



Oral History of Jim Swartz

Interviewed by:
John Hollar

Recorded: October 11, 2013
Mountain View, California

CHM Reference number: X6985.2014

© 2014 Computer History Museum

John Hollar: So we're here this morning with Jim Swartz, founder of Accel, and we're so pleased to have you here to do your oral history.

Jim Swartz: Pleased to be here.

Hollar: We always start with your upbringing and your education, in part because it's amazing, the diversity of people who are in our oral history archive and how they got their start. So let's start with yours.

Swartz: I'm a only child of working-class parents from a little mill town, seven-miles down the Ohio River from Pittsburgh, a town called Coraopolis. When I was living there, [it was] about 10,000 people. Life revolved around work and social activities and football— sports, it's Friday night lights, Friday night football. That was everything you read and heard about, that phenomenon, that was Coraopolis, and I lived that. So I went to high school there, had a, I think, pretty normal upbringing.

Hollar: Talk about your mom and dad at the time.

Swartz: My father, German descent, a very strong German background. I guess he was third generation. They came over in the 1860s or '70s, somewhere in there, from the Baden-Baden area, truck farmers in Pittsburgh, and so that's how my father grew up, on the farm. My grandparents had a 50-acre farm outside of town and so that all changed with industrialization and so forth. So this is the '30s and then my father started working on the farm, and then he was a bus driver for a while, and then he worked in the steel mill for a good bit, and then eventually started working for the local water department as a laborer. He ended up running that, being a superintendent of the water department, which is a quasi-political and work environment. And that's what he did his whole life. So he was born, raised and died within five-miles of Coraopolis.

My mom was very bright. She came from an extremely troubled background, which frankly, I don't know a whole lot about, as much as I've tried to find out and research it. I know quite well her mother's side of the family— Scotch-Irish immigrants, hard-working people. Her father's side of it's a blank. I have no idea who my grandfather was on that side. She ran away from home in eighth grade, somewhere around there, went to live with a relative, and made a life for herself and just carved out her own definition of a life, and as I said, I'm a only child. There were three or four other births, natural births, that didn't survive. It was the Rh factor in those days, and they couldn't get it right. I'm the one who survived.

Hollar: You said she was very bright?

Swartz: Yes, she was very bright and when I was growing up, early days, she was a housekeeper for people in the neighborhood, and then went to work for a hospital laboratory for a really good forensic pathologist and ended up running that lab for him for many, many years and very successfully. So the last 20, 25 years of her life, that's what she did, and she had a nice career. She graduated from high school. My father didn't. I think he got kicked out in tenth grade or something like that. I had one of his teachers eventually.

Hollar: Did they have aspirations for you?

Swartz: It was never articulated. I mean, I always felt like I could do whatever I wanted to do and they were supportive, you know, whatever my interests were. In those days, I was very interested in stock car racing and building engines and all that, and they were very supportive of that or football or whatever my interests were. They were supportive, but there was never a push. I never felt a push nor did I feel, you know, that any bars were being set and, with neither one of them having had a college experience, they really didn't know what to push for.

I had several cousins on my father's side of the family that were 10 to 15 years older than me and were the first generation from our immediate family to go to college, and they were engineers. One of them was a really, really fine engineer, a strong engineer, worked for Kodak, did a lot of the cameras for a lot of the original satellite spy program and all of that stuff, and he'd sit down and talk about calculus and solving problems. So he was a model for me. And his brother was also a good engineer, a chemical engineer. But, you know, I really didn't have any role models in the immediate family and so, you know, it was a good upbringing but not one to where I was being pushed to do anything.

Hollar: Was there something else that happened in high school or in particular that got you interested in engineering?

Swartz: No, I don't think anything happened that got me interested in engineering. I was always inquisitive about engineering. I remember reading books and, you know, great engineering problems of the world, and I knew I was strong in math. I knew math and science were an interest. I got A's and good SAT scores in those, and so I knew that was my strength and that's what engineers did, deal with math and science and whatever, and those were the kind of people I saw around me to the extent I was able to see anybody. So I guess it was as much understanding my own strengths and then having a few role models around that I could visualize, but nothing dramatic really happened.

I think probably the most significant outside influence in that era was playing football, and my encounter with the whole college process. In those days, I'd say 15 percent of my graduating class went to college, and I'd say 99.9 percent of that 15 percent went within a 50-mile radius of Pittsburgh, either to Pitt or one of the state schools. Or maybe you'd get real expansive and go to Penn State or something but, you

know, largely very much close knit. We had a great football team and won a championship and so forth, and it was a really unusual team. As a result, I think there were 85 colleges that came recruiting on this little campus.

Hollar: It must have been a very talented team.

Swartz: It was a very talented team. Western Pennsylvania's always been known as a football powerhouse, and in those days it really was— Western Pennsylvania, Eastern Ohio, Massillon, Steubenville, those areas. So there was very active recruiting going on, and I was, you know, wined and dined by lots of different colleges and fortunately—

Hollar: What position did you play?

Swartz: I played halfback. I was a halfback and linebacker, and I had enough size and speed that I was a college candidate. So the Ivy's always recruit, but they're much more conservative in how they do it, and in those days in particular, it was done through the alumni network. There were various alumni across the country who just did it for the love of it, and in Pittsburgh there was a individual named Colonel Gallop, Ed Gallop, who was a retired businessman. He showed up at the high school one day and asked the guidance counselor, "Do you have any athletes who are also good students?" and so three or four of us got sent down to meet him. He took an interest in me and worked with me for over that intervening six-months and opened my eyes and educated me and took me out to dinner, sent me up to Boston to visit. <pauses> It's kind of silly, but it was important.

Hollar: It's great to have that individual enter your life.

Swartz: An interesting thing, John, was, you know— and I think this is one of the things that I've had throughout my whole life, is— I sort of grew up from early days with a good bullshit detector.

<laughs>

Swartz: You know, I could distinguish between people that I wanted to listen to and people that I shouldn't be listening to at all, and that's always helped. It's worked for me for a long time. In those days, my high school principal, my guidance counselor in particular, other people, all said, "You should never go to Harvard. They're not your kind of people. You'll never make it. You don't know what you're doing." Blah, blah, blah. But I didn't have a great respect for them. Gallop, I had a great respect for and he never pushed me. He just opened it up and tried to get me to understand. So anyhow, off I went. I was the first graduate from my high school to ever go to an Ivy League school, and so on and so forth, and that transition was tough. But, you know, I survived and did okay.

Hollar: What was it like when you got there?

Swartz: Well, I have a number of recollections. You know, it was a very cold, impersonal place except there were, again, a handful of individuals who were warm and engaging and who really helped me through the process and the team. So my life was still revolving around football and, you know, you show up and— I was captain of my team. But, 120 guys out for the team and they're all captains of their high school teams, right, and so you pretty rapidly realize that, jeez, it's a big world and there's a lot of competition. So that was very striking.

My freshman year was really— the first semester of my freshman year was really tough because it was a rude awakening from being king in a small pond to floundering in a big pond, from an athletic point-of-view, and also from an academic point-of-view. The academics were seriously challenging for me. The first semester, I remember I called home at Thanksgiving and I think I had three D's and an E or whatever, because I wasn't studying. But I buckled down and pulled it out. But it was challenging.

Hollar: What did you find you were prepared for and what did you find you were not prepared for?

Swartz: I think I was unprepared as a whole human being. I was seriously underprepared for writing skills and a little bit for reading skills. I really hadn't read nearly as widely as I needed to at that stage. I got introduced to Orwell and whatever and all, and what's this all about. That was all really new to me, where most of my classmates had had a lot of that in prep schools and in good secondary schools. So I thought I was seriously underprepared, writing, modestly underprepared, reading. I was pretty well prepared science-wise and maybe that's because I had the interest there. But, you know, I was able to catch on and deal with that pretty effectively.

Hollar: And what about the social life?

Swartz: Social life, that was strange. I grew up in, obviously, a mixed environment, actually a mixed racial environment. Pennsylvania in those days was fully integrated and so my high school was fully integrated, my town was fully integrated, and going off to college and starting to talk to a lot of classmates about the real issues of race in the South— I remember being dumbfounded. I mean, disbelieving. I just couldn't believe that that was actually going on and of course, I came to realize it was. So socially, it was a very different male/female and racial environment than I had been in. In those days, it was Harvard and Radcliffe and we had shared classes with women. But they were different, and it was a different experience. I'd say, for me, it took probably a good two years to sort of settle into that and to figure out what it was all about and how to deal with it., I fortunately had football to fall back on and there were a group of engineers that I became good friends with. So I had my couple of circles that were good, but it was challenging.

Hollar: Did you play football all four years?

Swartz: I played football until my senior year, and then my senior year I got really irritated because I thought I was going to start and I didn't. So I left the team, which I think was probably the stupidest thing I've ever done in my life. But my pride got the best of me and I also had a thing with the coach at the time. He and I just couldn't get along. So I just pulled out. But I played a good bit as a sophomore. I played a good bit as a junior.

Hollar: Was it offense or defense?

Swartz: In those days, it was both. I played offensive halfback and defensive halfback. That was a two-platoon era and you had to go both ways and with limited substitutions. I think you were allowed one substitution per down, something like that. So most of the team had to go both ways and then there were three or four specialists you could rotate in, depending on the situation. It's strange rules.

Hollar: It is. That's interesting.

Swartz: Yeah. It started off, football early on was rigidly too, you know. It went both ways and then they started to modify it and then they modified it totally, and it became much more specialized.

Hollar: Academically, when did you start to gravitate toward engineering?

Swartz: Right away. I knew I wanted to. Harvard has a general engineering program. It was called engineering sciences and applied physics in those days and today it's called engineering, computer science and something else. I don't know. My son ended up taking exactly the same program. So it's sort of very theoretical, a lot of physics, a lot of math, some— you know, you get materials and double E and whatever. But you don't get specialized in any engineering discipline.

Hollar: So this was the time of Sputnik and the Cold War?

Swartz: Right.

Hollar: . . . and the rise of electronics.

Swartz: Right.

Hollar: Did that have an impact on you?

Swartz: Very much so. I'm not sure Sputnik did as much. I remember Sputnik as well and I remember them being ahead of us and so forth, but I don't know. I've always had confidence in America. I mean, I wasn't disturbed by it and I didn't see any panic anywhere. But the Cold War certainly had an influence. I remember vividly listening to JFK's TV broadcast of the Cuban missile crisis and I remember the assassination of JFK very well. That was Harvard/Yale weekend.

Then on the computer science side, I know it definitely had an influence. I was quite convinced about digital computing and I took several digital computing courses at the college. This is '63, '64. Most of our life was spent with analog computers, these humongous devices that people have forgotten totally about in the basement— twisting pods and complex servo mechanisms and so forth, and then digital computing. That seemed to be really, really important to me and so I focused on that. It had a huge influence on where I decided to go to business school because I knew I didn't— you come to your senior year and what are you going to do next, and at Harvard, 80-90 percent of the class in those days went straight into some advanced degree of some sort and so there was enormous peer pressure. I felt, oh, gee, I should go get a advanced degree in something and I knew I didn't want to get an advanced degree in engineering, or at least I didn't think I did. So I began to think about business and business school and then started evaluating it and came to the quick conclusion that Carnegie Mellon and MIT were really the centers of excellence for computer science and computer-based management science approach to business, which I felt was the future. So that's why I went to Carnegie Mellon.

Hollar: Was there a computer lab at Harvard at that time?

Swartz: No. In fact, the business school, I think, didn't get its first computer until '68 or '69 or something like that and Carnegie was running the management game. They were on this massive simulation management game thing so they were way ahead of it. I don't remember the computer lab. I mean, I'm sure there was some digital machine hunkered down somewhere, but I didn't have exposure to it then.

Hollar: Okay.

Swartz: I remember taking the course work. I still have the text books from it. But there may have been a lab there, but I wasn't into it.

Hollar: So you go straight from Harvard to Carnegie Mellon?

Swartz: Yeah.

Hollar: That must have been a little bit like going back home?

Swartz: It felt very comfortable, although that isn't why I did it. There were two things. One, the whole management science part of it, which I related to, and secondly, I got a full scholarship. I should have mentioned that at Harvard I had a pretty much full scholarship too, which was really, really important to me. That was sort of the decisive factor with Carnegie Mellon.

Hollar: You got a GSIA degree.

Swartz: Graduate School Industrial Administration. The actual degree was an MSIA, Master of Science in Industrial Administration, which they've now done away with. It's now an MBA. But in those days, that's what it was and they approached it that way. It was approached as course work, class work, classic education, very, very few case studies. Only marketing was taught partially with case study, and also manufacturing, a little bit. But manufacturing was largely about building models for production planning and that kind of stuff. Actually, they were so far ahead of it. They were doing big data analytics on massive computers. That's the way I was taught marketing. For the most part, it was analytical marketing.

Hollar: And it was computer-based?

Swartz: And computer-based, absolutely.

Hollar: Did this exposure to computers and computing, and applied computing at Carnegie Mellon, have an influence on the way you were thinking about what you were going to do afterwards?

Swartz: Yes, although it wasn't foremost in my mind. I went through all of business school, never heard the word entrepreneurship, never heard the word venture capital, ever, never heard of Silicon Valley. Of course, it probably wasn't coined yet, none of those were coined yet. Entrepreneurship was, but just in a very academic sense. So I had no window whatsoever into young companies, emerging companies. That just was not on the horizon. Everything revolved around what big company job you could get. Computer science and computers played a role because that defined the kind of job I would be moving into. The big challenge coming out of Carnegie Mellon— even today but certainly in that era— was getting yourself positioned away from being the computer scientist nerd and being a generalist. I mean, I was smart enough to know that I wanted to be a generalist and be positioned in general management, but I didn't want to get button-holed into being the resident computer jock.

Hollar: But the pressure was toward big companies mostly or corporate jobs?

Swartz: Consulting, corporate, big companies— that was the opportunity set.

Hollar: And you chose consulting?

Swartz: Yes. Actually, I chose a big company first because when I went into Carnegie Mellon I really loved manufacturing. I really thought I was going to stay in manufacturing and again, that was my exposure— living in a mill town, and I can vividly remember going to interview at US Steel and walking out of there and thinking, “My God, these guys are dead. They’re just toast. They don’t get it. They don’t understand.” Anyhow, I looked around. I wanted to get the highest position in manufacturing I could get to get a view of what life was like, and so I took a job as assistant to the vice president of manufacturing at Campbell Soup Company. That was really eye-opening for me. I learned very rapidly that this was not what I wanted to be doing with my life, and manufacturing probably wasn’t what I wanted to do with my life.

Hollar: Where was that?

Swartz: In Camden, New Jersey. Headquarters.

Swartz: And I visited all the plants. I mean, I just tailed him everywhere, sat in his office with him, listened to everything he did, listened to every, you know, all of the union negotiations, all the stuff he dealt with on a daily basis. This was, in those days, a big job— worldwide manufacturing, multiple plants, lots of challenges. Within six months I knew this was not for me.

Hollar: How did you know?

Swartz: It was just the problem set that was being dealt with. It just wasn’t an interesting problem set to me— the dimensions of what you could do, and the impact you could have. It was just so limited. I can remember writing papers around it. I’d read something in the Harvard Business Review or I’d read something that seemed really strategic, and I’d try to talk to them about it, and they’d look at me like I was crazy.

And then, the military intervened. This was Vietnam. I was one of the lucky ones that got into the reserves. In those days, you had to either have political connections or money or some connection to—do that. When I graduated from Carnegie Mellon, I was drafted 1A. I was going to go as a PFC in the front lines and I knew I didn’t want to do that. So I got myself qualified for Naval OCS [Officer Candidate School]. I always wanted to fly. So I was ready to go be a Navy pilot. Then I met my future wife and she had a friend in the— you had to have some connections to get in the reserves— and it turned out in this

particular reserve battalion that anybody who was leaving the organization, whose term was up, had a silver bullet. They could recommend a friend to go to the front of the line. He recommended me.

Hollar: That's amazing.

Swartz: Yeah, it is amazing. And it was an engineering battalion. You had to be an engineer and your friend had to recommend you. Somebody had to put you at the front of the line. And so— I went into the Army, eventually became a first lieutenant, and did my thing. I went off for my six months. When I came back, I told them [Campbell Soup Co.] “I don't think this is good for us.” I had had an offer from McKinsey, I had an offer from Cresap [Cresap McCormick & Paget] and an almost offer from Booz [Booz Allen Hamilton]. I ended up choosing Cresap, and it was a good thing.

Hollar: Did it seem like a turbulent time to you at that point?

Swartz: Yeah and I had my first child. We had our first child then. There was a lot going on. But I had a pretty clear view of what I wanted. I mean, I was apprehensive as hell about all of it but I still felt I was on the right path [with Cresap].

Hollar: What took you to Cresap?

Swartz: McKinsey was extremely well-established, more established and extremely well-organized, and I really liked it. But I liked the people at Cresap better. It was a little warmer organization. The big thing was, I perceived that the two founders that were still around, McCormick and Paget, were getting up there and were going to retire, and I just felt there was more headroom at Cresap. As I looked around at the young guys and talked to them about it, there was an awful lot of headroom there and there didn't seem to be nearly as much head-room at McKinsey. So I went to Cresap, and I analyzed it right. But instead of retiring and turning the firm over to the younger guys, they sold it to Citibank. I was there three years and then it was sold after I left. But I had a really good run there. The head-room was there. I had a lot of great assignments and learned a hell of a lot and was given a lot of responsibility and it was a really important learning experience for me.

Hollar: So at that moment, did it seem like you'd made the right decision? You'd made this pivot in your career and you were headed in the right direction?

Swartz: Yeah, very much so. But as I was working through big company assignments and so forth, the entrepreneurial part of me began to awaken somehow. I think it was a little bit because of the times. People, if you actually go back and study that period, the late '60s, there was a roaring bubble stock market going on then and lots and lots of new companies and lots of press about new things, and real

estate was really active. I was trying to decide. I figured out that I wanted to accumulate some capital. I just didn't want to have a salary and I was really fortunate. I met, socially, a fellow named Mort Collins, Data Science Ventures, and his partner who's my age, Jim Bergman. The three of us were good social friends.

They had just launched their venture capital firm, Data Science Ventures, I think a \$5 million fund, and they were pretty much at the center of the universe at that point because they were really— in that era, no one really knew anything about computers. Computers were coming to Wall Street. All of Wall Street was befuddled about what to do with technology and computing and so forth. Mort had a PhD in computer science and he'd got himself positioned as a computer guru consulting to Wall Street. The financiers of his venture firm were Warburg Pincus, and Venrock, and New Court Securities—brand-name entities that were looking to him to be their specialist in all matters of computer and technology.

Hollar: I notice it was described as a specialist technology fund. That must have been unique.

Swartz: It was extremely unique for that time. On the West Coast people were focusing on technology, but not totally. Certainly on the East Coast and in the New York/Boston environment, it was totally unique. Mort Collins and Jim Bergman opened my eyes to the venture capital world, the small company world and helped guide me, and at the same time, at Cresap I was working some on a small company and I really, really enjoyed it. I really enjoyed being able to get my arms around the whole thing and having a real impact on something. At the same time, I was reorganizing the Ford Motor Company, and the suppliers of the Ford Motor Company, and walking away from that thinking, "My God, this is the worst thing in the world to do, to work in one of these big companies."

Hollar: Was getting your hands around an entire venture the thing that you immediately gravitated toward?

Swartz: Exactly. As I listened to them tell their stories about venture capital and what they were doing, it began to form in my mind that— gee, the skills that I had with consulting and the confidence I had with that, and then with my technical background, I probably could be pretty good at this venture capital thing if I tried it.

Hollar: Was this style of venture capital anything like the style of venture capital that you have evolved into?

Swartz: You know, I think the answer is yes. I think the venture industry, at its core, really hasn't changed much at all. There are aspects, sure, that have changed. But at its core of identifying an area, bonding with an entrepreneur, finding the right entrepreneur, finding the right sector, getting a significant ownership, building the company, working as a director, helping with the strategy— all of those basic

building block fundamentals are still very much part of the industry. I think there are large segments of the industry today that have gotten away from a lot of those fundamentals, but we keep coming back to it. We go through these periods and everybody— it all looks simple, and then it all evaporates, and then people come back to the fundamentals again.

A big difference, obviously, is the public perception of it and just the sheer volume and the pace of it. You know, in those days some projects were competitive, but largely you could spend six months analyzing something— or three months for sure— before you had to make a decision. And there was no public perception. You'd go to a cocktail party, and it was “What do you do?”, and no one would understand what you did.

Hollar: What were you investing in at DSV?

Swartz: So I didn't go to work for DSV. The deal was— they would help me get a job and then maybe I would join them after I got trained a little bit. There was a really hot investment bank in those days named Laird. They had done, like, 30 LBO's and they were a venture placement and a small IPO. So I spent two years there really getting educated, did a few IPO's with them, did some venture placements, learned the whole venture capital business, made a point of meeting every venture capitalist I could and just learning, learning, learning, and then '74 recession hit and everything slowed down. So I got an opportunity to go up to Citibank. Citicorp Venture Capital, which in those days was one of the centers of venture capital. There were a handful of big firms that were actively doing new things and Citi was one of them.

Hollar: I find that really interesting because today I don't think we associate venture capital with really big banks like Citibank. Was that unusual at that time?

Swartz: They were very different than they are today. There were really extremely well-run commercial banks that had strong entrepreneurial aspirations to do some other things and Citi was a fantastic organization. Citi had a venture group. Morgan Guaranty, now J.P. Morgan, had a venture group. First Chicago had a venture group. B of A [Bank of America] had a venture group. Those were the four powerhouse institutions in the country. They all had a venture group, and they were largely wrapped around SBICs [Small Business Investment Corporations]. Banks are always trying to find a way around the regulations and so they were very astute at doing that —. I wouldn't say it's unusual but among the big banks it was good, and that organization for a number of years provided a lot of earnings for Citicorp. It became a very powerful earnings engine for them. So we did things like Cray Computer and Federal Express and lots of medical technology things, and oil and gas, natural resources, various things—

Hollar: Was it an early-stage approach or not?

Swartz: It was whatever we wanted. It was a group of nine of us at the core and it's what we wanted to do. We also had a global business that Citi—I was responsible for all the international stuff in addition to doing domestic projects. I had ten guys. I had three or four in Geneva, I had three or four in London, I had some in Canada, a portfolio of a hundred investments around the world. In those days they were largely bank loans with equity kickers but they were—it was an equity portfolio, so they were way ahead of the time. So I saw venture investing in Europe very early starting in the '70s, and that's what really helped me build the Accel portfolio over there. It was a pretty eclectic group of investors—, Arthur Patterson, my cofounder at Accel and at Adler—we worked together there. Pat Welch and Russ Carson. There were two or three other venture firms that came out of there.

Hollar: In addition to Europe, were you seeing big trends in the '70s that you felt you really wanted to pursue?

Swartz: I remember vividly the whole microprocessor phenomenon, everybody trying to figure out what that really meant for— what it meant for DEC and Data General, what it meant for mainframe computing. You couldn't really see where it was going to go, where it's gone, but you knew it was a major, major powerful trend, and in other semiconductor technologies. So it became very clear to me— basic semiconductor compute platforms and basic design and custom design and so forth were really, really important.

Hollar: Those businesses were really starting to get formed up and taking off.

Swartz: Yeah, and we did, in our five, six years as part of Adler and Company, a number of those projects. We did AMCC; we should have, could have done LSI; we did Waferscale Integration; we did Zoran. We did a whole bunch of those semiconductor companies. We did from—I'd say from '70—we got interested in it from '77 to '87 or so— '88, '89, somewhere in there. We did as much of it as we could that made sense. I did Daisy Systems in that era, which was the defining company in computer-aided design, computer-aided engineering. So that was a major trend.

Hollar: Did you find at that point that the flow of opportunities was good?

Swartz: Yeah. In those days, yeah, we had a great flow of opportunities. When we were at Citi we had a great flow because of who we were and the position we were in in the ecosystem. I mean, we were the guys who were smart and aggressive. Even though we were inside this institutional structure, we were all individuals and we considered ourselves venture capitalists and we were able to work as a peer with all the venture guys and we could write big checks and we could be—and we had an organizational structure that allowed us to be non bureaucratic. We had control of it ourselves. We didn't have to go to any investment committee or anything, so we became known for being a really, really good go-to source. We didn't have the network necessarily to get the Series A's all the time but we could certainly get

brought in as a partner of choice. And then when we were with Fred [Adler], Fred had an unbelievable network and reputation and we had a huge deal flow.

Hollar: Let's talk about your move from Citibank to Fred Adler for a minute and how that happened.

Swartz: Sure. So I was having success at Citi and had made some investments that turned out well and I was really enjoying it, feeling good about it and—

Hollar: And Citi was happy with it.

Swartz: And Citi was happy; everybody was happy. So we're coming out of— it's now 1977 headed into '78. We're— the leaves are beginning to blow on the trees, we're coming out of the recession, and all of a sudden IPOs are starting. Federal Express went public, which was a big, definitive thing, several others. So our main topic of conversation is "Okay, now what? How are we going to go capture some value here for ourselves? We've got a nice job here but we've got to get some equity in this whole thing and—"

Hollar: That was a big thing, wasn't it?

Swartz: Yeah.

Hollar: You were making money for Citi—

Swartz: Making great money for Citi and we had our contemporaries who were making money for themselves, right, and so we were sitting side by side with them in the board meetings and we all had our opportunities to join this or join that.

Hollar: You must have had offers at that point from a lot of different places.

Swartz: Sure. There was always something. You're at that age when you're constantly evaluating everything and it started to open up. And there was a famous meeting we had. We always had these annual lunches with execs, and the Citi exec who was in charge of us at that point, and shall go unnamed, <laughs> we had this lunch and I'll never forget it. It was winter of— or it must have been Christmastime maybe of '77 and we were all having these nearly fever-pitch conversations about breaking off together, different groups of us, or joining this or joining that, and we had this lunch and we— so we were feeling pretty good about it— and we asked him, "Okay, when are we going to get some equity here? What are you guys going to do for us?" and he leaned back in his chair with his big cigar and

said, "If you guys are so frickin' smart, why are you here?" And we all looked at each other. Next year none of us were there, and it was really interesting.

Pat Welsh and I had talked a lot. I was going to join Pat and at the same time I had gotten to know Fred. I went on a board with Fred. It was— one of the things I did at Citi was, coming out of the consulting business, I fixed a number of the issues they had in addition to doing some new investing stuff. There was this one company, it was an ophthalmic reader,— the original did automated ophthalmology stuff— down in Reston, Virginia, sitting in the portfolio. I'm looking at it, and nobody wanted to pay any attention to it. I flew down there and looked at it and I said, "This is a pretty good company." I said, "I think we can make some real money here." So I went on the board. The entrepreneur had met Fred, they recruited Fred on the board, and together we turned that into a real nice company.

Hollar: Was that your first encounter with him?

Swartz: Yeah, and I was very impressed. Fred's a brilliant guy. And so we were talking about different things, and at that point he was in— Fred's background is as a litigator, that's what he is, first and foremost, and then he started investing and basically taking equity as a fee for legal stuff and for general business consulting. He had Data General, a big success, some other successes, but he was doing this as an individual as a sideline to his legal practice. So we started talking about— well, maybe we should form a partnership and raise some money and see where it goes. And so those discussions advanced and some other discussions advanced and I just woke one morning and said, "This is what I'm going to do." So I left Citi, joined Fred, we formed a partnership, raised some money, started investing, went for a year or so, wanted to expand, felt good, went back to Citi, talked Arthur into joining us, and so the three of us built that and had an incredible run and made a lot of money, had really, really good results and built up a really good portfolio.

Hollar: You described earlier even going all the way back to Cresap, that you did what I know you like to do, which is— you're not afraid to roll up your sleeves and get under the hood if you sit on a board. That's really an active kind of investment—

Swartz: I enjoy that.

Hollar: —strategy. Were you able to do that from the very beginning? Is that something that you pursued more at Adler than you did anywhere else or—

Swartz: No. I did that at the beginning. I remember a number of the things that I fixed at Citi, the crazy companies. We had— in those days, there were electronic print companies that could compose, for example, New York magazine electronically instead of with type setting. Right? And I had this company that went nowhere. The guy who had the project before me merged it with a pornographic typesetting

publisher in Jackson, Michigan, for the cash flow. I looked at this saying, "What are we doing?" and flew out there and unraveled the whole thing. It was an interesting story with some interesting characters. I unraveled the whole thing and fixed it. I recruited in another CEO, got it going. Anyhow, there were a handful of projects like that that I was able to personally transform and I— yeah, I enjoyed that— I really enjoyed that.

Hollar: We've just covered about 17 years of your early career and I just made a note in researching this and summing up this phase. I said this was a decade or a little more in which you appear to be forming ideas, learning the ropes, still looking for a big opportunity. Is that a fair—

Swartz: Yeah, that's a very fair characterization, yeah, very fair.

Hollar: You kept edging toward doing your own thing—

Swartz: Yeah, and I was pretty independent with Fred. But it still wasn't my name on the door, and it wasn't my firm, and he insisted on the lion's share of the economics, which was fine. But at some point it wasn't fine, because I was producing as much or more than he was. So there just came a time when we looked at each other and said, "Well, it's just time to do something else."

So Arthur and I departed, and we knew a couple of things. We had made enough money at that point. There was the '83 bull market, and we had Daisy Systems, we had Ungermann-Bass, we had three or four others. We had gotten liquid. So we had some walk-around change in our pocket at that point. I said I could go to the beach. It wouldn't be a fancy beach, but it would be a beach and—

Hollar: You're still very young at that point. You—

Swartz: I was 40.

Hollar: You didn't want to go to a beach.

Swartz: No, not at all, but I had enough money to do what I wanted to do at that stage of my life, pretty much. And so I step back and say, "What do you want to do?" I knew that I loved the venture business, knew that I was good at it, enjoyed working with Arthur, knew that we loved technology and knew that we were pretty good. We had great experience both at Citi in an institutional framework, and with Fred. Fred was extremely entrepreneurial, a total hip-shooter, and so he taught us to be more fluid and a little more instinctive, a little more go-for-it. We taught him how to be a little more analytical, a little more disciplined, and so forth. It was a good balance. So I think out of those two formative experiences, institutional and

highly entrepreneurial, we developed an investment style which has served us well. It's a combination of being instinctive and being institutional.

Hollar: There's a third thing, if you don't mind me saying so, that has emerged as a theme through all of this too, which is relationships. The relationships with the people that you surround yourself with and you want to be working with clearly seemed really important to you.

Swartz: Very important, absolutely, and I knew that. Arthur and I had a great relationship, and we knew we wanted to be in business together. So we formed Accel as a 50/50 partnership and started about building Accel. We didn't want to put our names on the door. We'd seen the perils of doing that. We wanted to get a name which was near the head of the alphabet because we had learned a lot of that with Adler and Company instead of Patterson and Swartz.

Hollar: Why was that important to be in the A's?

Swartz: It just felt like the right thing to do. And we wanted a short name and so forth, so we found Accel, which means— it's an actual musical term. It's short for "accelerando." It means "picking up the pace." It seemed to fit. [Tom] Peters came out with "In Search of Excellence" that year, which was a play on it, so we said, "Okay." So we wanted to build a modern venture firm that would survive us and become an institution. That was the underlying objective. Actually, that was the sole objective.

Hollar: How did you define "modern"?

Swartz: Focused and actually knowing something about what you're investing in. It was changing pretty rapidly in that era. You had a lot of guys who were good generalists in the venture business who— they did a little bit of everything and just were basically backing good people, going with the flow, momentum investing, whatever you want to call it. Some weren't terribly smart about what they were investing in. We felt that in the future you needed to really, really know the industry. You needed to know the industry almost as well as the entrepreneurs you were backing. That became a mantra— a guiding principle for us and that's true to this day. We've continued that. We have this thing called— which Arthur coined the name— "prepared mind." Chance favors a prepared mind.

Hollar: That's always been one of my favorite quotes.

Swartz: So we worked really hard internally with all our young guys to get them to focus on certain investment themes and really get smart about it. We like to think that we know— when we meet an entrepreneur and we start engaging with him— that we know 90 percent of what he knows, and he knows the 10 percent that makes the difference, and that we get excited about. And by knowing as much as we

know, we can sort out the bad characters and bad opportunities. Most importantly, we can truly be helpful, because once you start doing that and then you build the ecosystem around those areas, you get the networks, you get the sources of information, the people, the executives and so forth, it all starts to fit together and knit together. So that's what we meant by a modern venture firm. We saw that we just had to be specialized and we had to be much smarter about what we were doing. We could no longer do some real estate, some oil and gas, a semiconductor company. If you look back in the portfolios of the '70s, that's what people were doing. They were doing a little bit of everything, so it was very different.

We decided to focus on communications, which in that case was extremely aggressive and unheard of, and software, which was modestly aggressive. By 1983, I fortunately had a sort of definitive experience with Ungermann-Bass and a couple other communications companies, and so I very vividly saw what was coming. I mean, you can never predict exactly, but I knew it was going to be a great new area for investing for quite some time. Arthur had the same experience with software— packaged software, and in 1983 most people would think investing in software wasn't very smart. The common line was, "Well, the assets walk out the door every night." So I think there were people doing it, but it wasn't thought of as a major place to be investing. So both those areas were somewhat cutting-edge.

Hollar: How did you define "communications"? You said it was very aggressive.

Swartz: It was mostly internal— network infrastructure internally, and then by '86 with the the Bell breakup you all of a sudden started to see lots of opportunities opening up in wide-area networking and so that became a big theme. In the early '90s— '90, '91— we started to see the Internet and we had lots of conversations with people where it was really clear that there was something big happening and they couldn't figure it out. The whole Internet was buried in the government and in the university environment. You had a couple —of network providers but they were nonprofits and nobody could figure it out. It was, "Well, yes, there is this massive accelerating activity but how do you make money off of it, what are people really going to do with this?" We found a way in there and settled on UUNet and that became a huge success. And Accel.com dates to '91 so we were on it and saw it coming, couldn't predict where it was going to go but—

Hollar: How easy or difficult was it to attract investors to a fund that had those targets?

Swartz: It was a lot of perspiration and running around, but in the total scheme of things it was pretty easy. We raised our first fund in the fall of '83. It was sort of the tail-end of the bull market, and people were still pretty optimistic. Pessimism hadn't set in yet. And we were coming off a number of successful IPOs, and we had a set of investors that followed us from Adler and Company to Accel. So we had a number of good early commitments, and we were able to pull it off. We closed it in December.

But we decided to do something that pushed us. We knew that the business was going global and we had seen that. That's where we differed significantly from the classic Silicon Valley guys who— many to this day still don't quite get the globalization of venture, but in those days they clearly didn't. Because of our Citi experience, and also our experience when we were with Fred, we already had a number of international investors. —So we actually did two funds. We did a domestic fund and a parallel fund for foreign investors, spent a lot of time in Europe and developed a number of good relationships that have served us well over the years.

Hollar: Then there were a couple of regulatory changes at that time too, the cut in capital gains and then the change in the ERISA.

Swartz: Capital gains was certainly a really important inflection point. That happened in the late '70s and you can argue this capital gains thing until you're blue in the face. And I have when I was leading the National Venture Capital Association [NVCA], whether it matters or it doesn't matter. I mean it certainly matters in terms of warming the speculative blood, and that's what happened. In my opinion people really started to become more speculative and more feeling good about things in that era. The ERISA legislation was massively important and people underestimate it. When the "prudent man rule" was changed there started to be some funding come into the business from aggressive, progressive people who were willing to take the risk, read the language and be prepared to deal with it. So the floodgates opened a tiny crack in that era. Then there was a period from then until '85 when the DOL [Department of Labor] wrestled with the interpretation of what it really meant. Chris Brody and I were the two guys that led that whole thing and dealt with it for years. We did lots of hearings, and it went on and on, but we finally ended up coming up with a definition that DOJ could live with and we could live with. It was a grand compromise. And then the floodgates opened up wide for pension funding which— I don't know what the data is today but it's well over half—

Hollar: It's massive.

Swartz: It's massive, yeah, and it still hasn't been tapped.

Hollar: I don't want to get too sidetracked on your NVCA involvement but this is a good moment to touch on it. Did you get involved in that expressly for this purpose, for helping to do that, or was there something more you were hoping to do?

Swartz: That's a good question, why I did it. I just felt it was really important. As a young guy at Citibank in 1974, I went to the first annual meeting of the NVCA. Maybe there were 30 people in the room, or 40. This was [Tom] Perkins and Pitch Johnson and Reid Dennis and other guys, and these guys are all roughly ten to fifteen years older than I am, and they were the leaders of the business. They were people that I really looked up to. They in many ways were my mentors, all of them in different ways. So I saw

what they were doing, what they were trying to do— and I just felt that what they were doing was really important, and it was important to continue that.

So I stayed involved with it, and then eventually got asked to go on the board, and then asked to become president, and so I just did what I thought I should be doing. You could either work on the tax side or you could work on the regulatory side and somehow I got connected with the regulatory side. And I ended up testifying a lot on stock options and that stuff, but ERISA was the one where we made an impact.

Hollar: You were involved at a very crucial time in all that—

Swartz: Yeah, and it turned out that— what happened really was that Chris [Brody] at Warburg Pincus was a really, really important driver in this. And they were doing it because they wanted to build a major, major asset firm. Most of the venture guys were— get some money here, some money there, we don't care about pensions, right. But Warburg Pincus had this really global view— we want to own world asset management, and so it was important strategically to their business plan that they open up the pension funds. Chris Brody was their guy to do that. Chris and I had developed a good friendship and so he asked me to help him, and that's how I really got involved with it and started testifying. And then as it went on he and I worked it together side by side, and I think I was Chris's foil for the early-stage guy. I mean he was the big, corporate, LBO. I was the early-stage startup guy that he could drag along and say, "Yeah, it's good for these guys too," and so we were a good team in that respect.

Hollar: What did you think of the whole Washington process since you were involved in it for quite some time?

Swartz: It's very heady and you can get caught up in it, and I certainly did for a while, and I found it challenging. It's really challenging. I mean you approach it and you think well, you can go in and understand it and dimension it, and deal with it and whatever. What you realize is you really can't., I'd say I spent a good decade or more there and doing a lot. At the end of the day I said, "This is enough for me." I'm glad I did what I did, but enough is enough.

Hollar: Let's go back now. We were just at the very beginning of Accel and so it's you and Arthur, you've got a strategy, you've got investments that you've targeted. How did you put your team together?

Swartz: Right. It was stop and start, two forward, one back. The first younger person we hired was Paul Klingenstein and Paul was really strong. He wanted to do healthcare and biotech, and we had done some of that at Citi. Arthur and I both did a lot of devices and I did a fair amount of biotech with Fred. So we were very open to that and we felt that— it wasn't something I wanted to do, or Arthur, but Paul was a really good, strong horse and so we could build a practice around that. So Paul filled that and that worked

really well, and Paul did extremely well for us. Eventually we decided to get out of that business, which was a strategic decision, and Paul went off and did his own firm and we're good friends.

The next big step was the communications business. I really saw the opportunity to really double down on it, and so I started looking for a partner to bring in to enhance our practice there. And I got to know Dixon Doll, and Dixon at that point was a pretty successful publicized consulting guy, consulting to IBM and others, doing a lot of press and stuff, conferences. So I approached him and we got to know each other. We formed a specialized communications fund, which enabled us to raise more money on the heels of the money we already raised. The really big thing was getting a marketing presence. You see people today doing "the big data fund" or "the iPhone fund." This was I think the very first specialized technology fund that was really marketing driven more than anything. It was a vehicle for me to get Dixon into the business and to raise more money, but most importantly it was a vehicle to attract marketing attention and really cement the Accel brand as the major telecommunications investor. So we did that. That fund closed in '86.

Then '87 was a pretty pivotal year. We'd raised some more money, we were starting to feel good about things, and we started going into recruiting mode. In that year we brought in two really important people: Jim Breyer, who joined us directly out of Harvard Business School, and Joe Schoendorf, who we had a relationship with. I was on the board at Ungermann-Bass. Joe was an executive at Ungermann-Bass. We got to know each other and then he went off to Apple and then he wanted to do something else. We brought him in as our connector in the Valley— in marketing and really helping us with big corporate deals and so forth. So that was important. And it's just evolved from there. We've had our best luck with bringing in people in their thirties— early thirties either from a consulting background— Bain, McKinsey, BCG— or from a product-marketing-technology experience and then training them in the venture business. — That's the core of the franchise at this point.

Hollar: It's home-grown talent.

Swartz: It's home-grown talent, largely. I mean you can supplement here and there around the edges, but the core group always ends up being the home-grown talent.

Hollar: I'm not clear on how you made the move to the West Coast from the East Coast—

Swartz: Arthur came to California in '79, I believe, while we were still with Fred and opened up a West Coast office with Fred. Actually, I'll go back— when we were at Citi we had a dual office. We had a New York office, and we had a San Francisco office. We had three or four guys out here and seven or eight guys back in New York. So I grew up bicoastal and back and forth, and understanding Silicon Valley even though we were in New York. Arthur for personal reasons moved west; he loved California and wanted to live here and build his business here. I for personal reasons wanted to raise— I had a family at that point,

three kids, and I loved Princeton, New Jersey. It's a great little town and I wanted to stay there for purely personal reasons, and so I did that. In the '80s there was enough to do in Boston and around New York and whatever, not a lot but it was enough, and then I was always out here at least one week a month, sometimes two weeks a month. I always kept three or four boards out here, stayed in it, but I wanted a base in the East and live there. When the kids went off to college and so forth then we transitioned out here.

Hollar: But Accel always had an operating base here from the very beginning.

Swartz: Yes, absolutely. We were always perceived more as, I think, as an East Coast firm. It's sort of like Greylock's gone through that transition now— from being pure East Coast and now highly West Coast focused. It took us a while, too, and it took a while for us to be perceived as a Valley firm because that wasn't our heritage. Our heritage was New York, and both Arthur and I grew up in that financial system, right, and not in the Silicon Valley system. And in fact that was the one of the big attractions of [Joe] Schoendorf to us, because he was the Valley personified and he became one of our principal connectors in the Valley.

Hollar: Let's pick one investment. We talked earlier about Remedy and I would just like for you to talk about that from inception to whatever you would call the ending, because I think it really does illustrate the way that you started off doing business..

Swartz: Sure, and still does. So as I discussed we had a big presence in networking and data communications and infrastructure, so we tended to see most of the projects that were getting done in that area. Joe had joined us. Joe called me one day and he said, "There's this really interesting guy who's leaving Sun who my wife, Nancy, works for and he's going to start something, networking." And I said, "Great. We're going to meet him." So it's Larry Garlick, and we met and developed a good relationship with him. He wasn't sure exactly what he wanted to do yet. Larry being Larry, he was very guarded. He knew exactly what he was going to do, but he wanted time to really flesh it out. So we set up an EIR relationship where he could hang out with us and we could form the plan, so we worked our way through that. Independently, Dave Mahler walks in one day with a business plan that looked remarkably similar to what I knew Larry was working on, and Dave was an equally high-grade guy out of Hewlett-Packard. And so we had Sun, we had Hewlett-Packard— basically the network gurus in both places on similar paths. We finally said, "Gee, we like both you guys but it would be really powerful if you could get together and see if there isn't a meeting of the minds here and something bigger that can come out of this." And actually I had forgotten this part of it: I called Dave and it turned out that Dave was giving a talk at Interop— a Hewlett-Packard talk at Interop— and Larry showed up. They had never met. Larry showed up in the front row of the audience and started asking him all of these questions. And they got together for coffee afterwards and talked about things and decided they really had a lot in common and they really wanted to work together, so that's how they got together.

Hollar: Did you have a sense that if you put Larry and Dave together they may decide they were going to do something together?

Swartz: Yes. It made it a much easier decision for us because otherwise we were going to have to do one and disappoint the other, and I think one of the worst things you can do in this Silicon Valley ecosystem is to tick off a good person and really motivate them to go beat you. So you would much rather join than compete with somebody, I think, in many of these areas. It rarely works. I mean we've tried to do this innumerable times. I'm sure you've heard stories. I think the hardest thing in the world to do is to merge two sort of similar companies although it makes great sense from an economic and critical-mass point of view but the egos are— So in this case it worked and it worked really well. The two of them were great partners and still good friends.

And so we financed the company. It didn't take a lot of capital. I mean that company is one of the great return-on-capital stories in the business. I think there was— I'm not sure— I think it was like \$750,000. It was us— John Shoch who was working with Pitch [Johnson] at that point at Asset Management. He also had connected with Larry independently and so the two of us were equal partners in the project, but I mean we ended returning a hundred to one— more than a hundred to one on a very modest investment. And it was a very, very satisfying investment, just a really fun project, and Larry was a great— he's a great entrepreneur. There were things that he didn't know and— we had talked about it— and he was very open to inputs, and we helped him hire some people, we helped him do a number of things, helped get him some early business, and it was just one of those really fun projects with not too many twists and turns.

After it went public and was public for a while, the business began to level off and we had difficulties trying to develop the next product and so forth. And it ended up not doing so well and ended up getting acquired in a nasty transaction with Peregrine and ended up not a great outcome on that side of it. But building it, getting it public, getting everybody liquid, it was a great story.

Hollar: How common is it that someone like Larry or Dave comes out of a big company with an idea, comes to you and you find the idea and the people and the opportunity are all attractive?

Swartz: It happens enough. I wish it happened more. In this day and age it happens— it's challenging. I mean I just did one and it's going to close next week, I think. I've been working on it the last six months. It's a very strong engineering leader who I've done two other companies with and he's got an idea for a third one and it's something that I know a bit about and feel good about and the team— our team feels really good about it, and so we're going to do it. That's a very, very classic one but it's rare these days. That used to be our bread and butter: 30-something, early 40s, successful leader in tech company gets frustrated and has great ideas and wants to start something new and we intersect with them— and that's been the bread and butter. We still try to do that if we can but with— the culture today is much more incubator, throw it on the wall, see what sticks, see if you can get some traction— ideas that in many

cases aren't well formed or even well thought out. They're just ideas. Sometimes they get traction in the market and sometimes they don't. That part of it's different.

Hollar: I'd like to get your view on a question I ask every investor that I interview: people versus idea. What's your opinion on that?

Swartz: I'm much more the people side. I'm sure you've seen this. Everybody answers this question differently I'm sure. There are many different styles of investing, and my own style that I'm most comfortable with is people that I'm comfortable with, people that I truly respect and enjoy and who I believe have a unique ability— either because of their intelligence, or what their knowledge base is, or some combination— their ability to see through a problem in a way that others can't. That's the type of individual. Then it has to be in an area that I understand and identify with and relate to and so forth. I always say I'm less concerned about market size, because there are other investors that say, "Well, you've got to have a billion-dollar market." My answer to that is, "That just has not been my experience."

My favorite story is Ungermann-Bass. When I invested in that, the wildest expectation anybody could come up with is maybe it'll be a \$50 million business. Here we are, and local area networking is \$50 billion or some double-digit billions, and no one had any concept of how big the industry was going to be. A few would have turned that down because it was too small a market, too much of a niche market. I'll give you another example: wireless. We were way ahead of ourselves in wireless. We had one of the engineering managers at Ungermann-Bass, and Charlie Bass, and the two of them decided to go into the wireless business, but we were way ahead of ourselves. We ended up getting killed because we were ahead of the standard and it was too expensive and whatever, but we debated that project for six months. I mean we were a hundred percent confident that they could build the product and it would work and whatever, but we couldn't get ourselves convinced why anybody would want one. We spent six months trying to figure that out and we finally said, "Oh, well, yeah, we can see there's a niche market here for accounting firms. Accounting firms want to do pop-up staffing in a company and they're going to want wireless. Okay." So—

Hollar: Trying to imagine those scenarios.

Swartz: You're trying to imagine the scenario in how wireless was going to be used and you think about that today and you say, "Well, what are you guys thinking? You can't function without wireless." Market size has never been a driver for me but I think it's people, and the inherent defensibility of what they're doing, and the technical edge and then hope that the market's bigger than you can envision.

Hollar: Talk about how that translates into decision- making within the firm. I read several places where you've said you like a lot of people around the table.

Swartz: I like a really flat organizational structure. Accel has a very nonhierarchical organization. Even today the partners— and I'm not a full partner there; just hanging around, right? But the guys who are driving the firm are equal partners, there's no hierarchy, and when we have partner discussions the associates who are not yet partners but are on partner track in my mind have as much to say as the most senior partner in the room. We try to have a very open, honest, nonpolitical, no-holds-barred discussion about the worthiness of the project. And that's what I find works best. And try your damndest to keep sidebar conversations out of it, and so if you've got an issue, don't talk to your friend about it at the bar. Bring it to the table and talk about it and let people hear what your thoughts are. We work really, really, really hard at that. We had an incident yesterday where— Arthur had a project. It's a startup and it's struggling, and he had to sit there and listen to 45 minutes of criticism— good criticism, healthy criticism— about what to do or not do with the project. That's what we want. We want that and I would do the same. Nobody has the right to sort of just do what they want to do, and we try to get the young guys to really get on that train as fast as they can.

Hollar: We're heading into the period from 2000 to today—

Swartz: Yeah, the modern Accel.

Hollar: Right, but I want to talk before we do that about the Internet bubble because you've said some very insightful things in previous interviews about the bubble. Let me back up and say you had Accel.com in 1991. That's pretty—

Swartz: It was early.

Hollar: —early. When did you first know that the Internet was coming out of this strictly government research black-box phase and there was a real opportunity here?

Swartz: When we did UUNet in '93, I think. It was a nonprofit and there was another, a comparable one up in upstate New York called PSInet. There were two of them and we chose UUNet for a variety of reasons. It was unclear because the entity was a nonprofit, it had government contracts, and its manner of existence depended on these relationships that it had with universities and the government. So we had to transition all that from those relationships to a for-profit entity and so forth, and we didn't know quite whether we were going to be able to do it or not. But after a year, year and a half into it we started to see it happening. And then the then CEO [John Sidgmore], who was brilliant, cut a deal with Microsoft where Microsoft invested and we became a big part of the traffic. So you really started to see it take [off] from there. And then the web hit. So the next thing was Netscape and the web, and there were ten or twenty other Netscape-like companies out there trying to do what Netscape ultimately did. We missed Netscape but we were still looking at all the projects and understood what was sort of happening there. — So it really hit and then it just started compounding.

Hollar: How did you choose to get into it after UUNet? Was it a software play for you or was it—

Swartz: It was both. I'd say that we probably weren't as nimble as we could have, should have been in that era because we were coming at it largely from the infrastructure side. So we felt— whoa, we've got all these opportunities, and we weren't quite smart enough to get around on the app side of it. So we missed Amazon and missed some other early— we tried to get into Google, we missed Google, but we didn't have ourselves really organized well enough in that era to go capture those projects. I think we finally caught up later in the '90s, and then on into 2000 we got ourselves reorganized and started focusing the right way then.

Hollar: When did it start to feel like it was turning into a bubble?

Swartz: In 1997 it was very clear. I remember feeling in '97, "My God, this is really good— from a stock market valuation point of view," and then saying, "Sheesh, should we just get out here?" And then talking about it, thinking about it, and saying, "No. Let's let it run a little longer," and thank God we did because there was enormous value created from '97 to 2000. Then we were into '98 and '99 and you knew this was craziness. I mean you absolutely knew it was craziness.

Hollar: There's a quote here that I found in another interview that said, "People around me were practicing a business I did not understand." What did you mean by that?

Swartz: We were getting phone calls from literally a guy at a pay phone who arrived in Silicon Valley, wants to come see us— "I got three term sheets this morning, I've got to make a decision this afternoon. I want to come talk to you guys." You go to a partner meeting and where you literally had to fight your way through the conversation to get a project approved because there were so many projects on the agenda. Going home on a Monday night and waking up the next morning and thinking, "Okay, we approved nine companies yesterday. What were they again?" Meeting entrepreneurs that you knew were lying through their teeth and fabricating. And I mean the whole system was rapidly unraveling, and it really disturbed me, but yet you couldn't— I write a family Christmas letter every year and that Christmas '99 I wrote, "This is the best party there ever been. It's going to be a huge crash. We don't know when to leave it." It's just like— you've been to parties where you get into it and you're going and you know— your head's telling you that oh, boy, this is going to hurt, but you still keep going. That's where you fall or whatever, and that's what it was.

Hollar: And then was there a moment when the curtain dropped?

Swartz: Yes.

Hollar: When was that?

Swartz: For us I mean you could sort of see it in the first quarter and then I—

Hollar: Of 2000.

Swartz: Yes. I'll never forget— we were raising our new fund, Accel VIII, and we were sitting in the basement of the Four Seasons Hotel in the conference room there having meetings and the Blackberries and whatever weren't— the signal wasn't very good. The [stock] market was crashing. The market really took a big tumble in April that year. And by June we had several partners' meetings and we said, "Look, it's over." What I've always said is, "You can't pick the top and bottom. You can't know in advance when it's going to happen, but you can be pretty certain when it has happened and then when it has happened you need to act." So we acted and we ended up shutting down eight or ten companies and just getting them—

Hollar: Just immediately.

Swartz: Just immediately, within a month or so.

Hollar: Had you ever had to do that kind of thing—

Swartz: No, never had to do that before— where you'd walk into a board meeting and say, "Look, guys, we got X kajillion dollars in the bank here but this model is not going to work in the new world and let's just liquidate the company." So we did some of that. We did three or four mergers— strategic mergers that worked out really well, because in a lot of cases people had developed technology and infrastructure and whatever that was valuable to other people. And so it became clear that this phase of the cycle was over and we had to respond to it and take some action.

Hollar: Then what do you do? Do you just step back and take a deep breath and sort of reset everything or is it another—

Swartz: Well, everybody was struggling with that individually. We all respond to that differently, and that period was a difficult period in the firm because everybody's trying to figure out what it all means. For me, I started the process in '99, early 2000, being so frustrated with what was going on. I decided this was a good time to start Europe. I had always wanted to do that from my early days at Citi. I always wanted to— and I kept watching it, kept watching it, and I finally became convinced in the late '90s that there was enough activity over there.

There's a couple things that happened. One, the world was getting sufficiently homogenized, English-speaking technology platforms, ways of thinking about technology and entrepreneurship and so forth, that a lot of what Silicon Valley was doing was capable of being transplanted to other places. There was plenty of evidence of that in Israel but there wasn't much evidence in Europe, but there started to be a flow of things that we were looking at. And so anyway I decided there was enough to get a business started. So we talked about it at one of our offsites, and Jim Breyer said, "Well, I've got an idea. I had this great guy in business school with me, Kevin Comolli, who I just was in touch with, and he's looking to do something and he's got a good background." So I met with Kevin, we liked each other, formed a partnership. He and I worked hard together to get it off the ground and we got it off the ground and it's now on Accel [London] IV. It's the single most successful venture firm over there. We just announced today a \$3 billion-dollar purchase from SoftBank, one of our games companies. That was very satisfying, and it's been a great exercise. So from 2000 to 2005 or so I spent a large part of my intellectual effort doing that.

Hollar: And the Accel-KKR partnership was that—

Swartz: So in your [outline]— you sort of had it as a response to the bubble. It was actually a pre bubble thing. It actually was both. It started off life as a dot.com. The mission was— KKR was going to bring their Fortune 500 expertise. We were going to bring our dot-com startup expertise. We were going to dot-com the Fortune 500. That was an era when lots of companies were spinning off their brands, spinning off assets and whatever into a dot.com entity to try to capture value. Wal-Mart.com was an example there. There were a large number of other examples. And so Accel-KKR was set up as an investment firm to sort of combine consulting and investment banking and investing to approach Fortune 500 companies and dot-com their infrastructures, their brands. When 2000 hit that strategy went out the window. And so Jim Breyer managed that project for us and he did a great job, and the team there, of transitioning it from that business model to a mid-market technology buyout firm, which it is today. It's become pretty successful in its own right.

Hollar: That's an interesting pivot.

Swartz: It was totally a pivot. The initial structure was a corporation because this was the era of the incubator— the public incubator companies. There were two or three public incubator companies. It was set up as a corporation to eventually take public, and so we had to reorganize it into a partnership and convince the investors to convert from shareholders to one of the Partners and so forth. But it all worked and it's worked beautifully.

Hollar: It seems that with the Internet, unlike many other firms, you really stayed the course.

Swartz: Yeah, we did.

Hollar: You knew it was a crazy time but coming out of it you kept your heads and you kept focusing on this and looking for opportunities. How did you manage to do that? What kind of leader does it take to get—

Swartz: Well, it wasn't just— it was a group of us. Jim Breyer was obviously a really important factor, Peter Wagner was with us then in part of that, Arthur and I, others, and you sort of lick your wounds. I think most of '01, '02, '03 was pretty much heads down trying to salvage things and trying to work your way out of the mistakes you made. And so it was a very humbling time and there weren't a lot of new investments made in that era. There were some, and there were some great ones. Riverbed came out of that era, but— I think there wasn't any great leadership. I think it just was the character of the individuals who still loved the business and kept wanting to fix the problems they created and work their way through things.

Hollar: And had conviction about the future—

Swartz: There were periods there where Arthur or I would sort of try to buttress that because we've obviously seen a lot more, we've seen these cycles, and for us it was just another cycle. It was—

Hollar: A pretty savage—

Swartz: Yeah, pretty savage— but just another cycle, and just stay alive and keep going and it'll eventually come back. We got ourselves reorganized around the application side, social networking and e-commerce and those activities. People started seeing opportunities there and taking heart in that and getting ourselves organized for that and, lo and behold, along came Facebook. Facebook was one that we were absolutely prepared for. We had looked at My Space, we had looked at all the others, we had reorganized, we had recruited some new people to help us in that area, and that was a very conscious decision that came out of an offsite: We had to up our game in that sector. So when we intercepted Facebook we were ready for it and it was a pretty easy decision. I mean nobody knew how big it was going to be. Again we had no idea— you could look at it and say, "Well, they're going to get a hundred percent of the college market and the data so far is that college kids are spending three hours a day on the site," two and a half, whatever it was. So you do that math and say, "Well, we can monetize that and make a real business out of this." Nobody knew whether you were going to be able to transition to the broader public or how big it ever would become, but we thought it was a good opportunity.

Hollar: As you look back on it, was there something about Accel and the way Accel approached it that that you think was decisive in helping you get the opportunity to invest in Facebook?

Swartz: I think it was the individuals that we have, and the training, and the way we practice the business. Did the Accel brand mean anything to Mark Zuckerberg? I doubt it. He probably was happy that

it wasn't some schlock firm or whatever, and that we were good people and that we had a history and so forth. But at the end of the day was that a deciding factor? No. I think it was— in fact there's a famous story, —but I don't know how true it is, but one firm that badly mishandled the whole thing individually and didn't get in. I think we just handled it well and I think that it got teed up by one of our young associates. Kevin Efrusy ran with it. Jim Breyer got into it and sold it. He had a relationship with Don Graham at the [Washington] Post. He had a former relationship so he was able to exercise that and manage our way into the project, formed a good relationship with the team and the rest of the partners. We had several good meetings with the team and everybody behaved themselves. I think it was just a number of individual actions that won the day.

Hollar: Are you optimistic about the Internet as an investment space?

Swartz: Yes, absolutely. We toned down our e-commerce and social networking and sort of aggressive Internet practice starting a few years ago. But our thesis at the moment is it's moving to more of a verticalization and a siloing around certain business opportunities, certain industries that are ripe for disruption, and there's still a whole lot of that to play out yet. Not so much the whiteboard, Google or Amazon kind of plays but more verticalization and specific industry disruption kind of opportunities. And mobile and mobile platforms are playing a big role in that. I think we're still in the very early days of the mobile device as a platform, so there's a lot of infrastructure and platform investing going on there and then there'll be a lot of— and tablet devices, more and more and more kinds of applications, I mean going into a restaurant and being given a tablet to order your meal and get your check. That kind of thing, which will transform the whole point of sale. The whole retailing point of sale experience is being transformed through tablets, and those kind of things are really, really still coming on strong. And the next big thing that's going to be wildly disruptive— I don't know— you never see those coming.

Hollar: Let's close with just a couple of more personal questions for you, Jim. In other things that I've read about you, you've talked about various things that have shaped your leadership style or opportunities that have given you a moment to step into leadership roles. If you were to describe at this point in your career what you've learned about leadership and how you view it and how you try to exercise it, how would you describe that?

Swartz: Yeah, a good question. I think the one that sort of stuck with me the most is that the most effective leaders are the humble ones, the ones that are able to— they're able to lead by example, be decisive and all that stuff— but at the end of the day they're pretty humble about it and just don't get caught up in it. I think we live in this celebrity world and I see many of the venture leaders trying to play the celebrity game and maybe it's good for them, but I don't buy it. And I think that, again, for me, persistence has always been a really necessary attribute. It is really, really important in the venture business. It's an industry where there's very little feedback for long periods of time, and so you sort of have to have your own internal guidance system going and continue to be persistent. I think the other thing is— it's really important to have a vision about things. I'm constantly struck with various nonprofits

that I'm involved with, when I was on the board of NVCA and so forth, is how rare it is for the— how rare it is for individuals to truly have vision, and I'm not talking about dramatic vision but just a sense of where things are going. I think leaders really need to have that and exercise it in a way that's not intrusive and not demanding and whatever but just be guided by it continuously and not lose track of it.

Hollar: If you were giving somebody who's just starting out some advice—

Swartz: In the venture business or in the world?

Hollar: It could be both. It could be either one, your choice or something about each.

Swartz: I'd say, "Choose your friends carefully."

Hollar: Interesting.

Swartz: Right. And we talked about vision a little bit. I think the other way to look at it is to recognize change is everywhere, and it's sometimes hard to recognize change. So you need to learn to recognize it and then you need to learn to embrace it and run with it. That's not always easy to do, but I think that's the mark of a really good venture person. They're really good at recognizing change and acting on it in some fashion. So it would be: Watch for change.

Hollar: Jim, thank you.

END OF INTERVIEW