



Oral History of Peter Barris

Interviewed by:
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Hancock: Today is September 24, 2017 and we're here in the offices of New Enterprise Associates with Peter Barris. Thank you, Peter.

Barris: Good morning.

Hancock: We're really delighted to have you here conducting your oral history for the Computer History Museum. So, I'd like to start by the beginning. Can you tell us about where you were born and your early childhood?

Barris: Sure. I grew up in Chicago and lived there through my freshman year in high school, so a relatively modest home in the city. Went to public schools, went to what I guess in today's terminology you would call a magnet school for high school. It was a technical high school called Lane Tech. Had a great childhood, had two working parents. My father was a structural engineer by trade, ran an engineering department. My mother, a housewife and did the secretarial work and very involved in our church and lived in kind of a typical Chicago neighborhood. Very ethnic, very diversified and it was a great background. My family moved to Ohio after my freshman year in high school, a town outside of Youngstown, Ohio, which was a big change from the big city where I took buses to high school. It was an all-boys technical high school to then kind of the all-American, middle-America high school. But I loved it there. I loved it in Ohio and it was a big change from the big city. I went back to Chicago to go to Northwestern as an undergrad and went back to major in electrical engineering. So I turned around and went back to my hometown.

Hancock: So deep roots in a Chicago. Before we get to your college years, I'd like to ask what was the sort of the world for you as you were growing up? What did you talk about at home? What were your activities? Interests in politics, education, religion, arts?

Barris: So, it was interesting my mother was a very hard-working person and a leader, okay? Particularly, as I mentioned, in our church. My parents are both of the Greek heritage and so we had a very strong family unit with not only my family but my extended family. So, grandparents and cousins, a little bit like the movie Big Fat Greek Wedding, if you're familiar with that.

Hancock: Yes. It's bringing all kinds of images my mind.

Barris: So that was the environment I grew up in, and it was a very loving environment. I think I learned a lot of different things from each of my parents. So, my mother, as I mentioned, was a very hard-working leader in many organizations within her church community and broadly in the Midwest and nationally, actually, all church related. She was the kind of person that also had a job, would come home from work

and then work at home, as did my father, frankly. But he did it in his professional engineering profession. He'd come home from a day of work and he did work at home. So I saw, I observed in both of my parents to very hard-working people. My father had a college degree, my mother did not. My father was a bit of a renaissance man. Even though he was an engineer, he was both left brain/right brain. So he would author fictional articles. He was an artist. He played the mandolin, and so he was, I'd say, a left brain/right brain kind of guy. He was very interested in the music and reading, and so I got very involved. Not in music. I have zero in the way of musical abilities, but I did read a lot...a result I think of my father's influence. But my mother taught me a lot about leadership, frankly.

Hancock: What were some of the books that have kind of stayed with you from those early years?

Barris: Oh gee, going back, I don't think there was a particular book that influenced me. You know, I read all the classics that you would expect. You know, both of those that were kind of dictated by school and otherwise. But I can't sit there, at least at that time and point to a book that influenced how I move forward in life, but it was the influence of my parents. My father was very focused on how I did in school, the grades I got and he had ambitions for me. You know, my mother was more the "Let's make sure you're a well-rounded person and a good person." And I think both were good and both very influential in how I viewed the world.

Hancock: Well thank you. You talked about making the decision to return to your hometown to go to college. How did you make the decision to go to Northwestern and start to choose your major and then ultimately what you decided to move into for your career path?

Barris: Well, at the time in high school, I joined the debate team at my high school and we were-- our speech team broadly, and debate team, were amongst the best in the state of Ohio. We competed every weekend and I loved it. And so at that point in my life, I was trying to decide what I was going to do with my life. I so loved the debate experience that it naturally led me to think I wanted to be a lawyer. And my father, again, the ambitious one for me, knowing I had an aptitude in math and science in terms of testing, etc., and being an engineer himself, was pushing me to get an engineering degree and ultimately become a patent attorney. Because he said, "That's how you can differentiate yourself from the glut of attorneys on the market. Go take what you're good at, math and science, and leverage it." So, he sold me on that concept.

I looked at colleges in the Midwest, because I really didn't think about going far from home, if you will. They were both strong in engineering and strong in law, and that's what led me to Northwestern, because it had premier departments in both, and ultimately I loved the fact that it was a medium-sized university. It was a Big 10 experience and it had the whole ball of wax, so to speak. And so that led me there and I was comfortable. It was back in my hometown, I had family around, etc. Little did I know my parents were going to move back to Chicago a year later. Which was one of those moments when I thought I was

getting away from my family and going away to school, and they announced, after my freshman year, they were moving back to Chicago. It was not a good moment, but it turned out great.

Hancock: As I understand, you started down that career path for patent law and then changed direction. Can you talk about what you decided to study and ultimately graduate in?

Barris: Yeah, I did. So I was in electrical engineering and one of the reasons I chose electrical engineering, besides a general interest in the area, was that and chemical [engineering] were the areas that were most relevant to patent law. So, I envisioned myself being the debater, standing in front of juries on big patent infringement cases and arguing the case. Then, in my junior year in college I took a course, an elective course on law for engineers. Half the course was taught by a patent attorney, and so I got chummy with him and he told me what patent law was really about. And when I understood that I'd spend the first five years of my existence buried in a patent law library and not standing in front of juries arguing cases, and I got the reality, so to speak, of what it was really like. I decided I wasn't as interested in it as I thought I was.

At the time, I think MBAs were becoming in vogue, and the business world intrigued me for a lot of different reasons. So by the time I graduated, I did take my LSATs, because I hadn't given up entirely on the thought of going to law school. But I was migrating away from it and I also took my GMATs. But I spent a year working in an engineering consulting firm. In fact, while I was in college, I was in a co-op program, a work-study program. So, it took five years to get my degree, and I worked for a consulting/engineering firm in Chicago. I continued working there for a year afterwards before I went back to business school.

Hancock: Were there any professors or classmates, people that had an influence for you during those college years?

Barris: Yeah. I'd say particularly in business school, a professor by the name of a Brian Quinn who managed both the business policy, which was a required course and a strategic course. And he also managed the entrepreneurship channel, if you will, of courses, which there weren't a lot of back in those days. I'm dating myself now, so this was '75 to '77. But what you're expecting me to say is I took all of these entrepreneurship courses, which I did not. The influence was business policy. I loved the strategy of business. I loved the discussion and the discourse we had in the classroom on how companies evolved and succeeded and, in some cases, failed, how they dealt with competition, how they dealt with adversity. We also had a computer-driven competition, a one-weeklong competition as part of that course. The company which I was president of, in our group of five, won that competition. So I was very invigorated by the broad concept of business and the broad concept of strategy and how to evolve businesses and succeed. I was not interested, at all, in entrepreneurship at the time. So it was the traditional to go to work... I mean go to work at a big company. And that was my plan, to leave Tuck at Dartmouth, which is where I went to business school, and go to work for a big company. That's ultimately what I did, and so

entrepreneurship, interestingly enough, even though it was run by my favorite professor, was not something that I grabbed onto at that point in my evolution.

Hancock: I'd like to go back just a little bit and talk about your Northwestern years. I've heard that, I think this is true, that you were very involved in extracurriculars.

Barris: Yeah. I was. I was involved in extracurriculars. I was a not your typical engineer, because remember, it was a means to an end for me. And so I got very - again, kind of left brain/right brained. I got very involved in some of the creative disciplines, if you will, at Northwestern. I was a producer of a-- of what is, to this day, the largest student-run musical in the country.

Hancock: Dolphin?

Barris: The Dolphin Show is what it's called. It had its beginnings..

Hancock: Tell us more about that.

Barris: Actually, the swimming pool, which is why it's called Dolphin Show, evolved over the years, prior to my time, to being a stage performance. So, I got involved in that early on in the promotional aspects and the normal support. Then it got to the point where I was co-producer of the show. So, I was very involved in I'll call it, the theater side of Northwestern, as well as other things that you would expect. The Wildcat Council - I was on the newspaper for the engineering school. Ultimately, I started and ran a spring weekend that has now evolved into a major event at the University, where we got a big band, a nationwide-known band, and brought them to campus on the beach, because Northwestern is on the beach on Lake Michigan. So, I got involved in a lot of activities. So, there was a point where I was inducted into an honorary society where 15-- both a junior and senior honorary society where 15 men are elected into this honorary society for both scholarship and leadership. And so, again, it was kind of left brain/right brained. I was involved in a fraternity. Not the typical engineering student, I'd say.

Engineering, frankly, didn't come easy to me, you know? It was one of those things where I-- it was hard work for me. The engineering side of it was hard work for me, whereas I'd go and take an economic class with an economics major and it was easy, and I'd ace it. So, I always thought about switching majors but I stuck it out. I'm glad I stuck it out, because it gave me-- it taught me a certain rigor in how you think about things and problem-solving. The education itself was probably obsolete one year after I left college because of the technological change. But the problem-solving aspect of it, and how you think through problems and solve problems was something that I lean on, I think, to this very day.

Hancock: After Northwestern, as you mentioned, you chose Tuck and went to Dartmouth.

Barris: Yeah.

Hancock: What was behind that decision?

Barris: Well, my best friend in high school went to Dartmouth as an undergrad and so that influenced me, because he had a great experience there. You know, at the time, as I looked at the highly-ranked business schools, it was clearly in the top five in business schools and I had a girlfriend who worked for Digital Equipment. She's now my wife..

Hancock: The story turned out well.

Barris: She worked in the finance department, and she would often travel to suburban Boston, Maynard, which is where Digital Equipment was based at the time. So to me it was an opportunity to get a different experience. I wanted a different experience than Northwestern, although I did apply at Kellogg and got accepted to Kellogg amongst other business schools. But I loved the thought of going off into the woods of New Hampshire for two years. It was a small school and a very intimate experience. Then, as today, they advertise themselves, Tuck does, as a school that's got a very, I think, strong community and where all of the focus is on MBAs and not on doctoral students, etc. They don't have a PhD program in business. I loved that aspect of it and I said, "I'm going to spend the rest of my life in a major metropolitan area, so I might as well have this experience."

And I got the benefit of seeing my then-girlfriend fairly frequently. Although it didn't take long before I went away and left that I actually got engaged, so I realized, as I was in the woods of Hanover, New Hampshire, that maybe I made a mistake leaving my girlfriend. She wasn't happy about the fact that I chose to go there, but I would always say to her, "Well, I didn't go to the West Coast," because I got accepted to a school, a well-known school, on the West Coast as well and I decided to go to the East Coast for her. So that's what I did for her, but I realized really quickly that she was the woman for me. We got engaged about two months later and she joined me after we got married in between my first and second year.

But to your question of why I went there, I went there because of the intimacy of the program, the fact that I had a great friend that had gone to Dartmouth and had convinced me that it was a great place, and I wanted a different experience.

Hancock: Well, you had to these major, pillar decisions made at that time. You mentioned your fascination and love of building businesses as a broad spectrum. Was there anything else that you look back that you continue to draw on from those Tuck years?

Barris: So Tuck, for me, was a pivot point. Coming out of an engineering program where you didn't have an opportunity to take a lot of electives, wanting to go into the business world but not knowing a lot about it. Frankly, when I went to Tuck, I didn't know what investment banking was, so I realized I needed to pivot. What better way to pivot but to go to a business school and get an MBA and then expose myself to a lot of things I hadn't been exposed to, which is exactly what happened. And so, it seemed natural, to me, from a functional standpoint, I gravitated to the marketing discipline rather than something like finance. I think it goes back to the fact that I loved business strategy. Marketing as a discipline it seemed to me, at the time., represented the discipline that gave me the best opportunity to exercise business strategy and to exercise the creative side of myself. If you will, to grow a business. And so, to the extent you major, and you didn't really major in anything back then in business school. I took a lot of courses in marketing, with the intent of going into an industrial company, because I wanted to leverage my engineering background, my love of technology. I didn't want to go to a consumer marketing company, but to go to something, to a business that had a technology foundation. During the course of my work as an engineering consultant, I had the opportunity to take a class at General Electric for a week in their lighting division. I came away from that class very, very impressed with the organization and their professionalism and the depth of talent that I met during the course of that week, etc. So, I was attracted to General Electric, specifically amongst a variety of companies, but I was attracted to General Electric, and an opportunity did come along that was a little unusual at GE and I grabbed it.

Hancock: I want to hear about that opportunity on the bulletin board, which is, I think, where you found out about that opportunity. Could you help us give a little context, though. This is the mid '70s. What was the landscape of technology companies that you were maybe considering and General Electric's place in that at the time for the United States?

Barris: Well, you know, technology companies back then were major corporations like GE and IBM. They weren't the Microsofts of the world. Those companies hadn't come along. I'd have to think back. I guess, did Hewlett-Packard have its beginnings and then? I didn't really think-- it had its beginnings, but..

Hancock: It started in '39.

Barris: Yeah, but I thought of large, industrial companies. A lot of them, chemically-based companies in the chemical world, etc. Many of which aren't even around today, frankly. You know, they were the AT&T's of the world, so the big telecom companies. IBM was a very notable one at the time. So those were the kinds of companies I thought about. Nothing you would think about in today's tech world. None of the companies you would think about as the leading companies in today's tech world.

Hancock: It's the nature of the technology change, isn't it?

Barris: It is.

Hancock: So this unusual opportunity came. Can you tell what that was and how did you grab onto it?

Barris: Sure. It was an opportunity on a bulletin board, frankly. GE came on campus and interviewed for their standard, entry-level jobs and I did go to those interviews. But there, I noticed on the career bulletin board an opportunity for a unique program that was just starting up, frankly, at the plastics division in Pittsfield, Massachusetts. They were coming to Tuck -- to hire somebody from Tuck specifically for this job working for the head of strategic planning. Strategic planning was a big deal back then, and GE had kind of engineered it and led it and many companies followed it. So it was an opportunity to do this and I wrote in and answered that. Now, that led to a different job, but that's the job I went after and looked into. It was an unusual situation because they, as they kind of screened out to students, they brought a limo up to Hanover, New Hampshire, and drove three Tuck students, two of my classmates and myself, to Pittsfield Massachusetts for a day of interviews. So, there were three of us, frankly, all friends, pitted against each other and only one of us was going to get the job. And it was a great day, frankly.

It was a unique job, but the job I ultimately ended up with was not that one. The plastics division was one of five that was managed by a group led by Jack Welch called the Components and Materials Group, and he had started this program of hiring an MBA out of school two years earlier, where he went to Harvard and he had hired two Harvard students. And in that particular year, he decided to expand the program to five of his divisions, so they went to five different schools. They went to Tuck and they went to Wharton and they went to Chicago and Northwestern for different divisions. And as I said, Tuck was the school they went to for the Plastics Division, which happened to be the division that Jack Welch grew up in, which is why he ran his group, which was also in Pittsfield, Massachusetts. It was unusual because everybody else at his level was at the corporate headquarters, which was then in Fairfield, Connecticut. But he ran his group out of a small office in Pittsfield, Massachusetts, and he oversaw a big part of-- it was called components and materials, so it was all the materials businesses, plastics, silicones, components of like appliance components, electronic components and a couple of miscellaneous businesses. I'll call it like mid systems and batteries. but he had this fiefdom, if you will, that he ran out of Pittsfield and he hired an MBA to come in for one year, as I'll call it, a roving consultant where you go out and do project-oriented activities at these divisions at Jack Welch's behest.

He kind of struck out that year, and that was my good fortune, in the candidates that he saw from Harvard. And so, the person that was running the screening process said, "Well, you want to talk to this guy, Peter Barris." So, I got the nod to go to his office and work for the head of strategic planning-- again, at the group level. It was a guy by the name of Greg Liemandt, who became my mentor in business that hired me, but it was a small office. It was only eight people, and so I went through a day of very rigorous interviews, and I'd say to this day probably the most intimidating set of interviews I've been through.

Hancock: That's saying a lot. Tell us about those interviews. That's something. Do you remember?

Barris: Well, you know, I was the lightweight. I was the 20-some-year-old kid in an office of senior executives and they had one other-- I'll call it junior, but far older than me person in finance, and then me. Everybody else was a senior executive at GE, and I came in for a day of interviewing. Obviously, the man that was hiring me in strategic planning, the Senior Vice President of Finance, the Senior Vice President of Legal Counsel, the Senior Vice President of Human Resources. I kind of passed through all that and they said, "Okay, now you're going to meet Welch." I had to cool my heels for an hour and a half. I didn't know who Jack Welch was, you know? I mean, I didn't really understand that he was a rising star in the company and when I first met him, he said, "Well, you weren't supposed to get this far." So that was the intro to, I guess, comfort me and put me at ease.

Hancock: Put you at ease.

Barris: And during the course of the interview, he would-- he'd say things like, "You know, well, we're looking for people that can consult to our businesses and have an interest in consulting, frankly." But they wanted people with a technical background, so an engineering background was key to getting that job, frankly. I don't think I would have been there had I not had an engineering background. At one point in the interview, I said, "Well, you know, I've been a consulting engineer." And he said, "Well, that's just bullshit." And I said, "Well, that's not bullshit, and here's why that's not bullshit." And the importance of that is I later found out that the fact that I stood up to him was the reason I got that job. And so, I stood up to him and I asked him a question and I said, "Well, you've had this program where you've hired in an MBA and at the end of one year, you shoot them out into one of your divisions, into an operating role. Well, now you've introduced this program to the divisions and they're all hiring MBAs out of school in these one-year programs. So where's the opportunity for me? They each have their guy." And he said, "If you do a good job here, you'll have an opportunity." That's what he said at the interview.

Later, I'd say two months later, he had a dinner with all these MBAs and he said, "You want to know why I hired Peter Barris?" And I was stunned, because I didn't know what to expect, and he said, "One, he stood up to me and two, he showed political savvy by asking that question." Which actually scared me, because that then told me that my question was a good question... <laughs> That his assurance that I had a job was something I shouldn't rest easy with. But... but that actually was a good life lesson, because one of the things I observed, being around Jack Welch for that year, was that he did not suffer fools. He challenged people very hard, and the people that wilted... lost. And standing up to your convictions was important. *Having* convictions and standing up to them was important, and... <clears throat> and something that he used to delineate winners from losers, using his terminology.

Hancock: Thank you for sharing that beginning. So, that beginning led to almost a decade at GE. Can you first start with what were your early assignments, as you were this technology consultant roving around? What were you actually doing?

Barris: Well, my first project, as it was, was at Medical Systems, which was in-- just outside of Milwaukee, Wisconsin. And they sent me there-- there was a bit of a controversy going on, in terms of how they were servicing medical equipment. So GE was a leader in X-ray and CT scanners - to this day, is. And there was-- the controversy was whether they serviced the equipment on an hourly basis or on a contract basis. And there were different factions within the organization that took those two different sides. And so Welch said, "Go figure it out." So, I was, again, this young whippersnapper being sent into this division of, I'll call it, warring parties. And nobody wanted to talk to me, because Welch had-- in their view, Welch had sent me. And there was-- it was kind of a no-win for them, to really open up. And so, my client was the head of Strategic Planning for that division, who was on one side of the controversy. But I had to go in and ascertain what the real story was, and then report back to my staff in Pittsfield, Massachusetts.

And ... what I found in that project, frankly, was I uncovered a little bit of a Pandora's box, because they were all arguing with bad information. They had bad information. And so the--

Hancock: Interesting.

Barris: The premise for their respective arguments was all based on a poor foundation. And so <clears throat> that led to another project, to another project, and... you know, ultimately, they did resolve it. And I got a job offer at Med Systems, as a result of my work there, which I didn't take, but it was a great experience. And Welch got-- because it was a bit of a controversy, Welch got directly involved in it. So I-- you know, I would be sitting in his office, talking to him about what I was finding out, and then he'd get the division manager on the phone.

And so-- you know, I, very early in my career, was dealing with issues at very high levels within the company, and that was an experience that ... it'd be very difficult to replicate. You know, I saw, firsthand-- I got a glimpse into corporate politics, even though we weren't at the corporate headquarters. Welch was advanced from there to a sector executive, and from there to CEO of the company. And so he was enmeshed in the, I'll call it, the politics of choosing the next CEO of GE, and I got a glimpse into that. So, operating at that level early in my career, albeit for a relatively short period of time, was instructive.

I also got the opportunity to do projects at Plastics, at Battery Business Department, at Silicones, so I saw a wide variety of businesses. I visited some of the other more, I call it, legacy businesses, slower-growing businesses, like Appliance Components, et cetera. Which, by the way, taught me some important lessons-- some very simple things-- like, I'd go to Appliance Components in Indiana, and I'd observe and meet with somebody-- an older gentleman-- who I thought was incredibly impressive, and was, in GE parlance, a Level 13. Now, this was a slow-growing business that had been around for decades. And then I'd go to Plastics, which was a high-flying, you know, 30, 40 percent, year over year, business; very profitable. And I'd observe that this very *young* guy was a Level 13. Very young and, frankly, *not* all that

impressive. And I'd go, "Okay, they're both GE. What's going on here?" And I saw that at many different businesses. And it occurred to me that market matters.

So, if you're in a business that's in a great market-- like, at that time, plastics; fast-growing-- the opportunities abound, and people often time [sic] get elevated beyond their, I'll call it, level of competence, but the opportunity to grow is there. Whereas if you find yourself in a business that's not growing very fast, no matter how skilled you are and how capable you are, you may find yourself in a corner. And so, it's those simple kinds of lessons that I learned very early in my career at GE, because I had this opportunity to observe all these different businesses, but they were all still under the same banner, and they all had a commonality, in terms of the GE culture, but they were still different. And so, there were a lot of lessons I learned out of that, that, again, I carried with me throughout my career. It was a great opportunity.

Hancock: Very powerful. Those lessons are lessons that have sort of universal application.

Barris: They do, for sure.

Hancock: So don't hold back. Is there another one that you'd like to share?

Barris: Well, you know, I learned so much in that job. The-- you know, the interesting thing is, I remember once having a discussion with Jack Welch, one-on-one, and he was talking-- and I think this was the title of one of his books, actually, later on, was *Control Your Own Destiny*. And he gave me examples of why that was important, et cetera. And frankly, it was those very words that ultimately led me to leave GE. Because I found myself in a position, much later on, when I was GE Information Services, that the company reorganized, and I was asked to move from my position-- I was managing a P&L center over a 23-state area for GE Information Services, at the time, based out of Chicago, coincidentally. And they asked me to move back to Maryland at headquarters, into a promotion. But here I am in my hometown, very happy being around family, having my first child. And I woke up one day, and the general manager had reorganized the company, and it affected me in a way that I now had to pick up my family-- now, I expected, eventually, I was going to pick up my family and move again, because I had, several times, with GE. But I was moving, in this case, for a reorganization I didn't believe in. So, now, this is affecting my life in a very profound way. I'm picking my family up. I'm moving. I get that I'm getting promoted, but I don't agree with the reorganization, and I'm not controlling my own destiny. And so, Welch's words to me had reverberated.

At that point, I kind of took stock of my situation, and said, "Do I want to keep doing this, or do I want to take a different path? Do I want to stay on a GE trajectory"-- and I love the company. To this day, I love the company. I learned so much from my years at GE. But it-- you know, I learned very quickly, also, that you ultimately end up in the span-breaker jobs, I'll call them-- or, *they* call them span-breaker jobs--

which, once you're beyond a division manager, you're a manager of managers, and you don't have a business, per se. And those are span-breakers, which are necessary in a larger organization, but you don't have your hands on the levers. And the next great job is CEO. And so I was getting to the point-- I wasn't quite there, but I was getting to the point where I was going to start getting into span-breaker jobs, and where I would not be dedicated to an industry, per se. And so I asked myself the question, having been at GE Information Services-- and I'm fast-forwarding now, but having been at GE Information Services-- did I want to dedicate myself to the industry, or did I want to dedicate myself to a company? And I made the choice to dedicate myself to the industry. So that was ultimately my decision. It was a very hard decision, because I was doing well. It was a great company. I had learned a lot. But I made that decision.

Hancock: That decision led you to a whole new chapter.

Barris: It did.

Hancock: And I wanted to ask, were you in some kind of a role that then brought out the interest in entrepreneurship?

Barris: Yeah. So my... my first job-- so I went from this staff-level job, working for the Components and Materials Group, to the Battery Business Department. And the reason I chose-- which was one of the businesses within this group that I had done a project at. And I had opportunities at several of the businesses, but I chose that one, because it was a small one. It was a small business within the context of GE, but it was a 50-million-dollar business. So... you were a big fish in a small pond, so to speak, rather than being a small fish in a big pond. And I figured I could make a bigger impact by being at the Battery Business Department, rather than someplace like Plastics or Med Systems. And at that business, I learned a lot about the *total* business picture, if you will, because even though I had functional roles in marketing and sales, you were involved in a lot of aspects of the business, much like you are in startups. But it was at GE Information Services, which I went to from Battery Business Department, that I got my first real exposure to entrepreneurship.

My job there was to start up new businesses within the context of GE Information Services. So, GE Information Services was a timesharing business. It actually was the commercialization of a system that was developed at Dartmouth, that I used when I was at Dartmouth, that-- so that's serendipity. But... so I ended up at this business, but my first job was working for the Vice President in Marketing. And they saw that the days of timesharing were numbered. So we had large datacenters, and we had a global proprietary network. We had our own-- this was back in the early 80s-- we had our own internal system that today is called e-mail, before anybody knew what e-mail was. But we used it just internally. So my job was to start up new businesses. And again, it kind of brought out the creative side of me, the strategic side of me. All right, we have a business that's approximately \$800 million in revenue. So, you know, back in the 70s, or early 80s, that was a large business. And its days are numbered, because

timesharing, as a technology, is kind of-- as companies were building their own datacenters, rather than relying on timesharing, we had to figure out the future of *our* business. And so, they put a lot of stock in this job to help the business figure out where else it could go. So I led a small group of people, and we started up three different businesses, one that was a PC-based business. And PCs were just coming into vogue.

Hancock: It was early for that.

Barris: It was *very* early for that-- one which was a networking business, which was to extract our network. Our network was embedded in our timesharing service, so we extracted it out and sold it as a communications network, solely, rather than have it linked to the computing side of the business, and then a banking business, actually, because we saw a lot of opportunity in global banking, and building systems for international, money-centered banks. And so that was more application-driven.

So, we started all three of those businesses, and two of them evolved into sizeable business. The PC-based business did not; it was a niche business, and it stayed a niche business. But the other two became, actually, sizeable businesses within GE. And what I discovered out of that process is my love for company creation, and business creation. Even though it was under a corporate umbrella, if you will, it was still clean-sheet, starting a business. And later in my career at GE Information Services, I had the opportunity to acquire, as I took on P&L responsibilities, to acquire startups-- venture-backed startups. So, from that perspective, I also got an introduction into the culture of many of these companies-- Silicon Valley-based companies, in some cases-- and incorporating them into a GE culture, which actually, I would argue, required you to understand what made them tick, perhaps even more than if they were just an independent company. Because you had to integrate them into this other, hundred-year-old company culture, and make it work. And so that forcing function, if you will, really forced me to understand what made these companies tick. And so my love of entrepreneurship, my love of the startup world, I think, started... not "I think," I *know* started there-- started with that experience. So, I didn't, as I said, have it when I was in business school at all. I was the big-company guy. And it was through the set of experiences at a big company that I actually discovered my love for entrepreneurship.

Hancock: So, with this love of entrepreneurship, you said your decision to control your destiny came, and then you decided to leave GE and begin this next era of really leading software companies. Can you make that connection and tell us what's next?

Barris: Yeah. So, next was a public-- a New York Stock Exchange company in Dallas, Texas. So, as I was looking around, I made this decision that I was going to dedicate myself to the computer industry, if you will, because I saw tremendous growth and opportunity in the industry. I didn't exactly know where to go. I was going to leave GE-- I was evaluating opportunities at GE in parallel to this. Because, frankly, they were trying to keep me within the fold of the company. I looked at some startups in Silicon Valley. But I got pulled by Greg Lima, who was this guy that hired me at Components and Materials Group, out at

Tuck. He had left GE, and he was Welch's golden boy, frankly. It was kind of stunning to the company that he left to take over this turnaround New York Stock Exchange company called University Computing Corp., which was renamed UCCEL-- U-C-C-E-L. Never liked that name. But he went in to do this turnaround. It was a New York Stock Exchange company; a little odd, because it was majority-owned by a Swiss billionaire. And what was good about that was, we were able-- we obviously had all the reporting requirements of a public company, but we were able, because we had a controlling shareholder, to manage it somewhat like a private company. And Greg was an amazing businessperson. I had utmost respect for him. And he convinced me to join him, initially in a corporate development role, although I balked at that, because I was coming from a substantial P&L responsibility, and I didn't know if I wanted to go back into a staff position. But he assured me that, ultimately, it would lead back to an operating role. But he needed help to restructure that business. And so it, frankly, was a little comforting to be with somebody I knew and respected.

Hancock: Yes.

Barris: There were elements of the GE culture there, because he brought a few other GE people with him. And yet, I was taking this step out of the only company I really knew-- GE-- into this brave new world. And it had all the elements I loved. This was a miniconglomerate, if you will. It had systems software, banking applications software, numerical control software, accounting applications software-- a variety of businesses. And it was barely break-even.

And the question was, "Where do we take the company?" So we applied, frankly, some of the principles we learned at GE. You know, if you're not-- Jack Welch had this "If you're not number one or number two, you're either going to find a way to become number one or number two in your industry, or you're out." And so we looked at all our different businesses with that same kind of filter. And so <clears throat> I led the sale of half of our revenue stream-- companies and businesses that represented half of our revenue stream; and then the acquisition of several companies-- again, many of them startups-- that supported two fundamental businesses that we bet on: systems software, which was the big one, and banking applications software, which I had a background in. And that's what we put our bets on.

So we had, probably, eight or nine different businesses prior to that. We narrowed it down to two, and we put all our bets on those two. From a lot of the funds that we received from the sale of those companies, we reinvested in these two areas. And then I was put in charge of the systems software business, which was 85 percent of the company, at the time; and again, we were a public company. And so, I managed that business. And so that was a great experience, again, kind of taking all that I had learned from a strategy side, and helping figure out what was the best path for UCCEL, going forward. We quadrupled, in very short order, the market value of the company, and ultimately sold it. We got an offer from Computer Associates, at a 50-percent premium to what some people would argue was already a premium price on the market. It was something, frankly, that several of us-- myself included-- didn't want to accept the offer, but we didn't have a choice.

I learned a very hard lesson. Our majority owner, the Swiss gentleman, didn't want to sell the company, but he was told by lawyers, if he didn't, he was subject, personally, to treble damages from the lawsuits he'd get from the other public shareholders. Being a controlling shareholder actually had an obligation alongside it: He couldn't do what he personally wanted to do; he had to do what was in the interests of *all* the shareholders, right? And getting a premium offer, we sold the company. I was asked to move to Long Island and become part of the senior management team, and Computer Associates chose not to do that, and I found myself in a transition, helping to transition the business for six months, but basically unemployed at the end of the six months.

Hancock: You'd been so successful. Congratulations on that. It was time for what was next, which then led to you thinking about taking this entrepreneurial drive and creating your own company.

Barris: Well, actually--

Hancock: Is that right, or is there something else?

Barris: No, what happened was, I decided at that point-- my wife and I decided we were going to... we had been moving around a lot, through my career at GE, and then this move to Dallas, and we decided we wanted to settle in one place. And we were either going to stay in Dallas, move back to our hometown of Chicago, or go to-- we liked Washington. We had been there, with GE Information Services. And I got a job offer from a guy who had-- Mario Marino, who I had been in the middle of negotiating to buy one of his products from his company, and put it in our stable of products-- systems software products. And when we had the offer from Computer Associates, he called me up and said, "Look"-- he was the founder and CEO. He said, "I want a president for my company. I'm not an operating guy. You have this-- you've been running UCCEL," which was one of the larger... our systems software business was clearly one of the largest in the industry. And he said, "Why don't you come and be president of my company?" He had gone public a year and a half earlier on NASDAQ, so it was a public company. So I came in as president of-- again, it was here in Washington, so I came to Washington and managed that company, and grew it. We--

Hancock: What was that one called?

Barris: That was called Marino Associates, but we merged with another company, called Duquesne Systems, also in systems software, and renamed that company Legent. And I was the president of Legent, this combined entity-- a NASDAQ-traded company. Now, both of these companies were venture-backed companies. They were both entrepreneurial companies in their early days, and they had both gone on to become public companies, but were still relatively modest in size, so they had that entrepreneurial spirit. I felt comfortable. It was systems software. I could lead a public company. So I took

that role. Again, from a strategy standpoint, we decided to merge with Duquesne. We were off to the races.

But what you were talking about, in terms of my entrepreneurial instincts, as I was leading this company, I saw an opportunity. The landscape in the computer ecosystem was changing pretty rapidly to decentralized computing, from the mainframe world, if you would. It had been, historically, a mainframe-centric world. And we had systems software at Legent that was rooted, initially, in mainframes, and we had introduced a lot of products in the decentralized computing world. But it was my view that a clean slate-- I could start a company focused *only* on systems software for decentralized computing; that there was a real opportunity there. And so it was with that in mind that I actually decided I wanted to *start* a company.

One of my associates/colleagues that I had worked with at GE-- a guy by the name of Art Marks-- was a general partner at NEA at the time. He had joined up with Chuck Newhall, one of our founders. They were both Harvard Business School classmates. He had left GE to join NEA years earlier. And he said, "Well, why don't you incubate your company at NEA? And we'll pay you for that." I said, "So you're going to pay me for the opportunity to incubate my company? What's the catch? Because I don't get that." And he said, "Well, the catch is, we get first dibs on investing behind it. We'll help you, but we get first dibs on investing behind it." So I thought that was a pretty good deal. So I took him up on it, and... it wasn't exactly what I anticipated, because I was also-- I had a side job working for my-- General Atlantic was my major shareholder at Legent. They had funded it, initially, as a venture. And I was doing some work for them in New York, and they were trying to attract me to actually take over one of their companies. And so, I had all these things pulling on me, as I was trying to start this company.

But the *real* pull happened when... I was asked by one of the other founders, Frank Bonsal, to help him with a company up in Boston that was having some issues and some challenges. And he said, "Look, you've just been running this public software company. Could you help this CEO out?" So I felt an obligation, because they were-- NEA was *paying* me. And I thought, "Okay, I'll help out." So I started making these trips to Boston, to help this CEO out with his company. And then Frank would invariably come to me and say, "Well, while you're traveling to Boston, here's three business plans. Would you take a look at these companies and tell us what you think?" And so I'd visit these companies, I'd come back, and I'd be sitting around the partners' meetings. And after doing this for a while, I realized, "Okay, I got kind of the raw end of this deal. Because I'm not getting paid a lot by NEA, and I'm basically doing what these other partners are doing, and I'm not starting my company up."

And so I made a comment, which is, "I either need more time to start my company, or something's got to change here, but this isn't working real well." And Chuck Newhall and Art sat me down, and said, "Well, have you thought about being a venture capitalist?" And I said, "Well, it occurred to me, sitting in these offices, but I don't know that I *want* to do that." And Chuck said something which really ticked me off. He said, "Well, we don't know that you'd be good at it." And... <laughs> which was very offensive to me. So,

they made a proposal to me. They said, "Look, stop what you're doing with General Atlantic. Stop what you're doing on your company. Focus on this for a year. At the end of the year, you'll decide whether you want to do this, we'll decide whether you're any good at it, and we'll go from there." So, I took that bet, and... the rest is history, as they say.

Hancock: <laughs> So your competitive juices got flowing.

Barris: My competitive juices got flowing. To this day, I haven't forgiven him for that comment.

Hancock: I think you've proved that they made the right decision, in wooing you away from your company. Before we leave that--

Barris: So I'm a failed entrepreneur.

Hancock: Well--

Barris: So here we sit. I'm a failed entrepreneur.

Hancock: What was your business? What market were you going for? What was your essential idea and business model, and did you have--?

Barris: Well, the idea was to create a Legent-like company-- a portfolio of multiple products in systems software. So, systems software is the software that runs datacenters. But we were now into minicomputers and other computing platforms, and decentralized computing, most importantly, which required a whole different architecture. And every product that we had in our portfolio, both at UCCEL and at Legent, needed to be reengineered and rearchitected for this new ecosystem. And so that was the concept. And it was a good concept, but I never really executed it.

Hancock: I don't think you count as a failed entrepreneur because you didn't get it off the ground. So, this is 1972. Is that right? Or what year is it when you--?

Barris: Oh, no, no. This is eighty...

Hancock: What year did you come to NEA?

Barris: I came to NEA in '91.

Hancock: I'm sorry, '91. I'm in the wrong-- so, you started your official-- you began...

Barris: Yeah, I began as President of NEA Incubation Corp. That's what the job was, which today, in today's parlance, you would call a venture partner, at a venture firm. And my job was to source deals and help partners with their companies, which I did. I went on a few boards, or went in as an observer on boards that needed some help, where I could take my operating experience in the software world, and leverage it. And I looked at some companies, and actually did some deals.

Hancock: Do you remember any [deals] from those very early years?

Barris: Yeah. The-- I believe the first one was actually a Silicon Valley-based company called Park Place Systems, founded by Adele Goldberg, out of Stanford. And it was all focused on object-oriented programming. And so, early in my career at NEA, I made a-- I did a couple of deals out in Silicon Valley. Even though I was on the East Coast, I decided I wanted to really understand kind of the valley, and what was going on in the valley. And I really just was opportunistic about what I did. In many of my early deals, I took the approach that, even though I had had the experience I talked about, working with early-stage companies, acquiring early-stage companies, whether it be at GE or at UCCEL-- and we were arguably the most acquisitive company in the software industry, at the time-- or at Legent, which was also an acquisitive company. I said, "I've never really run an early-stage company, and I need to learn this game from a different vantage point." So I made some early bets that were in C rounds, so that I could learn from other VCs that were already sitting on the board-- learn the game from them, if you will. And so that was kind of my strategic approach. Although, Park Place was an early-round company, as was UUNET, also a company I invested in, early in my career. Other bets that I made were at later stages, again with this objective of trying to learn the business from both my partners, but also other VCs that were already at the table. So it was an acknowledgement on my part that I had-- I knew a lot about software companies, I knew a lot about networking, I knew a lot about the industry, but I really wasn't an entrepreneur, and I really didn't know a lot about early-stage companies, and financing early-stage companies.

Hancock: So you're on this very rapid learning curve; at the same time, making investments. Do you remember any particular stories to tell about some of these *aha* moments, as you learned the business in those early days-- a decision, a conversation, a turning point?

Barris: Yeah. Well, I learned... I learned that the world can change on a dime. So, you know, there were several examples of that, but the most pronounced one was an investment in UUNET, which was an early pioneer in the Internet. They were the infrastructure, an Internet service provider; ultimately, carried the traffic for half of the Internet for years. But we went into that. The-- there was a bit of serendipity there. When I sat down-- it was a local Virginia company. I mean, the Internet was founded by DARPA, so a lot of the technologists behind the Internet actually were in the Washington, D.C., area.

Hancock: Yes.

Barris: I didn't know what the Internet was, but I was introduced to Rick Adams, the founder of UUNET, and he was explaining UUNET to me. And I put it in the context of GE Information Services. So he was explaining the protocol behind it-- TCP/IP-- and the fact that it was a public networking system. And I would compare it to the networking system we had at GE, that was a proprietary system. And we got into discussions where I-- the *aha* there was that all these commercial customers that we had at GE, on our proprietary system, could run their applications on this Internet thing at a much lower cost. And so I saw this great opportunity for commercial businesses. At that point, what people knew about the Internet was all consumer-focused. It was not commercially focused. Rick Adams shared that vision of commercial opportunity. I appreciated it at my core, because I was an executive in the business that had those customers and those applications that I thought could migrate over to the Internet, over time. So I saw a great opportunity. At the time, there were a lot of regional Internet networks, typically focused on university datacenters. And our strategy, going into the investment, which we were doing jointly with Accel, was that we would do a rollup. And ultimately, Menlo joined us in that investment. But this started out, Accel and NEA were looking at it, and our strategy was, we were going to do a rollup of these regional network providers. So we were going to come into this round, put capital at work, roll it up, build scale. Menlo, as I said, joined us in that first round, and I would say, four months into our investment, the Internet got discovered. And it went from a... occasional mention in the media, to enveloping the media. And so the hype started. And these regional networks that we had planned on acquiring now became not acquirable, because their value shot up. And so we realized very quickly that our whole thesis, overnight, changed; and we were, I'll call it, saddled with an investment, and we didn't have a strategy.

Hancock: So what did you do?

Barris: Well, in that case, again, I kind of-- this is a little serendipity and a little opportunity: I was able to lean on lessons I learned at GE Information Services. Because we, as I said, had this timesharing business, and we had built this large, global, proprietary network, and we had decided along the way-- and this was kind of part one of my jobs-- was, we have a network that's filled with commercial customers using it during daytime business hours, and a pipe that is empty at night. How do we leverage that empty pipe in the evening? Because it's a fixed cost; it's there. How do we leverage it? So, we decided to introduce a consumer business, which ultimately was called GENie, and it was in the early days of Prodigy, GENie, CompuServe, AOL. I would argue, if it had been executed correctly, GE would have been AOL, and *should've* been AOL. Because we had the infrastructure, we had the idea. But the point was, we used empty pipe. And so now we kind of reversed this, and we said, "Well, for UUNET, we want to build a network. We can't use the rollup, so we have to *build* the network. That's going to take a lot of capital to build the network-- more capital than we can fund. How do we do this?" So the other competitors were taking on massive amounts of debt to finance the buildout. I had recruited John Sidgmore, a colleague of mine from GE Information Services, to come in as CEO. Actually, they had asked me to take over as CEO of the company, and-- the board did, and I said I couldn't. We had just raised a fund at NEA, but I'd find the guy, and I did. Again, there was a lot of parallels between GE

Information Services and what UUNET was doing. So, I recruited John Sidgmore, as well as the guy that ran our datacenter at GE Information Services, Joe Squarzini, to come in and run network operations. And so, when-- I had recruited him in, and so we had this *aha*. Our world changed. So John and I, having our GE experience, together with Rick Adams, the founder, who had this commercial bent, we all got on the same page. And the page was, "Okay, we had this experience at GE Information Services. We're trying to build a network, and the network, for commercial purposes, is used during the daytime. It's not used in the evening. Who would have an interest in using it in the evening?" So, I made the introduction of Steve Case, the founder of AOL, to John Sidgmore. AOL was going to invest. Steve was going to go on the board. And then AOL announced an acquisition of a company called A&S [ph?], which we saw as a direct competitor. Steve didn't see it as a direct competitor; we did. So, we expanded our net to include Microsoft. Long story short, we negotiated a terrific deal with Microsoft. They took a board seat, they invested in the company, and it was-- and they built up a dial-up network for Microsoft Services-- their Microsoft Services business-- which competed with AOL. They knew we were talking to AOL. We, frankly, took advantage of that competitive dynamic between AOL and Microsoft. We got Microsoft to invest heavily in the company, and basically built the network for us, that we then leveraged for our commercial purposes. And so, while our competitors were taking on debt... we weren't. We had a big-daddy investor, in the name of Microsoft, and it was a great collaboration for-- that served their self-interest and our self-interest.

Hancock: Brilliant.

Barris: It worked.

Hancock: It worked. <laughs>

Barris: And UUNET went on to become the largest Internet service provider; ultimately, got bought by MFS, which quickly got bought by WorldCom, and it was the golden nugget in that portfolio.

Hancock: That was a big *aha* moment.

Barris: That was a big *aha* moment.

Hancock: With a great story.

Barris: The *aha* being, the world can change overnight; the *aha*, I guess, being you can-- there were some leverageable things and lessons that I had learned that were applicable to this situation, which, by the way, is what venture capital is. Venture capital is pattern recognition. I had just had some operating experiences that provided me those useful patterns. But as you progress in your venture career, you

realize that you're seeing dozens and dozens, scores of companies, and you're learning lessons, and you're seeing patterns that you can apply in your decision-making process, as to what investments to make, and in your counseling, after the fact, on where to take the companies.

Hancock: So let's talk about your role, then, as an investor, mentor, matchmaker-- all those things that a great VC does. If I were one of your investee founders, what would I say, working with Peter? And maybe you could tell a story of what you saw on the other side of some of the great founders that *you* worked with. What was that relationship like, as you're bringing to bear your expertise in working with the founder?

Barris: Well, I think it's important to say the lesson that I learned. Going from an operating role to a venture role, the biggest change-- which was a hard change for me-- was, as a venture investor, you don't have your hands on the lever. As a president of a company, you do. You can dictate. Although I liked to think of myself as collaborative, consensus-building, at the end of the day, when a decision needed to be made, a decision *got* made. In the venture world, one, you're in a partnership at your firm, and so partnership consensus is important. And as it relates to the companies themselves-- and I am going to get to your question. As it relates to the companies themselves, one, you typically don't have controlling interest, and so you have to operate through influence, rather than dictate. And so, it's influencing the entrepreneur, it's influencing the other board members. So, to your question about how entrepreneurs would see me, hopefully what they would say is that I was collaborative, I guided them, I counseled them, I ultimately gave them the rope to make the decision. It wasn't my decision. I didn't dictate. We are typically the largest-- if not the largest, certainly one of the largest-- shareholders in the companies we invest in, but we don't dictate. We make our bets on the entrepreneur. The entrepreneur is king, and we treat them that way. We have an obligation to make tough decisions, sometimes, to replace entrepreneurs and bring in other CEOs. But absent those decisions, it's all very collaborative, and it's, we're there to be a helping hand, and hopefully that's how they would say I was a helping hand. And I could lean on my operating experience. So, I've been in the venture business now for 25 years, so I guess I have to call myself a venture capitalist with some operating experience. But for a lot of my venture career, I was an operating guy that had converted to venture capital. And so, you know, one of the stories that's kind of interesting in that regard is, <clears throat> one of the earliest companies I invested in-- and as I mentioned, I came in, in later rounds, to learn the game. And the particular-- I won't name the company, but I came into a C round. And in one of our earliest meetings, I'm sitting around the table with three other venture board members, in executive session. And we all had-- even though they were career venture capitalists, and I was the operating guy, newbie venture capitalist - we had an issue in the company. On this particular issue, we all saw the world exactly the same way, even though our perspectives were different. And at the end of our session, we said-- the comment was made, "Well, now we've got to go tell the CEO what we think about this, and instruct him what *he* needs to do." And they all looked at me and said, "Peter, would *you* go tell him?" And I'm the new guy on the block. And they said, "Because you... he'll believe you. And you have more credibility with him." And I went, "I have more credibility with him?" Here I am, the new guy. They had been investors for several years in this company, but it was my operating experience that, in their view, gave me the credibility. I had sat in his seat. And so even though we all saw the world the same way, my delivering that message, in their view, was going to

have a-- was going to be more impactful. And so part of my relationship, whether deserved or undeserved, with the CEOs of the companies I invested in, was... you know, they saw me as being a credible counselor, because I sat in their seat. And that didn't mean I was always right, and that didn't mean they always agreed with me, but I had... and I *think* I had the art of persuasion, from my debate days. So, influencing was something that I actually enjoyed.

Sometimes it would be very frustrating, and I did find, in one case, that I could *not* influence either the entrepreneur or the other board members. Even though some of the other board members absolutely agreed with the position I took on issues at the company, I could not influence them to take action on it. And I could not influence the entrepreneur. And I ultimately just left the board, because I concluded, "If I can't influence them, I'm not going to dictate, and I *can't* dictate, really. Time for me to leave the board." And ultimately, that wasn't a good outcome for that company, in that investment. But I'm going off on a tangent here.

Your question about my relationship. I think I've had very friendly relationships with... where I've actually built friendships-- not just cordial, but friendships-- with many of the entrepreneurs I've invested behind. But I always kept one degree of separation, because I had a responsibility to our partnership. I mean, that's the lesson you learn as a manager, coming out of the operating world: You oftentimes have to make tough decisions, and if you're the closest of friends, you can't always do that. It's very difficult to do that. So-- but I built very good relationships with my CEOs, and tried to be very supportive, and provide what you would expect a venture capitalist to provide. So, then, the UUNET example I gave you, I helped recruit several key managers into the company. I helped on some key decisions-- strategic decisions. By the way, Microsoft-- the representative from Microsoft, a guy by the name of Dan Rosen, who took a board seat, told me and told the other board members, the reason Microsoft invested in UUNET, and none of the other companies in the field, was that management team that we had built. So, hopefully, I played an instrumental role in attracting some key people, and ultimately some strategic partnerships.

So... a major vendor to UUNET was Juniper Networks, an NEA portfolio company. And it was Juniper's relationship with UUNET that ultimately put *it* on the map. And a guy at UUNET, by the name of Mike O'Dell, who was our CTO at UUNET, who today is a venture partner at NEA, helped propagate the message throughout the industry, that ultimately led to Juniper being a big success. And the CEO of Juniper would credit UUNET-- and John Sidgmore, specifically-- for a lot of Juniper's success. And so we, as venture capitalists, help our companies. We don't force-fit them. That was a natural, but we obviously made that introduction of those two companies, and both companies benefited from it.

Hancock: Is this Pradeep? <clears throat>

Barris: This was Scott Kriens, that was the CEO at Juniper, at the time.

Hancock: So, I'd love to hear a story. Of your 25 years you've worked with so many of your CEOs, can you tell about one of the ones that's really been significant to you? How did you recognize that you wanted to investment in them? How did it kind of grow and evolve, and when did you see the impact?

Barris: Well, there's so many good stories. The... <clears throat> you know, the... yeah. Oh, we're often asked, as venture capitalists, "Do you bet on the jockey or the horse?" <laughs> That's one of your questions.

Hancock: <laughs> That's one of my questions.

Barris: Yeah. And I don't have a-- you know, after all these years, I don't have a good answer, because obviously you want both. If I had to choose, I'd actually pick the horse, because-- being the market. Because you can change jockeys; you can't change horses. But that being said, I have so many examples in my career of where the jockey made all the difference. So, to your question, though, the-- and this was a bet on jockey, which is why I'm telling you this story. Groupon, which was initially called The Point, was founded by a... was founded by a gentleman in one of our companies, that worked in one of our companies part-time.

Hancock: So we're talking about one of your partnerships with a CEO. How did you recognize that this was a company worth investing in, and how did that partnership begin, and what's been the impact for the industry?

Barris: So, we had done several investments with a couple of gentlemen out of Chicago-- Eric Lefkofsky and Brad Keywell. We had made three investments behind them. All of them were... *appeared* to be winners. One of them had gone public by the time we were introduced to Groupon. And these two partners angel-invested in this company called The Point, and it was behind an entrepreneur that actually worked at one of their companies that we were investors in, InnerWorkings-- Andrew Mason. He was working there as a computer programmer, and also, he had a-- he was in the graduate program at University of Chicago, at the time. He had just started. And the concept behind The Point was essentially a website that-- where you would activate a contract with people on the Internet, around a cause. So an example of one that they gave in those days is, you're a Verizon customer and you have a beef with Verizon, but you're powerless, as one subscriber amongst millions of subscribers. But if you could go to The Point and construct a contract that said, "If there are 15,000"-- and you defined that tipping point-- "15,000 other people, subscribers, that have this same beef, we then are a powerful force that can get change." And... <clears throat> so the obvious question was, "Well, how are you going to monetize that?" And they... the answer was, "Well, we're going to monetize it through advertising." And so, you know, maybe Sprint would advertise on this contract beef for Verizon. And so we said, "That's a really bad idea."

<both laugh>

Barris: "That's a really bad idea. But we love the fact that you're using the Internet to aggregate individuals that are powerless into a forum that has leverage, and we love the fact that you define this tipping-point concept; that you *have* no contract until you get to that tipping point, and at that point, you do. And we don't know where this goes, but *this* business plan will not work."

But we loved Andrew Mason and his creativity, and his brilliance. He happened to be a Northwestern grad, as an undergrad, so I liked that part about him. We loved the fact that the angel investors who were actively involved in the company, in Eric Lefkowsky and Brad Keywell were fabulous operators who we knew and trusted and that combination of that creative brilliance and their operating prowess and their brilliance in their own right was very attractive to us.

Now it was a very controversial deal in our partnership because the business plan made no sense. In fact, we were afraid of litigation using the example I gave you, that we would get litigated in that process. But I had conviction that these people were worth betting on and that they would morph this idea and those two nuggets in there of aggregating people on the internet and tipping point and turn it into a business that made sense. But it was a bit of a blind bet and it was a bet in this case on the jockey or jockeys and so that.. it was in that vein that we made that bet and they threw a lot of experiments.

In fact, we tried to.. you know, in our role as venture capitalists, myself and my partner Harry Weller tried to find companies within our portfolio that we might be able to combine with them and create something of scale. We were searching for a business model, and in the world of happenstance and serendipity, they realized that some of their customers that were coming to the website, were using it to aggregate people to buy things.

And so they tested that concept with a restaurant that was in the building that they were officed in in Chicago. And they did a deal on.. I can't even remember if it was pizza or hamburgers.. just within that building and it was a wild success where they gave them a discount and they realized they were on to something. And so you now had a marketing tool for a local business that replaced all of the typical avenues that they had.. Yellow Pages.. bus advertising.. cab advertising, billboards, direct marketing, all of which you never really truly understood what the impact was to the money you spent. Whereas in the case of Groupon, you got a discount to get a new customer but as a merchant, you only paid if you got that customer, so it was a pay-for-performance marketing. So, we said, "Local business, pay-for-performance marketing, we think we have something here."

Now we need to scale it because there are no barriers to entry and scaling it fast was imperative and I think that's one of the things going back to the concept of pattern recognition. I think to this day Andrew Mason would say, "I would beat on him.. and in a gentle way, but I would beat on him to scaling the business quickly." You know, "Okay, you're in one city, Chicago, when are you gonna be in two.. when are you gonna be in five.. what's the plan for five.. what's the plan for twenty?" And I'd say, "Look, I've never been in a business like this, but I've seen a lot of services businesses and the only barrier you have

is scale and your formula can be replicated by anybody so you've got to get to scale quickly," and we did that. We scaled quickly, both domestically and internationally, and I think that's why the company survived and prospered. And so today it's got over \$6B in gross revenues and eight thousand employees and it's a great company.

Hancock: It's a great company. Behind where you're sitting, you have a whole shelf of tombstones you've been involved with. How many companies over your 25 years would you estimate?

Barris: I don't know the number.. it's a lot.

Hancock: It's multiple dozens.

Barris: Multiple dozens.

Hancock: Is there another story of one in addition to Groupon which is you know, one of those ones that you hit it out of the park. Is there another one that you would point to that was particularly significant in your career?

Barris: Well, I'd say there's several that I.. but you know, there's a fairly recent one, another Chicago-based company by the name of Cleversafe that had a technology that was developed by an engineer out of MIT to disperse storage in multiple locations and take slices of whatever you're storing and disperse it and then reaggregate it. It served the purpose of lowering cost, eliminating the need to duplicate data as is standard industry practice in providing massive security because if you lost a data center or two or three, you could still reaggregate your information. It was a company that was going sideways for a lot of years. I didn't make the original investment on behalf of NEA, but I got involved because I travel a lot to Chicago having made a number of investments there. I started sitting in on a bunch of board meetings and you know, that was one where it was the stereotypical engineering company and engineering culture that needed a.. needed to morph itself into more of a sales marketing organization. We knew we had great technology but you know, companies like Shutterfly had based their business on it and hadn't lost a bit of information in several years with storing all the photos that they stored. But we were still struggling to get a lot of enterprise customers.

So Chris Gladwin who is the founder and I.. you know, he sought my counsel a lot, we had a lot of great discussions and we agreed that we needed to bring in somebody with sales, marketing expertise and we found a guy who happened to have been at Juniper Networks, one of our companies and.. but had a longstanding career at IBM and it was.. So he had big company experience and he learned all the lessons, but he had also been in an entrepreneurial environment and he was a sales marketing wizard. We hired him into the company and then you know, what they say about, "A's hire A's.." Well, he's an A and he hired A's and very quickly we built a sales and marketing team that was equal in strength to our

technical team, and the company went through the traditional inflection. So, all these years we were sitting on and not executing on this great technology and that change.. again, Jockey. It was a great market but it took that Jockey and that expertise in sales and marketing, and that background in enterprise sales specifically, to open up doors and to attract other people that could open up doors that made all the difference in the world. Very quickly that company hit an inflection and was sold at the end of 2015 for well over a billion, \$1.3B, to IBM.

So that was a great story of having made a bet on technology, but getting back to the question of Jockey, we had a great market but we needed some expertise and a discipline, in this case, sales marketing, that made all the difference in the world, when you married it with that great technology. But the great technology was floundering by itself. Flounder is probably too strong a word but it was.. the company was growing at a modest rate.

Hancock: Well thank you. We've talked about pattern recognition that's led to success but in venture there's so many other stories of pivots and sometimes failures. I wonder if you could share a little bit about some of the common pitfalls from pitching to execution, or to even scaling. what are some of the common pitfalls that if you were.. if you could help avoid a little bit of the pain, if you were able to share those pitfalls to avoid?

Barris: Right, I think the biggest pitfall is people not knowing what they don't know and not being inquisitive. So, one of the founders I back.. a guy by the name of Rob McGovern, who was the founder of a company by the name of CareerBuilder. He exemplified to me what makes great entrepreneurs and that is he's a very inquisitive mind.. always learning, willing to experiment and willing to cut losses quickly. So he didn't pretend that he knew the answer to everything. That's.. you know, one of my partners early in my career at NEA used to have a saying, "Concrete ears.." and we'd sit in presentations and we'd have dialogue with entrepreneurs that were presenting, and we'd make an assessment as to whether they were listening to us. Listening doesn't mean agreeing.. listening means just that. We sensed that they were hearing what we said and they were processing it.

Often times what we see is an entrepreneur that's got a plan and when you ask a question that may be a little challenging, they get defensive and they protect their domain if you will, and their plan and they try to justify it. There's nothing wrong with that in and of itself, but if they weren't listening to what we said and really thinking about it, you know, it's one thing to say, "Good question.. I thought about that, and here's what I concluded.." or, "Good question, I'll look into it," or, "That's not a good question and here's why," but you're listening rather than dismissing. That's the first sign of an entrepreneur that's likely going to fail because startups invariably hit bumps in the road and if you don't take stock of that bump in the road, and why you experience that bump in the road, and react to it, you're going to lose. There are entrepreneurs with blinders that keep going in the same direction that say, "I have the answer and I'm gonna keep executing against it.. regardless of what the market's telling me.. regardless of what board members are

telling, regardless of what customers and friends are telling me, I'm gonna trudge forward.." Those people typically fail.

So Rob McGovern is a guy that says, "I'm gonna listen to the market. I ain't gonna experiment, I'm gonna take that feedback and if that feedback tells me I'm going down the wrong path, I'm gonna make that assessment quickly and then I'm gonna move on." And that to me is what makes a great entrepreneur. So most.. you know, unless you're just downright lucky, most entrepreneurs, the successful ones are smart but smarts alone don't delineate winners from losers. It's things like this, it's listening, being humble and that's what this is. I don't have all the answers.. "Let me listen to the data I'm getting.. let me gather that data aggressively and react to it.." That's the mark of a great entrepreneur.

Hancock: That's great insight to share. You've been involved with so many companies and helping create them and build them, I want to make sure that for the record we.. you're not too modest in naming some of those others that you've.. we've talked about Groupon, you mentioned CareerBuilder. Any other ones in the pantheon of companies that you've been involved with, and what stands out to you about how you look at their.. turning points and their impact?

Barris: Yeah, well I mentioned UUNET which is early in my career and you know, there were companies like.. I mean, I won't go into all the details like Park Place, like Datalogics, like Salix.. I know I'm going to leave companies out, that were all successful companies and made marks on their respective industries. You know, we had 10x Investments, there was a company in Texas that remains a private and very successful company today by the name of Trilogy Development. Trilogy was a very.. it was founded by the son of my mentor, Greg Liemandt from GE, the guy that hired me out of Tuck, and he dropped out of Stanford to start Trilogy. He's been a wild success ever since. Mission Critical, a Houston-based company also a great return in the systems software arena going back to kind of my roots. These were all companies where the, I would say back to your question, all the founders wanted to make a mark on the world, and they had a mission. So it was an amazing experience for me to work alongside these very ambitious, intelligent, creative, passionate people in different areas. From the Groupons of the world that are going after consumers, to the UUNETs of the world that are a heavy-duty networking infrastructure. The common thread through them all is they were all founded by people that had passions for what they were doing and were principled in what they were doing. And by principled I mean, they didn't take shortcuts, whether it had to do with their business, whether it had to do with how they treated employees, they didn't take shortcuts. It's been a fabulous experience for me to be able to take what I learned in the earlier part of my career and leverage it into this environment which is you know, every day is a new day, there are no repeats.

This isn't a question you asked, but the interesting thing about.. when I was asked very early in my transition from an operating job to venture capital, what were some of the differences? One was I don't have my hands on the levers of VC and the highs are not as high and the lows are not as low. When

you're an entrepreneur, or you're dedicated to a company, if there's a crisis at that company, you live and die on what's going on at that company.

Certainly, when we invariably hit roadblocks at the companies that we invest in, we lose sleep as venture capitalists. If you're a good venture capitalist, you care and you'll lose sleep but you don't live and die on one company. So those lows are not as low as the people but neither are the highs, because although you're part of the broader team that made it happen, you're not part of the team that made it happen. And when they succeed, their highs are unbelievable highs and so it's.. that's a difference.

But that's also.. it's great to be a participant in that and an observer of it, and those successes are fabulous, but you learn a lot in the failures too, quite frankly, and the failures aren't always the doing of the entrepreneur or the management team. Sometimes you just get bad breaks in markets.. things go awry, a regulation changes, you find out that the satellite you launched is next to a Chinese military satellite and they don't like you there in their neighborhood so they decide to jam you.. unanticipated. <laughs>

Hancock: As you say, not everything is up and to the right and the learning, it sounds like you've been not only bringing your tremendous expertise and experience but also learning along the way. Would you be open to sharing some of the challenges that you see as an investor or some of the.. something you missed maybe, something.. any disappointments or how have you?

Barris: Well, unfortunately that's a long list too. You know the old saying, "Don't go into areas you don't understand." So I just made light of this example of a Chinese satellite. We got an entrepreneur that came into our office one day with another investor who was focused on the satellite world and he had this audacious idea that he was going to launch satellites to provide, I'll call it, Direct TV kinds of applications in Asia, inclusive of India and Vietnam and Cambodia. Not China, because China had regulations that didn't allow that. But launching a satellite is an expensive proposition and one would say not one for venture capitalists to venture into. But he was so compelling as an entrepreneur who understood the space and grew up in the satellite business and thought he could get his hands on a satellite. The satellite was ironically built for a Chinese customer, but our US state department stopped it from being delivered there and he thought he could get it. I'll call it at a fire sale price. Long story short, we and the other investors said, "Look, we'll give you some walk-around money.. a million and a half from us, a million and a half from the other investor, and if you can go out and secure the satellite.. secure a slot in space and secure an anchor tenant, we'll fund you behind that.." That's a very high bar, right?

Long story short, he delivered on all three. We had an anchor tenant in India, we had a slot with a perfect footprint and we had the satellite, and so we raised capital to fund the purchase of the satellite. This was ultimately \$100M to \$150M over time, rather than multiple hundreds of millions of dollars, so we took on debt. We became the buzz of the satellite industry. We launched two satellites, that one and another one. And as I said.. and we had one of the founders of Direct TV on our board, so we knew the space.. no pun intended. But we got this curveball and the curveball was that we were sitting in a slot next to a Chinese

military satellite. And to this day I don't.. they probably assumed we had US intelligence, which we didn't, on our satellite, and we were espionage, which we weren't, but through a whole series of events that involved international wheeling and dealing, we were dealing with Singapore and Bermuda and France and I won't get into it all. This was international politics.. not something I had a lot of experience with.

We ended up losing all of our equity, in what was a great idea and was successfully executed up to the point of this curveball. Now ultimately, those satellites were moved to different slots but the equity holders lost their money and so it's a successful business, less successful than it would've been had if they stayed in the same slot. So, great idea, great execution against all odds, but we weren't experts in the satellite space and we got a curveball that was unanticipated. So don't play in areas that you don't understand well because we didn't understand the nuances of the satellite business and the international politics behind it, and so you know, hard lesson learned. I haven't invested in another satellite business since.

Hancock: One was enough?

Barris: One was enough.

Hancock: I'd like to pull the lens back now, thank you for talking about your amazing experiences as a venture investor and let's look at you within NEA and when you came here about 25 years ago, it was a well-established firm and you were joining a place that had a culture.. partners. Can you talk about those - your role becoming managing partner and how you've seen your role in continuing to build the firm through an incredible kind of expansion of funds and also perpetuating what's been a remarkable time of now, generations of leaders? This is rare in the venture business.

Barris: It is.. it is and I think for one, one of the things that attracted me to NEA was its collaborative team-oriented environment. That's, I think, an anchor part of our culture, and I grew up in that kind of an environment and the various jobs I had and the companies that I managed. That was the kind of culture I tried to perpetuate and it really goes back to the culture frankly at Tuck - very team oriented. And so I liked that about NEA very much. I'd gotten to know some of the people living in the Washington area so that made the decision to join NEA specifically easier for me and I obviously was attracted to the venture business. Our founders.. the three founders of our firm, Dick Kramlich, Chuck Newhall and Frank Bonsal are all amazing people in their own right. Dick grew up the venture industry. You know, Frank came out of Alex Brown and Chuck out of T. Rowe Price. but they both worked with small companies and they were true venture capitalists. When I knew them, that was their business, but I think by their own admission they weren't managers and I think what they saw in me was somebody who had a lot of experience on the operating side of the business. I'd talked about leveraging that experience as it related to the companies I invested in but it was also leverageable within the confines of NEA, and I think we had reached the stage.. I joined in the middle of NEA's fifth fund and participated in the fundraising in NEA-6, where, you'd have to ask them, but apparently they saw something in me where they asked me to take on

a leadership role at the firm which I did coincident with our NEA-7 fundraise. I'd say we made a marked change around the year 2000. We were always a large firm by most venture standards, but people including our limiteds [limited partners] ,had a hard time understanding ...just to put this in context, NEA-5 was a \$200M fund, which was called a mega fund back then.

Hancock: It was.

Barris: It was.. it was a mega fund, and you know, how could you prudently invest \$200M or \$250M, which was the size of our NEA-6 investment. Now I came from my early career at GE, a big company, and so you know, I had talked to limiteds, and talked about the size of NEA and I'd say, "NEA is a popcorn stand, what are you talking about? This is a small firm.. it's not even as big as most law firms," and for better or for worse, I came with that perspective. GE always defied the experts in the industry because they didn't understand how such a large diversified firm could outpace the GDP.. year after year.. decade after decade.. they didn't understand it. They thought of it as an index.. should be an index, but it outperformed. I kind of came with that same mentality to NEA.. Okay, we're viewed as a large venture firm but there's no reason we can't outperform the industry. We're not an index, we don't need to be an index, we're still a relatively small part of the capital in the industry, single digits, so we're hardly an index but people view us in many respects as an index.. and people viewed size of firm as a negative. That was, frankly, used against us by our competitors, as we're too big to care, we're too big to be involved.. we're too big.. too big.. too big.

So my view was let's use size to our advantage rather than be defensive about our size. And so particularly as we went from NEA-9 to NEA-10, we jumped into the multi-billion dollar fund from an \$800M-ish fund which was large, to a \$2.3B fund. Coincident with that, we expanded our strategy internationally, we expanded our strategy into growth equity which today is very commonplace for a venture firm. It wasn't then at all.. nobody did it out of the true.. the folks that did growth equity were growth equity firms, or they were private equity firms, the going downstream. There weren't venture firms doing growth equity. So, we had a very simple strategy; what are we good at? Well, we have a lot-- we know how to build and grow companies and we have a skill set at doing that. We have amazing domain expertise, whether it be in health care or technology and sub sectors within them. We had built up an organization with a lot of expertise. And we had a large capital base. So our view was, anything we could do that took advantage of those business-building skills our domain expertise and our capital base was fair game as long as it was legal.

So, we looked at the world differently than the traditional venture capital firm would look at the world. And that's what got us into growth equity, frankly. Because we found a number of opportunities that started actually in the health care side of our business in Specialty Pharma, where we saw that we could take pharmaceuticals that were in development from different companies that were orphaned for whatever reason, strategy shift, merger - and we could buy them and aggregate them in a certain discipline, cancer therapy, neurology, whatever the case may be, and create a company. And so, with a lot of capital, a lot

being 40, \$50 million, not \$4M or \$5 million, we could aggregate these pharmaceuticals that were in development. We could take entrepreneurs that we knew and attract them to the company, and we could create a company. And this was a Series A investment in a company that had multiple products.

So then we looked at the tech world and said-- came to the same conclusion in a company that was actually a foreign company that was public that was changing its strategy and wanted to get into new markets. It needed \$200 million to make an acquisition and it-- that was out of the realm of the typical VC and it was too small and too risky for the typical private equity and we said, "Here's a white space that we can go into. Because we have a large capital base, this has a lot of venture risks associated with it. We know how to embrace those risks. We are comfortable embracing those risks. And it's an area that other VCs can't go into, or are unwilling to go into, and private equity firms are unwilling to go into, and so we can carve out a discipline here." And so that's what led us into growth equity.

But it was all about taking advantage of our large size and actually and now building portfolios within our larger portfolio of companies in like spaces or in the same domain where they then could learn from each other and collaborate with each other. Taking advantage of the fact that we had information across a wide spectrum of companies and if we could share that information with our individual investments, size and scale now became an advantage. So I like to think, and our limited partners tell us, that we're the first and perhaps the only pure venture firm that has operated at scale. And some of that goes back to at least in part to my leadership and my experience at GE and being not only unafraid of scale, but seeing as- as a tool and an advantage. And seeing and that you could at scale outperform and not be an index, as I said earlier. And so we've kind of embraced that as a firm being different than the typical venture firm, but hopefully being very effective at the same time.

Hancock: Well, you've defined that scale. Mega Fund is now a whole new area.

Barris: Yeah.

Hancock: I think, is it just finished Fund 16 this-- six this year?

Barris: Fund 16, a \$3.3 billion fund.

Hancock: So after a handful of more than \$2B, now you've crossed the \$3B threshold.

Barris: Yeah. We have.

Hancock: So it's amazing. We've talked about of this evolution of the firm is dependent not only on leadership but also the relationship among the partners, as you've--

Barris: Right.

Hancock: -- and in somewhat an unusual bicoastal--

Barris: Right. We're founded bicoastally.

Hancock: Founded bicoastal, operating bicoastal, and now international. Can you give us a window on that dynamic of how you work together and have evolved the firm?

Barris: Yeah. The-- well, as I mentioned from the outset, our founders established a culture here that was team oriented. And how did they do that? Well, they had a very flat compensation structure. We operated then, and today, out of one fund. So whether you're investing in China you have an interest in how the rest of the fund is doing. Which means your incented to help partners in the US and US partners to help partners in China, and health care partners to help tech partners and vice versa, we're all feeding off of the same trough. And so that incents us monetarily to work together, but culturally it's about team and it's about helping each other. And so the-- so we were founded with that premise and we were founded with the premise of working in partnership with our limited partners and our entrepreneurs as they are our customers and we're a service support organization, if you will. We have to build up strong partnerships with those two constituent groups. Obviously very different constituent groups. One, back in the day, you used to wear a tie to see, and the others you didn't, right? And so you had two--

Hancock: Put your jeans on, right?

Barris: You had two wardrobes, right?

Hancock: Yeah, you're straddling those.

Barris: Right. Exactly. And you're still straddling those two constituent groups. But what it translated into in the way of in terms of entrepreneurs was this very entrepreneur-friendly collaborative culture.

Hancock: What does it look like in practice? Many people talk about those ideals.

Barris: Yeah.

Hancock: But when it's in nitty-gritty practice, what does that look like?

Barris: Well, what it means is, when the shit hits the fan, they use the proverbial phrase, excuse the language, you are a helping hand and you roll up your sleeves and you work with the entrepreneur to solve the problems, to meet the challenges. You don't, just to be dramatic, pound your fist on the table and make demands. Which I have seen some of my colleagues in the industry do. When the time-- you know, I always tell an entrepreneur, "We're going to do due diligence on you, when we're looking at a new investment. You should do due diligence on us, and any other venture firm you're working at. And, oh by the way, here's our phonebook. It's got every entrepreneur we've ever backed. Feel free. I'll give you the list of people that know me well. But if you want to randomly call people up, feel free to do so to find out what we are like as a firm. And as it relates to me, and it relates to the companies, I would suggest you not call the big highflying winners. Call the companies that ultimately were successful, but they went through rough patches to get there." Because those are the situations where you learn the most about the venture investor, you learn the most about the "value add" they provide. In the straight up into the right situations, it's all Kumbaya. Everybody's friends and everybody did a great job, right? It's when you hit tough times that you find out who the real helpful partners are.

And we find that out in terms of other VCs, quite frankly. You know, there are VCs I won't work with, because I've had bad experiences in those tough times. And the same should be true for entrepreneurs. And so, we have an attitude and at-- and that's part of our culture. And the culture is-- sit in the discussions we have at partners meetings where we give examples and we talk about challenges that we're facing at companies, struggles that we're having at companies or the companies are having. We talk about how we act, and what's the right thing to do. So, there are oftentimes where we're faced with a decision, whether it be with an entrepreneur or a limited partner, where Option A may be in our self interest. But Option B is the right thing to do for that limited partner, and their interest, or that company and its interest. And we get to Option B. And it's only by having those discussions with young people sitting in the room and observing that we're making a decision that isn't always in our best interest but it's the right thing to do, you build a culture. It's by repeating that time and time again. They understand what our value system is and how we-- the principles that we have -- we manage ourselves too. And that doesn't always mean doing what's in our self-interest. And so that's how you build culture, through example, through action. Yes, we have mission statements and yes, we have bullets about what our culture is. But it all comes down to how do we , and how do we act particularly in tough times with tough decisions. And it's those examples that resonate with people and which they take to the bank, so to speak, and I think which perpetuates the culture.

And when we recruit people to the firm we talk about this and we talk about our culture and our team orientation. You know, there-- we once had two associates that were one was particularly competitive with the other and they had both graduated out of the same business school and the same class and it was becoming destructive. And I, during a performance review, I told the one associate I said, "Look, next year when we sit down at this performance review I'm going to measure you on one thing and one thing only." He says, "What's that?" "How successful you make that other guy." And his mouth dropped. He

didn't understand. He didn't comprehend what I was talking about. We're about team. Your individual performance is helping make that guy successful. If-- there's plenty of room for people to succeed here. This isn't a zero-sum game. You can all win. So internal competition is not our culture. So, it's examples, it's living them, breathing them. That's how you build culture. That's a challenge as we've scaled our organization. It's a lot harder to do in a large organization and to perpetuate that. But that's how we've done it. It-- we've done it through the kind of discourse that I've described through following through and living it and communicating it and demonstrating it day in day out.

Hancock: NEA is a very special place and a--

Barris: We like to think it is a special place.

Hancock: <laughs>

Barris: It's a-- it's definitely unique within our industry I think.

Hancock: So if you were to sum up what makes it distinct, and in the scan of history as it contributed not only to the significance of the venture industry, but more broadly into the economy and -- on society, what would you say?

Barris: Well, you know, you could say for a lot of venture firms, not just NEA, we've helped create some really significant companies that have created jobs, that have supported families that have helped the economy at large that have made a mark on society - that has transformed lives hopefully for the better. Certainly, I envy our partners in the health care side that are contributing clearly to the health and well-being of people every day and helping to solve intrinsic problems. And so what makes NEA a little different, I think we've done it our way. We've done it in a very honest and a high integrity way. And I feel like we've made that commercial impact, that economic impact, that we've done it the right way. And that's what I feel good about. And I think we've demonstrated to our industry that you can operate this industry at scale. This industry has struggled between being a cottage industry and growing up. It's always had some tension there. And like our companies are small, a lot of VCs have always believed they have to be small to be nimble. Whereas, I believe actually we can be more nimble as a large organization, because we can get to the answer of whatever question there is faster. Because we either have the expertise in-house or we have the network and because that we can get to the answer quickly. Whether it be on an investment we're anticipating making or a company we've already invested in, that network is powerful. And it's powerful because it gets back to our culture. When you have entrepreneurs that have enjoyed working with you, they want to help you. Long after you have exited your investment, you're still friends in many cases. You're collaborators. You're people that they recommend to their counterparts in the industry. You're people they want to help if they can help because you help them. And so that network is a very strong network in our case, and it's one we can lean on. And we've learned how

to do it in an efficient fashion and that makes—and it's a very powerful tool. I think that's a mark that we've made in our industry, figuring how to do that and demonstrating it in action.

Hancock: What's next for the industry? As you said, there's-- it's changed rapidly, not only in the last 25 years, but even the last five years, different models, different--

Barris: Yeah.

Hancock: -- styles, different focuses. What do you see as where the venture industry is heading? Particularly winds that it is facing, some challenges as well as new opportunities?

Barris: I think the winds that we are facing today are fleeting, frankly. I see a very bright future for our industry. You know, I mentioned early in my career when I was-- when I was at Tuck I was thinking big company, right? Because that's what people did then. Now, you know, I have a daughter that's in business school right now and she's going to go out and work for a startup. And it's-- and, you know, maybe I had something to do with that, because she got exposure to it. But that's more the norm today that people coming out of college, coming out of graduate schools are very interested in the entrepreneurial environment. And so I think that bodes very well.

At the same time, what you've seen happening in corporate America is less innovation. You know, the Bell Labs of the world no longer exists. There's less-- that's the first thing that's getting squeezed in our relentless effort to deliver quarterly earnings, R&D budgets are getting squeezed down, numbers of patents are going down, particularly in the Biopharma space. So where do you get your innovation? You've got to find it. And where do you find it? You find it in entrepreneurial companies. One of the biggest changes that we've seen in the industry is we're now, as a firm, getting courted by these large enterprises, because they want access to our portfolio. Again, an advantage of scale, because they know that they've got to lean on firms like us and the companies in our portfolio, for their innovation. And so they're forging partnerships with us and we're more than happy to forge those partnerships. So I think the collaboration between industry and venture capital has never been as strong as it is today. It was always reasonably strong in health care, but it's gotten stronger in health care, and it's light years better in the technology side than it used to be. And I think that's going to continue to happen.

I think interest on the part of government in venture capital has never been greater than it is today. Because they recognize the fact that net job growth in the US over the last 30 years has come primarily from, if not exclusively, from venture-back companies, net job growth. So we all talk in the political world about job growth. Where's that coming from? The creators of that job growth are largely coming from these venture-back startups. So I think the future is very bright for our industry.

Will we have challenges along the way? Yes. Yes. Undoubtedly. But I think it's a great place if somebody wanted to have a career in venture capital. I couldn't think of a better time. I mean that's the one regret I-- it's not the only regret that I have for being old now, being in this industry for 25 years. But that's certainly one big regret, is that I'm at the tail end of my career rather than the beginning of my career.

Hancock: Well, you have many years ahead of you. On that, we've primarily focused on the U.S. Now that many people are so interested in what's happening in Beijing in the venture industry – have more dollars been going to regions outside of the US? And a lot of increase in innovation and major companies in the tech space [internationally][

Barris: Yeah.

Hancock: -- and others coming. What's your perspective on entrepreneur ecosystems in the US vis-a-vis what's happening globally?

Barris: Well, for one let's start with the U.S. The Silicon Valley has always been kind of the epicenter, at least in recent decades, the epicenter of entrepreneurial activity and it continues to be. However, it's not the only place. And so we have great-- have had great success in places like Chicago and Boston and Austin and Seattle and Denver and emerging places-- big places like New York City are placing big bets. So innovation is happening everywhere. And the reasons behind it are in great part, technology allows it to succeed and blossom in other places. You can be in Des Moines, Iowa and have-- and create a successful company. It's always better if you're-- and easier if you're in an ecosystem like the Valley, but there's nothing that stops you from doing it in other places. And so that's true globally as well. And, you know, part of that is culture, right? You have to have people that are willing to take those risks and think about themselves differently. And the Millennials do; they do. So people coming out of colleges today are kind of looking at the excitement of startups and they're willing to take those risks. So entrepreneurship is not confined to the Valley any longer. That's true elsewhere. Okay?

We're seeing the rise of venture capital dollars in approximate numbers - I think it was 20 years ago was over 90 percent of the venture capital dollars in the world went into the U.S. Ten years ago it was something like 80 percent. And today it's just over 50 percent. So our market share-- the U.S. market share of venture capital is going down. Now that's not necessarily because we're losing, the pie has gotten bigger. The dollars in our industry has remained relatively steady to up in the last several years. So it's not that we're not a growing or a contracting industry. Quite the contrary. We're a growing industry in the US. Just the rest of the world is growing faster.

Now, nothing beats the US in terms of where innovation is happening though. The rest of the world, and I'm painting a broad brush, is largely a big percentage of what they do copies what we do in the US. It's the European version or the Indian version or the Chinese version of a success story in the US. That's

beginning to change. And you definitely see pockets of true innovation, particularly in China. And as their university system has come along in a significant way, particularly in the technical side, I expect that trend to accelerate. It's starting to happen, but selectively in India, and same in Europe. And South America for that matter. You have a great pocket of innovation in Israel. It's always been true innovation, but in a relatively narrow space. And they suffer from the fact that they don't have a market-- a big market - so they have to go to the U.S. or some other large market, Europe or whatever. So, I don't think the lead that the US has is likely to evaporate any time soon. But it is getting challenged, just like our university systems are getting challenged. You can go to the same trend in terms of top universities in the world, the number in the US is decreasing. We still have the majority but it's decreasing. And so we are a global world. We're an interconnected world, no matter what the politicians like to say. And we depend on each other. And rather than fight it, we want to take advantage of it. So that's why we as a firm have spread our sites for the last 15 years internationally.

Hancock: You've been so generous Peter, with your time. I'd like to ask two final questions.

Barris: Sure.

Hancock: One is looking back. For your life, we can think about sort of how do we measure success and what's been most significant. How would you sum up your own areas of success or impact?

Barris: Yeah. Well, you know, it gets back to what I said earlier. I think I've had several different successes in my career, both in kind of my operating side of my career as well as the venture side of my career. I like to think that throughout my career I did it my way, so to speak. I had conviction about what I was doing and I did-- and I had principles and I stuck to those principles, and I acted in a high integrity way. Hard to measure. Hard to look back on a piece of paper and say those things, but that's what I'm most proud of. I think I made a mark. I think I succeeded in climbing the ladder, so to speak and do-- had very-- a number of successes in my career at GE, did a public turnaround-- two public turnarounds, actually as it turns out, and those companies went on to prosper and had excellent exits. And then, you know, NEA, I'd like to think I made my mark in taking this firm to the next level from what I was handed when I was given the reins, and building an enterprise that I and all of our partners could be proud of.

Hancock: It's been such a pleasure really to talk with you. The last question I have is looking forward. I asked you earlier today if you had a word of advice for a young entrepreneur, or a fledgling VC, what would that be and why? Could you share that with us now?

Barris: Well, the word I shared with you was one I've used a couple of times in our session today, and that is conviction. Because whether you're a venture capitalist that's contemplating an investment and your partners are asking you all the hard questions and being skeptical. Or you're an entrepreneur that's hitting a rough patch, you've got to have conviction about what you're doing. You can't let the noise get

you down. And if you have conviction, and you believe sincerely, deeply, about what you're doing, why you're doing it - and you work hard, as the cliché goes, you can achieve anything. And that's true in the entrepreneurial world, and it's true anywhere.

Hancock: Well, your life has certainly shown that. So for the record, I'm Marguerite Gong Hancock of Exponential Center at Computer History here with Peter Barris. Thank you very much.

Barris: Thanks, I've enjoyed it.

Hancock: It's been a great pleasure. Thank you.

Barris: Thank you.

END OF THE INTERVIEW