

# ***The Social Radars***

## **S1: Paul Buchheit, Creator of Gmail**

**Released March 10, 2023**

Jessica: I'm Jessica Livingston, and Carolynn Levy and I are The Social Radars. In this podcast, we talked to some of the most successful founders in Silicon Valley about how they did it. Carolynn and I have been working together to help thousands of startups at Y Combinator for almost 20 years. Come be a fly on the wall as we talk to founders and learn their true stories.

Today, we're talking to Paul Buchheit. Anyone who uses Gmail has Paul Buchheit to thank for it. Paul, who, by the way, is also known as PB, not to be confused with PG, who is my husband and co-founder, Paul Graham, created Gmail in 2004 while he was employee number 23 at Google. Today, we're going to do a deep dive into the history of Gmail, including the fact that it might never have launched if it weren't for a leak to the New York Times. After Google, PB went on to found a startup called FriendFeed, which was a social media aggregator. It was acquired by Facebook in 2009. After that, he joined Y Combinator as a partner and also became a prolific angel investor. And now, well, we'll find out what he's up to now as we catch up with him on the very first episode of The Social Radars.

I am so excited because today we have someone on the show who is one of the smartest people I know in Silicon Valley and someone from whom I've personally learned a lot over the years. I first met him back in, I think it was 2005 when I interviewed him for my book, *Founders at Work*. He had just created a new email app called Gmail. Of course, it's Paul Buchheit. And then you and I were both lucky enough to work with him at Y Combinator.

Carolynn: Yep.

Jessica: So we're psyched to be catching up with PB. So welcome.

Paul: Wow, thank you. Thanks, Jessica.

Jessica: Carolynn and I were talking about your background and we're thinking it's so long and varied in tech that we want to do this chronologically. We want you to take us back to upstate New York. Isn't that where you grew up?

Paul: I did. Outside of Rochester, Webster, New York.

Jessica: So you grew up outside of Rochester, upstate New York. Where did you start learning things from? Because you're like one of the most independent minded people I know. What signs were there that you were like this growing up?

Paul: I just started learning things, I guess, when I was a little kid. My father was an engineer and he just loved building things and whatever. And so he worked at Xerox, which he didn't particularly like, but then he would come home and continue working on his own projects all the time. So he was always building something or whatever. He would give us always tools for Christmas. I have a picture of me when I'm four or five years old in my footie pajamas with a bench vice. I was like four or five years old when I got for Christmas was a bench vice.

Jessica: He was a mechanical engineer?

Paul: Electrical engineer.

Jessica: Electrical engineer, okay.

Paul: But he was interested in all kinds of engineering. So he built a design and built an addition on our house. He just liked building things and he liked tools. He had a compulsion for collecting tools and giving them to people for Christmas. So from an early age, there would just always be lots of stuff around to take apart. He would find good things in the garbage. He liked bringing home things that they were throwing out at work or there was an electronic surplus store that we would sometimes go to or a hamfest and we'd go get just weird old equipment or something like that. Or I might just find something that he left on my workbench or some old computers that he had in the basement that I would take apart and smash or whatever. So there was always interesting things to play with and explore.

Jessica: To take apart or build.

Paul: Yeah. So from pretty much my whole life, we're always building things or taking things apart, putting them back together again, repairing them.

Carolynn: Were you a good student or was it one of those situations where your parents are always being told, "Paul's very curious, but he doesn't pay attention. He seems bored." Were you one of those kids?

Paul: I was an okay student. My limitation was that I was a little bit lazy and so I would tend to maybe not always do the work, but I could do pretty good on tests. So I think in my high school, I just went to the public high school. I graduated 40th in the class or something like that. So I wasn't like the top grades, but I did okay.

Jessica: And then you went on to Case Western, which is a lot of engineers go there, right?

Paul: Yeah. Again, I wasn't necessarily top student or whatever, but Case had a thing back then where they would give out scholarships based on SAT scores. And so the first thing I ever got from them was actually just a one-page letter that said, "We will give you this much money if you go to school here." And my family growing up, my parents were very frugal. We never went on fancy vacations or fancy cars or any of that kind of thing. They were very much not about spending money. And I learned growing up also to have an aversion

to debt or something like that. So the idea of spending a whole lot of money to go to some kind of college, just I grew up with the idea that that was not a good idea. And so with Case, I was able to get a scholarship that mostly covered tuition and it's a pretty good school and it's relatively close. So that was how I ended up there.

Jessica: And there were five kids in your family, right?

Paul: Yeah, yeah. So there were five of us.

Jessica: Okay. So a lot of people to put through college for your parents.

Paul: Yeah, exactly. Yeah. I mean, there's no way they were going to send me to some. Also, I probably wouldn't have been able to get accepted really top school or something.

Carolynn: Where are you in the birth order?

Paul: It was funny, though, this one time when you're applying to colleges, at least back then, they send you these mountains of junk mail and the envelope from Harvard came and my mother's like, "Oh, you're not going to Harvard." She was very anti, just too elitist or something like that. I was like, "Don't worry, mom, I'm not going to go to Harvard."

Carolynn: They still send all that mail. That's still a thing.

Jessica: So you go to Case Western and then that leads you to Intel, right?

Paul: Maybe to back up slightly, when I was a teenager, at some point, stuff was going on with computers. I was always interested in businesses and making money and stuff like that. So, again, it's partially having watched my father, who was a very talented engineer but worked at this dysfunctional big company. It was like my father was Dilbert or something. It was the sense of ... And so I had this notion growing up that it would be better if you didn't have to work at some terrible big company and also would do little money making ventures on the side. So I did door-to-door sales.

Jessica: Oh, wow.

Paul: There used to be this thing. I'm sure it doesn't exist anymore, but I actually went back and bought some old copies of this Boys' Life magazine. It was the Boy Scouts magazine. On the back side of it, there was always an advertisement for either the Olympic Sales Club or the American Sales Club, I think. There were two of these things. And you would sign up and basically they would send you a catalog and then you would go door to door or to your relatives, whatever it was. It was this way that kids could go do sales and you would sell wrapping paper or greeting cards or paper goods mainly, but usually priced \$4 to \$6 price point. And then you would get to keep a dollar for each item you sold.

And so I would actually ride around the neighborhood on my bicycle when I'm like, I don't know, 10 or 11 years old or something like that. And knock on people's doors and be like, "Hi, would you like to buy some stuff or whatever?" They're like, "Oh, are you

raising money for school?" I'm like, "No, I'm raising money for me." So I did that until, unfortunately, one time a guy opens a door and he wasn't even living there, he was a house sitting there. And all of a sudden, this guy's got a pit bull and the thing jumps up and bites me in the face.

Jessica: What?

Carolynn: How?

Paul: Partially mauled by a pit bull. And so I had to go get stitches and whatnot. And after that, my parents thought that was not something I should do anymore. So it was the end of my door-to-door sales career, but it's good to know how to sell. And we would sell things at hamfest. I would find good deals on some pricing inefficiency or something where I could buy something cheap and resell it.

Jessica: What is hamfest? Is that a ham radio thing?

Paul: Amateur radio. For some reason, it's called ham amateur. I don't know. They're big electronics flea markets. At least they were back then. I don't know if they still exist or prolly got ruined by the internet. But it would be great because you would just find all sorts of weird old stuff or you could sell. So it's like a little flea market for nerds, basically.

Jessica: Got it. But it sounds like you were an entrepreneurial nerd.

Paul: Yeah. I mean, we would go do sell things. My father liked selling things at the flea ... I mean, at the hamfest or buying stuff. And like I said, he always liked to find a good deal, if he could find something in the garbage and then repair it. That was a big ... He would find old broken oscilloscope. So when he died ... Unfortunately, he died last year and we're having to try to clear out the houses, just houses and houses full of stuff. But he had 40 oscilloscopes or something like that because he loved these old techtronics equipment. He would get old oscilloscopes and then debug them, figure out what was wrong, repair the electronics, and then he'd have them there fixed. And in theory, he was going to resell them or something, but he never.

Jessica: Did you find any treasures amongst all this stuff he collected over the years?

Paul: It's subjective. It's weird stuff. Not everyone is interested in 40-year-old tectonics oscilloscope or something like that. And then when I was a teenager, I got interested in computers. I bought my first computer. I got a 386DX 25 megahertz, one megabyte of memory, and taught myself how to program. My father said that the programmers ... He was an electrical engineer, he didn't really know how to program, but he said that the programmers that work use CE. So I was like, "Okay, I'll learn CE." And so I actually, at a hamfest, bought a compiler. We didn't have all the free software back then, but I got a copy of Turbo CE for \$11.

Jessica: Was that a deal? Carolynn and I don't know if that's a deal.

Carolynn: Sounds like a deal.

Paul: \$11 for a compiler, it's ... Yeah.

Jessica: Okay.

Paul: Software, we used to have to pay money for it. And then taught myself how to program in CE. And then actually ended up getting a little job programming in high school for this guy that my father knew had a machine repair business. And so actually redid the control software out of pick-and-place machine. So that was cool. I was actually in a factory ...

Jessica: Oh, wow.

Paul: ... debugging and built all the software for this machine that would take metal bars out of a hopper and put them in a grinder and grind them and so forth.

Jessica: While in high school, you did this?

Paul: Yeah, when I was 16, I was doing that.

Carolynn: Was this a minimum wage job?

Paul: I get \$8 an hour. It was more than minimum wage.

Carolynn: Nice, yeah.

Jessica: That's more than minimum wage. Yeah.

Paul: I didn't always get paid on time. This guy was not always great at paying bills on time, but I did eventually get paid.

Jessica: So then you went to college and did anything important happen there in terms of your interest in building things or working [inaudible 00:12:26]?

Paul: Yeah. I mean, I was always interested in building. One of the nice things about Case was actually that they were pretty early with the internet in terms of having good internet connection and so forth. So one of the things I was looking at when I was looking at colleges was I was interested in internet. So this was early '90s. And so I knew that the stuff existed, but this is before the web had really taken off. And so I remember I went to one college and I was like, "Oh, do you have internet access here?" And they're like, "Well, let me check." That was the state of things. And then she went and asked someone, she said, "Oh, I think we have ethernet. Is that the same as internet?" I was like, "Not exactly."

So people didn't know the ethernet and internet at the time. And then when I went to Case, I was like, "Oh, do you have internet?" They're like, "Yes, every room on campus is

wired with high speed fiber." I was like, "Cool." It was one of the most forward-looking things they had done is that they had actually, in the early '90s, completely did every room on campus, every classroom, every dorm room in the fraternity houses, every single room had this fiber jack on the wall.

Jessica: Wow.

Paul: Kind of went with a weird technology because it turned out to not really be the technology that took off. We don't really use fiber today, but they wired up the whole campus with fiber.

Jessica: Were there other like-minded people like you there that were into this stuff?

Paul: Yeah. I mean, the people were interested. So when I showed up, it was fall of '94 when I started. Things were just taking off. So I also got interested in Linux when I was in high school. So, again, at a hamfest, I bought a Linux CD. And this was the very early days of Linux. It didn't work very well at all. So I installed Linux on my computer and I was interested in learning Unix and that kind of stuff. So when I got to campus, I started looking for people who would know something about Linux. So the first day, I actually met someone in my dorm and he was like, "I'm trying to compile the new Linux kernel." I'm like, "Hello, you're my new friend."

So he was showing me how to ... Yeah, because to figure out how to get Linux onto this weird network because we had special ... You had to have a weird ethernet adapter to get on the network because it wasn't standard equipment. So, yeah, there was that. And then there was a ACM programming team. And so then I showed up for that. So I was excited. I didn't really know anyone who could program before besides myself. So I was excited to beat other people who I could hopefully learn from. So I showed up to the programming competition and we actually did pretty good. We had a good programming team.

Jessica: And then what led you to Silicon Valley?

Paul: So I was interested in startups. I was, again, finding some way to not just be a cog in some giant machine and the idea that you could create something new and exciting. I had actually tried at one point in college to make my own web-based email service. And this was actually before Hotmail even came out. Summer of '96, I had accidentally ended up not having a job. I maybe only applied for a couple thinking that they would hire me and then they didn't. So I was just hanging out in Cleveland in this basement underneath a sub shop, and I was like, "I'm just going to make my own." I had this idea that I wanted to be able to access email anywhere. And at the time, it always lived on your computer. So people would be like, "I need to go back to my dorm room to check my email or something."

And with Linux, I didn't have that problem because I could just telnet into my computer, but for all the Windows people or whatever, email was this thing that lived on your computer. And so I had gotten very excited about Java and the possibility of mobile

code. Code that would be downloaded from the internet. And Java is very exciting as history turns out it never delivered on that promise. But JavaScript, of course, did deliver exactly that, which is that the browser downloads the code from the server and then it executes locally. And that way, you can actually build a really great experience that doesn't require constant round trips to the server. But I ran into my problem of a somewhat limited attention span. And so I got bored with that project and started watching lots of Dukes of Hazzard and going for bike rides and stuff like that.

Jessica: Oh, no, you could have been the first email.

Paul: That's fine.

Carolynn: Well, wait, did you have an AOL address at the time or did you have a [inaudible 00:17:03]?

Paul: No, I had a university address.

Carolynn: Okay, okay.

Paul: Never used AOL.

Carolynn: Okay.

Paul: So, yeah, I was interested in startups. And then when I graduated college, there was no Y Combinator. There's no startup anything. You look on the internet, I mean, there was no Google, the internet was still very young. And so it wasn't I could just go find a listing of startups. It didn't seem to be anywhere to begin even, but it did seem like they were generally located in California. So just geographically. Silicon Valley, I could locate on a map. And so my strategy was like, "Okay, I'll just move to Silicon Valley," and then presumably it just bump into a startup or something like that.

Jessica: Good plan.

Paul: Yeah. Yeah. How hard could it be? In Intel, I had a friend who was a year ahead who had taken a job at Intel and they had this rotation program that sounded cool. It was basically just a series, almost like a series of three internships in a row, but you get to try out different jobs within the company. That sounded fun so I took that job with Intel. And actually just coincidentally, my second rotation there was in the mobile marketing division or group or whatever. And one of my coworkers in that group was Susan Wojcicki.

Jessica: No.

Paul: Well, Google was in her garage. She was working at Intel in the same group as I was.

Jessica: No way. Is that how you [inaudible 00:18:33]?

Paul: No, it's just coincidence.

Jessica: Coincidence.

Paul: So we didn't realize that until later on. I mean, I didn't know her super well. It wasn't like we've chatted a lot or something. I was there for about a year. And Intel was ... I just found it. It wasn't bad, but it was just draining. I would find myself ... I'd be at work and I'm just like, "Oh, I'm so tired. I think I'll go home and take a nap." And then I'd go home and I'm like, "I'm not really tired anymore."

Jessica: So you watched Dukes of Hazard?

Paul: Yeah. [inaudible 00:19:02] do something else. Yeah, I just found it to be uninspiring and draining environment. It's just very gray and just slow. It just wasn't fun. There's just nothing fun about it. And, again, I was still really interested in Linux. And back then, big companies were still very suspicious of Linux. It was this cancer or something. They didn't like Linux. So the two things I was interested in was startups and Linux. So basically, I was like, "Okay, I'm just going to apply for some, try to find a startup." And I can't say that I did a really in-depth research. I just made a list of what I could find, which was only 10 companies.

Carolynn: Where did you even find them?

Jessica: Yeah. Where were you living and how did you find them?

Paul: Well, I lived in Sunnyvale and working at Intel, I would always read Slashdot. So Slashdot was like-

Jessica: Ah, yes.

Paul: That was really the site. And so Slashdot would cover Linux all the time because it was a fan's site practically. But Google would show up on Slashdot periodically because Google was built on this Linux cluster, which was, what could be more exciting than this cluster of Linux machines? And they had this Linux specific search. So I would see Google show up on Slashdot, as well as there were a handful of other ... Basically, Linux companies would show up on Slashdot. So that was how I would know about them. I forget, it was six or 10 companies, something like that. Not a huge number. So I just emailed my resume to them. And ironically, when I first emailed Google my resume, it bounced. Their mail server was misconfigured. [inaudible 00:20:44] received email. It was a temporary thing. I had to resend it the next day, but it was funny. First time I applied to Google, the email bounced.

Jessica: Oh, wow.

Paul: Yeah. And so then I never heard back from most of the companies, but I interviewed at Google and they asked actually really smart questions, which I think one advice I sometimes give to people talking to [inaudible 00:21:10] startups or whatever is actually



what is the quality of what they're asking you because that's how they're finding people. So I did interview at this one other startup that was doing Linux stuff and their questions were just dumb. It was trivia. What are the layers of the OSI stack? Or something like that. At Google, they were actually asking some pretty intelligent questions. I remember we were asked this hypothetical, okay, you have a server that's running slow, how do you figure out why or whatever. And talking through the process of debugging, okay, are you limited on CPU? What's going on? Is it an IO problem? Tracking down where is the bottleneck. And thinking through system level problems.

Jessica: Tell people who Ors was.

Paul: Well, Ors was the ... I mean, I think he's still one of the main vice president of engineering, but he was the original VP of engineering and he ran engineering for a very long time.

Jessica: Because this is now back in, what, 1990 what?

Paul: This is 1999.

Jessica: 1999. And was it just Ors in the interview or did Larry and Sergey interview?

Paul: Oh, no. I mean, at the time, basically interviewed with most of the company. I mean, there weren't very many people. So, yeah, it was a series of different engineers, but this was before the Series A even. And there was only ... I mean, it was really only maybe seven or eight engineers or something. It wasn't a very big team. So, yeah, I interviewed with all of them. Google is the only offer I got, so that made it easier. So I didn't really have to [inaudible 00:22:46].

Carolynn: Are any of the companies that rejected you still in business?

Paul: I mean, I wasn't rejected. They just never replied to my email.

Carolynn: Never replied. Yeah. Do they exist anymore?

Paul: I think one of them was probably Red Hat or whatever. Red Hat, they're around in some form. None of them are terribly successful ... Probably Red Hat's the most successful. I [inaudible 00:23:07] the other ones. There was like VA Linux. I don't know what happened to them. I think they died.

Jessica: You interviewed at one company and it was Google.

Paul: Yeah.

Jessica: I mean, honestly ... I mean, I'm glad no one else contacted you back. I'm glad that Google was it.

Paul: Yeah. I mean, it makes it easier that way. You don't have a lot of hard decisions to make.

Jessica: So you were like number 22, employee number 22, or am I wrong?

Paul: 23, I think it is.

Jessica: 23. Okay. So very, very early on. What was it like early on? I mean, you obviously joined, what, a couple weeks after the interview?

Paul: Yeah, yeah. I ended up joining ... For some reason, it ended up being maybe closer to a month after the interview or maybe not quite that long. But anyway. Yeah. So in the intervening time, actually, it was interesting. So I interviewed and then they called me back in to make the offer. And then I think that was when Larry and Sergey presented the offer and then they're like, "Oh, and also watch the news or whatever," because I think the next day was maybe the Series A announcement or something like that.

So I got my offer right, basically, I think it was the day before the Series A announcement. And then I also had to try to figure out what it even meant because the offer ... I didn't really know about stock options and stuff. And, of course, being kind of how ... Just the people on the Hacker News are, you're paranoid, somehow I'm going to get screwed on this or whatever. Or I'm like, "What does this mean? Why are they priced so low?" Because the shares were ... And my original Google share, I think if you account for all of the stock splits that have happened between now and then, I paid 2 cents a share for my shares of Google.

Jessica: Oh, wow.

Carolynn: And I think you would've paid less if the Series A had been later, if you'd been hired earlier, because the Series A probably impacted that [inaudible 00:24:56].

Paul: Oh, yeah. I mean, if I had gotten hired a couple months earlier, I'd be much better off, obviously. I mean, it does impact you because you only get a little ... It's just a little fraction of a percent of the company, but it turns out a small fraction of a percent of Google is actually still pretty good.

Jessica: Yeah.

Paul: Yeah. One of the not-obvious things about startups is it's much better to have a small slice of a big company than a big slice of a small company. And it's counterintuitive, but the reason is you can only have as much as 100% of a company. So the orders of magnitude there are limited, but the number of zeros and the valuation can go pretty high.

Jessica: Yeah.

Paul: So it's actually easier to make money. I think when you have a really hugely successful company, it makes a lot of people pretty wealthy versus a small success that makes maybe one or two people.

Jessica: Yeah, which we've seen, obviously, at Y Combinator. We've seen that. So you're at Google. What are you working on when you first join?

Paul: Initially, actually, they gave me two projects. The one was to build an ad system because they didn't have any ads. And then the second was a shopping search because they also thought that would be a cool thing. Well, one of the things that was funny about joining Google was there was just the level of ambition there was really intoxicating. And Larry was just crazy. He was just like, "We're going to do this and we're going to do this, and we're going to do this." Here we are just this little tiny company and it's like, "Okay, we have a new employee. Let's give you two projects." And then actually, I was working on that with Marissa. Marissa had started, I think, the week before me.

Jessica: Marissa Mayer.

Paul: Marissa Mayer, yeah.

Jessica: Yeah. Okay.

Paul: And so we shared a corner of the office there and started working on these projects. I ended up ... The ads thing ended up being a lot of debate about what the ads product should even be. So a lot of people don't really know anymore, but it took four iterations before Google actually had a successful ad project. The very first ad product that came out was this thing that would recommend books on Amazon and then collect the affiliate revenue. And we made \$20 or something like that. It was both problematic in that it would make offensive suggestions. Someone would search for something and then it would come up with a book recommendation that you would look at it and be like, "Ooh, no, that's not really cool."

Jessica: Oh, no.

Paul: And then on top of that, it never really made any money because most of the time people don't really want book recommendations when they search for something on Google.

But anyway, I ended up focusing more on the product search thing. And so I built out a product search. I mean, all of this was happening over the course of a few months because it's a startup, so everything goes quickly. But I ended up building this product search for a while. It never was quite good enough that we launched it, though. So that never launched. Though along the way while I was working on that, one of the things I ran into is just the fact that I'm not very good at spelling. And then looking at our query logs, I discovered that that's also true of most of our users. And so I added the did you mean feature. [inaudible 00:28:22].

Carolynn: Oh, you did that?

Paul: So I put in the original did you mean feature because I'm like, "This is such an easy way," because they were trying to figure out how to improve quality, and I'm like, "The easiest way to improve quality is just to spell your words correctly."

Carolynn: Oh my God. It's amazing.

Paul: And me and half the other humans can't spell very well. So it's a really easy way to boost the quality.

Jessica: You created did you mean. I'm in shock because I was going to ask, you created such distinctive things within Google, like AdWords, Gmail, and the whole don't be evil thing, but you also did did you mean.

Paul: Yeah. Well, I didn't create AdWords. AdWords was-

Jessica: I thought you did.

Paul: No, I made the first version of AdSense. There's a subtle distinction. AdSense was the contextual targeting and that's like ... Yeah, that was a side project of Gmail because, initially I built it for Gmail, and then people are like, "Hey, this would work on the rest of the web, too."

Yeah. The did you mean, I did ... Again, I'm pretty good at making, a lot of times, a really quick and dirty version of something. And so it was actually while I was building the product search, I was just like, "This is dumb that it doesn't have a spell corrector." So I just threw that in. And then ... But actually pushing it out to the main web search took a little bit longer because you need to make it. I had just done some quick hack with a spell or something like that. So then we had to license something. The initial did you mean was not really that great.

And so I was working on making a smarter did you mean because it was just a dumb spell corrector that we had licensed from someone and then I did some code to try to make it less dumb because, for example, it would want to correct words like TurboTax. It would say, "Did you mean turbo tax?" [inaudible 00:30:08].

Jessica: Oh, gosh. Okay.

Paul: Like a stupid spell corrector would do back then. So at the time, I was working on the spell ... This was maybe a year later when I was working on a better spell corrector, I decided to use it as an interview question. So when I was interviewing people, I'm like, "Well, how would you build a good spell corrector?" and talk them through it. And most engineers ... Most people are just terrible. They have no idea. Some people ... I would say two thirds of people are just bad. One third of people are like okay.

But then there was this one guy who gave just this amazing answer where he was ... He already went past what I was thinking. In the interview, his thinking was already ahead of me. And so I was like, "Wow, that's great." Okay. So we hired him, this guy, Noam

Shazeer. And he started ... It was actually a few days before Christmas or whatever. And so I set him up like, "Okay, here's where I am in the code. See what you can do." And I went away to visit family for a couple weeks, and when I came back two weeks later, he had built the thing that we know now, the did you mean feature, which is the world's late greatest spell corrector that had ever existed, was created the first two weeks on the job.

Jessica: Oh my gosh, that's amazing. Then when did you start getting involved with Gmail? Wasn't it a side project for you there?

Paul: No, not exactly. Yeah, a lot of times people think it was a side project, but it was actually an assigned project. I did have a lot of side projects, but that wasn't one of them. Summer of 2001 inside of Google, there was this reorg thing where Larry got frustrated because he thought people weren't moving fast enough. So his solution was to get rid of all of the engineering managers. They had hired a number of managers and it was organized into these groups, and each group would have its own thing, but they weren't working on whatever he thought was important. So his idea was we should just not have managers. Engineers should just have projects.

So instead of having groups with managers, there'd be projects with engineers. And so all of the engineers were given a project or there'd be a couple of engineers on a project. And so I met with ... When they were meeting with each person, I sat down with Larry and then Wayne Rosing, who is the VP of engineering at that point, and they're like, "We want you to build some email product." So that was the spec was some email thing [inaudible 00:32:35].

Jessica: Some kind of email thing. Okay.

Paul: Yeah, yeah. So initially, I was still wrapping up another project. So it was, to some extent, part-time to begin with because I was finishing up the original Google Groups. So we had bought ... I don't know if you know what Usenet ... You know what Usenet is, right? The old ...

Jessica: Yeah.

Paul: ... kind of the original internet message board.

Jessica: Yes, yes.

Paul: And it's an archive that goes all the way back to the '70s. It's the oldest Reddit, essentially.

Jessica: And Google had bought that?

Paul: Well, we had bought ... It's an open thing, but what we had bought was this site called Deja News that had the largest use in that archive, but it was a startup that was dying. It had run out of money and their systems were shutting down. And so we got a good deal

on it. And then we would be able to own their archive, but we didn't want to try to maintain their code because it was some completely different code base written and I think tickle. I want to say a weird language. And we had a deadline because their data center was shutting down or something like that. So we only had one month from the time that we acquired the company until their servers were going to shut down. So it was this really great project because we had a really hard deadline, which was that we had to launch in a month.

There was no wiggle room on that. So a group of us very quickly built this Google Groups, the original Google Groups project, to index and serve this Usenet content. And so I was finishing up on that when I started Gmail. And so the very first version of Gmail that I built was built based off of just the Usenet code that I had been working on previously. So I mentioned earlier, the first time I tried to build an email project, I ran into this problem where I was writing a bunch of code for a while and then I got bored and distracted. And so one of the things I had learned over the years is that just my own psychology, I have to always be keeping myself engaged in the product. And so, for me, what I really like is to always be launching things.

And so with Gmail, I was able to build the first version in a day and then launch it. And so what I did was I just took this using that indexing code that I had from the previous project, and then I took my email, my mailbox, and I just wrote a script to convert the email to look like using that data. And then I just shoved my email into this using that search and then I just launched it. I just sent it out to engineering to be like, "Hey, guys, I built this email search. Let me know what you think." And so that's the first version of day zero of Gmail was I launched this product.

Jessica: What did people say?

Paul: People say, "Well, it's useful, but it would be better if it had my email instead of yours." And so that's a feature request.

Jessica: Yeah.

Paul: And so it was all this iterative. So I built the first version in one day and then I got feature request, which is people wanted to search their own email, not just my email. So then I'm like, "Okay, now I know what to do." And so I went to work and I made this thing that would crawl through the home directories and suck up people's email and index it and then partition it so that it would just get one person at a time. And then I had ... That was version two, so I launched it again. Okay, now I have email search with your email. And so then people would be like, "Okay, this is cool, and now I want to reply to an email." I'm like, "Okay." So then I went in and added a reply feature and just iteratively would launch a new version every day or two.

And then just constantly people would complain about, now they want to send email or whatever, they want an address book and just kept adding feature by feature or it's too slow or whatever the problem is and try to keep making the product better and better. And we continued through this process and there were a lot of complicated ups and

downs in there as well. But, ultimately, we came up with this goal that it would be ready to launch to the world once we had a hundred happy users. And this is something we still use sometimes in advising startups because it's actually a pretty good way of working on a product because it's easy to get people to tolerate a product, but you some of them to actually like it, but you don't need all of them to like it.

And so I would do ... I actually embedded just a little one-question survey inside of Gmail, which is a little box would pop up and say, "Are you happy with Gmail? Yes or no?" And it's just like, yes or no. And I would get a list of names then and I could go through the list of nos. I would just go talk to them.

Jessica: Because they're all part of Google's engineering team.

Paul: Yeah, it was just inside, so it'd be like down the hall. So I would just go down the hall and be like, "Okay, since you're not happy with Gmail, what's it going to take to make you happy?" And so just ... It's basically door-to-door sales. It's like, "What's it going to take to get you to be a happy user?" And for some people, they'd be like, "Well, basically it needs to be exactly like Outlook." And I'm like, "Well, that's never going to happen," so cross this person off the list. But other people, it's something much more attainable. They just needed one feature. There's like something they didn't like or whatever. So basically, there's some people who are easy to make happy and some people who are difficult. And so you just focus on the ones that are easy. And then eventually, we made it to a hundred.

And then sometimes, eventually, I would get the Outlook people, too, because back then Outlook had this bug where once your mailbox on disc would reach, I think, two gigabytes, it would corrupt the data and lose everything.

Jessica: Oh, no.

Paul: And so then I had the only copy of their email. Once Outlook would crash and destroy their copy, I would have the remaining copy. So then they would start using Gmail.

Carolynn: When did you decide to start calling it Gmail? Was that immediate, or?

Paul: The idea was around, yeah, very early on. But at the time, we actually ... They were into code names because we were trying to keep things secret. They didn't want Yahoo to find out, which was inconvenient because sometimes Yahoo would be there. One time at dinner, I was sitting there with Larry and Sergey, I think, were there and then Dave Filo from Yahoo was sitting there with Larry. And so I'm sitting there at dinner and people kept coming up and asking me questions about.

So we had a code name. The code name was Caribou, but people keep asking me basic product questions. And finally, I realized I need to just get up and leave or whatever because I can't answer everyone's questions while I'm sitting next to the founder of Yahoo. So, yeah, it was called Caribou internally. Actually, getting the domain was difficult. We just barely managed to get it.

Jessica: Why?

Paul: I don't know. I think we just procrastinated. We ended up actually not quite getting ... There's a second domain with a different spelling that we didn't manage to get in time. Maybe they have it by now, I haven't checked. G-M-A-L-E. It was a porn site.

Carolynn: [inaudible 00:39:37] jocker.

Jessica: Oh, goodness. Oh, good gracious. Can I just, as an aside, say listening to you tell this story and saying that you were the kind of person who would keep going, you always wanted to be launching and you would talk to users, you're like the dream founder, I have to say. If I were fund ... I wish I could have funded you.

Paul: That feedback loop is what makes it fun. So if I work on a project just by myself without that loop, I lose motivation. And so it's also part of the problem that have ... Fast forward, by the time I left Google in 2006, the release cycles on Gmail were like, you could check something in, but it's going to be months by the time it makes it all the way out to the world or whatever. And I just like fast iterations. So when we had FriendFeed later on, I would write the code, I would push it live, and then if it's good, I would check it in. I just like immediate feedback loops where you put something out there and then people love it or they hate it or whatever, and you learn and you go forward. This ponderously slow movement where you do something and then you don't see the effects for many months, to me, is just demotivational.

Jessica: Can you talk at all about ... Wasn't it true that Gmail almost didn't see the light of day? It almost did not get launched within Google.

Paul: Yeah. I mean, so there were definitely different opinions. There were a lot of people who thought the project should be scrapped. So there were basically a couple of objections. One objection was that it was too weird because it was quite a bit different. This one particular VP, he was like, "I really love AOL mail. You should just clone AOL." And I was just like, "I don't know how to respond to that."

Carolynn: Right.

Jessica: Yeah.

Paul: So one segment of people said, "This thing is really weird and no one's ever going to get it," because we did do, I mean, some unusual things. The conversation view was very innovative. It has key bindings that I borrowed from VI, which is a very unusual thing to do, to put an obscure Unix text editor, borrow ideas to put them in a webpage. And the way that it behaved as an application was unusual at the time as well because it was the first of that thing. So even doing the whole thing in JavaScript was very controversial. When I first started doing a lot of things in JavaScript, people were like, "You can't do this. If you write this in JavaScript, Microsoft is just going to change the browser to break it," because they were all very afraid of Microsoft at the time.



And a lot of the executives, like Eric Schmidt had come from Sun. And so Eric had spent his career getting crushed by Microsoft. So he was very paranoid about that. But I was like, "No, I really don't think they can just break JavaScript. And if they do make some small change, we can just change the code on our end to work around it." And the thing that's actually really funny historically is it turns out not only did they not change the browser to break Gmail, they actually did an emergency push to IE6 at one point or high priority patch to make Gmail work better because Gmail was breaking the garbage collector in IE6. So Microsoft actually made an improvement to IE6 to better accommodate Gmail.

Jessica: Oh, wow.

Paul: The JavaScript thing, yeah, people were opposed to that because it was really bleeding edge at the time. The browsers didn't quite work. And one of the things I was afraid of that might keep us from launching is I had trouble crashing the browser a lot. So I had to learn a lot of tricks to not crash the browser because it was really easy to push the browsers too far. It was IE6 and then Firefox 1.0 or something like that. And they could just barely handle what we were doing. And I'd have to be careful because if you pushed too far, it would just trigger some bug and the whole thing would die.

Jessica: Oh, wow. I never knew that.

Paul: So, yeah, there was the technical side of it. So at one point, there was a push to actually just go back to being totally HTML. That distracted us for a while. And then by the time of launch, one objection was that it's too weird. The other objection was that it's not weird enough. It's too conventional. We're Google, people expect something really revolutionary.

Carolynn: Wow. Was Gmail not revolutionary? I mean, I think it was.

Paul: Kind of depends on your opinion. Some people thought it should just be more different. Other people thought it should be more normal. Some people thought the gig was too much. They're like, "Why are we doing a gigabyte? Why don't we just do a hundred megabytes? That's still more than anyone else." I was like, "No," because Yahoo was offering four megabytes and Hotmail was offering two megabytes. I was like, "It's so much better if we come out with a thousand," right?

Jessica: Yeah.

Paul: It's better than real. And then the other problem we were running into is that actually the engineering was a little bit bumpy, still not everything worked really well. So we were building on top of web search infrastructure that just had different constraints. If it would encounter an error, it would just throw away the data because it'd be like, "Well, we'll just get it on the next crawl."

So actually modifying all of our infrastructure to not lose data was really hard. We had weird performance problems. The code was pretty shaky at the time we'd launched and

I was very afraid of losing data. And so one of the strategies I took was that we would just keep multiple copies in different locations and different formats and stuff. But consequently, it was like every email ended up getting stored 13 times or something weird like that in different systems. And the reason for that was that way, when there was a bug in one part of the system, I could replay it from a different part of the system to fix it. The way that the data was stored was this log structured file system that we built. And the cool thing about that was that you could basically replay ... You could fix bugs and then replay history to undo, just retroactively fix bugs in the system and some cool things like that to try to make it more responsive.

But then, yeah, it almost didn't launch. And actually the thing that it might not have made it out the door, except someone inside of Google actually leaked to the New York Times that we were launching this email product on April 1st. The thing was that it wasn't quite ready, but there was then this impending story. And so we actually rushed it out early to try to beat the New York Times story. So if you go back and you look at the press release, it launched April 1st at midnight UTC. So it actually launched the night before. It wasn't even April 1st in the United States yet. We pushed it to UTC so that we could get a jump on the New York Times. The only problem was that we hadn't actually finished writing the code yet.

Carolynn: Oh my God.

Paul: We actually launched Gmail before it was written, so I didn't get a lot of sleep the first couple of days.

Jessica: And did you finish in the next day?

Paul: Yeah, we had to work really quickly. So when we put out the press release, it's such a rushed thing. The DNS didn't even resolve. So if you tried to go to gmail.com, there was nothing there.

Carolynn: Oh, no.

Paul: We launched [inaudible 00:46:51] in a landing page. [inaudible 00:46:56] if you're not embarrassed when you launch. We waited too long. So we definitely didn't wait too long.

Jessica: And what happened when you launched, then the New York Times article goes out, and do people immediately embrace it, or?

Paul: No. No. So part of the problem was we didn't really have capacity either. So there was this chicken and egg problem where I couldn't get hardware because the product wasn't really ready to launch and the product wasn't really ready to launch because we didn't really have hardware. So the only machines we had were, I think it was 300 of these old, I want to say, [inaudible 00:47:29] or something like that that no one else in the company wanted. They had less than a gig of memory even. I think they were like 256 meg. They were these old low memory machines, coupled with the inefficiency of the

system. We had enough capacity for 10,000 users when we launched, which was enough for Google employees and their friends basically, which was also part of the reason we had the invite system.

So the invite system was also one of these things where they said, "Well, you can't launch until you're ready for everyone to show up." I'm like, "Well, that will never happen," because it is so hard to scale something like this. So I was like, "Let's do this invite system. That way, we can limit the rate of growth." And Larry was like, "Well, no, that's like planning for failure." I was like, "Okay, well, in that case, it's a growth hack or this will make it viral." Somehow saying that it was to limit our growth was like a no-go. But if I re-pitched it making it viral, then it was an acceptable strategy. So the real reason for the Gmail invite thing was simply that the entire system would've collapsed otherwise. We just didn't have capacity. But, yeah, Gmail didn't even exist when we launched it to make the situation more difficult. My brother had just died March 9th.

Jessica: Oh, no.

Paul: So, yeah, the last night I was there with him, actually, he was only half alive at that point, kind of struggling to breathe. And I was on my laptop doing some account integration code, trying to finish up some stuff. So when he died, I took off for a couple of weeks. We had a funeral here and a funeral back in New York. And so I was completely away from everything for a couple of weeks. So when I got back, things were not all going exactly according to what would've been ideal schedule. So it was a little bit of a shit show back on the team. So we really weren't quite ready to launch. And like I said, actually the code wasn't quite all written yet.

So after we launched there on April 1st, I had to work to ... The remaining code was the part that integrates account creation and everything. When we launched, there were zero Gmail accounts in existence. So I created the first Gmail account. I should try to go find the timestamp. It was sometime later that day. So I created the very first Gmail account. Okay, that works. Push the code or check in the [inaudible 00:50:04].

Jessica: Was it paul@gmail or pb@gmail?

Paul: Helloworld@gmail. It's actually the [inaudible 00:50:09]. So that ... Yeah. Okay, that worked. And so then I sent an invite to myself and then my personal email account is the second ever Gmail account. And then that worked. So then I invited the rest of the team and the rest of the company. So it was only later that day that people inside of Google even had Gmail accounts.

Jessica: On the day that it launched.

Paul: Yeah, it had already launched, and no one, including myself, had an account.

Jessica: Wow.

Carolynn: That's crazy.

Jessica: Oh my gosh. That's pretty crazy. I don't think I knew the extent of the craziness and I certainly don't think I realized that it was so soon after your brother passed away.

Paul: Yeah. I mean, it was a pretty out-of-control launch. Actually, after we launched, they implemented a whole bunch of new policies to make sure that a product like Gmail never launches again.

Carolynn: Well, did they ever figure out who leaked it? That's pretty weird. Or was it not weird?

Paul: I think it did. It was someone in a different part of the company, so it wasn't someone I know.

Jessica: How did Larry and Sergey respond, let's just say, a week later? Were they like, "Great job, Paul," or were they?

Paul: So initially, we had this problem. We launched this thing, but no one had access to it. So eventually, we got around once ... Day two or three, we finally invite reporters, people get to try out the product. But initially, some people weren't even sure if it was a real thing because we launched on April 1st with implausibly good specs. So if you go look at Slashdot, people are like, "Come on, people, this is an obvious joke. You can't fall for this. There's no way they're really giving away a thousand megabytes for free."

Jessica: Oh my God.

Paul: Because if you remember back then, the people working inside of a corporation or something who had an Outlook account would usually have maybe a 30-megabyte quota or something like that. And so, actually, interestingly enough, one of the groups where Gmail really took off early on was reporters. Reporters all loved Gmail because their official email address that the New York Times would give them or whatever only allowed them to save 30 megabytes of email, and if you're a reporter, you really want more than that. And so they loved the fact that they could just keep everything. I mean, that they didn't have to deal with these ridiculous quotas. And for years and years, email administrators had gotten really good at making excuses for why it's not possible to give people more than that. Oh, you don't understand, email is really hard. You can't just give people hundreds of megabytes of storage. And then, of course, that excuse falls apart when we do it for free.

Jessica: Yeah. Oh my word, I had no idea about some of these details. Remind me, PB, I met you when I asked you to be in Founders at Work, which you did, and I think you were just leaving Google around that time.

Paul: Yeah. But it was around that time, though, yeah. Because I was interested ... I had reached out to PG because I was interested in Y Combinator. So, again, on Slashdot where I get all of my news, I had seen the original announcement for the Summer Founders Program and I thought that seemed super cool. I just thought that was the best idea ever because it spoke to my own experience, which is that I was interested in startups and I didn't go to Harvard or Stanford or whatever, where it's like, "Oh, yeah, my

roommate started Cisco or something." But I feel like if you go to one of these environments where everyone is doing it, it's no big deal. But my only strategy for finding startups or a risk to physically move to California. I didn't know ... There were no startup founders who came from my school or whatever.

And so I thought the idea of just having this open program where anyone could apply and then you would just teach them everything that they need to know and connect them. And anyone could start a startup, not just someone who's already super connected. To me, that was, I thought, just such a great idea and something that is really powerful because you're opening it up beyond just the chosen elite or whatever.

Jessica: You were our target market when we first launched. It was smart programmers who might not have any clue about the business side of startups, but they want to build something and they can now build something because all they really need is a computer. Come study with us, basically, for the summer.

Paul: Yeah.

Jessica: So I remember we invited you to speak for that first summer.

Paul: Yeah. Well, it was actually ... Not for the first summer. So I contacted ... I think it was in the fall that summer, there was still a lot of stuff going on, but in the fall of 2005, what happened actually was that you announced that you were going to do the second batch in Mountain View. And so that's close by. And so I reached out and just introduced myself and like, "Hey, I love what you're doing. Let me know if I can help out or whatever." And so that was how I ended up talking to you because then PG introduced me to you.

Jessica: Okay. And we must have invited you to speak at during [inaudible 00:55:07].

Paul: Yeah, yeah. So then I spoke at to something bad with ...

Jessica: Okay.

Paul: ... Wufoo and all of them.

Jessica: Oh my gosh, that seems like so long ago. With the paint drawing on the walls of the building.

Carolynn: 320.

Jessica: So you leave ... Why did you leave Google? What was your plan?

Paul: I mean, I didn't exactly have a plan, but what really happened was that our first child was born in 2005 severely premature. She was a hundred days early and almost didn't survive, had lots of surgeries, and so forth, which is why the whole summer of 2005, I was actually in the hospital again. We spent the summer of 2005 in UCSF Neonatal

Intensive Care Unit. So I'd taken a seven-month leave from Google. And when I went back to Google in the fall, I was actually really excited because I always loved working and lunching things and I like the excitement of movement and getting things done. And I got there and I was so excited. I was having trouble sleeping the night before and I got there and it was that thing where the life just drain out of me. It was like I was back at Intel.

Jessica: Aw. Too many people?

Paul: My computer had stopped working and I tried to get a new one, and then I ran into some IT bureaucracy where they gave me a new computer, but actually it was broken and I spent time debugging it. And then when I finally figured out that they had misconfigured the DMA or something, they're like, "Well, yeah, we knew about that. You just have to fix it." I'm like, "Why are you giving engineers computers that you know are broken?" They're like, "Well, we don't have time. Fix it or whatever." I just immediately got this feeling like I'm stuck back at Intel in some big company.

Jessica: What happened in those seven month ... That's a seven-month time period?

Paul: And I think personally, it was just the frog boiling water kind of thing. You become more aware of it, but also the company was growing. So I'd end up in some meeting people I don't know, I don't know. I had this realization, which may or may not be accurate, but I felt like, "Okay, if I stay here, I need to become an effective big company person," because a lot of what needed to be done was a little bit more politicking. The last thing I did was manage to get more hardware for Gmail. We were always running out of hardware because we were growing, we were resource constrained, but we were running the system at close to 100% capacity, which is a terrible thing to do. And it was grinding the engineers because they were constantly scrambling to keep the system from dying because we were so close to the limit.

And so I was always trying to get ... The last thing I was doing was just constantly trying to get more hardware. And so, finally, my tactic was I announced we're going to shut down new signups or whatever, and just an internal bluffing thing or whatever to try to embarrass them. And then, finally, we got approved for, I don't know, \$100 million in new hardware or something, which admittedly is a lot. The product could have been actually a lot more successful, but we were hardware starved for years. But anyway. I had this realization I could either become a really effective big company person or I could just leave. So I chose the latter.

Jessica: And then when did FriendFeed come about? A couple years later?

Paul: Yeah. So I ended up just taking off some time and we still had this baby take care of and everything. But, yeah, I was talking to my friend, Sanjeev, who is the second person on Gmail, and we'd get together and he was interested in starting something. So we decided to start something. But we also ... My biggest thing is always you just got to find really great people. And so we were keeping an eye on other people who we thought

were really great, who we thought might be interested in leaving Google to join the team. So we didn't have a specific product in mind.

We actually had more of a culture in mind. We wanted to make a really great engineering company where it was just really fun to work. Basically, I was just trying to make a job for myself. I wanted someplace that would just be a really fun place for engineers who like shipping things. There's different kinds of engineers. There's some engineers who's just arguing on email all day. The people who spend all day arguing about politics or whatever are not the ones we want, but people who love to ship products. And so some other friends from Google, Bret Taylor and Jim Norris, they left and they were actually looking to start a startup as well. So we started having lunch with them and talking to them.

Jessica: They were Google Maps, right?

Paul: Yeah. So Bret was the original PM on Google Maps. And Google Maps, people ... You'll see again on Hacker News, you're like, "Oh, Google just acquired it and launched it." But the thing that they acquired was actually a Windows app. The startup that they acquired, it had a Windows app, that was the mapping thing. It wasn't even web based. So they converted it to be a web-based thing. And then the story I always remember with Bret that I think is super impressive is that, internally, the Google Maps wasn't very good. It was just this horribly slow and clunky thing. And the person who'd been building it was one of the engineers I think had fallen in love with XML, had way too much XML bloat. Anyway, Bret got frustrated with this and, over a weekend, rewrote their entire JavaScript for Google Map. And he made it, if I remember correctly, like a third the size and 10 times as fast.

Jessica: Oh, wow.

Paul: They show up on Monday and he's just completely replaced all of the code.

Jessica: Oh my goodness.

Paul: That's the kind of engineer Bret ... And the thing is, it isn't bad code. It isn't like sloppy stuff. He'll crank out really high-quality code very quickly. So he's not even a 10x engineer. He's like 100x or 1000x engineer. It's just ridiculous.

Jessica: Wow. That's the person you want to be at your company that you're starting.

Paul: You definitely want that on your team. So, yeah, we managed to convince Bret and Jim to join forces. And so we launched FriendFeed. Then I think it was August 2007, if I'm remembering right.

Jessica: And tell me a little bit about FriendFeed. I mean, I think it was you created the idea of following people.

Paul: No, I mean, I think following was already around. So FriendFeed started off as, I guess, the Cambrian era of social. There were a million different social things at the time and they all had these feeds. So you could have an activity feed off of videos that you post on YouTube and things on Twitter. Let's say Twitter was already out with it with a follower graph. And so there were all these different RSS feeds and things like that. And so the original idea was that you could pull all of them together, all of the social activity, from different places and aggregate it together, and then create this environment where you'd see what your friends are doing across these various social products. And then very quickly, we added comments. And then actually, also, I think it was October 2007, we launched the like button. So FriendFeed is actually the original like button. So this claim is somewhat disputed by Facebook version of the story, which is that they had created it but just forgot to launch it.

Jessica: Convenient. Oops.

Paul: The actual story is that they had created a very similar feature internally called the Awesome button, but then they never launched it because it was lame.

Jessica: Because it was not awesome.

Carolynn: Because it was not awesome.

Paul: Yeah, calling it the like button. So after we launched the like button, they dusted off the awesome button.

Jessica: And remind me, didn't Facebook copy everything you did once you guys launched it? Or am I wrong?

Paul: Yeah. I don't know about everything, but they definitely kept a close eye on us. And Facebook, I didn't really know too much about them at the time. I hoped that they would be too successful to be nimble, but that's definitely not the case. They were very willing to move fast and break things and whatever. They're a very aggressive competitor.

And so one of the things that happened being in the social space for that period of time is you start to realize which people are really good and which people are clowns. So at one point, we were talking to Myspace. We flew down to LA to meet with the people down there and it was just a disaster. They went silent on us for a while and, then all of a sudden, he gets back to us, he's like, "Okay, I think we can do a deal. I mean, we're going to have to throw a lot of people under the bus," and just weird clown show stuff. And Twitter was always in constant disarray versus going in to meet the team at Facebook. They just clearly understood what was going on so much better than everyone else, that it was just like no one else stands a chance. People at Google still had no idea what they were doing with social. So it just became readily apparent that basically Facebook was going to win it because no one else was even close.



Carolynn: Well, to take you back for just a second, why did you start talking to these companies? Did you know that you didn't want to run it independently, or?

Paul: No, I never wanted to sell initially. I mean, I was trying to create a place that was a really fun place to work. Facebook, again, to their credit, had been basically reaching out to us from the start, "Hey, we should work together. Hey." So they were always wanting to talk to us. And so they would ping us pretty frequently. FriendFeed reached a point where our growth had plateaued. And so the problem, ultimately, our product ... We never really had the right product is basically the right answer. We were too similar to Facebook and Twitter who were both much larger and more successful. And so we had really great growth when Twitter would have the fail whales. So when Twitter was down, we would have great growth, but that's not a good long-term strategy. Eventually, they figured out how to keep the service up.

Carolynn: Right.

Paul: And so we needed to either pivot or sell. Looking back, one of our pivot ideas was basically to build Slack or something because one version of the product that work was we had these things we called internal rooms that were basically Slack channels. So we could have done that or whatever. But given that we were at this inflection point, we were like, "Well, okay, Facebook reach out to us." We're like, "Okay, well, if you're so interested in acquiring us, make an offer." And they're like, "Well, how much do you want?" And so we had this whole ridiculous back and forth where we're like, "Well, you're the ones who reached out so you have to do it." And so they're like, "Well, if we make an offer, we'll just lowball you." [inaudible 01:06:05] lowball us, right? [inaudible 01:06:08].

So there was a whole back and forth. It was a crazy negotiation. So then when they finally did come make the offer, it was actually this really funny meeting. They come over to the office and then we make tea or coffee and sit down and they slide the offer over and we look at it and we're like, "They lowballed us, right? Okay, well, thank you for your time." We're just going to sit there quietly and Chris is like, "Can we finish our tea?" We're like, "Sure." And so we just sit there in an awkward couple of minutes silently waiting while everyone finishes drinking their tea.

Jessica: There was no even discussion. It was such a lame offer. No discussion.

Paul: Because we were just like, "Okay, thank you for your time." And they did a terrible job of pitching it, too. They didn't pitch it. So anyway. So, yeah, just goodbye. And then we just stopped answering. We just stopped responding to them. But we were also talking to Twitter and actually had gotten pretty close to selling to them. I had concern about Twitter, and I'll tell you, this is an interesting story. When we went in to talk to them, it was a different experience from Facebook. There were 10 people in the room or something like that and they're telling us about the structure of the company. And it's almost like engineering is one of 10 things. And the thing that's hilarious for me now is with the Elon situation, it's all coming right back to the surface, it's never been an engineering company.

And so for the first time ever, he wants to make it into this engineering-centric company. So it should be fun to watch. It was a really weird thing. I got this just sense of hostility from their VP of engineering. I don't think he liked us. But the part that ended up being really, I thought, funny in hindsight was, a year later, every one of those 10 people we met with were gone.

Carolynn: Wow.

Jessica: Really?

Paul: The entire management team had turned over within a year. It was just a very unstable place. So I don't know all the drama of what was going on behind the scenes, but it was just like-

Jessica: You could tell.

Paul: Yeah, it was weird stuff. So, yeah, I then had a little bit of this epiphany where I'm like, "Well, if Facebook is obviously going to be the winner of this whole thing" ... Well, first of all, it would just be interesting to see because I'm a curious person. I'd seen Google and I wanted to know what another one of those things looked like. And then also maybe some level of arrogance. I thought we could be a positive influence or something like that. Oh, we can go make Facebook good. So, yeah, I then responded to Zuck on a Friday. I'm like, "Okay, can you chat?" Because we've been ignoring their emails for a few weeks. And so I went over on a Friday afternoon and it was just like, "Okay, look, there's three reasons we can't sell to Facebook. First of all, everyone hates Facebook. Secondly, your offer is terrible. And third, I don't want a job." So I'm like, "All right, here's where we stand."

So we spent about four hours or something walking around Palo Alto and talking and then eventually reconstructed the deal in a way that I thought was a really good deal for everyone. And so he basically came up with better terms, higher value, and some way of revaluing Facebook to make the deal more attractive. And so then basically did a handshake deal that night. And then on Saturday, we discovered that we didn't have a lawyer because our lawyer had gone fishing.

Jessica: Seriously.

Carolynn: Oh, my God.

Jessica: Literally.

Paul: Yeah, literally, because we just had some weird little loan proprietor or something like that. And he was gone. He was offline. And here we are trying to sell our company. And so we scramble all Saturday to try to find a lawyer and no one wants the deal because it's like you're going to have to work really hard and then you're going to have a permanent conflict with Facebook or whatever.

Jessica: Yeah, yeah.

Paul: But we finally found some lawyers by Saturday night, and then all Sunday, they're working crazy to get preliminary docs in place. And then we actually signed the documents Sunday night.

Carolynn: Wow.

Paul: Announce the deal on Monday. So from Friday morning, we woke up with nothing. I emailed Zuck. We have a handshake deal Friday evening. Saturday, we look for lawyers. Sunday night, we signed the deal. And Monday morning, we announce it to the world.

Jessica: Carolynn, are you stunned and impressed right now?

Carolynn: Yes. And I feel terrible for that legal team, but honestly, what was the rush?

Paul: Just speed. We believe in speed.

Carolynn: It's just your thing. Okay.

Paul: There's this rule of thumb that one of our advisors gave us that I like to tell a startup sometimes, it's just every day the deal doesn't close, the odds that it closes goes down by 10% or something like that. If you're going to do the deal, do it now. Every day that goes along is an opportunity for something to go against you.

Carolynn: That's true, that's true.

Jessica: I just have to say, PB, I miss all of your keen insight. You just distill these little tidbits of knowledge that you dropped that are so profound and important. Startups should listen to you to just make a book of all of your advice from start to finish. But back to Facebook, was Zuck super persuasive?

Paul: Not super, but like I said, I was impressed by what they had achieved. They were just clearly more competent than everyone else. And so I'm like, "Okay, if we're going to sell our company, it would be interesting to go someplace where the people actually know more than we do." We could have gone back to Google and led one of Google's additional failed social efforts or whatever, but why would that be fun to just go fail at this thing again? We could have gone and built, what do they call it, taco time or something. Buzz was what they were working on at the time. Google had a series of these failed social efforts. Google+ was just the last of several.

Jessica: I don't even remember what they were. So the FriendFeed team goes to Facebook. So you're now at the second greatest tech company of that generation. And what's that like for you guys?

Paul: I started to regret [inaudible 01:12:30], honestly, when I found myself in a windowless room in the basement. I'm very sensitive to lighting conditions. And I was like, "What happened?" Last week, I had my own startup and everything was wonderful.

Jessica: And I had sunlight.

Paul: Yeah, I had sunlight.

Jessica: Oh, no.

Paul: And now, I'm in a basement. It was interesting. So, again, I was just curious about it. So I was trying to figure out what role I would even want inside of the company. So I decided to just go around and just interview lots of different people and try to understand what was working and what wasn't working because you start getting all these different groups inside of the company who are unhappy with this or that. So I spent a lot of time just talking to different engineers and getting the history of the company and what they thought was good or bad. So I spent a lot of time just learning about it. So it was actually pretty interesting learning. It was a very different history from Google. Google hired really smart, talented people from the start. Facebook had a really hard time hiring technical people early on and the founders were amateur. They weren't great engineers or anything like that.

I remember talking to the one guy who had to ... I'm blanking on his name, but he was the first adult engineer hire that they had who had to try to convince them to use revision control. They didn't use source control. They would just like-

Jessica: Oh, my.

Paul: They would just edit on the Harvard server and then if it looked good, they would SCP it to the other servers. And they didn't bother to do any revision. Obviously, they didn't use [inaudible 01:14:05], but they didn't use anything of that sort. So it was a very different ... The company had a very different history and it was very hacker in the messy hack sense of things. But they really valued just launching things quickly and hacking and that kind of stuff. So it was interesting. Very different culture from Google, though.

Jessica: Really?

Paul: I thought so.

Jessica: Is one better than the other?

Paul: It depends on what you like, but maybe it's just because I spent longer there, but I generally liked the Google, this Google culture more. Facebook, yeah. I don't know how to put it in terms that I'm comfortable stating. I think there was a higher degree of technical ability and I think just the systems thinking at Google was more interesting. You had a lot of really good leaders and people like Jeff Dean, who all the Google engineering really respected because he was just really smart, really thoughtful. You had a lot of that

leadership that Facebook didn't have as much of that history behind it. And Facebook had more of a ... Their version of hacker is a little bit closer to trickster. They were clever at getting people to do what they wanted them to do. Facebook is a very good mousetrap.

Jessica: Well, interesting.

Carolynn: Yeah. How long did you stay there?

Paul: So I was there for about a year and just never really found anything that I was super interested in working on versus just not working. To me, especially, I guess partially in light of my brother's death, I always have this thought in mind, is this really what I want to do with the rest of my life? And so the idea of sitting in a windowless room when I could be, for example, outdoors. I have to ask myself, "Why am I doing this?" Why is this what I'm doing with my life? Because I have no economic need, obviously. Why is this the thing that I'm choosing to do? And so if I really deeply believe in what I'm doing, then I can rationalize it that way. But if it's just like, "Well, it's so that I can get people hooked on Facebook slightly better or whatever [inaudible 01:16:17]." So the only feature I ever launched actually at Facebook was the account export and download feature, which became popular a couple years ago, long after I left. So if you ever do the thing where you download your Facebook as a ZIP file, that was my one and only addition to Facebook.

Carolynn: I've done all my photos, but not all the stuff, just [inaudible 01:16:39].

Paul: There's like a thing where you can click to download, you have to dig through, but that you can click to download a ZIP file that contains all of your Facebook.

Jessica: Just wrap up your whole thing.

Paul: Yep. Turns it all into a ZIP file with a static HTML, you can click around.

Jessica: So PB, then you came to Y Combinator, right?

Paul: I did. Yes. Yeah. Actually, the funny thing was when I was thinking about leaving Facebook, one of the ideas I had was, at the time, Reddit was withering on the vine or whatever because it was still belonging to Conde Nast, but it wasn't getting the resources, so they were begging for money to keep their servers running. I'm like, "This is really stupid. I wonder if they would just sell Reddit to me." So I initially went to PG and it was like, "Do you think they would sell me Reddit if I ask?" And PG's like, "No, you don't want to buy Reddit." He's like, "You don't want that. You know what you ought to do, you ought to come to Y Combinator."

Jessica: Oh, well, I can't believe that he dissuaded you from making Reddit an offer, but I'm delighted that he said, "Come to YC."

Paul: But he's so scarred from running Hacker News that ...

Jessica: True.

Paul: ... correctly identifies running a community as being one of the most painful things you can do.

Jessica: I can imagine you would've enjoyed that, Paul.

Paul: No, I think he was right, actually.

Jessica: So when you joined YC, we had already had a relationship with you because you used to invest. You'd come to our demo days and you used to invest in a lot of YC startups. So you were like family when you joined, but did you like working at YC?

Paul: Yeah, it was fun.

Jessica: Different than [inaudible 01:18:13].

Paul: Yeah, it was very different. It was more ... The other realization, I guess, I had towards the end of FriendFeed and being there at Facebook was that actually I have kids and maybe I want to spend time with my kids and maybe actually working 100% of the time on a startup isn't really the thing I want to do with my life. So YC was great because I could be involved with startups, but at the end of the day, none of it was my responsibility. The really great thing is you can talk to the startup and I'm like, "This is what I would do. Here's what I think you should do. You can follow my advice or not. I don't care." Right. This is why we fund a lot of startups. Some of you are going to fail. It's not my responsibility to make you a success. And so that works better for me.

Jessica: Now, I think the numbers have proven now that you were amongst the best startup picker at Y Combinator, right?

Paul: I don't know, someone did some statistical thing at one point. That was a long time ago. I don't know if it's [inaudible 01:19:19].

Jessica: But it leads me to ask, I mean, obviously, at YC, we're exposed to so many different startups. We see everything. And you did so many angel investors or angel investments on your own. Have you gotten better at picking startups and what does getting better consist of?

Paul: I hope so, but it's hard to tell because, as always, it's driven by the outliers. So it's easy to ... If you just miss one outlier, then you fail. Yeah. I mean, yeah, the biggest thing, it always comes down to the founders, and we say this over and over, but unfortunately, it's true. The trap I fall into most often is wanting something to work, even though I know the founder is not really that great, but I really want it to be a success. And so that's my number one source of failure, I think, in terms of investing is that I invest in something that I know the founder's not really that great, but I just convinced myself maybe if I just believe in them harder, it'll work.

Jessica: Yeah, maybe it'll work. Maybe they can pull it off.

Paul: And it's literally never worked for me. The founders just have to be good. No amount of me wanting them to be successful seems to help.

Jessica: Which has been your most successful financially angel investment?

Paul: I think probably DoorDash at the present moment. I mean, Stripe will be presumably someday, but they're not public, so we won't out that yet.

Jessica: Oh, interesting.

Paul: I'd have to go back and look if there's anything closer. But, yeah, I mean, certainly you can't beat large numbers. And, again, I think that one of the things that's counterintuitive to people is that there's a tendency to fixate on percentage ownership, but it's never the percentage ownership that makes you a really great return. It's the really great return that makes a really great return.

Jessica: Right. What other key advice would you give to people doing angel investments? That's a big one. It's better to be an investor in the most successful company than have a bigger chunk of one that fails, obviously. But what other good advice is there?

Paul: I mean, think it helps if they're making something that you personally want. And I don't know if that's just coincidence or whatever, but this goes back to actually just having a great product. Is there really evidence that people want this thing? Because the most common reason a startup fails is that they didn't do what it says on the T-shirt, which is make something people want. And there's a million and one ways that you can fool yourself into thinking that you're making something that people want. As a YC partner working with the companies right when they come into YC, I always felt like my number one thing was to force founders to have the realization that no one wants what they're making. Because most of the time, that's the state of things.

And so the thing I would always push them to do is, okay, go get LOIs. Somehow you got to go get your customers to make some sacrifice on your behalf, because if they won't even sign a non-binding piece of paper that costs them nothing to sign, how are they ever going to write 100K check or whatever it is you're going to ask them to do down the line. If they really, truly, desperately want the thing you're making, they should be willing to jump through some hoops to help you out or to demonstrate that. This, again, goes back to wanting something to be successful. Sometimes the other category is there's a pet idea where you think it's a cool idea, but it turns out that it's not a thing that anyone really actually wants in reality.

Jessica: Sounds familiar.

Paul: Another example of this would, of course, then be back to DoorDash. So DoorDash was the thing I was looking for. So I had been wanting to fund DoorDash and, in fact, I had invested in Caviar as well prior year, but they only were operating in cities, and I lived in

the suburbs. And so when DoorDash interviewed, I was like, "If we fund you, will you deliver food to my house?"

Jessica: I remember this. I remember you were really gung ho on that.

Paul: Well, their initial delivery area was Mountain View and the part of Los Altos that includes my house. But it's the thing I use constantly. It's great if we go out, we order food for the kids, or I order lunch, something like that. So it's like I have a regular need to eat.

Jessica: You are a happy user.

Paul: Yeah, I'm a frequent user.

Jessica: Yeah.

Carolynn: As a fellow suburbanite, we appreciate DoorDash all the time, too. Teenagers, all the time. In fact, we got an email from the high school that said, "Please remind your student they're not allowed to have DoorDash delivered to school."

Jessica: No.

Paul: That's funny. I wonder why.

Carolynn: Yeah, yeah.

Jessica: Yeah. My 13-year-old, when we come back to Palo Alto, he's on my phone ordering DoorDash for every meal possible. What else do we ... Was there any last-minute questions we have for PB?

Carolynn: Well, this is not a fully formed question, but I have noticed that you've said the word fun a whole bunch of times as we've been chatting all this time. And I think because you've explained really well what you mean by that, and I think it's satisfying curiosity and being fulfilled in what you're doing and having your work be something that you ship fast, whatever, what's your life like now where you get that sense of fun?

Paul: Oh, that's a good question. I'm not having enough fun.

Carolynn: Uh-oh.

Jessica: Come back to YC.

Carolynn: I was going to say. We can make arrangements.

Paul: Yeah, I do a variety. I spend a lot of time with my kids. Every morning, I actually walk to school with, so I'm waking up ... Earliest I've ever woken up, I get up at 6:20 to walk to



school with Cam. So it's like two and a half miles to school. And then [inaudible 01:25:14]-

Jessica: You walk to school that far?

Paul: Yeah, walk to school. So every morning, we walk and have a nice discussion. It's great. It's like-

Jessica: It's nice.

Paul: That's precious time, right? Kids just grow up. So I try to spend time with the kids. So, yeah, every morning, we walk to school. Have a good talk about ... It's just very curious about the world and likes me explaining whatever. We talk about the ego and strange things. And Michael Jackson is talking about Michael Jackson a lot. And then I run home and then just depending on the day, I usually go to yoga at some point. So I exercise quite a bit. I run a lot. I go to yoga a lot.

Jessica: You look like you have not aged at all, unlike me who COVID was very unkind to. You haven't aged at all.

Carolynn: I said that to you last year at your birthday. I was like, "Damn, PB is not getting older."

Paul: Try not to. Aging's a downer.

Jessica: Yeah.

Paul: We try not to age. I'm working on handstand. Eventually, I'll have a really great handstand. It's been about 10 years. I think a couple more years, I'll really have it.

Jessica: Aw. Well, gosh, I have to say this has been the most fun I've had all day. This has just been so much fun catching up with you and chatting with you. And like I said, you've had so much experience and have had so many interesting things happen. So I appreciate your time. We'll hopefully see you in California sometime.

Paul: All right.