money in and the largest checks has a lot more say over people even being early.

[0:15:17.3] JM: As an investor, how important is it to understand those dynamics relative to picking the right company, “Is HashiCorp going to be a great investment?” “Is Instacart going to be a great investment?” Are those things actually as important as understanding the investment dynamics?

[0:15:36.4] SS: Let’s step back. I believe in the kind of 80-20 rule, and I think there are a couple of points, decision points that come along for an investor that you apply the 80-20 rule to. If you’re lucky enough to see 80% of the good deals even if you don’t pick or win them all, that’s a good place to be. Then out of the deals that you pick, if 80-20 — If just 20% seem to like that they’re moving in a good direction, that’s a great place to be, because most things don’t work out.

Once you then have identified that 20% that’s working out, how do you allocate the next 80-20 rule to the right ones? I think that’s very difficult, because you don’t really know. If people knew this, they would have put more money to Airbnb earlier. Now, it’s just only five years ago, I think, that Andreessen did that round valued at a billion. It was only five years ago.

I just tend to think even at the series B round, when someone’s writing a 10, a \$30 million check, even the VCs writing that check don’t know the shape of the company. What ends up happening is that you can start — If you start to believe very early as the investor that this is the one, but you’ve picked the wrong one out of that 20%, you could lose a lot of money real quickly.

[SPONSOR MESSAGE]

[0:17:13.5] JM: At Software Engineering Daily, we need to keep our metrics reliable. If a botnet started listening to all of our episodes and we had nothing to stop it, our statistics would be corrupted. We would have no way to know whether a listen came from a bot or from a real user. That's why we use Encapsula to stop attackers and improve performance.

When a listener makes a request to play an episode of Software Engineering Daily, Encapsula checks that request before it reaches our servers and filters bot traffic preventing it from ever reaching us. Botnets and DDoS are not just a threat to podcasts. They can impact your application too. Encapsula can protect your API servers and your microservices from responding to unwanted requests.

To try Encapsula for yourself, got to encapsula.com/2017podcasts and get a free enterprise trial of Encapsula. Encapsula's API gives you control over the security and performance of your application and that's true whether you have a complex microservices architecture, or a WordPress site, like Software Engineering Daily.

Encapsula has a global network of over 30 data centers that optimize routing and cache content. The same network of data centers that is filtering your content for attackers and they're operating as a CDN and they're speeding up your application. They're doing all of these for you and you can try it today for free by going to encapsula.com/2017podcasts, and you can get that free enterprise trial of Encapsula. That's encapsula.com/2017podcasts. Check it out. Thanks again, Encapsula.

[INTERVIEW CONTINUED]

[0:19:02.9] JM: When we are talking about the picking, every seed investor is different and that's about the state that you invest in. You could consider it seed, right? The investments you make out of Haystack?

[0:19:15.8] SS: Yes. I chop seed into four categories where there's pre-seed, there's seed, there's the second seed or extension, and then there's post-seed. Now, what I tell entrepreneurs

is; let's say, Jeff, you and I start a company. We may have to go through one, two, three or all four of these checkpoints before we raise an institutional grade round.

[0:19:41.0] JM: Right. Okay. For more on this, we had Paul Martino on recently who you actually introduced me to. He's an awesome guy. It was a really entertaining show too, but that one was great. He does post-seed. He's got a very specific way that he looks at the market, and I think part of the reason that the investment market broke down into these different subcomponents of seed was the amount of deals that were coming in to the ecosystem. When we're talking about picking, wherever you put yourself in the investment landscape, you could be an angel investor, you could be a seed investor who got a ton of money. You could be a series A or a series B or a series C type of investor, growth stage, you've got different parameters and you've got different ideas for how you see the world. A big component, whatever the deal is, is going to be the founder and looking at the founder and talking to the founder and examining whether you believe the founder and the founder's business is important.

We had a show with Leo Polovets recently who you also are acquainted with. One thing that really stood out in that interview to me was Leo's mention of charisma and the idea that when you're putting money into an investment, an early stage tech company investment, charisma is super important, because you need a founder who is going to be able to lead people. How important is charisma to you?

[0:21:12.9] SS: A couple of things, in reverse order. Leo is a good friend and someone I love co-investing with. He might have gotten that from one of my tweets. I don't think I remember tweeting out a couple of years ago the same insight, which is like the charisma needed just to evangelize your idea. People don't like that word, because they think of charisma with a little bit of a negative connotation, like, "Hey, you're trying to sell me or you're slicking back your hair and selling me a toaster."

I think of charisma as like organic evangelism and that the pitch, when somebody is pitching Leo, if Leo can use that pitch as a proxy to say, "Well, how is this person going to recruit their 10th engineer, and how is this person going to get a partnership with Pepsi, and how is this person going to show up on a profile in USA Today?" If the charisma is real, it's really powerful. I do think it's important.

Paul, you mentioned earlier. Paul is someone I'm lucky that I worked with for a few years. Basically saw him discover this post-seed model which he's really nailed and like so far ahead of a lot of other people. I can't wait to listen to that one.

[0:22:27.7] JM: Yeah, and a very entertaining person. Talk about charisma, that guy is charismatic.

[0:22:32.1] SS: Paul is deeply loyal person. He's one of the most loyal people I've met in venture and he's very intellectually honest and data-driven and not afraid to say how he interprets the data, and he's very consistent that it makes him special.

[0:22:48.7] JM: Another crucial component of a business at any stage is the idea of a moat. How important is a moat in an early state technology company?

[0:23:00.4] SS: I don't know if it's easy to tell early what the moat will be. The moat could be some kind of technology advantage that an entrepreneur brings to the table. It could be a series of beliefs around winning a market and that network effect being a moat. I know Leo really likes to invest in things that could have a moat.

I'm not sure if you can determine that early. I certainly think when you're writing a 5 to \$10 million check, you have to think about just generally defensibility of the investment, and a moat is one way to defend an investment, but not the only way.

[0:23:36.4] JM: Have you seen any examples of tech companies that died because their moat was too shallow?

[0:23:42.5] SS: Their moat was too shallow.

[0:23:44.5] JM: Like the business was not defensible enough and some other cloned business was able to —

[0:23:49.8] SS: I think we're going to see that in storage, so consumer storage, enterprise storage. I don't really know what moat the players have. I think they're turned them into great businesses and built great technologies. It's not clear to me yet how defensible those are going to be long term.

[0:24:08.4] JM: You mean like the — You're talking about like the Dropbox or the box type of businesses?

[0:24:13.6] SS: Correct.

[0:24:14.9] JM: What about user interface? You don't think user interface is a moat?

[0:24:17.7] SS: I don't.

[0:24:19.8] JM: Quote from Paul Graham, "Startups die from suicide, not murder." How true do you think that is?

[0:24:27.6] SS: I think I remember another quote of his which is, "Suicide, not murder." I think I mostly agree. I think that if people — There are so many exceptions. But if people running a company, even if they have to make really hard changes, there's always a way out, and I think at the very, very end, having been around some companies, that just the end comes really quick and people can kind of freeze up. Also, people may not want to go through it. It's not for the faint of heart. Yeah, I would say directionally, it's probably right.

[0:25:02.8] JM: Yeah. I should have given more context around why I mentioned that quote, is because I think the idea that your company may not have a moat. Well, let's say you build a consumer storage company, like you build a Dropbox, you get a bunch of users, they're using your product, you've already got a cash cow, you've got a strong team in place. Theoretically, you should be able to build new products. You should be able to take that team and do new things. If you're not able to, maybe you could classify that as a suicide rather than a murder, because you're not dying due to competitors. You're dying because you can't figure out a new product to build.

[0:25:43.7] SS: I think kind of what Paul — I don't want to speak for him, but what he may be implying to is that sometimes he has a great line where he kind of says like — I'm paraphrasing, but once he starts to hear long excuses, he knows that the company is going to die. It's just kind of ownership over the agency of the enterprise, which is it can kind of be in our own personas and our own behavior to kind of ascribe blame to outside sources, "Hey, we couldn't make it there because this company just got funded with \$15," and "Hey, we couldn't get there because we couldn't just hire in this environment," and "Hey, the company didn't work because the sale cycles were too long." That is an externalization, assigning blame externally. I think what's healthy is to recognize those external things, but also think about internally, "Okay. What could I have done?" Again, no one wants to kind of sit on somebody when they're — Kind of pick themselves up from falling down. Maybe those conversations don't happen as they should.

[0:26:52.1] JM: Whether it's by suicide or murder, startups do fail, projects fail. When companies fail, it's often with a whimper rather than a bang. It's often a slow painful death rather than like a sudden shutdown. When that happens, it's up to the founders to wind down a business properly and to get acqui-hired or to sell the technology in a loss, and this is a bummer of a process, but it's really important if you're a technology founder and your business isn't working and you have investors, particularly when you have investors. You have to wind down your business properly, and you've written about this a little bit. In order to maintain your integrity and your reputation, what are some tips for winding down a faltering business gracefully?

[0:27:45.0] SS: I think talk to the lawyers that you have. Make sure that the people who worked with you and/or gave you money and/or that are your customers, like you constituents, so to speak, understand what's going to happen and are communicated with clearly and try to your best to create an outcome, even that means like three to six months of trying to sell the company and "land the plane". I think that's the noble thing to do.

I think a lot of people do it. I think a lot of people just kind of throw in the towel; don't communicate, don't try to sell the company. Especially in the Bay Area, that's happening more and more, because it can roll off and start their new company. That to me just isn't the right thing to do and it's not a health thing ecosystem-wise as well.

[0:28:32.8] JM: The outcome that we obviously are rooting for with a company is not a slow and painful death, but rather a merger or an acquisition or going public. Let's talk about M&A. It's 2017. What are the themes that are going in M&A in technology companies?

[0:28:53.7] SS: If you talk to LPs who monitor this stuff very closely, there's not as much M&A happening, so you don't see the Googles and the Facebooks of the world spending hundreds and hundreds of millions of dollars as they may be used to 5 to 10 years ago. I think where you are seeing M&A happen are correlated in industries that there are some inherent fear bubbling within the industry, so retail, physical retail being one. Where you see Jet started Walmart, Unilever, these kinds of companies spending a lot of cash to buy new teams and products. Another one obviously would be automotive. Just how transportation vehicles are going to be redesigned. That seems like another huge one where there's fear bubbling up and a lot of talented people and a lot of money rushing into it. I would say those two are the ones that stand out.

The third one which I've bet a lot of my time no is in industrial automation and this idea of like how is all the software and the prototyping and the parts of the Boeing, Lockheed Martin, the Raytheon's, the Caterpillars of the world, how is that going to change? That's another area that I think is fertile.

[0:30:07.2] JM: Okay. I'll take that and run with it. What are the places where we're going to see significant change in industrial automation?

[0:30:15.2] SS: The way I would simplify this. Think of Boeing, and big piece of their business is aviation. Think of them building an engine for a new airliner. How do they do that 30 years ago in terms of the software to design it, the way to prototype it and the actual materials to use to build it? If you fast-forward to today, I would argue all the software, all the way down to the actual material science of how those things are being built, prototyped, assembled, mass produced is going to change, and is changing. Can you invest in the entrepreneurs and the creators who are accelerating that change?

[0:31:00.5] JM: Are there companies, tech companies, that are started in 2017, when you're looking out at the landscape, that seem like they're started just to get acquired, where they don't have a plan other than an acquisition.

[0:31:17.0] SS: It's not often discussed, but a lot of them are. You could argue a lot of the technology startups being sort of spawned in the autonomous vehicle space. They're not going to go public. They're not going to have a SaSS business model. They're being built to be acquired. I think the entrepreneurs and the investors in these cases are implicitly saying, "We suspect that the industry will consolidate talent and technology so rapidly." Actually, just today, Delphi bought Ntunomy out of Boston for \$400 million.

[0:31:50.0] JM: Yup.

[0:31:50.6] SS: They're betting on that. It's just not something that people like to talk about, because it's a different kind of bet that sort of runs counter to this idea of company building and sort of maintaining independence. It's just kind of one of those things that people may be thinking but aren't verbalizing.

[SPONSOR MESSAGE]

[0:32:18.8] JM: Do you have a product that is sold to software engineers? Are you looking to hire software engineers? Become a sponsor of Software Engineering Daily and support the show while getting your company into the ears of 24,000 developers around the world. Developers listen to Software Engineering Daily to find out about the latest strategies and tools for building software. Send me an email to find out more, jeff@softwareengineeringdaily.com.

The sponsors of Software Engineering Daily make this show possible, and I have enjoyed advertising for some of the brands that I personally love using in my software projects. If you're curious about becoming a sponsor, send me an email, or email your marketing director and tell them that they should send me an email, jeff@softwareengineeringdaily.com.

Thanks as always for listening and supporting the show, and let's get on with the show.

[INTERVIEW CONTINUED]

[0:33:22.0] JM: Do you pass judgment on that or do you see that as subjectively negative yourself, because when I look at that I'm like, "Okay. If I wanted to go into —" There are plenty of people who want to go into self-driving, right? They want to prevent people from dying. This is like the first place where robotics are really going to hit the consumer arguably, and if you wanted to enter this market and you wanted to play around as an engineer, well, arguably the most monetarily successful way to do that is to start a company that will get acquired today. Is there anything wrong with that?

[0:33:59.7] SS: I don't think so. I don't have religion around it. I think, again, if we go back to like is the intent pure around what the person is creating? Are they technically capable of pulling it off and will other people support that organic vision?

I think you saw that in cruise, right? I think when Nabil made the series A bet in cruise, he probably wasn't sitting there thinking, "Well, how is this going to make money?" I think he's just had a lot of faith in the team that they were going to create something that other people will want, and everyone was rewarded for that decision. I don't think a lot of investors would have made that decision. They should get extra, extra credit for doing so.

[0:34:46.8] JM: When that sizable M&A event takes place, when there's an acquisition, what is the role of the investors in that transaction? Are the investors helping to negotiate for the most profitable acquisition?

[0:35:03.6] SS: I haven't been around to many of them. I think it really depends. I would say if it's good investors and a good set of potential bidders, yes, I think they're helping the founders negotiate, because on the margin, some of these outcomes could change quite materially.

[0:35:20.4] JM: You were a part of a company called Concept.io that built a podcasting product. I got to ask you a little bit about this. Explain what you were building at Concept.io.

[0:35:31.3] SS: Yeah. I wrote a post on this sort on Tech Crunch, which is just a weekend post called Threading the Needle Out of Mobile. Essentially, the founder who had this insight was

kind of thinking, “How I can build a background service that isn’t going to take a tension away from Facebook, Twitter, Instagram, that with Bluetooth now taking off, you can start using it in the car and make it feel more like radio, so you can listen to Pandora as a lean back experience and you don’t have to interact with it too much. How can we do that for audio?”

I just love the idea, help them start the company, and then I joined like maybe six months later, maybe a year later. I can’t remember. I used a product like 20 to 30 hours a week, so when it was eventually acquired and then someone sunset it was a big hit. Yeah, it was just a really fun experience. Just the people there was just fun. I really enjoyed the people. There was a lot of simplicity in the design. What I loved about it is I love to watch Meet the Press or listen to Meet the Press every week, and I knew every Sunday night or Monday when I would hit Swell, I would get my regular update and then maybe like an eight-minute update and then, boom, it would go right into Meet the Press. It learned very quickly my preferences. Yeah. That was kind of the idea. It’s like if you’re in Pandora and you want to switch over to AM radio, what would that experience be like?

[0:36:53.7] JM: Right. The company was called Concept.io. It built this product called Swell, and Swell was sort of a recommendation system for podcasts. Now, if you think about that experience relative to the podcast world today, it almost sounds like we’ve taken a step back from the Swell world, because today it’s still very much subscribe individually to the same podcast. Podcasting is the same as it was 10 years ago. Why is that? What are the problems with the podcast market that keep it so stagnant?

[0:37:31.0] SS: There are two main things. Glad you asked this question today, because I just had this conversation a week ago and was able to crystalize an answer, and they’re unrelated. One is that the technology that underpins the creation or distribution of podcasts as RSS feed is not sufficient enough anymore, and so somebody needs to create the next one. That people are trying to do that by having original content built through the iPhone and record through the iPhone, but there’s just a fundamental problem of using RSS.

I think the second one is a market problem, where I always give this trick question to people, which is, “What’s the most influential podcast company in the world?” and it’s Apple. Apple, and I don’t blame them for it, probably aren’t super interested in the 5 to \$10 billion audio market, and

so they haven't put a lot of resources into the podcast player. It's only been in the last couple of years where they're added to their phone as part of a preload versus having to go download it.

When you enter into this world where the underlying technology and distribution of it is an optimal, plus you have an 8,000-pound gorilla in the room that doesn't view it as a priority, you end up in this world of like, iTunes, when everyone else is in Spotify, Soundcloud and YouTube. I think that's where podcasts are. I would say the final thing is like audio and what we're doing in this video, like this interview, even though it's a great interview, audio isn't viral. There's an inherent limitation to the virality and the ability to share the medium. That's just different from video. It's different than written content.

[0:39:10.9] JM: Indeed. Now, the company that acquired Concept.io was Apple. Why did they acquire it if they had this level of disinterest?

[0:39:22.6] SS: I don't want to say their disinterest is long-term. I think that they were very interested in the design team that Concept.io and the collaborative filtering algorithms and the classifier system that they built and also streaming from server to different devices. That's a technology they'll want to use in Apple music as well.

[0:39:44.4] JM: Some people believe that the podcasting market is so interesting and exciting because it is broken. To what degree do you think that's true?

[0:39:53.6] SS: I normally would agree that that's true, except for the three reasons I've mentioned. I think it's not true. I think it's not exciting from an entrepreneurial point of view or an investment point of view because of that. I think it's exciting in a creation point of view because now you can open up anchor or a breaker and record a podcast and then distribute it.

[0:40:16.2] JM: How it can be that we have this entertainment medium that people spend two to four hours a day consuming and yet there just not seem to be an opportunity for a profitable business?

[0:40:33.6] SS: I think Marco's app is profitable.

[0:40:36.8] JM: Right.

[0:40:37.5] SS: Marco should get a lot of credit.

[0:40:39.6] JM: Overcast.

[0:40:40.3] SS: Yeah. He's a great product designer, engineer, thinker. I think that's pretty obvious. Look, I think the information is free. The content is free. It's not premium. I also think it's part of a stool, like a three of four legged stool for media entities, so that you have your blog, you have your podcast. You might have a video series. You might have a conference. It's not the thing that makes money. I think it's the way to create an intimate bond with a part of your audience.

[0:41:13.5] JM: I want to come back to investing and startups. One thing I like to discuss with investors is the role of human psychology, because this is important both, as an investor you're managing your own psychology, and when you're examining founders for whether they're going to be able to build a business or not, you need to know if they're going to have the psychological fortitude to execute on a business properly. What have you learned about human psychology as an investor?

[0:41:46.0] SS: It's a huge piece of what I do, which is to dissect, unpack, investigate and determine the entrepreneurial drive or somebody that I'm curious about investing in, because you have to assume that there's going to be competition in what they're doing in some way and you have to assume that a number of things that they want to do aren't going to work out. What is motivating that person all the way back to how they were raised and what values they were taught, to how they conduct themselves in what could be the most meaningless way of like, "Do you hold the door, or do you tip well?" All these little things, these little tells I think are super important in assessing, at least for me, who I want to work with.

[0:42:35.8] JM: Are there instances that come to mind when there's founder you're talking to about a technology startup and it's a plausible business. Founder seems qualified, but based off of some psychological giveaway, you decide not to invest.

[0:42:55.0] SS: Yeah. I don't get it right all the time, but I try to think about it. Yes, I do. For me, it's just — I want the investment I made to be successful, and the way to have a chance to be successful is to build a team, and the way somebody builds a team is to recruit and to like bring people onboard who are going to want to work in a certain way. If people are very cavalier about how they're raised around or how knowledgeable they are, to me, that same proxy is going to show up when they're trying to recruit somebody great.

[0:43:30.9] JM: As we said, it's 2017 and you've got this multistage seed investment environment. It's kind of complicated for some founders to understand. How have the expectations of investors change in the last year and last few years and how does that stand today? What are seed investors looking for in a startup?

[0:43:58.8] SS: I'll take this. Michael Dearing just did an interview on 20 Minute VC where I thought he had a great frame for this. He essentially said the seed market has bifurcated into two very different markets. There's a class of seed investors that have professional LPs. They invest in packs or like with a set number of people. They do price realms. They don't overinvest on the companies. They try to engage in the company building and then they try to take the companies downstream for more financing.

There's another part of the market on the other side that's writing smaller checks. It's all convertible notes. It's really high caps or uncapped and it's completely without discipline. I think Michael is right, that the seed market has bifurcated that way. Then there's also just a lot more funds out there. There's a lot of seed capital in the Bay Area.

What you end up happening, on one side you have people trying to get more ownership and raise slightly larger funds and then you have a bunch of other people who are trying to just associate themselves with good companies and just thinking in an upside context, like, "Hey, if this works out, this will be great."

[0:45:15.4] JM: How much help should a founder expect to get from an investor?

[0:45:20.7] SS: This really just depends. There are so many philosophies trapped behind this. I tend to think — I want to invest in people that don't want my help. Just they're already know

what they want to do. I think you have to open to being coached a little bit when things aren't working right. If an entrepreneur generally has a lead or co-lead investor, I think the first test to apply is like, "Do you know harm test?" Will this person through references, like not through their own action be harmful? Because sometimes people, just by trying to be helpful, can be harmful.

I think after that, it's kind of a bonus if somebody can really help out beyond just going to the board meetings or getting updates or being a little more proactive. That usually is a function of their ownership as well. If you give a few investors ownership in their company and you reference them properly, most likely they're going to help. If you raise a million bucks from 40 different people and they don't feel like they know you or have ownership in the deal, you may not hear from a lot of them.

[0:46:21.6] JM: The next stage after a seed round is a company raises a series A round. That's frequently the next step at least. There was something called the series A crunch where companies started having a lot of trouble going from the seed round to the series A round. Why did the series A crunch manifest?

[0:46:46.1] SS: People still think it's manifesting. I think there's just — Since 2010 probably, more and more seed capital, more and more companies and not enough people to write 5 to \$10 million checks that are qualified to do so. You have this thing which people call like a pig and a python, right?

You have a python which is the investment market for people to write 5 to \$10 million checks and take ownership, and then you have this pig which is essentially the rolled up version of all these seed companies. Literally, you're trying to pass it through. It's kind of an old saying, but I think it's like worth the illustration. It's just difficult. There's just not enough room.

[0:47:28.3] JM: Company raises a seed round of 1 to 2 million and then 18 months later they're running out of money. They've got 7 to 10 employees and they can't raise their series A round. They don't have the metrics. They don't have the users. They have something, but they haven't been able to make it work yet. What do they often do in that situation?

[0:47:54.3] SS: There's so much capital in the market now that they can go back to those four slices I was talking about. They can do a second seed. They can do a post-seed. I think what's rewarded in venture capital is growth over some mature period of time, and the more that the companies kind of hanging around and not growing is sort of like a carton of milk. You start to turn it around and check the expiry date.

I had a founder that I backed who's really a nice guy, very talented, single founder, hired a couple of people, raised like a \$1.7 seed round because he's very talented, and he told me something recently, because he's thinking of like letting go of the business five years into it. He just said — I'm paraphrasing, but he said he didn't realize that he wasn't going to be rewarded for spending the money wisely over a five-year period. The investment market rewards growth and like team building and vision. A lot of people think like, "Oh, well. There're just not enough capital sources." There's plenty of capital. The market is more efficient than people would want. It's just that not enough things are growing enough to meet that demand.

[0:49:03.5] JM: You write that the series A process is a business role-play game where the VC is evaluating the interaction with the founder as a proxy for how the founder would interact in different business environment. If there are these — There are obviously some companies that are growing fast enough that they're worthy of a series A. Can you describe the process that — What is a VC looking for? What are they dissecting when they're deciding whether a series A opportunity is worth investing in going from the seed round to a series A?

[0:49:37.1] SS: They're talking to lots of customers. They're trying to understand the market dynamic. They're trying to underwrite a minimum 10X return. If we do a \$10 million round at a 50 post, can we see a great company buying this company for 500 million or more? They're spending time with the executive team. They're trying to get customers for the teams to see how, again, more role playing, how the team reacts and how the customers react to the team.

They're looking for a personal chemistry, like, "Hey, I want to show up on a board with this person and this investor, existing investor." Those are kind of the pressure test that people apply to a potential deal. I'm simplifying a more complex process, but that generally what the shape of it is.

[0:50:23.6] JM: All right, Semil. I want to thank you for coming on the show. It's been great talking to you about investing and startups and technology companies. I appreciate your time.

[0:50:32.6] SS: Thank you so much. It was great.

[END OF INTERVIEW]

[0:50:36.5] JM: Simplify continuous delivery GoCD, the on-premise open-source continuous delivery tool by ThoughtWorks. With GoCD, you can easily model complex deployment workflows using pipelines and you can visualize them end-to-end with its value stream map. You get complete visibility into and control of your company's deployments.

At gocd.org/sedaily, find out how to bring continuous delivery to your teams. Say goodbye to deployment panic and hello to consistent, predictable deliveries. Visit gocd.org/sedaily to learn more about GoCD. Commercial support and enterprise add-ons, including disaster recovery, are available.

Thanks to GoCD for being a continued sponsor of Software Engineering Daily.

Thank you to GoCD and thank you to ThoughtWorks. I'm a huge fan of ThoughtWorks and their products including GoCD, and we're fans of continuous delivery. Check out gocd.io/sedaily.

[END]