

INTERVIEWER: Today is September 23, 2015. I'm Chris Boebel, and I'm here with Bob Millard. Bob is the chairman of the MIT Corporation. He joined the Corporation as a term member in 2003 and was elected as a life member in 2013.

He has served on the executive committee for 10 years and on the MIT investment management company board since 2007, the last four as its chair. Bob is a successful investment banker and businessman. He's held many positions, including that of managing director at Lehman Brothers. And he has held leadership and directorship roles at many other companies, including L-3 Communications Holdings and Evercore Partners.

Bob has also served on numerous nonprofit boards, including the New School and the Population Council. He is currently a member of the Council on Foreign Relations. He holds a bachelor's degree from MIT and an MBA from Harvard.

So Bob, thanks for coming in to sit down and talk to us today. Let's just sort of take it in order, sort of as it were. Tell me a little bit about growing up, where you grew up, your family, and some of your early memories.

MILLARD: Well, that might be the oddest part of the interview. So I was born in 1950 on Long Island outside of New York City in a lower middle class neighborhood in a house that was 800 square feet, which was not abnormally small, I suppose, in those days. It was still in the aftermath of World War II. And I had the two brothers. And we lived there.

And things got a little weird. My mother was very sick when I was young so I actually never remember her being healthy. She came down with cancer in her early '30s, and she died when she was 41. I was 13 at the time.

And then the rest of my family kind of fell apart. My father eventually abandoned me when I was 16. So that's an odd story. And there are some fun parts of that. There were obviously some not so fun parts of that. So I had this unusual childhood.

Then being on my own since I was 16, I didn't think I would be able to go to college. And I wound up at MIT. And they gave me my life. So--

INTERVIEWER: So that's sort of an extraordinary story, which we could unpack, I'm sure, for a long time. How did that happen? How did MIT kind of enter your life? That doesn't seem like kind of a natural progression if you have all those challenges and difficulties.

MILLARD: Right. So I, from an early age-- and I can't tell you what the catalyst was for it. But from a very early age, I loved science and math. And by an early age, I mean second grade, I think, I just got fascinated by numbers and I just loved being able to manipulate them. Maybe I was a lonely kid, and it gave me some sort of power over it that I thought was little supernatural or something like that. But I had this great interest in a lot of things.

I was also-- I wrote. And I drew. And I painted. And I did music, and I did a lot of things. But the thing that I think I did best was science and math, although there was a time in my life when I thought I was going to grow up to be the great American writer.

But in any event, that was with my love. And I went to sort of a public school where most kids didn't go on to college. But I had some wonderful teachers. They really loved what they were doing. And they took an interest in me, and I was able to just absorb stuff like a sponge.

And at some point, I decided I wanted to be a scientist-- physics, in particular. And then when I lost my family, I had no way to really navigate that. Most of the kids, as I said, didn't go to college from my high school. So I don't even remember there being a guidance counselor who would guide anybody.

But I, on my own initiative, applied to a bunch of schools. I remember figuring out what schools to apply to. And there was just a random group of institutions that I thought could teach physics. And there were a couple of state schools that I applied to-- Stony Brook and Buffalo.

I applied to Buffalo because-- I hadn't been to Buffalo. I still haven't been to Buffalo. But I just applied to Buffalo because I had a girlfriend who was a year older than I who went to Buffalo, and Stony Brook because they had an accelerator. And then I applied to Rensselaer, which I had never visited either. I never applied to a bunch of other schools that I probably should have.

But MIT was of great interest into to me. I had read something about in *Scientific American*. And I really wanted to go to college.

But then when I was in high school and I lost my family-- and as I said, I was living illegally. I couldn't prove that I actually didn't have any money because I was in this strange catch-22 situation. I didn't want to get thrown in an orphanage.

And when you're a kid, you just sort of blame everything on yourself. So I knew I was doing something wrong by living on my own. So I didn't want anybody to know that.

But MIT figured it out-- figured this out, and offered me scholarship and financial aid without my being able to prove that I didn't have a parent with enough money. So I came here, which was, by the way, my first choice even when I was applying to all those colleges.

INTERVIEWER: So-- I mean, I'm fascinated by this story. Did you explain to people at MIT what the situation was? Were you kind of completely upfront with them? Or--

MILLARD: No.

INTERVIEWER: Was it something that kind of came out?

MILLARD: No, I wasn't upfront at all, actually. As I said, I was fearful. You're just trying to-- that was the life I was living. I was making things work. I was getting good grades in school. I had jobs which allowed me to pay my rent. I was renting a room in someone's house.

And I didn't want to be thrown out of high school and put in an orphanage. I didn't realize at the time that my father who had abandoned me was the one who would be in trouble. But kids always blame everything on themselves.

So there was an interview with an alumnus. And I remember it quite clearly to this day. His name is Bob Adams. And he was a friend and neighbor of the brother of a dentist whose daughter was my childhood girlfriend. And they were living on the North Shore of Long Island. They had previously lived in my neighborhood, but we had stayed roughly in touch.

And I bicycled all the way to the North Shore for this interview in this fellow's basement. He sat there, and I sat there. So he had some inkling that something was weird in my life. And he somehow coaxed it out of me. And I don't remember the exact conversation, but he coaxed it out of me. And I guess I just decided that it was okay to take this risk.

And I remember-- just to tell you how long ago this was, I remember he reached over for the phone. He had a phone by the side of his-- it was with his left hand. And it was a red phone. For some reason, it was a dial phone. And he called MIT.

And somehow, he knew whom to call, and it was a fellow named Sam Jones, who was running financial aid. And he called him and he got him on the phone. And he said, hypothetically, Sam, just suppose I had a student who-- and he described my situation, of course, in completely hypothetical terms, which I guess I willed myself into believing was not dangerous.

He described it. He nodded his head-- mhm. Uh-huh. Okay-- so and so. But again, he-- so he hung up the phone after a while.

And first of all, the thing that impressed me most was he was a fellow calling long distance, all the way from Long Island to Boston. And long distance was like flying to the moon. This is only something that you read about in movies, people calling long distance.

So he hung up. And he said, look, you're going to have to fill out the parent's confidential-- it's called a parent's confidential statement. If you happened to not have any parents to fill it out, you've got a little bit of a conundrum.

So he says, on the parents confidential statement, write-- and I don't remember what it was he said to write, some code. I just don't remember-- probably not applicable or something like that. And just do your budget. And just say how much you need.

And get your SAT scores up, because you need to get better SAT-- I said, don't worry about that. I had hay fever that day. I'll take them again. And I did, and I did get them up.

So I wrote this thing on the application. And as you know, the financial aid application is separate from the admissions application. So I sent it in. And on it, I said-- college in those days was about \$4,000 a year.

And I said that I would work this much. I had this much in savings, and I do this in the summer. And all I needed to do was borrow \$400 a year and I could make this work. And I committed on this to working like 80 hours a week, which is what I was doing in high school-- just working every spare moment until 11 o'clock at night. I had some interesting jobs. So I sent that in.

Meanwhile i so I applied to five colleges. I got into all of them. And I got into Cooper Union, which had no tuition, but they weren't really teaching what I wanted to study, which was physics. I mean, they taught physics, but they were really kind of an architecture and engineering school. I wound up getting a degree in architecture.

So I sent it in. And at one point, I despaired of-- I also won the Regents scholarship, but I couldn't use it. Regents scholarship is a New York thing to those two state schools. I could have gone for free, but I couldn't prove that I was a bona fide resident of New York. So they were out.

So I was sort down to Cooper Union as the place I was going to go. And I was getting ready to go. And then I got admitted to MIT and Cooper Union. I was down to MIT and Cooper Union. And I was thinking I was going to get this \$400 of loans but I was going to continue working this ridiculous schedule.

And I was just so exhausted at the age of 17. I hadn't had a day off. And it turns out if a human works for like 100 days straight, you really kind of go crazy. And I was just utterly exhausted. I don't ever remember being so tired my whole life as I was at that time in my life.

So there, I got this acceptance from Cooper Union, which is hard to get into. And it was free tuition. And I was saying, that's where I'm going to go, I guess. I really, really want to go to MIT. That's my vastly higher preference. But I just-- I don't think I can keep this up anymore.

But I was going to go to college, which was making me pretty happy compared to what my expectations were not long before. And then a week later-- a week later to the day, I got the financial aid answer from MIT, and it was from this fellow Mr. Jones, Sam Jones. And it said dear Mr. Millard-- I wish I had this letter. I would frame it and put it on my wall.

And it said, dear Mr. Millard, congratulations on getting into MIT, and so forth. And while we admire your willingness to work that hard and contribute to the price of your education, we would rather you study. So therefore, were going to give you a full tuition scholarship and a stipend. And we'll lend you \$400, but everything else is going to be for free.

It was just-- I remember that being about the happiest day of my life. And they paid me to come to college here. So that's how I wound up coming to MIT.

INTERVIEWER: So as someone who didn't have the benefit of parental role models, was going to college something that was a decision that you made on your own? Were there role models? Were there are kinds of models to follow in your life at that time? How did that happen?

MILLARD: You know, I actually don't know. I read a lot. I was a lonely kid. I was very shy.

Because my family-- because we are in this 800 square foot house and all the kids that I was going to high school, they had all moved out of there. All the neighbors in my neighborhood were starter families. So I had very, very few friends.

What few friends I had, because I was also very shy, lived some distance away. And I just never hung out with a bunch of people. So I think I kind of maybe developed the interest from books and stuff.

I can't-- my mother did go to college, although she died before I ever had sort of an intellectual connection with her. I don't even know if she finished college, but she was artistic. And I think my father went to some kind of community college for a couple years. And he was a door-to-door insurance salesman.

I don't ever remember meeting someone who inspired me-- maybe my teachers. Maybe my teachers did. To this day, I can't say what seeds were laid out for me in my life.

INTERVIEWER: And you mention MIT as a place to study physics. What was your impression of MIT beyond just-- if there was one, beyond a destination for an application at that point in your life?

MILLARD: Oh, I knew then-- this was 1967, 1968-- MIT had a reputation consistent with its present reputation-- a place where it was just for science and technology, the best place on Earth. So I was--

INTERVIEWER: You were aware of that?

MILLARD: Oh, yeah. Oh, yeah. I devoured *Scientific American*. It was easier to understand then, or else I was smarter than I am now. But you couldn't be a kid like me and not have heard of MIT-- and Caltech, for that matter.

INTERVIEWER: So tell me about coming to MIT. So this extraordinary journey and that letter, which is incredibly dramatic. Had you traveled much? Had you been to Boston? What were your expectations, and what was it like in actually arriving?

MILLARD: No, I had never traveled. I'd been on an airplane once in my life, which was some six months before. I had never been out of the country. No, I was-- and people didn't travel as much in those either.

I had an aunt who actually took me to MIT. I mean, I wasn't very close with her. But somehow, she wound up taking me to MIT. I think we must have driven, or I guess we took-- maybe I took the bus. We took the-- I don't remember.

But I had visited MIT. And I knew that this was just the best place on Earth that I could ever visit. And the other colleges, except for Cooper Union where I had to go to in order to take these entrance tests-- the other colleges I applied to, I never visited, and still haven't.

INTERVIEWER: So you had visited MIT.

MILLARD: I had visited.

INTERVIEWER: So you had an mental picture. You knew something about the place before you arrived.

MILLARD: Yeah. Yeah. And I remember Doc Edgerton was-- I didn't meet him, but someone took me through part of his lab. And I was just really blown away by that.

INTERVIEWER: So then what about arriving as a student? Talk about your peers and sort of whether-- again, what you expected versus what you found and integrating into the life of the campus.

MILLARD: I had a very difficult time when I first came. I had had this rug pulled out from under me when I was 16, really. And I remember I sort of went into a deep period of introspection and probably depression.

And when I came here, I was actually quite stunned. I fell back into that. I say that week-- it was called rush week-- was one of the loneliest weeks of my life. And it was odd because it's the most welcoming week at MIT, and I've never felt more lonely.

And it's not MIT's fault. It was, I think, because when I left Long Island, I knew I was never going back and there was nothing to go back to. I mean, there was a little something to go back to, but that's another story-- this family that I rented a room from.

And I think I felt completely adrift. In those days, roughly a quarter or something like that of the freshman had to be accepted by fraternities because there wasn't enough freshman housing on campus. So you went around and visited these fraternities. I don't think there any sororities. And even then, it wouldn't have been relevant to my case.

And they were all backslapping and smiling. And it just seemed-- I found that very, very lonely. And to this day, I can't exactly explain why. And there was something about the disingenuity of all this that just made me feel very much alone and adrift. So it wasn't a happy time.

Things got better-- much better, actually. I did wind up joining a fraternity and have friends to this day from that. I only lived in a fraternity for a year. But when I first came, that was my first week.

I think as soon as classes started, it was interesting. Because as I said, I came from this lower middle class neighborhood. I had never heard of the word "prep school." So I didn't know to be afraid of it. Had I known half of what I know now, I would have been terrified.

But I thought I was-- I liked the people. I instantly felt at home. I felt I had-- well, not instantly-- not that first week because I didn't think people were kind of being themselves, I guess, is what made me feel so out of sorts. But I really felt pretty comfortable not long after I got here. And that feeling is still there today.

INTERVIEWER: Yeah, I know that students with first generation backgrounds or sort of atypical family or high school experiences often need a period of adjustment. And it's a moment-- it can be a real shock, arriving at a college, whether it's MIT or another place.

Is that a-- you know, it's an issue that's actually received a fair amount of attention recently. Is that an issue-- I'm jumping around, but is that an issue that you have thought about or focused on in your various roles at MIT? Or was that something that shaped you at all beyond that sort of experience?

MILLARD: I'm not 100% sure I understand the question the way you're answering it. But let me-- asking it. Let me answer it the way I am hearing it. I think I had such an unusual and unfortunate, I have to say, childhood that I find I'm suspicious of my own reasoning when it comes to processing other people's situations.

I think I see other kids-- I was just with a friend of my 19-year-old son who just started at Bowdoin College. And he just couldn't be happier. And I just-- that had nothing to do with my experience. So I think there's a range of things.

The only thing that I'm sensitive to is the bottom range. And it maybe makes me a little bit more sympathetic or empathetic or attentive. I'm very upset about these suicides that we occasionally have. They move me deeply, and it's just because I know how painful life can be for young people. Well, it could be for anybody, but that time is difficult.

It was very difficult. It was the most difficult time for me. It was the loneliest time in my life. And my heart goes out to them every time I see evidence of that pain. And of course, that's when someone takes his or her own life, as we had earlier this week. It moves me in a special way which is maybe a little bit more impactful than the average normally well-adjusted person.

INTERVIEWER: Yeah, I guess-- I think that's actually a very powerful answer. Rafael Reif, of course, although with a very different childhood story, is a first generation attendee of college. And I think he's been very interested in the challenge that students with-- let alone the kinds of challenges you faced, but challenges that students face who don't come from families where higher education is a tradition, who don't come from neighborhoods, or don't come from this sort of background that probably the majority of college students come from.

He's really tried to focus attention on them. And I was just wondering if that was something that was something you had participated in or considered, almost from a sort of institutional priority perspective. But--

MILLARD: You mentioned Rafael. I have great admiration, but Rafael grew up in Venezuela. And I don't know what it was like. And Rafael and I are almost exactly the same age.

And so I can't imagine that Venezuela was as culturally inviting to what he did as America was to what I did. I mean, I don't know exactly where I got my spark or incentive. But it was the Sputnik time. It was all in the air. America was a great country. The whole ethos of the country was being formulated around science and math and technology.

There was just, I felt, an open invitation to do these things. I think it was a kind of America that provided me the basis to move forward. When they say land of opportunity, it really is. Imagine a guy like me with nothing.

I don't feel I did anything heroic. I just felt I just put one foot in front of the next, and the opportunity was there. And I just never felt, from an early age, as though-- I just felt if you worked hard, good things would happen to you. And they did for me.

I can't imagine for Rafael in Venezuela that he had that same assumption, that unspoken assumption that you could-- I just somehow felt I could go to college, if I wanted to. I did get discouraged at one point. But look, I did go to college.

I think Rafael's story is probably-- I think if you came from some place other than American, it was probably a hugely steeper uphill climb. And you really did need some more inspiration. It was more unlikely, too.

INTERVIEWER: So to sort of return to your MIT years as an undergrad, you came to study physics. You ended up studying architecture. I think that's interesting. What was that journey like?

MILLARD: Well, I still love physics. And I know I took more physics courses than I did architecture courses. I don't know why I didn't take two degrees. I think I fulfilled all the requirements for the physics degree as well. It was the Vietnamese War, and I almost didn't get a degree at all, by the way, which is another story.

So there I was, studying physics, having a good time. I loved it. I thought it was just great. I took 8.01, 8.02, 8.03, 8.04, 8.05-- I don't remember how many 8.0s I took-- and some seminars.

But one of my many jobs when I was in high school was I had done some carpentry. And there were some architecture students here, graduate students, who had started a little business. And they were doing houses and additions to houses. And they were designing and building these things-- very energetic, really smart guys.

And so they were advertising for summer jobs. And so I signed up. And I really became a really good carpenter. And I still am a carpenter. So as I like to say, I started life as a carpenter, and I'll probably end it as a carpenter. But I still build things. And I learned carpentry.

And I had always, as I said before, drawn and things. And so I had actually been sketching buildings when I was in elementary school. So I started taking some architecture courses. And it wasn't a great journey. I was just sort of something I start tacking on.

I got interested in it. And I wound up getting a degree in it. And I thought I was going to go into the building business after college. But-- and I did for a while, actually. And then I went to Harvard Business School. But it was more of a transition than a phase change.

INTERVIEWER: So as you mentioned, MIT, and in fact, the entire country in the late 1960s, 1970, it was a time of upheaval and change. Tell me about the campus and being an undergrad during that time here. What was the sort of culture and energy like at MIT?

MILLARD: Well, it was probably different for everybody and depending on what your taste was. The Vietnamese War was getting going, and no one here wanted to go to Vietnam. I was very unpolitical. I just wasn't that tuned in.

I remember there was some sit-in or sleep-in or take-over in the student union, which is now the Stratton Center-- it was then, but that was what we called the student center. And there was a library on the top floor and there was a restaurant.

And I remember that being taken over, if I remember correctly. And I just was like, what are these people doing? The SDS was like-- I didn't get that. And so I kind of just ignored it in many respects.

I think if that were happening today and I were chairman, which I am, I would be terrified that the world's coming to an end, that they're going to tear down MIT, and our society's going to be taken apart. But when you're a kid, everything rolls off your back. And that just rolled off my back. I was way more interested in the recent discovery of quasars and went to seminars.

I remember someone asking if the light was polarized. It was my freshman year. I didn't know what polarization really was. So I think that there was, as there is today-- just the level of curiosity and discovery, intellectually and scientifically, that's around now, I think it was there then. That's how I related to the campus.

INTERVIEWER: So as you were graduating and thinking about what to do next, ultimately, you chose a business career. You went in that direction, went onto to Harvard to get your MBA. Talk about that transition as well. Was there an "aha" moment, or did you fall into that sort of path? Or what was the spark that led you in that direction?

MILLARD: Toward business, or toward Harvard?

INTERVIEWER: Well, first towards business. And then we'll say towards Harvard, yeah.

MILLARD: Well, I'll just give it to you--

INTERVIEWER: Or whichever the order was.

MILLARD: I'll do it chron-- so I graduated here, I guess, in-- I took a year off. It looked an awful like a junior year abroad, except it wasn't. It was I actually took a year off and went to Paris to study music, because it was just something when I had saved enough money to be able to do that, thanks to the scholarship and everything. So my scholarship was-- so I went and lived in Paris and did that. And then I came back and finished MIT.

And I guess I was inspired by these architecture fellows that I had been with. And I started doing the same thing. I incorporated. Then I started building a business.

And after a year or so, I realized that I was doing all the work and my clients were making all the money. And I remember that very clearly, too. There, I did have a mentor. There was a Japanese-American fellow who was getting a joint degree at Harvard Law and Harvard Business School, and I was working for him.

He had bought a building in the South End. And I was renovating it for him. And I was doing the design. I was doing the contracting. I was doing everything. I was killing myself. And he was-- but he had become a friend. And we were having lunch on Newbury Street. And it must have been a November day.

And he said, look, you should go to law school or business school. And I got on my motorcycle, which was all I had in those days. And I went over to Sloan School and to Harvard Business School and to Harvard Law School.

And it was too late to take the law boards by a week. But whatever the GREs or whatever they are for business school were coming up that coming week. I think it was on a weekend-- coming up that weekend. So I signed up for that and applied to Harvard Business School and Sloan School.

I got in both and decided to try Harvard Business School for a little variety. So I went there. And I thought I was going to go back and build buildings. So when I got out of Harvard Business School, when we were graduating, I had never taken any courses in banking or anything like that. I just concentrated on building and construction management and development, stuff like that.

But all my friends were going to Wall Street. So one of them convinced me to just take an interview just kind of after the interview season. And they offered me a job, so I decided I'd check it out and do it for a year or two, and then figure out what I'd do. I was pretty freewheeling in those days.

So I did that. And it was like a fast-moving train. And I got pretty good at it. And I just sort of never got off. You tend to like things that you're good at, and I was good at it, I guess. And I wound up staying there for 35 years. It was kind of a 35 year mistake-- or accident, I should say.

I made a good amount of money, but my heart was never fully in it. I had a good time. It was really interesting. I met a lot of interesting people. The stuff was probably more interesting than I ever gave it credit for.

But all along, I had had a wandering eye for other things. So I started getting involved in not-for-profits at MIT-- wound up getting me involved, and here I am.

INTERVIEWER: So what I know about Wall Street, despite having lived in New York for 20 years, what I know about Wall Street is contained in popular movies about it.

MILLARD: Me too.

INTERVIEWER: Okay. Well, good. So we're on the same page. But I'm really curious about that sort of fast-paced, exciting, adrenaline rush kind of portrayal of Wall Street and whether-- I mean, first of all, does that have anything to do with what your experience was? And is that exciting? Was there an excitement to it?

MILLARD: Well, when you say movies, I'm thinking of a movie called *The Wolf of Wall Street*.

INTERVIEWER: Well, there's that one. That's the most recent version, yes.

MILLARD: And one of my teenage sons saw that, and he kind of thinks that maybe that was what my career was like. And it had nothing to do with that. That was sales and brokering-- and illegally, at that.

No, I was in the investment banking business. And then I ran a business, which was-- I started in investment banking, which is more kind of like consulting and advisory at a very high level and entirely research-driven. So that's the opposite of that very-- it wasn't that it was fast-paced, adrenaline sort of stuff. That's kind of more the trading side, and I did wind up on that side of it. But the investment banking side was much more deliberative, work 19 hours a day, client presentations, really try to sell intellectual product.

I did wind up on the investing side of things, and that's where I actually really succeeded. And I brought that research-driven attitude and methodology to it.

And I was probably one of the earlier ones to do this. I mean, I was one of the first people to have what is now called a hedge fund. But I don't think I heard that term until much, much later-- well after I had been doing it. I mean, there were maybe eight or 10 people in the world who were doing it.

And I built that business at Lehman Brothers, from a tiny what was called risk arbitrage business into a more full-fledged investment. And we had a very, very good record-- I mean, probably the longest best record in maybe the history of Wall Street. And it was all internal money.

INTERVIEWER: So the excitement or the challenges, I mean, how did that play into those many years that you spent there? Was that part of it, or do you actually, in some ways, find that frustrating, or maybe both-- just the pace and the sort of the challenge of maybe operating at that high level for that long a time and bringing returns and so on?

MILLARD: Sorry, I'm not--

INTERVIEWER: I'm just-- my impression of Wall Street is that it's very challenging, that there is obviously a need for high return, a need for performance, extraordinary work ethic. And I'm just wondering about whether that is an exciting challenge to be part of that kind of environment for you, personally, when you did it.

MILLARD: Well, no, I don't think I have ADD in the sense that I sort of needed to continually be putting out fires. No, the business that I ran, which was the investing business I ran, was very research-driven. It was fundamental and research-driven.

And it was definitely contrarian. Now, that's just a word. And people have written books about this, and I suppose I could write one as well. But there are bunches of different ways of investing.

I built a business around under-researched things that were going through some sort of corporate reorganization or transformation. And those words by themselves don't mean anything. But that involved a lot of research and buying into situations where the market was not properly valuing the risk. And in that sense, it serves an insurance function, if you may, or a liquidity function.

So what I liked about it was figuring things out that no one else had figured out and kind of proving them out. And you can't do that every day, so it's a little like-- maybe self-flattery, but it's a little like scientific research in a way, which is you fail a good number the times or you wind up working on things that are dead ends. But every so often, you discover something that's phenomenal. And that was sort of the evolutionary arc of what I did.

So there were things that we researched to the n-th degree on and kind of cracked the code on. And as I said, they were all fundamental research-driven. They weren't algorithmic, although I had a taste for that. They weren't trading oriented. We tended to invest more than trade. So that was actually quite rewarding and remunerative.

INTERVIEWER: Well, let's take that as an opportunity to shift gears. Tell me about your involvement in the MIT Corporation-- how that came about, why that came about, what your thinking was in becoming involved in the life of MIT, when it happened, and how it happened.

MILLARD: So I was in, I guess, my late-- no. I guess I was in my late 30s. And people started tapping me on the shoulder, to get involved in the things. And of course, I thought that they if they wanted me for my mind, they really wanted me for my body because I was starting to make some money. So I started getting involved in some not-for-profits, and that was my first exposure to it.

And my first exposure to not-for-profits was I was a little bit cynical about it all, in particular, with respect to universities. I was on the board of the New School, as you mentioned. Yeah, I mean, it's a terrific institution. But my initial years on that, I went to some board meetings and just realized it was all about giving money. I actually ceased my involvement and then got re-involved later on in a much more substantive level. But that's another story.

So there I was, sitting in my office, and a couple guys from MIT came to see me. And I had never been visited by MIT to ask for money. I had usually gotten a phone call sometime around this time of year, I guess. And it was some student asking me if I could give me \$25. And then next year, it would be like, oh, you think you could give \$35?

And I would just say, yes, yes, absolutely, whatever you want. Just say the amount. And it was like, well, what about \$60? And I think after a number years, I was up to maybe-- I may have gotten it up to \$110.

Meanwhile, Harvard Business School-- it's a business school. They were really good at business. They were extracting many, many, many more-- I mean, not millions, but they were extracting enough money from me so that it was noticeable to me.

So along come these people from MIT-- one was a CDC member and another professional fundraising. And they walk in. And I say, you know, I've been waiting for you guys like 20 years.

I said, Harvard Business School always grabs me by the lapel and extracts whatever they can. And you guys are just-- no one's ever shown up from MIT. I've been waiting for. So I immediately wrote a check without even being asked for the sum total of everything I'd given to Harvard, because I owed everything to MIT.

So then I learned the first lesson of fundraising, which is you get money from the people who give, and I had just given. So anyway, I'm sure there was some intervening contacts. But suddenly, Chuck Vest was sitting on my sofa in my office. And he asked me for an amount of money which was, yeah, consistent with my earnings, but more money than I think I had ever given to everybody combined in my life.

So the other way I learned is that the quicker you say yes, the better it feels and the less it hurts. So he sat there. And as soon as he asked me for that amount of money, which I'm sure he was-- it was probably more than he thought I would give-- I said yes without hesitating. And he thanked me.

And I said, but on one condition. Then he looked at me. And I can see the, here it comes, right? And I said, on one condition. I said, I don't want anything return. I've been involved in another university, and I really don't want the trappings of a donor. I just want to give back. I have this huge debt to give back. And this is, for me, giving back.

It's not a bargain. I don't want anything in return. In fact, I want you not to give me anything in return because that will just increase the debt. I don't want my name on anything. I don't want anything. I don't want to be on the board. I assume that if you gave this amount of money, you'd go on the board. Well, actually, I was wrong about that at the time.

But anyway, that was my frame of reference. So he said, why? And I told this story. I said about how MIT just took me out of the gutter and saved my life. And he says, okay, you have my promise. We're not going to give you anything in return-- just, you know.

So I felt good about that. And I don't remember if he called me again-- how long thereafter. But then one day, I'm sitting in my office and the phone rings, and it's Chuck Vest.

And he says, look, before you say no, this is for us, not for you. He says, we've convened a study group, a task force, on student financial aid. And I'd like you to be on it. You have a special point of view, and I'd like you to do this. And believe me, this is anything but an honorarium.

So I immediately said yes. And I came up here and took it very seriously-- read every book that I could read on it, met some incredible people who I'm still friendly with-- Larry Bacow, in particular, by the way. Hal Abelson was chairing this thing.

I was just blown away by the quality. I hadn't been to Cambridge in-- I don't know, 20, 25 years. I hadn't stepped foot on MIT's campus in all those years, which apparently is not atypical. So there are all of these deja vu feelings.

And in many respects, I was sort of coming home. Because of my crazy childhood, I felt in some subconscious way this was my home. But I didn't let those emotions get the better of me.

What really got the better of me was the quality of the discussion. I just thought the people up here were smarter than they were in New York. I mean, it sounds crass, but that's just the way I felt. I felt the mission, the people-- I just thought it was kind of amazing.

And so I did that. And another year or two went by, I suppose. And then Chuck calls again. And he says, look, I'd like you to-- and again, don't say no. He says, I'd like you to join the physics visiting committee. He describes a visiting committees, which are really an amazing thing which I still am learning to appreciate it even more every year. It may be one of most important things that happens at MIT.

So I joined that. And once again, I was just amazed and blown away. So that, I guess, began my involvement. And then eventually, they asked me to go on the Corporation board. And I said yes, having sworn that I wouldn't do that.

And I said yes because I realized that these Corporation members-- this isn't just show. These people populate the visiting committees. These are substantive people. This is a hell of group to be in.

Of course, I remember coming to my first Corporation meeting, and I was pretty young by comparison and pretty unaccomplished by comparison. They were titans of industry. And I mean, there were people who started big companies. And I was like, what am I doing here? I felt completely inadequate.

And I always had a great interest in higher education because I really think that higher education is what made this country great and certainly what gave me my life. So I had been on the Corporation not that long actually, and Dana Mead took me aside after a Corporation meeting. And he says, look, you don't have to answer right away, but would you consider going on the executive committee?

And I immediately said yes. I had the great fortune on Wall Street of running my own business. And it was really independent of Lehman Brothers, so I really could control my own schedule. It was basically my business and Lehman Brothers with my sole limited partner.

I really didn't have much to do with Lehman Brothers, which-- I had a bunch of - I had 40 some odd people working for me. And they were all terrific. And I figured that the less I did and the more they did, the better the business would be. So I had great control over my own schedule.

So I went in the executive committee, and I really enjoyed coming up here and learning about it. And then I was on the executive committee for 10 years. And then when John Reed decided to retire because of age, which is sort of unfortunate because he's kind of a very young 70-- well now, he's 77.

But they put a search committee together and I got a call. So I decided to close down the last vestiges of my business in New York and come up here and do this full-time, or as full-time as it needs to be.

INTERVIEWER: So in those years as a member of the Corporation and various roles and sort of increasing leadership roles, are there are certain-- you talk about your commitment to higher education-- are there issues, certain kinds of goals, certain kinds of ways that you've sort of been really focused on trying to make a difference in the life of MIT as an institution, and even maybe more broadly?

MILLARD: So you're not the first person who's asked me that. So I've been in the job for a bit less than a year now. And sometimes, people will ask me, well, what's my vision? What do I want to change, you know?

And that's a little bit of a difficult question. Because first of all, I don't need to reorganize MIT. MIT is doing great. The first thing I need to do is not screw it up. And then what are the issues and what do I feel? So there is nothing that I can see that's monumentally screwed up that needs me to straighten it out.

Because people around here are pretty smart, and they don't necessarily always have the best answer or even the right answer. But odds are, whatever you see when you first approach the place and you're inclined to say, oh, that's the craziest thing I've ever saw, usually, it's not that that's the craziest things. It's usually an incomplete set of information that you're dealing with.

So there's nothing I feel I need to revolutionize. I think MIT definitely has some issues at this point and time. It's had issues at every point in time. I think the issues at this point in time-- and when I say the issues, I mean the issues that will affect its trajectory for the next 50 years, because I think that's what the Corporation is really supposed to be thinking about.

I think the issues today are kind of obvious when I say them, but they're worth repeating. I think higher education in America, in particular, has been an incredibly successful enterprise. I think there are some-- and I'm respectful, very respectful, of their argument.

There are some who believe that a good part of the higher education system in America is a bit off the rails in the sense that we're not really delivering a value proposition, that there are a lot of indications that we're kind of failing in our mission, or the efficiency of our mission. I mean, only 50% of the kids who go to college even graduate in six years. When I went to college, everybody graduated in four years, I think.

So I think the student debt-- but as far as MIT is concerned, those bigger issues don't really apply to MIT, those bigger societal issues. I think the issues that apply to MIT are our size. I think we are, in many respects, optimally sized. I cannot say that it was as deliberate as an-- nobody ran an optimization program. But there are roughly the same number of undergraduates here as when I went to school.

And when I explore why that's the case-- because intuitively, it seems as those as the world is grown, we should have grown. And we haven't, really, with respect to undergraduate. So I think sizing is an important thing in that-- but the more I probe, the much more thoughtfulness I see on that issue.

But nonetheless, it will be an issue as the world continues to grow. By grow, I mean the population of the world. The population of the world was 3 or 4 or 5 billion when I was kid. Now it's 7. It's going to go to 9. So in terms of the addressable universe of our potential students, the world is probably 10 to 20 times larger, and it will continue to grow.

So I think size is an issue. I think that no one person around MIT gets to decide that. I can ask all the questions, but ultimately, it's not mine to answer. It's probably, if anything, the faculty's to answer. So that's an issue.

I think internationalization is one. America used to be the dominant share of the world's GDP. And therefore, research and other things attract linearly to GDP, or naturally in America. And MIT was, through its history, in the front of that pack. So I think as the world gets more technologically developed and America's share of GDP in the world goes down, I think these international issues will continue to be more important.

I think the fact that the US government, which provided a very good deal of our funding post-World War II, is in reverse on that-- that's not a theory. That's a fact. Where that ends is anybody's guess.

But I think just as the government wasn't terribly in the business of funding research at universities before World War II, they seem to be tending back toward that. I don't think they'll get out of it altogether, but I don't think that you're going to see, especially for pure science, the government funding. And we have to find a bit of a different funding model for that.

So those are just some of the issues. Those are a long-term issues. I think there are some tremendous-- those are all challenges that we have to sort of think about.

I think there are some tremendous tailwinds to MIT as well. MIT, probably through the foresight of prior generations, is in a remarkably strong position with respect to a number of things. Economically, financially, we're very strong. Of course, we always want to be stronger.

Operationally, there's not a lot of places where you can look around MIT and say it need serious remediation. The faculty and the departments continue to get better. We've got this-- some 50 years ago or 60 years ago, there was a decision to get involved with life sciences-- remarkable decision, actually. And here we are.

We're all envious of Silicon Valley. Of course, when you look at Silicon Valley and the history of Silicon Valley, you see that more of those companies were started by MIT graduates than they were by Stanford graduates. But you know, Silicon Valley's been an immensely successful thing.

But in my mind, I think Kendall Square, which will be-- you could call it the Silicon Valley of biology, but I think that understates the case. I think biology's the real game, and computer software is the low-hanging fruit in the Information Age. So I think that we are fantastically positioned on that. Kind of firing away on all cylinders on that. A lot to work with here at MIT.

INTERVIEWER: We could explore any or all of those, I think, that you just listed. But let's talk about the last one first, maybe-- Kendall Square. Clearly, there's been an enormous amount of time and energy and effort in trying to imagine the future of Kendall Square and MIT's role in that. Just maybe talk about the importance of that for MIT and how those plans have evolved, and what you see as both the opportunities and the challenges there.

MILLARD: Well, what a lot of people talk about at an initial reaction kind of phase is the real estate and how it's affecting their lives. So of course, housing prices have gone up.

There's a shortage of support staff because now, MIT is competing with companies. Traffic is going to be terrible. There's construction all over the place. We're building an environment. People have different opinions about what should go in there. Should we mix up housing, support services?

So this is not an unimportant thing. Where people live is pretty important to , to people. And so Kendall Square, at a real estate level, is a hot topic.

And there are a lot of people who've worked on it. And I think-- I think, my own feeling-- is that the administration-- and it's the administration that does this, not MITIMCo, by the way. It's the administration-- has been very responsive and inclusive.

I think there were moments in time where maybe we could have been a little bit more preemptive or proactive. But I think the administration has not been very arrogant about this. So I think that everybody's-- but I hear in enough places pockets of unhappiness. I mean, it's the built environment. Everybody's going to be unhappy with something. There is no formula that's going to make everybody happy.

So I think-- and again, I'm just talking about the physical built environment. And I don't know what the politics are in Cambridge, Massachusetts because I'm not involved in the political side of this at all. Having studied a lot of economics in my life and knowing something about real estate development, I have my own feelings about how the world progresses around things like this. And it's usually with a lot of bumps and fits and starts, but it does progress.

So I think the administration has been very unarrogant about this, very inclusive. I think the plan is a terrific plan, actually.

There's another parcel of land called the Volpe Center, which the government-- they were going to put NASA's headquarters there many years ago. And that piece of land is going to be integral to Kendall Square. There are a lot of people who want to bid on that, and it's going to be right next to our campus. So that's going to be part of it.

I think the city government, my impression has been, fairly attentive, as they're supposed to, to the variety of needs. MIT itself has been responsive, I think, to the needs of its own community, which is kind of the same. So that's the real estate part.

I don't know that I can be any more intelligent on that. In terms of what it means, what it means in the 50-year horizon to MIT, I think it's critical. Just if you talk about Silicon Valley, you're talking about Stanford being one of the engines that now drives Silicon Valley.

And I think Silicon Valley and the genetic revolution, if you may, it's information theory. It's information. It's computer code. I mean, that's the way I think of it. And I have taken a biology course, actually-- a modern biology course.

And the big takeaway I have from that is the genome is really an information storage and transmission device more powerful than silicon. So I think the real game is biology. The long game, the important game-- it's our lives. And I think biological computer code is way more powerful than physical and silicon-based.

So I think the real game is underway. I think the changes that we'll see out of the biological sciences will make everything look like child's play. And I think it's happening here. I don't believe that there's any place on Earth with a greater concentration of talent and ecosystem. So I think it's not the only thing we're doing here at MIT, but I think it's a very big part of our future.

INTERVIEWER: So a couple of minutes ago, you mentioned the MIT Investment Management Company, MITIMCo, which I believe was founded maybe a little more than 10 years ago or so. I was wondering if you could just talk about the creation of MITIMCo and sort of the thinking behind it, and its role in overseeing MIT's future.

MILLARD: Okay, so yeah. So the actual creation of MITIMCo was a little bit more of a formality than a subset of change. And I wasn't on the executive committee then, nor was I on the board of MITIMCo or the investment committee.

So MIT had had an endowment for all these years run by pretty much the way it's run now. And at about 10 years ago, in fact if it actually was 10 years ago, there was a decision made at the executive committee that separately incorporating it or separately organizing it and chartering it would allow us to bring in some people on the board of that who weren't on the Corporation Board. And that is, as I understand it, the fundamental reason.

Also, a degree of separation was healthy. And I think that in general, it is so that people weren't attempted to blur the line between MIT's current resources and the long-term resources entrusted by restrictions and to the endowment.

So MITIMCo was set up in a formal sense 10 years ago, but I actually don't think it was that important. I think the long-term stewardship of money people have given over the generations is not changed. In fact, if anything, MITIMCo strengthened the ability to do that, if you see where I'm going.

So I wouldn't focus on the fact that MITIMCo is only 10 years old. MITIMCo has, in a sense, existed since the beginning of the endowment. Now, I think the endowment is tremendously important. I mean, I think if you look at what makes American, especially elite, higher education systems work, you quickly get to the endowment.

And if you look at MIT's finances, this year, the year that just closed, we spent \$2.4 billion on campus. This is excluding Lincoln Laboratory. So we spent \$2.4 billion.

And if you look at where we get the money, there are only three or four sources. It's really actually not that complicated. It's sort of amazingly simple. So I'll distill it down to the endowment.

So you have \$2.4 billion of annual expenditures. And if you just take away goods and services that really have nothing to do with our mission, it's about \$400 million of dormitories and food plans and stuff like that. So basically the budget for what we do is \$2 billion.

And what we do on this campus is really only two things-- is research and education. So if you keep that in mind, then you wind up with a very simple set of numbers. I mean, our fundamental *raison d'être* is not dormitories or food plans. So we spent \$2 billion a year, roughly, educating and researching.

So where's that money come from? We get from tuition, we get a net of about \$330 million, only 100 million or so of which is undergraduate tuition. So I just want to put that in perspective. \$100 million out of \$2.4 billion is like nothing. So we're practically giving away undergraduate education for free.

But in the aggregate, including Sloan and various programs and professional degrees and other graduate programs, we collect \$330 million net of financial aid from education. We collect \$740 million from what we called sponsored research-- people show up; here, research this and write a report, and is sort of a deliverable.

So that's a billion one for the two things that we do. We only do research and we only do education. And we collect from those activities a billion one. It leaves a hole of \$900 million, or 45% of that adjusted budget.

And where does that money come from? It comes from a combination of current gifts and endowment payouts. And about 3/4 of it is from the endowment. That's \$900 million. So roughly 45% of the operating budget of MIT, looked at the way I'm saying-- even if you include the other 400 million, it's still close to 40%.

So 40% to 45% of our budget comes from philanthropy in one form or another-- either the current gifts, or payout from gifts that were formerly given. That is, in my opinion, what makes MIT great. And it's also what makes Harvard, and Princeton, and Yale and Stanford great-- that this funding model provides in perpetuity a funding source which allows this to happen.

No other model has ever worked-- not a tuition based, not a research driven-- entirely research-- and not a government financed. Government financed institutions-- and most governments feel, at some point, they're enlightened and this is what they want to do. And they do a great job setting it up. But even our state governments are now coming under pressure.

The model that has endured the best and created the best quality is this model, where the alumni and the philanthropists fund this thing. And long-term is better than short-term. And long-term is the endowment. So I believe that the endowment, when you get the core of the reactor, that that's the fuel that's driving this thing.

INTERVIEWER: When you think about the endowment or budgets or costs and revenue, as someone with a banking and a business background, are there particular challenges or different ways of thinking for nonprofit institutions-- institutions with a sort of a stated mission that is different than returning shareholder value, for instance? How do you make that shift? Or is there is a significant shift to make?

MILLARD: You mean for me personally?

INTERVIEWER: Yeah.

MILLARD: --or in general?

INTERVIEWER: Well, if you think there's a difference of those two answers, it'd be interesting to unpack.

MILLARD: No, I think actually that's one and the same. It's pretty informative. So first of all, not-for-profits operate at a different pace. My predecessor, John Reed, gave me a terrific piece of advice. He said, look. In business, when you have a great idea or you hear a great idea and you want to implement it, you call a few people in your office. And you tell them to do this, and it's done. You just have to have one conversation, and it's done.

He says, it's different here. There's a great idea. You have a great idea, whatever. You want to get it done. You have to say it 10 times maybe over a couple of years. And it can be very frustrating because people don't just immediately grab it and go.

And that sounds like a criticism of the system, and it might well be. But it also might be, at some level, its strength. The one thing I keep coming back to is you just can't argue with the success of these elite universities of which MIT is one of the best. It's just hard to conclude that whatever we're doing is leading us to abject failure.

So I tend to look at all these things that you would otherwise think of as faults as maybe the source of our strength. So maybe being slower and more deliberative is better. I can think of most instances where it's not, including around here. But one needs more patience to operate in this environment.

Usually in a company, the smartest people migrate to the top. And so that leadership and-- it's not necessarily a monopoly on intelligence, but somewhere between intelligence, and experience, and wisdom, that's what you're supposed to be when you're a leader. And I think these universities, this place especially in that regard, is not organized that way.

The students are about as smart as the faculty. The faculty are as smart as the administrators. And the administrators are-- they're all more intelligent than the board, than the Corporation. So one must be very humble about one's own assertions and conclusions. As I said earlier, when you walk in a situation and you assess it in two minutes, you decide, oh, my god. They must be crazy. That's the stupidest thing, you're usually missing something.

I've never run across something that I didn't understand that really was dumb. I mean, usually, there's a really good reason for something. It maybe an obsolete reason. It may need some touch-up. But usually, it's not as dumb as you find in business. So that's an adjustment. Things happen slower.

I think the idea of tenure. Most people from the business world, when they hear about tenure, it reminds them of trade unions. And it's like, that can't be good. You've got to keep the competitive spirit alive. You've got to make people work hard. You've got to keep the fear factor.

And you think a lot of things. But-- and I used to think that also. I used to think tenure-- and I do think that tenure, at a lot of institutions, is a crazy idea. But it's not crazy at places like MIT.

I believe that tenure is one of the things that makes these universities really great. Because otherwise, you can't explain why all of these departments keep self-improving. I mean, it is, I think, the mechanism by which it improves.

I think the time frame of returns is very different than in business. We really are charged with thinking about things on a longer term basis. And people really do think about things on a longer term basis. Most companies-- so if you want to compare it to companies-- the half-life of Fortune 500 companies is about 20 years, I understand.

I did look at the statistics. And if you look at 50 years, 80% of them are gone. And that doesn't happen with universities. Universities are amazingly enduring. Universities don't go up and down in their relative quality rankings, or their absolute quality rankings, the way companies do.

If you look at a copy of *Fortune* magazine from 1940, you'll not recognize most of the companies, and some of the ones that you do have gone bankrupt. And you don't find that with universities. So I think the time-frame of things is much longer, which is really great. Because these things that we do at MIT, they're not quarterly or even yearly things. They are generational things. So I think the time scale is just very different.

And the ownership is different, too. For-profit companies try to maximize profits. It's not that complicated. But what is a university like MIT trying to maximize? Who are we trying to beat? Ourselves? The world? Our competition? What are we actually trying to--

And the answer is quality, is in the absolute sense is what we we're just trying to improve. And most people agree on quality even though they can't define it. They generally kind of get it when they see it.

INTERVIEWER: So you've talked about the importance of the endowment. You've also talked a bit about your experience as a donor, being sort of on an ascending ladder of giving from \$25 on up. And at MIT right now, a sort of very important campaign is launching. And I'm wondering if you can talk about fundraising from the other side now for a few minutes.

MILLARD: As a donor or as an asker?

INTERVIEWER: Well, as an asker. There are a lot of askers, I'm sure. But just in terms of envisioning a campaign, thinking about how to go about it and even how to determine the goals, what are your thoughts as we embark on the campaign?

MILLARD: Well, the whole team is together on this. And there are campaign themes that have been well articulated by Rafael. And these are the only things that will benefit from the campaign. But you need themes, and these themes are, in a way, the big themes around MIT. So in a way, there's no surprise to them.

In terms of how you raise money, I'm a little bit new to this. So when I first took the job, I was most doubtful about my-- or skeptical about my own ability as a fundraiser because I had never really done a whole lot of fundraising. And it just seemed that I might not be the best person in the world for this.

And fundraising has never really been defined as an integral part of the chairman's job because there's a lot of stuff to keep the chairman busy that aren't really fundraising. And you can really do this job without doing any fundraising. It seemed intuitively obvious to me that you should lend a hand when asked.

So they asked me to do a few things. And I was just amazed at how much fun I've had doing that. I haven't actually had to go with a tin cup and ask anybody for money. I haven't had to club anyone over the head to extract money from them. It's been really quite the opposite.

In fact, the people I meet who give MIT money, they want to give money. The story I told you about why I wanted to give back, that story is unique to me. But the fact that I felt that way is definitely not unique to me.

And I have to say, as appreciative as I am and as grateful I am to this place, I'm not the only one by a long shot. The world is populated with lots of people who feel just as I did, for different reasons-- who feel that MIT has made as big a difference to them or to the world as I feel.

So it's been just-- if you ask me what the most surprising part of the job in the nearly year that I've been doing it, it's that-- that I meet these people, and I'm just in awe. I love the people I've met. And you don't have to ask them for money. They want to give you money. I mean, they're not giving me money. That's the big surprise.

And I know it sounds idealistic, and I'm not an idealistic guy. But the whole fundraising thing, the whole campaign that we're talking about, I don't view it as an institution asking individuals for money. I view it as individuals coming together to create, as they did, and sustain an institution that they own. And that's the way people feel.

INTERVIEWER: So I know you've served on a number of visiting committees. You've already mentioned their importance. I was wondering if you could unpack that a little bit, talk a bit more about your own experience and how that is crucial to the life of the institute.

MILLARD: Well, let me leave aside my own experience, which was fabulous and I was very flattered to be part of such an impressive group of people, and just talk about visiting committees in general because it's an important part of my job, actually. So MIT has this, as I'm sure you know, this unique visiting committee structure.

And all my years at MIT, I heard how unique it was, and I heard how it was the envy of the world. And I kept wondering, well, why doesn't everybody just start visiting committees? It doesn't seem that difficult. It took me while to understand how unique it is and why it was so unique.

So the fact that these visiting committees are run out of the Corporation office and are a function of the governance of MIT is what makes them unique. Most visiting committees, which are basically peer-review groups-- and these do function as peer-review groups-- are run out of the schools or even departments in most other places.

So a dean will or a department head will convene a bunch of experts, usually people he knows and is therefore friendly with, to come and review his department. Then they'll write a report, which is honest in the style that academia is pretty honest, but also pretty benign. And it's not looking out to be critical.

The idea that members of a board of trustees, which is basically what our Corporation is, can be invited into this process as a matter of course is-- most other universities would rebel against that. But because we have such a great Corporation, and our Corporation members are really so credentialed, and because these visiting committees over many years have proved to be so successful, it's accepted.

So the fact that these 31 visiting committees are populated with Corporation members such that about a third of their constitution is Corporation members gives the Corporation a big involvement in these things and sort of unifies them across the school. So we actually get to see at the same level, through the same process, something about all the departments. So every department has a visiting committee.

So Susan Hockfield, who started her presidency about same time I went on the executive committee-- so in some ways, we're the same class year-- she was in my office a couple months ago. And she had concluded, after her years as president and now just being on the Corporation Board, that she felt it was the visiting committees that were, quote, "the secret sauce of MIT."

And I'd begun to really feel that as well because those visiting committees are a no-holds-barred review of best practices within departments convened with our own governance and with outside experts. And they're regular. They're comprehensive. And they report to the governance structure. So they're taken very seriously.

And I see now what the real secret sauce of MIT is. I don't know if the visiting committees are the cause of it or the reflection of it. And it's simply that nothing is good enough if it can be improved. And so in a sense, everything can be improved.

And the visiting committees, I think, form kind of the tangible basis for that to proceed. And I see a great spirit of that. I don't see defensiveness. I just see a willingness, everywhere I go, toward constructive criticism. Because everybody trusts that it's all designed to make it better.

And what Susan said to me that day was she says-- and she was provost at Yale-- she said, everywhere else you go, you see departments that are number one. But then you come back five years later, they're number eight. But they bounce up, and they bounce down. But only at MIT do they stay consistently so good. And she thinks it was the visiting committee.

So that's a big part of my job, is overseeing, attending. I read all this stuff. It's a lot of work. Some of those visiting committee preparatory reports are 500 pages long.

We also need a big Corporation, a big board of trustees, because we populate each visiting committee with five members at least from the Corporation. And each Corporation member-- there are 31 visiting committees, so that's 155 slots that we have to fill out of the Corporation. So everybody has to serve on more than one. Most people sort of serve on three. There are some Corporation members who live out of the country.

So we have a big Corporation, which then engenders its own additional responsibilities. So it all starts, I think, with the visiting committees.

INTERVIEWER: So-- and as I mentioned, the other topic I just want to sort of think about a little bit, looking ahead at this sort of next phase of MIT's life as an institute, there's been a whole broad engagement with education beyond the borders of the campus. I mean both physically with partnerships, such as the Singapore partnership, which is one of the most long-lived, and as well as others, and also online with MOOCs, with K through 12 education, with professional education.

I'm curious to know your thinking on the sort of relative importance of that-- why do it, why is it important, how does it translate or tie in with the future of the campus itself.

MILLARD: Well, there's a lot of questions embedded in that.

INTERVIEWER: Yes, there are.

MILLARD: --in a paragraph. The future of the campus-- I think the future the campus is-- let's start with that. And I think no matter what happens in any of the foregoing, I think the future of the campus is very good. I think that the demand, the need for a physical campus will be greater, not less, because of these initiatives.

I think we're still dealing with humans. And it's something about humans that they just want to be in the presence of other humans. It's just not the same.

I took Eric Lander's biology course, which was 12 hours a week for 14 weeks. And I did it and I got a certificate. So I spent 12 hours a week with Eric Lander in the classroom.

In fact, I spent more than 12 hours a week because he lectured-- well, I take that back. He didn't lecture for 12 hours a week. I probably watched him for 12 hours a week. There were problem sets and everything else. So I felt I had been in that classroom with those students. It was filmed in the classroom.

But it doesn't seed itself in your mind. In my own theory, it just doesn't seem to seed itself as well as when you actually meet him, when you actually meet other students, you actually talk about it. There's some intangible that is much more substantive than just sort of waving your hand around and saying, oh, it's just not the same.

It is integral, I think, to the educational experience to have a physical presence. It's just not the same. So I think you can do it with parts of it, but you can't do it with the whole of it. So I think these tools have the capacity to make our product better, to educate better. I can tell you the ways that I felt I was learning better when I was taking it online than I would have in the classroom.

I think it is a productivity gain in an activity where we haven't had an productivity gain since the invention of the printing press. I don't think it replaces residential education because you get a lot more when you're in the presence of your peers, and especially when you're young.

You get away from your parents. You get independence. There's a lot of other things you learn. You learn mentorship. You can't do that online.

So I think we have the capacity to make the campus more efficient maybe even for more students, but that's a faculty thing. But the campus is not going away. In fact, if you come back to MIT 50 years from now, I think MIT will be materially larger because of our online offerings.

INTERVIEWER: Then in terms of other international engagements where we're actually involved in in projects that have campuses-- for instance, SUTD in Singapore-- is that, in fact, a way of spreading the secret sauce in other places, or growing the campus without growing the campus? How do you think of those strategically?

MILLARD: Well, again, that's more of a faculty thing. But I do see it the way you've suggested-- spreading our seed, if you may; increasing the campus without increasing the campus.

I think the thought experiment one should run on this is if some entity, like SUTD, could offer an education and yield to research-- could offer what we actually offer here on this campus, would we consider it a legitimate other MIT? That's a question that-- as I said, it's not for me to answer. But I think it's a good thought experiment.

So far, nothing, including SUTD, or Skolkovo, or any place else that we've had in the international engagement, has come remotely close to being able to offer the quality that we can here on this campus. Someday, that may change. And then we'll have a question as to whether or not we should consider MIT to exist in more than one place. For the moment and for the foreseeable future, it doesn't seem like that's going to happen, at least soon.

What does it mean for us-- but I do think this place has had a long history of giving away everything it does for free. We're not-for-profit. So we're, in fact, giving everything we have for free. And we're trying to get people to make even more free. In my case, it was not only free. They paid me to take the product. It's just so remarkable.

We were giving away all of our course material before the internet was really developed in a two-way sense with OCW, OpenCourseWare. And in the sense, we've been very non-proprietary about everything. We don't do any top secret research on campus. Any research that's sponsored is publicly available, I guess.

So we exist in this "give it away free" kind of mentality. So the fact that we give away our DNA, samples our DNA, to universities and other places because the world will benefit seems counter-intuitive, but that's what we do. And people seem to respect us more for it. And we get even better as a result.

INTERVIEWER: So just in sort of wrapping up, you're pretty early in your term as chairman. What really excites you about the sort of time ahead here for you, given that you've still got a pretty solid amount of time to go? You're just starting.

MILLARD: Well, in terms of the time forward, the time forward in this interview is when I get, at the end of the interview, to ask you to contribute to the campaign.

INTERVIEWER: [LAUGHS] Okay-- \$25, \$35, or--

MILLARD: That's a start, you know. As I said, you've got to start. So I think this is-- I do have a bit of a romantic view of it all, which is that I think that these universities, these American research universities, are the thing that has created the modern world. It's hard to look around and find something that represents the modern world that wasn't invented on a university campus, and in particular, an American university campus.

It's been-- and I don't think I'm alone in this view. But I think it's been the single biggest engine of human progress in the history of the planet. And MIT has been right at the front of that pack, with some other fantastic institutions. So it's hard not to be excited about being part of that. I mean, it's pretty humbling.

I didn't make that happen. Maybe I contributed this to it, and maybe I can contribute that to it again. But this is a collective effort among the finest people on Earth. And I don't mean just MIT. So that's pretty exciting, in terms of how I spend my day. It's pretty privileged to be around here.

So that's exciting. If I represent any kind of a slightly different view on this, it's because of what I said before about the funding model. I think it's not just the professors and the students that make this place great. I don't, because the professors and the students are two necessary but not sufficient parts to this.

And the other part is our biggest source of funding, which are the alumni and the people who believe in our mission who didn't even necessarily go here. As I said, that's 40% of our budget. Without that 40% of our budget, MIT is not MIT, and Harvard is not Harvard, and Yale is not Yale.

So to be part of that broader community of people-- and it is people. It's all people-- who make this happen because of their collective goodwill and their foresight and their intentions, it's pretty exciting. I can't think of a finer way to spend my life.

And I can't think of a finer class of people to do this with than the people who make all that possible-- the students; the faculty, which includes the administration; and the people who support it-- not just financially, but largely financially. There are people who support it in other ways through wisdom and hard work and prestige. So that's my romantic answer. Did you have something more specific in mind?

INTERVIEWER: I think that's fantastic. And I think it's a great place to end it. So thank you so much for coming in. I really appreciate it.

MILLARD: Well, thank you.

INTERVIEWER: It's been a fantastic interview.

MILLARD: Great, thanks.

INTERVIEWER: Thank you.