



Oral History of Donna Dubinsky, Part 1 of 2

Interviewed by:
Marc Weber

Edited by:
Dag Spicer

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Weber: I'm Marc Weber of the Computer History Museum, and I'm here on April 3rd, 2023 with Donna Dubinsky, a serial entrepreneur in several key areas. And thank you so much for doing this.

Dubinsky: My pleasure. Happy to be here.

Weber: So let's start. What's your full name and when and where were you born?

Dubinsky: Donna Lee Dubinsky, and I was born July 4th, born on a firecracker, 1955, in Cleveland, Ohio.

Weber: So tell me a bit about your family and parents, siblings, where you grew up.

Dubinsky: I grew up in the Midwest, lived in Cleveland maybe the first ten years or so. Then we moved to Michigan, a small town, Benton Harbor, Michigan. My mom was a homemaker. My dad was a businessman. He was in the aluminum metal business, doing smelting of aluminum at first, and then eventually brokering of aluminum. And I have an older brother and a younger sister.

Weber: And talk about your childhood. What did you like to do? What did you dislike?

Dubinsky: You know, we had a sort of classic 1950s, '60s happy childhood. Suburban area, walked to school, very involved in all kinds of school activities. I think all three of us, me and my siblings, were involved in yearbook. We were never very much into sports or things... it was theater or yearbook, things like that. Went to a pretty poor school in high school, so didn't have a lot of high-level academics for us.

So I ended up going to a junior college nearby for my senior year, because there was nothing really left at the high school for me to take. And then they went out on strike, so I stopped going to school altogether, and I ended up working my senior year. In fact, I used to say that I didn't have enough credits to actually get a high school degree, but they gave me one in the end. I'd say it was a kind of lower middle-class area with not the best school system. So I didn't walk into college very prepared.

Weber: And you talked to Andrea Butter about her [book] *Piloting Palm*, about security guards in the school and multiple shifts. Tell me about that.

Dubinsky: Well, it was a rough school, for sure. There was a lot of tough kids there, so there were definitely guards. It was over-crowded, so half the school went from seven to twelve, and half the school from one to five, something like that. So it was really a classic urban school, struggling with resources, struggling with meeting the needs of the kids in the community.

Weber: But this was in Michigan, in this fairly small town, but one of the main schools.

Dubinsky: Yeah. Benton Harbor, Michigan. It was Benton Harbor High School, the public school. I was in the marching band. I was very involved in that kind of a thing, and school spirit, but it was definitely not a superior level of academic preparation, I guess is the way to say it.

Weber: And any teachers that stand out in your mind?

Dubinsky: Not really. I remember doing a lot of independent study and sitting in the back of the room and working on other things because I just was not in the norm. I mean, I had people in my classes who couldn't read, literally, in junior high and in high school. So it was quite a range of capabilities.

Weber: And you liked reading from fairly early on?

Dubinsky: Oh, I was a big reader. I remember reading Charles Dickens' novels in middle school or something. I mean, I just loved curling up with a book, and did a lot of reading.

Weber: And what were your favorite subjects?

Dubinsky: You know, I was drawn to the social sciences and the arts and liberal arts sort of things. Though I really don't feel I was exposed to the sciences at all. And I've always thought that if I had been exposed to them, that I would have taken to them and maybe been a scientist or an engineer. I loved the logic of it, I loved the discovery, I loved everything I learned about it, but I knew nothing about that as I was going through school. It wasn't made available to me.

And literally, in my day, in junior high, the boys took wood shop and the girls took home ec[onomics]. So I was in home ec. I learned nothing about tools. I learned nothing about problem-solving, those sorts of things. We learned how to make pizza. So it was very much a gender-typed system at the time. And I had no idea. I didn't realize it at all, that there were whole vast areas of exploration that I was not getting exposed to.

Weber: And what did you think you wanted to be?

Dubinsky: By the time I started thinking about it, I was in college not high school. I started thinking, "I'm a liberal arts person. The thing you do is go to law school." That was the track. It was the thing that you did if you were a History-English person, not a technical person. And I started assuming that I would go to law school.

Weber: And then you worked in a sewing store that gave..

Dubinsky: Yeah. Well, that was in high school. The college shut down, I went to work fulltime, and I worked in this store called Twin City Embroidery, which made awards and bowling shirts and embroidered things. It was a customizing shop. I did a lot of hand-pressed ribbons for events, and helped bowling teams pick out their bowling shirts. And it was actually a pretty great experience for such a young person to be working in a business where you could see all aspects of the business. You could see it from the materials coming in the door to the production system, to the sales process. You just saw the whole thing in one place.

Weber: So that got you interested in the idea? Or your father was also a businessman.

Dubinsky: Well, my father was a businessman too, and I always enjoyed hearing about it. I remember asking him questions about it. I remember visiting his plant. He worked in a plant at first, until he went out on his own. And I remember visiting it. So I do think that had an impact on me and being interested in the business world as well.

Weber: And I mean, metals gets into some technical things, so you were exposed to that through him.

Dubinsky: Yes, to some extent, though he was more on the sales side. He was actually a buyer. So he would buy raw material, and then it would go into the plant. So he wasn't so much on the technical side, my dad. He was much more on the business side. He was an MBA.

Weber: And if you want to answer, what values were you raised with. Politics, religion, did these play a big part in your family?

Dubinsky: Yes, I was raised Jewish and continue to be practicing. My family is Jewish, and I think it did have a big impact on me in terms of dedication to values of equality and values of fairness, and all sorts of things like that. We were active in our local synagogue when I grew up. And my parents were big believers in being generous and serving and participating in the community. And we grew up with those kinds of values.

Weber: And politically?

Dubinsky: Politically, they were Democrats. My mother even became active in a local campaign, I remember, once. And I think that we weren't super-active, but basically participants. We were participants.

Weber: And you were Bat Mitzvahed, then?

Dubinsky: I'm sorry?

Weber: Did you have a Bat Mitzvah?

Dubinsky: Oh yes, yes. I definitely had a Bat Mitzvah.

Weber: So the synagogue was an important part of your family, right?

Dubinsky: Synagogue was an important part of our life. It was a lot of our community. It was a very small, Jewish community, maybe 200 families. And one incident stands out in my memory, is there were actually two synagogues in this very small town with only maybe 200 families total. And when I was there in... maybe it was high school, or maybe it was after I left, in college, but they decided to merge, and it was very difficult to merge them, because they had very different practices. And I remember my father telling me this story. He became a part of the merger committee. There were three men from each side who got together. And they decided to have an up or down vote of the two congregations over a completely

negotiated deal, “Yes, we want this merger...” rather than having a vote on each individual piece, “we’re going to do this, we’re going to do this, we’re going to do this, we’re going to do this.” They decided to have an up or down vote on the whole package. So this group of six men at the time, of course, six men, negotiated this merger package. And then they presented it to both communities, and you didn’t get to pick it apart.

You didn’t get to pick this piece, this piece or this piece, because they never would have gotten it done. Because this one wanted a choir and this one wanted an organ, and this one wanted girls to get Bat Mitzvahed and this one didn’t. And you had all of these complications. And instead, they did it up or down. And I’ve taken that lesson with me in other things, where I’ve said, “Okay, you need a small group of wise people, when you have complicated issues like this. They need to work it out, and then everybody else had to accept those compromises and you have to figure out a way to sell them on that.”

Weber: And it worked.

Dubinsky: It worked.

Weber: And that was conservative or reform?

Dubinsky: Well, one was conservative and one was reform. So they merged into the conservative movement.

Weber: That’s a tough one. Let’s see, and I’m assuming computing came later, unless you had some early experience.

Dubinsky: I did have a little bit of early experience, which was that year I went to the junior college rather than to my high school, they had a beginning programming class. And I took programming. It was basic. It was on punched cards. So we had little punched card machines, and we would punch up our programs. Then we’d bundle up our punched cards, and they would get sent to the place that actually had a computer to run them. And then you’d get them back a week later, wrapped up in your printout. And goodness, god forbid you made a mistake in a syntax error with a comma in the wrong place and the program failed. You’d have to fix one punched card, send it back, get it back a week later.

But I think it was quite formative for me that I had that experience, because then when I later saw a personal computer, I got it instantly. This idea of being able to interact with that tool right there, as opposed to make these cards and send them away and wait a week to get a response. It was obvious to me the difference. So I do think that the early computing programming class had an impact on me. It also gave me a basic understanding of programming and what it is. Not that I could program now, but that I got the basic idea.

Weber: And so that was a course you chose at the junior college?

Dubinsky: Yes. And it certainly wasn't offered at my high school, so it was a question of being in the college, yeah.

Weber: And that was what would have been your senior year, then?

Dubinsky: Yes.

Weber: Okay. And so how did you decide to apply to Yale?

Dubinsky: You know, it was terribly random. I assumed I would go to the University of Michigan. I applied there. I applied to Washington University in Saint Louis because I knew somebody who had gone there. I saw the movie *Love Story* and Harvard was featured prominently in that movie. I should look up the year of that movie. And I remember thinking, "They're very stuck-up at Harvard. I wouldn't want to go there. Yale. I'll apply to Yale." I don't think I knew what city or state it was in, honestly. I just lobbed it an application. I ended up getting into the other two schools, and then I was waitlisted at Yale, which I had totally forgotten. But my mother took great pains to remind me in my later years, when I became successful that I'd actually gotten in off the waitlist at Yale. But I got in before the year started, and said, "Oh, what the heck, Yale. I'll go." So it isn't like today, where these kids do this research and these college tours and all of this thinking about it. It was quite casual at the time.

Weber: And your parents had gone to college?

Dubinsky: My father had gone to college. My mother had not gone to college. My mother wanted to go to college. My mother was offered a full scholarship to college, but she was fourth in her family of ten children, and her parents needed her earnings. And they said, even with a full scholarship, you can't go. We need you to go to work and help pay the bills around here. So she never got to go to college. And I always thought that was such a disservice to her, and I think of her as a stand-in for many people who simply don't have access to that, as opposed to lack of ability. I mean, she had tremendous ability, very, very bright woman, and never had the opportunity to go to college.

Weber: But her parents were immigrants, or her grandparents?

Dubinsky: Her parents were immigrants, both of them. And in my father's case, his father was an immigrant and not his mother, but his mother's parents were immigrants. So both sides, they were pretty much immigrants.

Weber: So when your mother got the scholarship, this was a family with a lot of kids and... which city? That was Cleveland?

Dubinsky: No, she grew up in Hartford, Connecticut. Her parents said, "No, you have to go to work." So she went to work very early. So she worked... until she met my dad and had a family, she was working.

Weber: So she was happy when you got into college there?

Dubinsky: Yeah. Well, she raised us with the idea that there was no doubt that we were all going to college. That was a given from the start. It was just never a question in our family.

Weber: But Yale was still a big deal.

Dubinsky: Yeah, Yale was a big deal. I think for me, the really moving thing, when I got into Yale was my grandfather's reaction. Because my grandfather had arrived with nothing, nothing, at the turn of the century. And he had worked in New Haven. He had sold ads for the Jewish newspaper, and he walked through the Yale campus, and peered through the Yale gates and looked at the people there. And of course, they were all men at the time. There weren't women in those years, but the idea that a grandchild of his, let alone a granddaughter, would go to Yale was inconceivable to him. Inconceivable to him that that could have happened. So it was really amazing to see how moved he was by me getting in and going to Yale.

Weber: And then tell me about Yale, which the book *Piloting Palm* says was a tough experience at first.

Dubinsky: It was a tough experience at first. The first year was so hard. Remember, I came out of a very poor academic preparation in high school. Literally no academic preparation, didn't even really attend much of senior year. And there wasn't much to be offered anyway, even if I had attended. Although the junior college wasn't bad. The junior college was pretty good, so it's a shame they had gone on strike.

But things like I'd never written a research paper. I had no idea how to go about that. Or things like I'd get to freshman year of class of English... basic English literature, and they'd be talking about Beowulf and Shakespeare. And everybody in the class had already read all this stuff, and was sort of already speaking about it at a level of capability. I'd never read any of it. I was just about as poorly prepared for Yale as you could possibly be.

And these days, kids like me are given opportunities to prepare, they're given a summer course in advance. They're given special tutors, they're given all sorts of resources. None of that existed at the time. It was totally sink or swim. And I remember one other kid went to the Ivy League from my high school. He went to MIT, and he didn't make it. He dropped out the first year. And I could totally understand why. It was such a culture shock. It was really, really hard.

Weber: And so your grades were...

Dubinsky: Oh, my grades were terrible in the beginning. It was just... I couldn't believe it. I'd been a straight-A student, and here I was getting Cs and not doing well at all. It took a lot of grit to sort of get out of that and start to get to the point where I felt like I belonged there.

Weber: Were there any professors or mentors that kind of helped you out through that?

Dubinsky: Well, I remember this one professor freshman year, who helped teach me to write. He was quite good, my English professor. I actually looked him up a few years ago and wrote him a note and

thanked him, which I think made his day. I'd never learned to write at all, and he would take my papers and he would just circle words or phrases, "This is a mistake. This is a mistake. This could be better," whatever, but he didn't tell me why. He just would turn it back to me. Then I'd have to figure out, why did he circle that thing? And try to fix it. And then he would correct what still needed fixing and send it back to me. And I would continue to write the same paper four or five times until it met his satisfaction. And that helped me learn to write. It was like, "Oh my gosh, I get it." That's how I learned it. If he would have just told me the mistakes, I don't think I would have learned it as well.

Weber: And it got easier second year or third year?

Dubinsky: Yeah. It got better and better, as I got comfortable and I started understanding the routine and I started learning to write and to research and all those things. But, I wouldn't say it was ever easy for me. I had to strive in order to achieve.

Weber: And *Piloting Palm* said you didn't feel that you fit in until you, I guess, moved off campus later. So in what way? How did you fit in academically? Or were there other ways?

Dubinsky: Well, I think there was a little bit socially where I didn't feel that I fit in. I used to feel like people came right off the Mayflower and went to Yale. It was being Jewish, being from the Midwest. There were a lot of prep-school kids there. There was a lot about secret societies. There was this very heavy dose of elitism. Women were still relatively new, so not that many women. Everything about me was a bit of a different thing. I found my own group, and to this day, some of my closest friends are the people I connected with that year. So as I finally found my own group, I felt more comfortable, but it definitely felt like an alien world to me.

Weber: And when did Yale go co-ed?

Dubinsky: I was in the sixth or seventh graduating class. But the first few classes were transfer students, so I'd say I was in maybe the third or fourth full-year class that was accepted.

Weber: And so there was still fewer women, or they had brought it up close to...

Dubinsky: Yeah, when I came in, we were maybe 20 percent women. And of course, by the time I left, it was more 30, 35 percent, and now it's 50 percent. So it took a few years to get it up to parity.

Weber: I went to Brown. I confess, I don't know that much about Yale, but my impression is it was very socially conservative. I don't mean politically, but it was not... there wasn't much counterculture influence there, or am I wrong? Brown, there was a lot.

Dubinsky: Oh, Brown, there was definitely always more counterculture, I think. Yeah, maybe less at Yale. But you find your own people, right? You find your own people.

Weber: But it was more Ivy League in the '70s and stuff like that.

Dubinsky: Yeah.

Weber: And did you have any computing exposure there?

Dubinsky: At Yale, I do believe I took a programming class at Yale, now that I recall. I did a BASIC programming class. I think I looked up my transcript within the last few years and saw that I got an A. I was quite proud of that. But I never pursued it extensively, and I took no engineering. And I took no sciences. It was the pendulum of whether there's requirements or not has gone back and forth. I was there during the period of no requirements at all, do your own thing. It was '70s.

Weber: Like Brown, yeah.

Dubinsky: Yeah, a little bit like that.

Weber: But I mean, no requirements was a new thing at the time.

Dubinsky: Yes. All right. This went from very rigid, this many credits of this, this many credits of that. Now it's back to, I think, more of a compromise. And so I was kind of scared of science. I'd never taken basic bio[logy]. I'd never taken basic chem[istry]. I'd never taken any of this stuff, because I didn't have a high school experience. Like I said, I'd taken only the very basic in math, nothing beyond it. I'd never taken calculus. So just algebra. So I was, honest to goodness, scared of all of those fields. I got very enamored with economics, which I'd never heard of, and fell in love with [it]. Got very enamored with art history, which I'd never heard of and fell in love with. So I got into the social sciences and the arts much more. And I think the programming class, probably from that junior high experience or the high school experience was probably the only thing that I even really dabbled with that got anywhere near the sciences.

Weber: And you majored in History, though?

Dubinsky: I majored in History, and we didn't really have official minors, but I did a lot of economics.

Weber: And what sort of history? Or you took a variety of courses?

Dubinsky: I liked ancient history and modern history. And for some reason, the stuff in between didn't interest me. I had no interest in the Middle Ages. But if you wanted to talk about the ancient world, I was totally fascinated, took a lot of courses in that. And then modern diplomatic and political history, 20th Century stuff, I took a lot of that.

Weber: And what did you think you wanted to do? Or what did you want to do?

Dubinsky: Well, that was the time where I was assuming I would be a lawyer, that was what people did with my background, went into law. But I really didn't know. And I just decided that I wasn't ready to

decide. I decided I would just go get a job after college rather than go right to grad school, which a bunch of people did. But I was just not ready.

So I signed up for interviews, and this group, the Philadelphia National Bank, was interviewing. And I had no idea what banking was or what the job was, didn't know much about it. But I did an interview, and I got hired. And I decided I would do that, so I went and became a banker. They had a very good entry-level program that was like an orientation. One of these where you go through sort of different stages with different parts of the bank, and you get to know it all. It was almost like vocational training, where you had a year of moving around, and then you got a placement. And then you worked, and I had an excellent, excellent experience doing that. That was a major formative event for me, that first job.

Weber: And that was an investment bank?

Dubinsky: No, no, no. It was a commercial bank.

Weber: And based in Philadelphia, and so you sort of experienced business for the first time?

Dubinsky: Yes, it was my first time really having experience of real business, as opposed to the embroidery shop or whatever. I was in a big business and trying to understand the money system and how lending worked. I used to work on loans, present them to loan committee, analyze credits, go out and visit customers, see how they were running their business. I just got so lucky. I was in groups with just great bosses. And I got my first assignment to this group called Regulated Industries, which sounds terrible. But it happened to cover the cable television industry, which was at the very beginning of the cable TV business.

At that point, it was all about TV reception. It wasn't about programming. And it was all these rural areas that couldn't get TV reception, so they would create a head-end, and they would beam in programming through the satellite TV. And then on cables, they would deliver it to your house. And suddenly people got reception that they could never get before. And it was a very interesting business. I became our representative to the cable TV business, and started financing cable TV companies. And it was an interesting business, because it was very heavy capital up front, but then it was very strong cashflow. So they had a lot of depreciation, which made them look like they had losses, but they had fantastic cashflow.

So a lot of bankers wouldn't lend to them, or would lend to them at very, very high rates. And as a specialty, I started to understand this business. I would go to the conventions. I met a lot of the people. And so I got to the point where I could build sort of a very lucrative portfolio for the bank of very strong credits at what was a high rate relative to our other credits, and was very successful. In fact, I became the youngest commercial lending officer appointed in the history of the bank. I was really thriving there. I was doing very well.

Weber: As you know, Marguerite and Chris Fralic and I interviewed Comcast people. So those are probably some of the ones you were dealing with.

Dubinsky: Well, at that time, all the cable TV systems were little mom-and-pop shops ... each town had their own cable TV system. Eventually, Comcast came in and bought a bunch and consolidated the industry, and it became a bunch of big systems. But this was the early years, when people were literally laying cable in a town. I toured so many cable plants and looking at cables on poles it was terrible. I just remember being car sick. And so it was really in the formative stages of the industry.

Weber: Yeah. Well..

Dubinsky: And I think it's what got me hooked on being an entrepreneur, honestly, because I was working with entrepreneurs. And I saw them building their own business, running their own show, creating something, and I sat there at the bank and I was enjoying it. I was prospering. I was doing great. But I looked at what they were doing, and I said, "Oh, I want to do that more." Not necessarily cable TV, but I want to be building a business. I want to be running a business. That really looked cool to me.

Weber: Do you remember any of the companies that particularly stuck in your mind that you lent to? Or not?

Dubinsky: You know, I don't remember the names of them. They were all little mom-and-pop shops. But I do remember one interesting story, which was I had a guy I was trying to give a loan to in rural Pennsylvania. And I had been wooing him like crazy. I'd visited him multiple times. I'd done all this analysis. I'd presented the loan committee, and he was really my account. I'd brought it in. I'd sold it. I was very proud of this. He was getting a shitty deal from his current bank. He was at prime plus four or something. His bank was Toronto Dominion Bank. I remember that.

And I just thought, "That's crazy. I can give him prime plus two, still be one of the best assets in my bank." But he was a very good credit. It was absolutely no problem. Lots of cashflow. So anyway, finally I made him this offer, and he was on the verge of accepting it. And he goes to his bank, and his bank matched my deal. And I remember I was so furious. I wanted to get in the car and drive to that guy and I said, "I want him to tell me to my face that he's not taking my deal, even though I got him that deal. I got him that deal and I'm not getting the business." I was furious.

And I remember my boss at the time said, "No. Don't go. That's a wasted day. It's not worth your time." And honestly, I forever regretted that, that I took that advice. And I think it stuck with me in terms of saying, "Go with your gut." If he'd told me no, fine. But at least I would have felt I did everything. And the fact that I did not go and say, "You tell me to my face you're not taking my deal when I just got you that deal," really I regret that I didn't do that. Funny story.

Weber: But could you have offered him a... you could have shaved more off? Or that was about the...

Dubinsky: No, that was it. It was more that I wasn't going to keep doing that to just have his bank match him.

Weber: True.

Dubinsky: He really... you know, it wasn't right. His bank was screwing him, and he didn't factor that in. And I thought, "Okay." But look, that's a good, hard lesson from business, and that's how competition works. And you've got to be always factoring in, "What are the possibilities here and how do I take them into account, and what can I do to make sure I get this business?" That's the name of the game.

Weber: So then why did you... that's when you started thinking about an MBA, right?

Dubinsky: Yes. Well, I was enjoying it so much, but I really wanted to be the entrepreneur. And so I said, "Okay, I need to go back to business school in order to get more background to be able to go and be on the entrepreneurial side, because all I know about is banking. And they know how to run companies. I have no idea how to run a company. So I need to go get an MBA so I can learn how to do that." So that's why I went to business school.

Weber: And so you applied. Presumably Harvard was the first choice, or did you apply to many?

Dubinsky: I don't even remember. But Harvard was my first choice. I got in, so I went... one of my closest friends from college also got in the same year, so we roomed together, so that worked out.

Weber: So tell me about that. And then...?

Dubinsky: Yeah. Harvard business school was tough, too. I mean, first of all, it was extremely competitive, and I was not used to that degree of competition. At the time, I think they've changed it, but at the time, they graded on a curve. And the top five percent got academic distinction of some sort, and the bottom five percent were just flunked out. And it was called "hitting the screen". If you hit the screen, you were flunked out. And it was a percentage basis. So it didn't matter if everybody in the top five percent was good. So it created this competitive environment, but I like to say ten percent of that class was competing for the top five percent. The other 90 percent was competing to stay out of the bottom five percent. That was me. I just didn't want to hit the screen.

So it was competitive, but you had these study groups, and the study groups supported each other. And it was a very dynamic environment. You were graded on class participation, so people were eager to talk over each other, to make kind of crazy statements and be provocative, so that you could be challenging each other. It was this very dynamic environment with lots of dialogue. So I learned a lot from that.

But then the seminal event that happened was in my second year, when I hadn't really decided what I would do next. Dan Bricklin and Bob Frankston came to one of my classes. I took a class about IT, a basic class. What is IT? How do you run it? and I'm trying to remember the professor's name, because I've told him how much this impacted my life. I'll come up with it. But anyway, Dan and Bob came in and they showed an Apple II. It was the little Sanyo monitor with the 40-column, upper-case-only display and the little disk drive stack next to it. And it was running the first version of VisiCalc. And I was totally blown away. I was sitting there going, "Oh my god, that's the future." I had done spreadsheets by hand as a banker. Literally, I'd go into a loan committee and show them my forecast, and they'd say, "Well, what if

sales only grow 12 percent instead of 15 percent?" I would go back to my desk and sit there with a calculator and hand-crank every number on the spreadsheet.

And I looked at this and it was, "Boom, done." I thought, "I don't know anything about anything but banking, and that's going to be on every banker's desk." Instantly, it was obvious to me. I think it showed, for me, a skill I have that I figured out early on, which is that I can recognize great ideas. I'm not the big idea person. I'm not going to be the inventor. I'm not going to come up with a new product, but time and time again, I've been able to see things and go, "Yeah. That's good. That makes sense. That's going to be big."

So I saw that and I said, "That's going to be big." And I decided right then, I wanted to go work in that industry. I had learned in cable TV that one of the reasons I had done so well is that it was growing and nobody knew about it. And I could become an expert. I was a 22-year-old, fresh out of college, and I was as much of an expert as anybody else. That blew me away. And I knew what gave me an opportunity was growth, because anything that'd been around a while, oil and gas, there were experts. They all knew it. You'd have to work your way up slowly.

So I was looking for growth. That's all I was targeting. It wasn't that computers were my passion, it's that growth was my passion. And I saw this thing, and I understood it. I got it right away. And I said, "I want to go for that". What I didn't get, because I knew nothing about it whatsoever, is the difference between hardware and software. And I didn't get it was really VisiCalc that was doing that for me. Which I'm kind of glad I didn't get, because Personal Software didn't end up succeeding, if I'd tried to go work for Personal Software, which was VisiCalc, right?

Weber: But you might have worked for Lotus.

Dubinsky: Might have worked for Lotus. Might have done that. But I saw that Apple logo, and Apple was just going public. So that was the same time Apple was in the headlines. They were going public, and I just thought, "That's it. I've got to go work for Apple." And it was obvious to me.

Weber: So you didn't think about Personal Software or software in general. And why not cable? Why not go back into the cable industry?

Dubinsky: I just thought that was over. It's like, "That's done. That's declared. We know what's going to happen there. All these big guys are going to buy up these little guys. That's not interesting to me anymore." It wasn't quite done, but it was pretty well clear what was going to happen. They were just going to be these big cable systems. I don't think I'd thought about content yet, and what was going to happen on the content side. It was way early for that. But in terms of the industry structure, it wasn't that interesting. Whereas this whole new thing, it was really interesting.

So Apple came to campus to interview. And it was the first time Apple came to the Harvard Business School. They were a young company, of course. And they had what was called a closed interview process, where you had to apply to get an interview slot. So I applied for an interview slot, and I was

turned down, which made sense. You look at my resume, no technology, no engineering. I think one programming class, as I said, no real thing to stand up for me relative to what they were. And so I went to the interview cube the day that the interviewer was there. Her name turned out to be Jennifer Bestor, which I still remember. I showed up first thing in the morning, and I said, "I'm here to talk to you today," and she said, "Are you on my schedule?" I said, "No, I couldn't get on your schedule. But I've got all day. Whenever you have a few minutes, I need to talk to you."

And she kept bringing in other people, and she'd come out, and I'd say, "Hey, still here." I was never mean about it or nasty, just always there. Finally, towards the end of the day, she said, "Okay. What is the story? Give me the pitch." And I said, "Look, I know I didn't get an interview because I don't have a technical background. This is true. I don't think I should come to Apple to design products or do coding. That's not me. But I was a banker, and I want your product. And you need people who understand your customers, too. And what I'm interested in is the customer side. Customer service. And I know that I could really help in relating your products to the customer." And that's the pitch I gave. And I got a call back. And I was the only one who ended up getting a job that year in Apple. So I was their first Harvard MBA.

Weber: So it's not correct that in *Piloting Palm*, they say you didn't get the interview then and that it was on a separate trip to California that you got...

Dubinsky: That's not what I recall. Yeah. I saw a few errors in *Piloting Palm* when I was reading it, and that was one of them. But no, I got a call back from them. I got a call back from Intel, and I got a call back from Tektronix. So I remember doing a big trip where I visited Intel, Tektronix and Apple, all. Or maybe that's not quite right. Maybe I got a call back from Intel and Tektronix. And then I said, "I'm going to be in California. How about if I come by and interview?" That's what happened. So that's when they agreed to see me in California. And then I got the offer.

Weber: But you did manage to talk to the recruiter on campus?

Dubinsky: Oh yes. Yeah, yeah. I did talk to her there.

Weber: Okay. So presumably, that's what led to you getting an interview?

Dubinsky: Yes. absolutely.

Weber: But. you were saying, obviously, Intel and Tektronix.

Dubinsky: Intel and Tektronix.

Weber: And they were all coming to the campus.

Dubinsky: I was interested in tech, they all came to campus. At Intel, I was interviewing for a finance job. As a banker, that was logical. Tektronix, I think it might have been more in operations or some kind of operations job. I can't remember.

Weber: Okay. Oh, and I did want to ask you. So as a woman in the banking world, was that unusual? Were there a fair number?

Dubinsky: It was all pretty unusual then. I would say being a woman in any kind of professional field. We're talking a long time ago, so it was definitely not unusual in the lower levels, but in the more senior levels, it certainly was unusual.

Weber: So when you became the lender, I mean, you were one of the few women in that role.

Dubinsky: Oh yes.

Weber: The youngest, and the only woman?

Dubinsky: Yes. Absolutely.

Weber: And how about... I'm assuming there were very few people of color or...

Dubinsky: There were some. In fact, I remember one of my close colleagues was African American who was a commercial lending officer. So there were some. I think they were doing more actually on that, a very racially-mixed city in Philadelphia. So there were some people of color, but there were, I would say, fewer women in leadership roles. Junior roles, yes. Certainly plenty of secretaries, but not so much in leadership roles.

Weber: That's the period there was starting to be some equal opportunity. Companies were beginning to pay some attention to diversity.

Dubinsky: Yeah. Well, they hired people like me. I guess they were thinking they'd better do some of that.

Weber: But how about Harvard business school?

Dubinsky: Harvard business school maybe was 20, 25 percent women at the time. It wasn't a big percentage.

Weber: So similar to Yale in undergrad.

Dubinsky: Yeah, right.

Weber: So did you feel isolated that way? Twenty percent is...

Dubinsky: Yeah, not so much at Harvard. I think at Harvard, I felt more comfortable at that point. I'd been very successful for a few years. I had more self-confidence. As a banker, I walked in knowing a certain part of the world. In fact, I remember that I got the best grade in my beginning accounting class, and I was

not a CPA. And there were CPAs in the class. So I remember I walked in having some accomplishment and some confidence.

Now, there were things I knew nothing about, you know, marketing and production and all the other classes. I had a lot to learn as well. But at least I had a base. I had something that I could walk in with. I think if I'd gone directly from college, I would not have succeeded as much. I think those couple of years at the bank were critical to my success. An early career success, great boss, gave me lots of opportunity, lots of support. That was huge for me.

Weber: And most of the other students had some work experience at Harvard?

Dubinsky: Most did. You know, there was still maybe 20 to 25 percent who came right from college into the class. But I'd say more than a majority had some experience.

Weber: But banking is particularly relevant. I mean, money is pretty important to the business.

Dubinsky: Yeah. It's how the whole system works, right? Yeah.

Weber: So then you went to Apple, got yourself an interview... well, you did a whole West coast tour. But were you still... so this was after you had graduated? Or before?

Dubinsky: No, before I graduated, when I was trying to get my job in the spring, what was I going to do next? I got the job at Apple. What was funny about the job at Apple, because I made this big pitch of, "I understand your customers, so you need me in the customer service," not realizing that the whole distribution mechanism was through channel partners, and that they actually had nothing direct to do with the customers at the time. They sold to dealers, who sold to customers. So I ended up in the organization that supported the dealers, which was more about distribution and order processing and forecasting and warehousing, and all sorts of things, and had nothing to do with the actual end customer. So that was kind of funny that that was my pitch, but it didn't end up being what I was actually working on.

Weber: Right. You were thinking you'd be going in with the client and sort of technical presales or something.

Dubinsky: Exactly. And I think what I found later was mainly what the marketing people did was that. But I wasn't in the marketing department, I was in the distribution department. I was in a logistics department.

Weber: So how long were you there?

Dubinsky: Well, I was at Apple...

Weber: No, but I mean that role. Did that evolve?

Dubinsky: Oh yes. So that role grew and grew. I think my first title was customer support liaison. We were structured with six distribution centers. So the stuff would come from the factory, go through the distribution centers, and then get sold to the dealers. And I supported one part of the distribution center. The people who took the orders and processed the orders. So when they needed upgrades in the systems, or they needed information about what product was coming, or they needed policies on this thing or the other thing, I was their person back in Cupertino who would figure out what to do for these distribution centers. And then my role sort of grew and grew and grew, as the company grew.

Again, I went for growth. I got it. It was hyper growth, and more and more functions ended up getting put underneath me as I developed. And I ended up with customer support, and I ended up with forecasting, and I ended up with... I mean, just more and more stuff ended up as a part of my brief. And I worked for Roy Weaver, who was a fantastic boss. I've just been so lucky with my bosses through the years. And he gave me opportunity after opportunity. Whatever he could throw at me, he did.

Weber: And so you joined Apple what year, roughly?

Dubinsky: I think it was '81.

Weber: So yeah, it was the hyper growth [period].

Dubinsky: Oh yeah. Incredible.

Weber: Apple II was taking off...

Dubinsky: Totally taking off. We just couldn't keep them in stock. We were growing like crazy. We were hiring like crazy. At any given time, half the people were less than a year old. You were an old-timer by the time you were there six months. It was real madness. And you couldn't go out and buy systems. You had to create your own IT system. You didn't have the sort of things that you could do today to build a company. So we were having to build a company, literally brick by brick by brick, and suffered through a lot of pain as we did that.

Weber: So roughly how many employees when you joined and how many when Claris split off?

Dubinsky: Well, I was employee number 2588. So I know that very well. Twenty-five hundred employees, and many of those were in the factories. So in Cupertino, it was much less than that. So I don't have any idea how many it was by the time we left. But it had grown very, very fast.

Weber: But hyper growth through the whole period.

Dubinsky: Yes, very fast.

Weber: Did you happen to know Harvey Lehtman?

Dubinsky: I don't think so.

Weber: Okay. One of the Engelbart team that went there. But you were mostly on Apple II or everything?

Dubinsky: No, I was on everything, because I was an essential support function. Everything that had to ship had to ship through me.

Weber: And that was mostly computers at that time?

Dubinsky: Well, it was complicated.

Weber: Disk drives and accessories?

Dubinsky: Disk drives, monitors, accessories, software. We had a global supply chain, even at the time. We brought in things from all over the world. Remember, in fact, this became a famous Harvard Business School case, when Steve Jobs decided he wanted to shut down the distribution centers that I was running. And he wanted to ship just in time. He was inspired by just-in-time from the factory directly to the dealer. But the problem was is that the dealers were all undercapitalized, and you had to assemble a saleable system from these different parts. And the CPU came from one place, the monitor came from one place, the disk drives came from one place, the software came from one place, and often you'd have to wait for all the pieces to go there.

So if we shipped directly into the dealer, and the dealer had to stage that, he'd have to pay for that but wouldn't be able to sell it to a customer yet because it wasn't complete. And there was no way dealers could support that. So what we did in the distribution centers is we would have it there for the dealers, quick turnaround. So dealer makes an order, backfill from our distribution center, he had the velocity on the funds going through his dealership, and we were backstopping him. And that all was going to fall apart if Steve got what he wanted, which was to eliminate the distribution centers. And I just said, "This is impossible. We don't have a strong enough dealer network to do that. They can't pay for and store the stuff."

Weber: And they backed down?

Dubinsky: So there was this big HBS case about this. Donna Dubinsky and Apple Computer, with me battling it out with Steve Jobs, and him demanding that we do better distribution and so on. And really it was all a smokescreen, because it was because he'd shipped the Mac and it wasn't successful, and he was looking for reasons why it wasn't successful. Because the Apple II, we were busy shipping the Apple II, man. It was a distraction. We had tons of Apple IIs to ship. And at the end of the day, Steve left. So it was quite a surprise ending to the case. It's fun when I see it taught, because they assume I'm going to get fired by the end of it, and instead Steve leaves. It's not logical.

Weber: He got fired.

Dubinsky: He didn't... he fired himself. I mean, he left.

Weber: It was mostly Apple II. I mean, IIGS was a little later, right?

Dubinsky: Well, a lot of those things were later. IIc, IIGS. I went through the Apple III. The Apple III was not a very successful product. One of the first things I did in distribution at Apple was run the Apple III recall program, because there was a fatal flaw in the Apple III. So we had to replace them all. And then there was the Lisa, which was not a success. And then there was the Mac, finally. So really, the successful products were the Apple II and the Mac.

Weber: And did you follow at all the early... the pre-Jobs Mac, the information appliance of Jeff Raskin and...?

Dubinsky: I was not involved on the development side at all. I got involved once they were ready to ship something. In fact, I remember a meeting with one of the marketing people in the Mac division where he got up and he assembled a bunch of us that were going to have to be doing the logistics of the product launch. And he said, "You know, I just want to tell you guys.." He drew on one side, a stick figure. "Here's us in the Mac division. We're so excited, because we've created the best product in the history of the world." Then a bunch of stick figures over here [on the other side of the board]. "And here's the customers. They're going to be so excited because they're going to get the best product in the history of the world."

And he drew a line from the one stick figure to the bunch of stick figures, and he says, "And I feel so sorry for you guys in the middle. You're the ones that have to just do the schlepp work of getting it from here to there." It was like we were the truckers. It was funny how much he looked down on us. I can remember him standing there at that board, and I'm thinking, "We think what we're doing is important, too."

Weber: And so who were your bosses?

Dubinsky: Roy Weaver was my boss. And then, eventually, Bill Campbell was my boss, which became important later because we left and formed Claris. So I went to work for him. But he was my boss's boss for that first period.

Weber: So eventually you moved under him. And what was your title at that point?

Dubinsky: Well, Bill started Claris. Which was a software subsidiary of Apple, and this was mid-'80s,. And I had really enjoyed working for Bill. I wanted to go work for Bill, and I wanted to do a startup.

Then he went to create Claris. And Claris was going to be a spinoff of Apple. I have a history of unsuccessful spinoffs. So this was one of them. And the idea was, we the employees of Claris, would own 20 percent. Apple would own 80 percent. It would be successful. Apple would spin off 80 percent to the public and we would be an independent company. That was the structure. Bill was assembling a team, and he asked me would I come be head of operations? And I said, "You know, I'd like to come work

for Claris, but I don't really want to do operations anymore." I'd been doing that for him, so that's what he associated with me. And I said, "I'd really like to do something in international. I'd like to set up the international business." And he said, "Okay, I haven't thought about that at all. Sure." So I became VP of International. I went to Claris on the founding executive team and literally from day one, helped create Claris, which ended up being very successful as well.

Weber: Now, I was a contractor at Apple, testing MacDraw II when Claris was about to split off. And my recollection is that would have been late '87 that it actually split. Or was it already in existence?

Dubinsky: Well, it operated as a subsidiary of Apple with this structure... we owned 20 percent and Apple owned 80 percent. So it was always a part of Apple. And then Apple reneged on spinning it off. I think it became successful enough, and it became clear to us what we needed to do was not just produce software for Macs, but produce software for PCs. And that's when they decided it wasn't a good idea to spin it off. So they bought back our 20 percent, and most of us left. So it never left Apple, basically. It was always a part of Apple.

Weber: When you were there, did it feel like its own company?

Dubinsky: Oh yeah, it definitely felt like its own company. We inherited these old products. MacWrite, MacDraw, MacPaint, they hadn't been upgraded in quite a while. We had to put together an engineering team to upgrade them. I started out running international by selling through the Apple subsidiaries, that's who was selling the software then. And so they were my distributors. And they just did a terrible job. They would just ignore it. They didn't invest in it. They were interested in moving hardware. These little software products were not that interesting to them. And I'll never forget, when Bill Campbell, I went to him complaining about this country or this country or this office or this subsidiary, whatever, I was just beating my head against the wall. And he looks at me and he said, "Look, we'll just have to go do it ourselves. We got to pull it out of Apple and do it ourselves."

The thought had never dawned on me to do it ourselves. That was like, "Wow, you're kidding." "No, go set up distribution." We still had to go through distribution, but there were specialized software distributors; all they did was invest in software. They knew how to localize software, knew how to promote software and cared deeply about selling software. And so I said, "Okay." So I went around the world and signed up a network of software distributors all over the world, and it was extremely successful. We went from our international business being 20 percent of Claris to 50 percent of Claris, because we were one of the leading pieces of software on the Mac in all these countries. And as soon as you got it in the hands of somebody who wanted to invest in it and sell it, it did well.

Weber: So you went direct to the distributors in each country?

Dubinsky: Yes.

Weber: And who were you cutting out then, or bypassing?

Dubinsky: Apple. Apple France. So instead of going and selling to Apple France and having Apple France sell it to the retail stores, we would sell it to ABC company, who would sell it to the retail stores. But we still weren't selling directly to the retail stores. But that distributor, that was their business. They distributed software products. And I went around looking for people who were in that business.

Weber: And who did not distribute hardware.

Dubinsky: Right. Did not distribute hardware. And hopefully did not have direct conflicts with us, with other software. So that was harder. So you had to find companies that were in a different type of software, so they weren't selling a product that competed with MacDraw.

Weber: And were you received as really an independent company or part of Apple? How did they perceive you?

Dubinsky: They perceived us as independent. We had a different name, Claris. We had different business cards. We had a different management structure. Yeah, we were perceived... and we were making our own decisions. The local... Apple France didn't get to vote on which distributor we picked. We picked them.

Weber: Right. Whereas if you had come from Apple, it would have been a much more direct relationship. So that was an advantage, in a way?

Dubinsky: Oh yeah, yeah. It was a total advantage. And then I would evaluate these distributors. If they weren't succeeding, I would terminate them. I'd get a new distributor. It was very much running a business with these distribution partners. I would have conferences. I'd bring all the distributors together. We would do trainings for them. We provided them with materials. And we had a whole business that was Claris International.

Weber: And had you traveled much before this?

Dubinsky: I'd traveled some. I'd always had the travel bug. That was the reason I wanted to be in international, but boy did I travel a lot those few years. I'd say to the point where I kind of got it out of my system a little bit. I mean, I still love to travel, but boy that was intense.

Weber: So many, many weeks out of the year?

Dubinsky: Yeah. Many weeks. All over the world I'd go to Asia. I'd go to Europe. I had a big business in Japan. I was very successful in Japan. There were certain markets that we were more successful in. And so I would spend a lot of time there.

Weber: And were you managing fewer or more people there than you had at Apple, at the beginning?

Dubinsky: Well, I had sort of a small group of people who were supporting the whole distributor network. And so yeah, I had a group. I can't even remember how big it was. But I had a group of people that I was managing to do that.

Weber: But I mean, it was not a big leap in the number of people you were managing. It was more about a very different role.

Dubinsky: Yeah. It was a pretty different role. Right.

Weber: And more interesting? Less?

Dubinsky: Oh, I think they were both interesting in different ways. I was accumulating these experiences, the first one was logistics, and the international one was sales and marketing and business development. And this is why as we get to the story later, I ended up deciding to be a CEO, because I'd covered up a lot of different functions and seen a lot about how they integrated with each other.

Weber: Well, I wonder, why did you ask to do International rather than head of operations at Claris? What made you...?

Dubinsky: Oh, I think I just wanted to travel, and I was interested in other countries. I had done a couple of international trips when I was young that had influence on me. I had studied French. I think it was really about just wanting to do the travel. I was young.

Weber: And so that was approximately four years, and then Claris got pulled back into Apple. So how did that feel?

Dubinsky: Right. And then I left. Oh, it was sad. It wasn't what we were working for. And we had a team that we just loved, and all of us loved working for Bill. And it was very sad when basically the plug got pulled on the whole idea. The whole idea was to spin it off. That we were to be successful to spin it off. And then we were successful, and then they didn't spin it off. It was a little bit confounding.

Weber: So the idea was it would be truly spun off as independent.

Dubinsky: Right.

Weber: Your stock would have become Claris stock when it had its IPO.

Dubinsky: Right.

Weber: Okay. And then it just got sucked back in.

Dubinsky: Right. They had to buy back our 20 percent, so I made some money. That was the first time I made any real money in my life. And my team all made money, all the executives. And I like to say all the

guys went out and bought themselves a sportscar, and I decided that I would buy myself a year in France because that was really what I wanted to do. So I picked up and I moved to France for a year. I took a year off, spent my money just enjoying myself for a year, studied French. Really wanted to work on having a language skill. Lived in an apartment in France, traveled all over and really had a marvelous year. So I like to say I went from Claris to Paris.

Weber: And you were in Paris. And you've told me at other times about seeing Minitel, I think, in that period.

Dubinsky: Yes. That had a huge influence on me. I had rented an apartment, and it had this box there. And I couldn't figure out what it did. And I'd heard about Minitel, but it had an acoustic coupler. I had no idea how to use this thing. And I kept staring at it and staring at it. Every now and then, I'd try something with it. And the guy whose apartment it was, he had a whole manual for how to use everything in the apartment. The stove, the air conditioning, whatever. Not a word about this thing. The manual had nothing about the Minitel.

So literally one day, I was on the subway and I was studying French, so I could read the French on the subway okay. And there was a billboard, "How to use the Minitel." I'm like, "Oh my god, this is great." And I sat there and I read this billboard. And I was like, "I get it. What I had missed was this idea that you dial in. You get the dial tone, and then you hook up the acoustic coupler. I had missed that altogether. I got that from the billboard, and boom, I was on Minitel. So I'm playing with this Minitel. I'm learning how to buy train tickets on the train system. And I'm buying old fax machines from people in the equivalent of a flea market. And there was just all these different things. And that was the annuaire

Weber: Yeah. Annuaire électronique. [Fr. Electronic Directory].

Dubinsky: Yeah, the...

Weber: Phonebook.

Dubinsky: Phonebook. The phonebook. Thanks. I knew it in French, right? And so I was doing all these things online. And then one day, I don't know how, I had gone into my office. My old office at Claris, I was very friendly with the people there, and I'd agreed to do language exchange. So I would go out once a week, and I would speak English with anybody who wanted to come in and practice English, and then somebody would have to speak French with me for an hour. That was our exchange. And so I was out there and I was telling them this story about how I'd cracked the Minitel. And they said, "Donna, do you know that costs money?" And I said, "It costs money?" And they said, "Yes, every time you're using it, you're racking up a fee." And I'm like, "Oh my god, I had no idea."

So I had to confess to the guy who'd rented me the apartment, "Oh, I'm sorry, but I've racked up a bunch of Minitel fees. Feel free to let me know how much it is. I'll send you the money." And I said, "But just, let me ask you something. Why didn't you put it in your manual? How was I supposed to know about the

Minitel?" He says, "Believe me, everybody's thought that was a broken piece of equipment. Nobody until you ever even knew that was a Minitel. So I didn't expect anybody would ever have any idea."

It was very funny. Being out of the computer business, I had no problem with saying, "I'm going to crack the Minitel." But it really influenced me, because when I was later at Palm, I'll never forget the day a guy who worked for us showed me the world wide web for the first time. I saw one screen. It's like I felt when I saw VisiCalc. It was the same thing. "I get it. That's big. That's going to be huge. That's the real Minitel. That's what Minitel should be. You're going to get everything at your fingertips." And I just got it instantly, as soon as I saw it. But I don't think without the Minitel experience that would have necessarily happened.

Weber: Well, it showed it was really possible.

Dubinsky: Yeah.

Weber: And I mean, the web team at CERN all used Minitels. That was sort of the proof that you could connect a world.

Dubinsky: Yeah. And you got the sense, as an average citizen, of what the utility was. Literally, I was buying train tickets on it. I was selling things. I was buying things. I was doing all of those things on it. It wasn't just Minitel Rose, you know, the pornographic stuff. There was a lot of utility on it.

Weber: But did you do any chat? I mean, other social stuff on it? Or not really?

Dubinsky: I don't think so. I don't remember doing anything social. It was all transactional.

Weber: And how big was the bill that the guy got?

Dubinsky: Oh, I don't remember that. I just remember it was so funny that I had this Minitel bill.

Weber: Yeah. There were a lot of stories for the kids racking up the huge bills for the parents and stuff. So then that was your year.

Dubinsky: So I spent a year studying French.

Weber: Your daughter was born roughly in that period?

Dubinsky: Well, I adopted her. So I adopted her later.

Weber: Okay.

Dubinsky: Yeah. But yeah, that was 1991, and I stayed exactly a year to the day. I came home the day my airplane ticket expired. I had to decide. Am I staying? Am I going home? I was loving it, but you know, I got comfortable with conversational French, but you can't learn a language fluently at the age of 30,

whatever I was. I never felt like I was really me in French. I was somebody else. And so I think at the end of the day, I decided I needed to come home. And I spent a lot of time thinking about what do I want to do next? I'd enjoyed my year off, but I was ready to go back to work.

And I literally did an exercise of a balance sheet. Strengths, weaknesses, what am I good at? What am I not good at? You know, the whole works. And I decided I wanted to be a CEO. I just thought what I'm good at is putting a whole bunch of things together. I'm good at managing teams. I'm good at strategy. And I'm not good at any given function, necessarily, but I'm good at seeing the whole picture and how it fits together. And I definitely had a weakness on the R&D side, on the product side. I was not a product person. I was a product appreciator, as I described, but I was not an inventor.

And so I developed a very clear mission, which was I was going to come back. I wanted to be a CEO of a company that had a strong technical product founder, where I could partner with somebody to do all the things that that person didn't want to do. And that became my mission, to come back and find that person, quite specifically. And I came back, and the first place I went was to see Bill Campbell. Because I knew anybody who was going to hire me, he was going to be their first call. "What do you think of this person?" So I went to him and I said, "What are you going to say? Are you going to support me? Is it okay? Can I go be a CEO?" I literally felt like I needed his permission, you know? And he said, "Yes, I'll support you." And so I set out upon my quest to become a CEO.

Weber: And you wanted an early-stage company. Growth was important.

Dubinsky: I wanted an early-stage company. I was back on my cable TV experience. I knew I could see the future. I knew when I saw that Apple II that desktop computing was going to be big. I wanted to figure out what was after desktop computing. I mean, obviously it was still growing and there were lots of ancillary businesses around it, but I was asking myself, "What's next? What's next?" And then I met Jeff Hawkins. And Jeff showed me a Sony Palmtop, and I went, "That's what's next. I get it." Though I will say in *Piloting Palm* it says I met him at Buck's, which is not my memory. My memory is I met him at his house in Redwood City.

Weber: That's a bit different, yeah. But who else were you talking... oh, well first, you had this model of kind of a technologist to work with, but who was your mental... did you have people you were thinking of in the past that were examples? Was there a sort of thought of a technologist and ideas person?

Dubinsky: I don't think so. I had worked with a lot of technologists, and certainly I'd seen a product person like Steve Jobs up close. And he was a brilliant product person, and I appreciated that. I didn't have anything specific more than I wanted something. I was getting opportunities... I remember a firewall company. It's like, "Oh, that just doesn't interest me, a firewall." Or I'd get some specific software product would come after me, or some security thing, or I just had trouble with these ideas that I thought were small.

And then when I met Jeff and I realized, "Handheld computing. That's next. That's after desktop computing. The next thing is handheld computing." Now, at this time, remember, Bill Campbell was

running Go. So Bill was running a company that was doing pen computing. And even the name of the operating system was PenPoint.

Weber: The pen is the point.

Dubinsky: The pen is the point. And when I met Jeff, he said, "The pen is not the point. The pen is an input. The point is mobility, and taking things with you that you can't have otherwise." And he had a whole different view. And Jeff made sense to me. And I knew a lot of the people, obviously, at Go, since I'd worked with them at Claris and Bill had brought along a bunch of his people with him, who were brilliant people. But I didn't think they were right. I just said, "I think this guy Jeff's right. And I don't think those people, whom I love, I don't think they're right."

Weber: Because you knew, I mean, you must've been exposed to some extent t... even though you were at Claris... the ideas around Newton and the Knowledge Navigator, that sort of interest, going back.

Dubinsky: Well, there was the Knowledge Navigator, but Newton came later. Newton came after we were at Palm and we were working on Palm.

Weber: But they would have... maybe that was all secret.

Dubinsky: Yeah, that was all secret. I wasn't aware of that stuff.

Weber: Because I mean, it seems like between General Magic, Go..

Dubinsky: That all came later. That all came when we were at Palm, though. The one was Go. That was there, for sure. Because Bill said, "Come work here." But I just didn't buy it. I didn't see who would want that thing. I didn't see what the utility was. I couldn't imagine that writing on something was going to be better than typing with a keyboard. That didn't make sense to me. They were positioning that thing as a broad consumer device. And maybe for specialized apps. It's like what we ended up doing with Symbol where your UPS guy comes with a mobile device, but this idea of a broad consumer device, it just didn't play for me.

Weber: Yeah. Memento was in the same era. Okay. So Jeff, and who else? I mean, you said the firewall people, but were there any other contenders when you met Jeff?

Dubinsky: Nothing else got me interested. I met Jeff and I just instantly wanted that job. I thought, "Oh my god. This is big. This is like seeing VisiCalc. I know the future now. This is what it's going to be." He also had the deal already with Casio and Tandy. It wasn't signed, but he had a relationship with them. He had an investment from Tandy, so he had distribution, he had a manufacturing partner, he had GeoWorks on board. He was less than six months old. And he already had... I just thought, "Whew, this is done. How easy. This is easy." So I'm like, "Great. Get on board with this thing."

And I tell the story in *Piloting Palm*, but I basically gave him all these references. “Here’s all these people who’ve worked with me. You can talk to people who’ve worked with me, who worked for me, who were my bosses, who were my business partners. Ask anybody about me. Everybody knows me.” And I gave him all these references. I said, “But I want the same from you, because if you’re going to be my business partner, I need to know who you are.” And so I made him give me a whole list of references, and I called every single one of them. And I talked to them about who he was, and got a really clear picture of who he was. He’s an open book, so it was pretty easy to get to who he was, and he’s been the same ever since. And so that really brought me to saying, “Yeah, I want to do this.” And he picked me, which it was not clear that the venture investors were going to support that, but he ended up picking me.

Weber: And so you talked to people at Grid, I presume. Who were the main people, if you remember, that you talked to about him?

Dubinsky: I don’t remember. The CEO, was he named Allan or something? I’m trying to remember. Do you know the people?

Weber: So you’ve just met Jeff. It seems like he’s got the whole thing in the bag.

Dubinsky: Right, it’s easy.

Weber: It’s going to be a cakewalk. What happens now?

Dubinsky: It wasn’t a cakewalk. It was really hard. It was some very, very hard, painful years. So the first product we worked on ended up being called the Zoomer, and we were doing the main application software for it. GeoWorks was doing the operating system. Casio was building it. And it was just a painful process, man. It was just a lot of people around the table negotiating every single feature. Casio had a whole bunch of weirdness in the things they needed in it. Radio Shack had weird things they had to have in it. We had lots of tension with GeoWorks. There were lots of contractual issues. Lots of technical issues. It was really extremely painful every step of the way, is the bottom line.

Weber: And what happened?

Dubinsky: It was a failure. We shipped this product, and I think... *Piloting Palm* said differently, but I remember at the time selling 10,000 units, of which I think 9,000 are still in the channel. So I think we didn’t hardly sell any. It was slow. It was expensive. It wasn’t really that useful. And we immediately figured out what we learned from it and how to do a better version. We started working on Zoomer II, assuming everybody would work on Zoomer II. And actually, I have a very clear memory. This wasn’t in the book. I have a very clear memory about how I was driving to GeoWorks in Berkeley for a meeting about Zoomer II and being on the bridge going there, and the CEO of GeoWorks calling and telling me they’ve decided to pull out, and that there was going to be no Zoomer II.

And I just was like, "What?" I mean... that was our business, was to do Zoomer II. We'd done this little connectivity software and a few things, and we were really nowhere. We had this failed product. We didn't get the opportunity to do a better version of it and use what we'd learned. And the story goes, we went to see Bruce Dunlevie, VC investor at the time, and he said to Jeff, "Well, knowing everything you know now, what would you build? If you had a clean sheet of paper, what would you build?"

And Jeff went back and designed the *Palm Pilot* the next night. And he came back with it the next day and said, "This is what I would build." And we thought, "How are we ever going to do that?" We were 28 people, and had a couple million dollars in the bank of cash left over. That was it. How were we going to build a new piece of hardware, a new OS, new application software, connectivity software. We had an enormous amount of stuff that we had to do with only 28 people. It was impossible. But that's what we set out to do.

Weber: But GeoWorks had pulled out? Or was it Casio?

Dubinsky: Well, Casio and Tandy... I think Casio pulled out. GeoWorks pulled out. I think I was thinking that we were going to go with GeoWorks to sell Casio on doing it. And they basically decided not to. But we'd had enormous tensions with GeoWorks. One of the big problems with GeoWorks for us was that, besides the technical issues from my side, on the contractual side, was that Casio had this notion in their head of a software budget for the product. So that meant that anybody in the software, it was a zero-sum game. So if we negotiated more money, it meant GeoWorks got less. And we negotiated less, it meant GeoWorks got more. So we were trying to negotiate with Casio but in the end of the day, we were also having to negotiate with GeoWorks, because it was all about who was going to split this one fixed amount in Casio's mind.

Weber: So you were competitors while being partners.

Dubinsky: Yes.

Weber: And what was that budget, if you remember, roughly?

Dubinsky: Oh, I don't remember what it was, but it was just...we were fighting over crumbs. And I remember at one point, this Casio executive called me and he said "Oyama-San would like to invite you to Japan." I'm like, "You know, I'm real busy. I don't want to go." "Oyama-San would very much like you to come to Japan." I'm like, "I really don't want to go to Japan." Finally, they're like, "Oyama-San has bought your business-class ticket. It leaves on Saturday. Please be at a meeting in Japan on Monday." I was like, "I will see you soon, in Japan." So I go to Japan, and I get to Oyama-San meeting, and it was all about shaving 50 cents off our price. Casio was so focused on that, and not focused on how to make a great product. That was not at all in their vocabulary, or in their interest. It was all about cost. And so I had to fly to Japan to have this conversation, and it was just wild.

Weber: Now, when you had become CEO, the company already had a name. There was a board of directors, the funding.

Dubinsky: Yes.

Weber: But you put in place the deployment plan and sort of formalized things?

Dubinsky: Yeah. It was a teeny company. I don't know what number I was. Nine or ten. Number nine or ten in terms of employees, but we had to figure out how to grow the company. We had to figure out what we could do inside, what we needed partners to help us do. I had to raise money. I was raising money, set up all the systems. There was a controller but how do we set priorities, run the board meetings, hire people. Yeah, I was doing all those things. Jeff was basically running the product side, which was fine. Which is what I'd wanted. I'd looked for somebody like that, where he would be the ultimate authority on the product, and I would do all the rest of the stuff.

Weber: And that worked smoothly.

Dubinsky: That worked great. That worked great.

Weber: And when the book *Piloting Palm* describes the moment when the first Zoomer arrived. That was a huge letdown moment.

Dubinsky: Well, it was slow. I remember showing it to Jean-Louis Gassée and demonstrating it, and we were so used to talking over it. Whenever it was switching apps or something, we would just talk away and hope that people wouldn't notice. And I'd kind of forgotten how slow it was. And I remember him saying, "Donna, it's slow." And I remember saying, "No, not really. When you do this, it's like this. And then here's another app, and let's take a look at the calculator. Blah, blah, blah and blah, blah, blah." And he's like, "Donna, stop. It's slow." And I realized, "He's right. It's slow." It was slow, it was heavy, it was big, it was expensive. Seven hundred bucks or whatever. It was not a success.

Weber: But when you guys opened it and played with it, was it a surprise? Or you already knew it?

Dubinsky: Well we'd been working on the development systems and all, so we knew we were struggling with it. I think in *Piloting Palm*, they tell the whole story about it was an underpowered processor. We wanted a more powerful processor, so Casio being so attuned to the dollars and cents, was all about reducing costs, reducing costs, reducing costs. So that was the nature of the battle. Even with that, it ended up at 700 dollars, so it was pretty wild.

Weber: So it wasn't a big surprise when it came and it was just more of the same?

Dubinsky: Yeah.

Weber: And that was after the meeting when they called you to Japan? Yeah.

Dubinsky: Oh yeah, sure.

Weber: That was in the development and this was...

Dubinsky: I think the contract was signed the day the thing shipped. We were negotiating that contract down to the very end. And we were to the very end where we were saying, "You can't ship this product unless you have a license to our software." So we ended up having a little bit more power in the game, because we were just like, "We're done."

Weber: And talk a little bit about the financing. So you were raising more money from several sources--more from the VCs, but also... there were three VCs at one point? You brought in..

Dubinsky: Yeah. Originally we had Sutter Hill and Benchmark. Jeff had done that before I arrived. Those were the two VCs. And then we added these guys, Newtech, which was not a really well-known firm, but we had this meeting with them and they just fell in love. And they were so enthusiastic, and they wanted to be part of it. They felt, "Wow, this is the future," too. Palm Computing is going to be the leader. So they got on board, which was great. They were very good, supportive investors.

And then we had this opportunity with Credit Lyonnais, which is a French bank that put some money in. But they tried to renege on the deal, but I had a commitment letter from them. It was in French, but it just so happened I could read French. So I said, "I have a commitment letter, and I'm going to hold you to this commitment letter. So you actually don't have an option here." I had to go that far, because they tried to back out. But I managed to get the money from Credit Lyonnais. But I knew it was towards the end. At that time, the whole market was falling apart. The Zoomer had been a failure, the Newton had been a failure. Everything was failing right and left. Magic had failed. Everything had failed. And here we were saying, "Oh no, no, no, but now we got it right. We got it right this time. The PalmPilot. That's the answer."

Weber: Yeah, because that was after. Yeah. I mean, the whole thing fell apart in '92. The whole pen bubble sort of burst, '93 really, right? Somewhere in there.

Dubinsky: Yeah.

Weber: The CS was a sneak preview of Zoomer. General Magic was in that period.

Dubinsky: Yeah.

Weber: Yeah. So the Credit Lyonnais was after, when you were trying to go with Touchdown as it's own...

Dubinsky: Yeah. I think so. You know, I don't remember the exact timing, Marc.

Weber: Okay. Because *Piloting Palm* makes it sound like it was sort of a constant struggle to raise money.

Dubinsky: Constant. Well, the Newtech deal happened very quickly, so that one was easy. But later, we couldn't raise money. So once we went down the path, we got the Credit Lyonnais money. That was the last money we got, and then we tried to raise money, and I think we met with every VC in Silicon Valley about the Pilot, and nobody would fund it. It was like they were on to the internet, but Mosaic had happened, everybody was doing internet deals. Nobody wanted to go do a piece of hardware. They'd watched a billion dollars [spent], between us and Go and Newton and EO and you name it, a billion dollars. I've added it up. And we were walking in and saying, "Fund a new hardware device." Nobody was having it. It was just zero appetite at that stage.

Weber: And if you were in their shoes, would you have funded it?

Dubinsky: I doubt it. I mean, you could see this was different and certain people would look at it and get excited by it. But they had to convince their partners, and it just... they go with the herd a bit, the venture community. They do what's hot.

Weber: And by this time, Go had already...

Dubinsky: Oh yeah, I think everything at that point was in the tank. We were stealth. Nobody knew we were working on this. Everybody kind of wondered what the hell we were doing, because everything had kind of blown up. But we were carrying on, but they just didn't know that we had a new design under development.

Weber: Right. There was a story... you were valued fairly highly based on the secret project, right?

Dubinsky: Yes.

Weber: But you couldn't talk about why you were valued high.

Dubinsky: Well, your valuations weren't public, so nobody knew that. So...

Weber: And what, by the way, *Piloting Palm* talks about the market meter.

Dubinsky: Yeah.

Weber: Tell me about that.

Dubinsky: Oh, they had made this funny placard... it was this circle, and it was divided into two. And on one side it said, "Mother of all markets," and the other side, it said, "A pipe dream driven by greed." One was an Andy Grove quote, and I can't remember what the other part was. There was a spinning arrow on a little spinner thing, and we would just move it too whatever the day's news was, whether it was a bad day and it was pipe dream driven by greed or it was a good day, and it was mother of all markets. So it was just funny. It was in our kitchen at Palm, I think.

Weber: In Los Altos?

Dubinsky: Yeah.

Weber: And talk about some of the key people early on.

Dubinsky: The key people. Ed [Colligan], of course, was the most key of the key people. He joined us, I don't know, maybe a year later. But he came in to do marketing, and really became our third partner and a significant part of the company and how we created the company. So he was really critical. But yeah, I was re-reading *Piloting Palm* and all these names of people. I was thinking, "Oh, I forgot about that person. I forgot about that person." But we had a very talented technical team, and we had two director-level people. Joel Jewitt and Kate Purmal, who were both very talented. And so yeah, we had a great team and we had a great culture. And we all really liked the team and liked working with each other.

Weber: And a fair number of women?

Dubinsky: Yeah, we had a number of women. Kate was pretty senior, so that was great. And Andrea joined us, she was pretty senior in marketing. And so yeah.

Weber: Yeah, it sounds like very close-knit. So Graffiti started on the Zoomer..

Dubinsky: Well, we started doing this add-on software. So we did add-on software that connects software for all the other devices to try to connect them to a PC, because we could see people really wanted to do that. And then we did this...when Newton was such a failure with his handwriting recognition, Jeff came up with this alternate way to do handwriting recognition. And we started developing that for different devices. We had... was it Joe Sipher or Rob Haitani? I can't remember. Maybe it was Rob who named it "Handwriting recognition that doesn't suck." That was his name of the thing.

And I guess Kate named it Graffiti. But that was a very interesting idea: you learned to type, so you're going to learn to write using this thing. And if you learn to write it, you'll get results exactly that you expect. And it's a lot having to do with expectations. You just don't want these surprises and things happening that you don't know why they happen. You want to know, "Oh, I didn't draw it exactly right. Therefore, I can improve it. I can make it right." Gives control back to the user.

Weber: Which is counter-intuitive, because you think people don't want to learn anything.

Dubinsky: Exactly.

Weber: But in fact, they will.

Dubinsky: They will. They will learn things if it benefits them. And this benefitted them. And people got quite good at Graffiti. They would just work away, work away, work away and do great Graffiti. I still think

it was better data entry. I struggle with my little iPhone today to enter data, and wish I had Graffiti, because I know I would be able to enter it much better. We still don't have great text entry.

Weber: Well, no. I mean, either Graffiti or the Blackberry type keyboard is much, much better, or later, Treo. But do you have that working on the Zoomer, but without... I mean, the later Palms had the separate area to enter the text. On the Zoomer, it was just somewhere on the screen.

Dubinsky: Yeah, I don't even remember how we did it on the Zoomer. But we never sold enough Zoomers, so you couldn't even sell it to anybody who bought a Zoomer. So there was nobody who bought a Zoomer.

Weber: Okay. But I mean, those were the two things that traveled from Zoomer.

Dubinsky: Yeah. I mean, I think it was more we were going to say, "Okay, if the Newton becomes big, if Apple's successful with all these millions of dollars they're putting in, we could sell this as an add-on for the Newton."

Weber: Right. That was part of the model that you would sell to whoever were the successful entities. Right.

Dubinsky: Exactly. That was the idea of being the add-on software company for handheld computers.

Weber: But since there were no other successful...

Dubinsky: There weren't any successful handheld computers. So it was very hard to be in that add-on software business.

Weber: So you were talking about the challenge, Bruce Dunlevie saying, "Do it yourself," but you had none of the resources, basically.

Dubinsky: Well, we just didn't have the money and the people and anything to go create our own handheld computer. I mean it was a totally crazy idea. Totally crazy idea. Go build a handheld computer with 28 people. It just made no sense. But we decided to do it.

Weber: Did he realize how crazy it was?

Dubinsky: Oh yeah. The thing that was unfortunate about Bruce was that he wanted us to stay independent. And after the whole US Robotics deal happened, I remember him sitting in my office, saying, "Don't sell." And I said, "Bruce, what is your alternative?" Because he wasn't putting up money, because his partners wouldn't let him unless Sutter Hill went in. Sutter Hill was not putting up money. And so we didn't have any investors. I'd knocked on every door in the valley. I've got a great video about that. And everybody had told us no. So we tried to talk to strategics [partners]. We had this painful history of talking to Strategics.

I forgot all about it until I re-read *Piloting Palm* last night. The pain we went to. With Motorola, with Compaq, with all these guys who we thought, "These guys will want to be the leader in handheld computing. They could own handheld." Any one of those guys would have owned this whole space if they would have just partnered with us. And none of them could do it. It made me very skeptical about the ability of big companies to do innovative things. So we didn't have an alternative. I just couldn't understand where Bruce was coming from. What is your alternative?

Weber: And at Motorola, you went fairly far, right?

Dubinsky: We went fairly far in all of them. We were far in Compaq, we were far in Motorola. In Compaq, I'll never forget, Compaq was totally doable. But then they just started changing the deal, changing the deal, changing the deal. Finally I went to the BD person who we'd started with --we'd been talking to somebody in the division, this other guy -- and I said, "I really want to have a call. I want to talk about where we are. We're just stuck." And he refused to take my call. I couldn't believe it. He thought, "The other guy's responsible. I'm not going to undermine him." I thought, "Well, but sometimes you need to hear what's going on." And they lost the deal because of it.

Weber: And Psion?

Dubinsky: Psion, I'd totally forgotten we had any experience with Psion at all, but I think we did try with them for a while to do something... I think we were trying to do connectivity software for them.

Weber: Because they... I mean, later what they did in Symbian was... well, I guess you were, in some ways, you were offering a replacement for what they were doing, right?

Dubinsky: Well, a lot of those devices, they started out as integrated hardware-software devices. RIM, Symbian, even Casio's little organizers and stuff, and then they decided they wanted to try to make them into platforms, but they weren't designed as platforms. So they had to try to figure out a way to evolve them into a platform. When we started the PalmPilot, we designed it as a platform day one and OS with APIs, with an ability to create an SDK and all those things. But those guys were always having to deal with very difficult constraints from their history of really being a device rather than a platform.

Dubinsky: I liked the Psion people. They had one of the nicer pieces of hardware, too. They'd done a nice job on that. But they didn't have a platform and then they tried to get to be a platform and then, I don't know, it just was like it was all very challenging.

Weber: And Erickson you spoke with as well, right?

Dubinsky: Yeah, I spoke with all of them. I spoke with Nokia.

Weber: Okay. So anyway, you had the April fool's joke saying you'd sold to GeoWorks.

Dubinsky: Oh, yeah. I'd forgotten about that, too.

Weber: <laughs>

Dubinsky: I'm glad you got me to reread the book. Though it was kind of painful.

<laughter>

Weber: And then talk about what led, I mean, this is going back a little bit but the whole idea of accessory, not a substitute, that came from noticing nearly half of the Zoomer owners had a PC according to *Piloting Palm* and realizing there was a niche that wasn't being met. That people didn't care about reproducing their PC.

Dubinsky: Yeah. It wasn't really a niche. It was really a major redefinition of the category. That was the biggest thing. A lot of people would say, "Oh, it was Graffiti that made it." No, no, no, no. The thing that made the Palma success was redefining it as a PC accessory instead of as a standalone PC. For example, we'd spent in Zoomer a huge amount of time putting in printer drivers. We had to support every printer driver. That takes engineers. That takes ROM space. That takes QA. The amount of QA that goes into debugging printer drivers is off the charts. All of these things add up to cost and money.

And so we would say, if you sync well with your PC, just print it from your PC. Why print from a device? It's like if I said to you today, "You know, you can't print from your iPhone," you'd say, "Well, yeah, duh. I don't need to print from my iPhone." But at the time, it was a little computer. You had to print from it. So all that functionality, everything. It needed spreadsheets, it needed this, it needed that. And all that burden was not making it more attractive to people, but it was making it more expensive, slower, more costly ... all that stuff.

So the big redefinition of designing it around synchronization, letting the PC do the things the PC does and having this little guy be a window into your PC and a window to your data that you could decouple and take with you wherever you went, that was the big idea. It meant it had to be designed around synchronization, that was front and center, and that idea totally changed every design parameter of the device. It was a totally different prospect.

Weber: But when Bruce Dunlevie asked Jeff, "What would you do?" that was already crystallized.

Dubinsky: Well, that was what he came up with. I don't know how crystallized it was at that point, but he came up the next day and said, "That's what we need to do."

Weber: But it's not something you guys have all talked about or that was in the air?

Dubinsky: No, that was Jeff. That was Jeff.

Weber: Okay. So that was a real moment of re-definition.

Dubinsky: Yes.

Weber: Okay. And he already had the basic design at that point.

Dubinsky: Yeah, I mean, he credited Walt a little bit, Walt Mossberg, because Walt had had a column early on when we shipped PalmConnect for the Zoomer [synchronization software] where he said, "Why is this an accessory? This should be included in every device. This is essential."

And I think that was one of Jeff's aha moments, "Walt is right." And it started moving in the direction of seeing synchronization and PC communications as central. Remember, devices before didn't have that. You got your organizer, it was separate. You got your Psion, it was separate. It had nothing to do with your computer.

Weber: Yeah. When you interviewed Jeff, he mentioned that as being...

Dubinsky: Oh, really?

Weber: One of the...

Dubinsky: Yeah.

Weber: Yeah, the synchronization. I mean, I guess, yeah, it all follows for the... Psion was an example of one that was its own separate computer.

Dubinsky: Yeah. They all were.

Weber: And some of that, though, was about Mark... I mean, when I talked to the Psion people, they said, but some of it's North America versus Europe. At the time in Europe, most people did not have their own PC. They were very expensive.

Dubinsky: Maybe because they didn't have their own PCs, right.

Weber: And they couldn't afford to.

Dubinsky: Yeah.

Weber: Whereas North America by that period was already fairly high PC ownership.

Dubinsky: Penetration, right. That's possible.

Weber: But with...that was not, you were just thinking what would work. And then Rob Haitaini...

Dubinsky: Yeah.

Weber: Sounds like he was fairly...

Dubinsky: Yeah, Rob was very important. He was a design guru for us, designing all the screens and figuring out how to make things happen, and this whole business of how many taps does it take to do something ... or the phone test of how do we make sure we can beat somebody looking up a calendar appointment with their physical calendar? We wanted to be as good as paper, not as good as the slowest other competitor device. We weren't competing with other devices. We were competing with paper.

Weber: And were most of you using Day-Timers and stuff?

Dubinsky: Yeah. Everybody was using Day-Timers, all sorts of different Day-Timers. There were 50 different choices. Everybody had their favorite system. Everybody was using a Day-Timer.

Weber: You mentioned Jeff walking around with the prototype and tapping it in meetings.

Dubinsky: Oh, yeah.

Weber: But did that amuse people? Was that...?

Dubinsky: Yeah, well, I would sit in a meeting with him and he would take out an actual ink pen and he would take notes on a piece of paper in Graffiti and he would be writing one letter on top of another and it would be a solid black block by the end. And people would look at me and say, "What is he doing?" And I would say, "Shhh, he's inventing." It was so funny the process. He would be imagining it.

Weber: And he printed out on the little prototype then or the mock-up downstairs, there's a printout of software. He would print that out repeatedly, I take it, as he was showing off?

Dubinsky: Yeah, though, I mean, he did it first. I don't know that he would do it over and over again, but he was just trying it when he was trying to size the device and he was trying to figure out what its functions would be and how big the screen would be and all those things.

Weber: And it was quite different than the equivalent in the Zoomer.

Dubinsky: Oh, totally different. It was much simpler. It all got much, much simpler.

Weber: Okay.

Dubinsky: Well, we stripped out just a ton of stuff that we didn't need. We really tried to get to the essence. That was what Rob Haitani became famous for, calling it the Zen of Palm or what is the essence? How do we get to the most important things that people want to do?

Weber: And he did it in the HyperCard, the look, *Piloting Palm* talks...

Dubinsky: I think he just did the mock up.

Weber: Okay.

Dubinsky: He didn't do any...

Weber: Right. But I mean, for the, for getting the look and feel.

Dubinsky: Yeah.

Weber: Because it, Palm looks, it has a very Apple-like look to some degree.

Dubinsky: Yeah.

Weber: Yeah. I mean, there was plenty of influence, but...

Dubinsky: Yeah, a lot of us had been at Apple and had admired the kind of design work that they did at Apple. And we worked with some outside suppliers who helped us on design. So, both the hardware and the software design. And we, the whole sync[hronization] software, which was so key, was an outsource partner that wrote that for us. We paid them, but they wrote it. I don't remember their names.

But the difference from that from the Zoomer, in the Zoomer days, every single feature was negotiated with these six parties. In the Palm days, we decided and they implemented it. So it was not a negotiation with the outsource partners. They were our outsource providers. We decided it was all a singular vision and it was Jeff making the final decisions and the team debating all the points and stuff.

Weber: Yeah. And *Piloting Palm* talks about you sort of assembling a virtual... I mean, you had the software people in house for a number of things, but the desktop was outsourced.

Dubinsky: Right.

Weber: You had outsourced manufacturing, obviously, and you had a lot of experience with this from Apple. How did you think of that kind of virtual [development]?

Dubinsky: We had to use partners for just about everything. I guess we did a bit of the sync software inside. I should correct myself there because I think the outsource partner did a lot of the app work, but they did some of the sync work. But I know Chris Raff worked on a lot of the sync work on the device, too, inside. But we had to go to an outsource manufacturer. We went to Flextronics. Michael Marks was great to work with. He basically said -- he was running Flextronics at the time-- and he told me, "You know, I only take two startups a year. But I like what you're doing and we'll sign you up."

And that wasn't necessarily obvious that we would get somebody to manufacture for us. We had no money. I had no money to build this thing and he knew it. So he let us work with with his engineers proactively to make it manufacturable, assuming I was going to be able to get the money by the time it came to order the product. He took a bet on us. I will never stop being grateful to Michael Marks for taking

a bet on us and saying, "I don't know how they're going to pull it off. But I'm willing to bet on these people," because a lot of people wouldn't have done that and we wouldn't have had a way to manufacture it.

Weber: Yeah. And *Piloting Palm* says you worked so closely with them, you were re-designing it based on what would work on their production line.

Dubinsky: Yeah, you have to design that way. You have to design for manufacturability. It's a very iterative process.

Weber: And then also the custom... the memory chips.

Dubinsky: Well, in general, we had problems with components because we were trying to get components that were often on the older side. One of my favorite stories was the display, which is we went around trying to get people to sell us a display. Nobody wanted to sell us a display because they were all trying to make big displays. They were going up market. They wanted to do color displays and laptop displays and all this stuff. So finally, we came up with a brilliant idea. I don't know who, somebody in our supply chain group saying, "Well, who makes a smaller display than that?" And they came up with the pager guys. So they went to the pager guys and said, "Now those are little displays. Would you like to sell a bigger display like this?" And they said, "Yes, that's more expensive. That's really great."

And that's who we got to build the displays for us. But it wasn't obvious that we could find a display vendor because the big display vendors wanted nothing to do with us. They were not the least bit interested in a small monochrome display. They were interested in big color displays. Every component was like that. Every single component was hard to get. The memory was another one where the kind of memory we needed wasn't in production anymore. We had to beg providers to sell us that kind of memory. But I would say many of the components were in the same boat. We had great people trying to work the supply chain to get the stuff we needed. And obviously Flextronics was helping us a lot, too.

Weber: And then the design firm also was...

Dubinsky: Yes, right.

Weber: And the Sharp was that.. I don't think I fully... It's mentioned in passing in *Piloting Palm*.

Dubinsky: Yeah.

Weber: That you were adapting the Zoomer software for it. But then they passed. There was some deal that...

Dubinsky: Well, we did a deal with Sharp to do a device for them. It was a little bigger than the Zoomer. It was more like an iPad sort of device, ironically enough. And, you know, we had a deal with them to license them our software. I think it must have been a GeoWorks deal because it was the same as the

Zoomer software, so it would have been running GeoWorks and we were going to have to reformat for the screen. We did a lot of work on it and at the end of the day they decided not to ship it. So it ended up not being really anything.

Weber: So just a waste of your resources.

Dubinsky: PT 9000? Is that what it was called? I can't remember. Yeah, it was, we, we had a lot of dead ends. We, there's one, I'm sure there's one here at the Museum. I'm sure I gave them one. <laughs>

Weber: That sounds familiar.

Dubinsky: Yeah.

Weber: We do have the Sony Palmtops but, you know, the plastic has turned sticky or...

Dubinsky: Oh, is that right? Oh, that's funny.

Weber: So, you had another, yeah, more of running out of money.

Dubinsky: We were always running out of money. <laughs>

Weber: But Jeff was absolutely firm on the \$300 dollar maximum price, the \$299?

Dubinsky: Yeah.

Weber: Where did that come from?

Dubinsky: Well, you know, a little bit of that came from Tandy [Radio Shack]. Tandy had told us when we were trying to sell the Zoomer, they said, "Look, the best two price points are \$199 is the best one and \$299 is the second best one." And the reason was because lower price than that, you sell a lot of units, but you don't make much per unit; higher price than that, you don't sell a lot of units. And they had what at \$499 they called the two-spouse decision. You don't want to be over \$499. That's a two-spouse decision. You want to avoid the two-spouse decision like crazy.

So \$199 and \$299 were their sweet spots of pricey enough that you could make a decent amount per device but not so pricey that it hit the two-spouse decision. But still you could get reasonable volume. They taught us that in those years. We didn't make it with the Zoomer. We were at \$600 or \$700 dollars, whatever we were... didn't make any of those parameters. And we decided they were right.

So that's a little bit how we came up with it. But we struggled to get to the \$299 and what we ended up doing, which I don't think was in the book, which I thought was quite brilliant, was that we came out with two price points, two different memory configurations. So we had a \$299 and aa \$369, a \$379 or something that was the bigger memory thing. And we were much more comfortable on the margin on the

higher one; the lower one, because the cost of the memory wasn't that different. So that met our goals on the margin, which it wasn't a very profitable product at the \$299. But we figured that enough people would buy the higher price version that the blended margin would be okay. And in fact, that's what happened. So we could advertise \$299 but two-thirds of the people would buy the \$369 and only one-third the \$299 and the blended margins were fine.

Weber: Yeah, it was a gateway in a sense.

Dubinsky: It was a good strategy and then we pretty much always did that after that, tried to have a multi-tier strategy and have a low price point for those who needed to get in at a lower price point, but then have more sort of capability at a higher price point, and a higher margin.

Weber: And the back light sounds... I was a little surprised that was such an issue several times, but leaving it out of the initial one and then putting it in.

Dubinsky: Yeah, you can understand how leaving it out made sense because it was cost, it was memory drain. It was power. Casio was wild about this battery life issue. It's like they cared more about that than any functionality. And I will never forget their launch of the Zoomer that we'd worked so hard on and the first slide that came up, all it said was 100 hours battery life. That was it. That was their biggest selling feature and it was... we couldn't believe it.

So, it's really funny now, when you think about it, how we just are in automatic charging mode, we don't even think about the fact that we have to charge it every night. But at the time that was *verboden*. So they cared enormously about that. But the problem was, if you were trying to read your calendar in your car at night, you couldn't read it. So the backlight was a pretty big need.

Weber: And the backlight would be with the same display, so it'd be good in the sun but also at night, yeah.

Dubinsky: Yeah.

Weber: Unlike today where they're terrible in the sun.

Dubinsky: Yeah. But, you know, you had a whole different technology at the time and you just couldn't see it.

Weber: But with the backlight you had full range.

Dubinsky: Yeah.

Weber: We talked about...the keyboard backup plan... we have it on display downstairs... that you weren't sure that Graffiti would sell. So you made the mock-up with a keyboard.

Dubinsky: I think we were always worried about Graffiti but we ended up doing a keyboard version. I think what happened was RIM showed that a small physical keyboard could work. And I think we took lessons from that and said, okay. There was actually a lawsuit. RIM sued us after we came up with the keyboard...

Weber: But that's later on the Treo.

Dubinsky: Yeah, that's the Treo. That's right.

Weber: But I mean, for the Pilot we have downstairs mock-up. You never built an actual gizmo...?

Dubinsky: Right, right. Yeah.

Weber: But that had like a Blackberry style keyboard.

Dubinsky: Yeah.

Weber: So that was kind of the secret...

Dubinsky: Yeah, we tested it and people weren't crazy about it. So we ended up sticking with the Graffiti. People loved Graffiti. I mean, Graffiti was quite popular.

Weber: So who were the doubters? Who was enough of a doubter to actually think of the keyboard backup? Jeff or...?

Dubinsky: Well, you had to learn Graffiti. So the question was always, are people going to be willing to train themselves and learn Graffiti? And the book tells a story about Chris and he wrote a game that was about learning Graffiti. But that was the big question, are people going to invest their time in learning it? And, the more time went on, the less likely it was that people were going to do that. The early adopters, they were fine, they were totally fine investing their time in it.

Weber: I remember when I learned it and it seemed remarkably easy.

Dubinsky: Oh, yeah.

Weber: But the idea seemed insane to learn a new way to write.

Dubinsky: Yeah. Oh, I know.

Weber: <laughs> But then it actually proved to be pretty easy.

Dubinsky: Yeah.

Weber: And reliable. So, I mean, any other major things before you were starting to look for a buyer to raise the money?

Dubinsky: We weren't looking for a buyer. We were looking for an investor. It was clear the venture community wouldn't invest in us, but maybe a company like a Compaq, Motorola, or US Robotics (USR) would invest in us. So we were looking at strategic investments. That was the focus. That's how we approached USR about strategic investment.

Weber: True. Because they were going to build a modem though, which is where I was a little unclear in the book. You were not thinking of connectivity that early. Why were you talking to them about a modem?

Dubinsky: Yeah, we were talking about hooking up all sorts of things to this. Sure, you know, people wanted to communicate with us so we could hook up, plug it into a modem. Yeah, we were talking to their Megahertz Division about the modem.

Weber: But that would have been their own product, not...

Dubinsky: Yeah. That would have been their own product.

Weber: Okay. Exactly.

Dubinsky: But, you know, like, we had a developer community and they would be part of our developer community to build a modem that worked on our product.

Weber: Okay. And then maybe finish this part with Jeff. The decision about ordering the plastic case at the thickness that you had to meet.

Dubinsky: Oh, yeah.

Weber: That you had... So, and you approved that? Right?

Dubinsky: Well, I was out of town and I remember getting this frantic call from him saying, you know, we've got to put the plastics for the casing into production. It's a half a million dollar decision and we can't quite fit the components in, but everybody wants to make it bigger and I don't want to make it bigger. And I want to know what I should do. And I said, well, what are the options? And he said, , I've got five different ways I think I can fit this in. And so I said, well, of those five, one will work. Let's go for it. I don't know what I would have said if he would have said I've got one idea. I might have said, let's wait and see. We could have just delayed day for day for him to try these things out, but we were then going to be late, right? So we were trying to stay on schedule.

Weber: And this was to save a millimeter.

Dubinsky: Yeah.

Weber: Something like that.

Dubinsky: Yeah. Jeff was very keen on getting the product parameters the way he wanted them. He had a very clear vision and he just kept executing that vision, which is one reason it was successful.

Weber: Great. So let's pause there.

Dubinsky: Good.

Weber: We'll come back to the ramp up to the launch.

Dubinsky: Yeah.

Weber: And the purchase. So jumping ahead to looking back, even though we haven't gotten... But okay, so give me one fear, one hope and one prediction for a decade from now. <laughs>

Dubinsky: Oh, my gosh. I don't know that I could do any of those. I mean, these are general or industry? I mean, what's the...

Weber: Well, I mean, I would choose one of the industries you've been in. So either mobile in some form, AI now, are they going t...- maybe they'll merge in some form?

Dubinsky: Yeah.

Weber: Certainly there's been a lot of intelligent agent or personal assistant talk over the last 60 years.

Dubinsky: I don't have that many fears about it. I generally am this optimist that I think that technology is good. I guess my biggest fear is, can government figure out how to regulate this stuff in a sensible way? Because they're always lagging far behind and they just don't know how to do it and they get confused. I think it's very hard to understand stuff in order to do smart regulation, so they could easily make mistakes and over-regulate or under-regulate or, you know, that's probably, what I would say, my fear is. What were the other categories?

Weber: Hope.

Dubinsky: Hope, I, look, I'm an optimist. So I continue to think that there's just a ton of value we can bring in technology to improve people's lives, to address climate change, to address income inequality. I mean, massive opportunities to help educate people who don't have access to an education. I mean, it's just, I'm basically feeling that technology still has many solutions that it can offer in the future.

Weber: And a prediction.

Dubinsky: Hmm. I don't have any predictions.

Weber: By the way, it made me wonder though when you were in high school and feeling maybe not as connected, I mean, do you think for kids in that kind of situation today, connectivity devices can be transformative. I mean, do you wish you had had access to some of that stuff?

Dubinsky: You know, they really do seem to have pros and cons, right? I mean, there's clearly more access to information, but there's clearly more people feeling bad about themselves, young people and comparing themselves to other people and not having the sort of same self-confidence. And so I think every technology has potential downsides that need to be managed by the community and the users. There's two sides to that coin, I think.

Weber: And what, what would you, what advice would you give to young people, particularly young women who are interested in technology or business?

Dubinsky: I don't know that my advice for women would be any different than men. I think it would be the same. I would say first, I tell young people to do something in sales early in their career. You're always selling. If you're a CEO you're selling your ideas. I was selling investors. You know, I was selling employees to join. It's not just salespeople who are selling, everybody is selling all the time. And to get that early experience I had in the bank, which was effectively sales, was just huge for me in terms of understanding that and learning communication skills, and learning writing skills and presentation skills.

And I don't care what your job is. I tell people get an early experience selling and you will be better no matter what you do later. So that's one thing. Another thing is so basic but it's to do good work. Whatever you do, take it seriously, do your homework, be prepared. Have options, go into your boss with, "Here's what I recommend. Here's the options. This is why I recommend this." Don't sit around and wait for somebody to tell you what to do. Go do it yourself, make it happen.

Weber: What inspires you.

Dubinsky: Great products inspire me. I love it when people build beautiful things. Teams inspire me. I love a team working together. I think that's what I've gotten the most energy out of my whole career. When you've got people who come from different angles in life and different life experiences and they enhance each other's work and they improve it and an idea is happening and somebody else tweaks it this way and somebody else argues it this way and it, moves along and it grows and it develops and it advances in a way that no one person could do. I love that when there's a team that's involved in taking something forward and that's been a thrill for me in my career is to be a part of so many wonderful teams.

Weber: But drawing on your wealth of life experience what one word of advice would you give to a young innovator entrepreneur? What is the word? Can you tell a story that illustrates why you chose that word? So you can either say it now or think about it.

Dubinsky: Right. Yeah. No, I'll just do it. So my one word is 'courage.' I feel like things are hard to do if they're new, man. It is really hard. You have to make a lot of hard decisions. You have to have a lot of disappointing moments. A lot of lows, a lot of highs, but a lot of lows and you have to have the personal

strength and courage to be able to get through that. It's not easy and a lot of people won't and the people who do, have a better chance of being successful.

So it takes courage to just continue to try to beat down those barriers and get over that next hurdle and keep coming back over and over again. And, I don't know, I guess my story is, and we'll get to it later, but it was in the Handspring years when I did this. I signed this lease for this building and then the market crashed and then all of a sudden I had this big debt and it was really a problem for the company. Bruce Dunlevie come to me and said, "You're going to have to file for bankruptcy because that's the only way to get out the lease." And I couldn't believe I'd gone from the fastest growth company in American business history to bankruptcy's door. I mean, how could that possibly happen?

And so I was just devastated. I cried myself to sleep. And then I woke up the next morning and I said, well I realized it's easy to be a CEO when times are good and things are going great. But this is when it's hard. And if I can get us out of this, then I know I'm good. This will really test me. Can I get us out of this? Can I get this company through this? And I just decided I was going to face it and I was going to do what it took to get us through it and I did.

But I thought that took courage, man, that was just a willing it to happen and working on it. And I settled on the courthouse steps to not file bankruptcy and to get our company out of that. I had to settle with the lessor and pay him money, and, and it was, you know, really, really hard, but I just realized that was sort of the moment where I realized you need some degree of personal strength to be able to do this. And that's what really counts.

Weber: Very nice. And last question, of which accomplishments are you most proud?

Dubinsky: I've had a career that has spanned four major revolutions in computing, first desktop computing, handheld computing, smartphones and now intelligent computing. I've been at the forefront of every major revolution in the past 40 years and have helped make those things happen. And a thrill it's been to have a career that's been so much about creating new things. That's what my career has been about. It's been really hard, but it's been very rewarding to bring new value to people's lives and give them tools that can help them do things that they couldn't otherwise do. And I feel very proud of having done that.

Weber: Great. If there's anything... no need, but if anything particular you would say for women, to young women, feel free; otherwise if, if you've done it...

Dubinsky: Yeah. I'm always bad at this question. I don't think women's needs are that much different than men's needs and they both need to step up, do good work. I struggle to answer that in any more enlightening way. So I think you need somebody else to answer that.

Weber: No, I mean, that's an answer.

Dubinsky: Yeah.

END OF THE INTERVIEW