THE ECONOMIC CLUB

OF WASHINGTON, D.C.

Microsoft CEO Satya Nadella Discusses his New Book, "Hit Refresh," and his Vision for the Future of Microsoft

Satya Nadella
Chief Executive Officer
Microsoft Corporation
Wednesday, October 4, 2017

DAVID M. RUBENSTEIN: Welcome, everybody, to what is our third event of our 31st season. And we're very pleased today to have Satya Nadella, the chief executive of Microsoft, as our special guest. We'll have an interview with him shortly. Everybody should have a copy of his new book, "Hit Refresh." I've read the book, and we'll go through the book a little bit later. It's really a terrific book, extraordinary description of how to change a bit the culture of a company and also an extraordinary personal story, so I think all of you will enjoy reading it. We'll go through some parts of it in the conversation with Satya a little bit later.

[Video presentation.]

[Applause.]

MR. RUBENSTEIN: OK. So how many people here are familiar with Microsoft products? [Laughter.] OK, everybody? OK.

So on February 4th, 2014, you became the new CEO of Microsoft, the third person to have that job. Since that time, the market capitalization of Microsoft is up by $250 billion. Has Bill Gates[1] or Steve Ballmer[2] ever called you to thank you for – [laughter] – increasing their net worth by a great deal, or they don't call you to thank you?

SATYA NADELLA: [Laughs.] Let's just say that as long as they call and ask me to do more on the products, that's a good sign. [Laughs.]

MR. RUBENSTEIN: OK. So I assume your board has taken out a lot of key man insurance on you. [Laughter.]

MR. NADELLA: Well, I – [Laughter] –

MR. RUBENSTEIN: No? Well, they should. OK. [Laughter.] So Steve Ballmer stepping down in – I think it was announced in 2013, and then the search was underway. And I think it's fair to say that you were not number one in the search list initially, as reported in the press. They had a lot of candidates. So were you thinking you were going to get this job? And when they called you after other people had maybe been interviewed for it and didn't either get it or be offered it, did you think that, geez, you wanted to be offered it right away? Or did you think you were lucky to get it? Or did you think you were going to get the job?

MR. NADELLA: It's actually interesting because I remember – you know, the board obviously did the right thing in terms of really looking far and wide and saying who is the right candidate. And in that process at one point they came to some of the internal folks, and when my turn came they asked me, you know, you want to be a CEO? And I said, only if you want me to be a CEO. And the feedback was, well, if you really want to be a CEO, you've got to really want to be a CEO. You can't say only if you want to. And I remember going to Steve and telling him about

[1] Bill Gates is a co-founder of the Microsoft Corporation and is an American businessman, investor, author and philanthropist.

[2] Steve Ballmer is a former chief executive officer of the Microsoft Corporation and is the owner of the Los Angeles Clippers.

this, and he says, yeah, it's too late to change; you are who you are. [Laughter.] And, you know, it worked out in the very end.

But the thing that I would say I had – I'm a consummate insider. I've grown up at Microsoft. You know, I've spent 25 years. The thing that I did have is a point of view on what I would do as a CEO. And that, I think, eventually is what the board, you know, basically chose.

MR. RUBENSTEIN: Well, they obviously chose well. So the stock is up by about – over 100 percent since you've been CEO, so I wish I had bought a lot of stock. I wish I had known it. But can you keep doing this, by the way? [Laughter.]

So let's go back on how you came to this position. So you grew up in India, and your father was a well-known civil servant or civil servant. So did you want – as a young boy, did you want to be in computers or technology? What was your interest?

MR. NADELLA: My interest was cricket. [Laughter.] My father, as you said, was a civil servant. He was an economist with Marxist leanings. My mother was a Sanskrit professor. And they could hardly agree on anything, and so they had their ideological wars. In fact, I remember my father once put up Karl Marx's poster and my mom put up the goddess Lakshmi's poster, which stands for wealth. And I put up a cricket poster. [Laughter.] And so I would say there was some strange mix of intellectual curiosity in the house, also a push to make up your own mind and do your own thing. And that's kind of what I wanted to do. I really didn't even – until I left India, I don't think it was even clear that I would ever want to come West, but I grabbed onto the opportunities given.

MR. RUBENSTEIN: So when – at what age did you realize you were not going to be a professional cricket player? [Laughter.]

MR. NADELLA: Pretty early on. [Laughter.] I went to a high school in the middle of the country, in Hyderabad, where we had a – you know, a lot of cricketing tradition. And I mean, you know, it was great playing for it, and I played some junior cricket for the – for the state, but – [laughs] – I mean, it was pretty evident that there was no way I was going to make it.

MR. RUBENSTEIN: OK. So you went to high school in the same city that you grew up in –

MR. NADELLA: That's right.

MR. RUBENSTEIN: – which was a city in – it was about 8 million people in the southern part of India?

MR. NADELLA: Yeah.

MR. RUBENSTEIN: OK. Then you went to college. What did you study in college, in India?

MR. NADELLA: So in India I studied electrical engineering.

MR. RUBENSTEIN: All right. This is at Mangalore University.

MR. NADELLA: Yeah.

MR. RUBENSTEIN: You got a degree, and then you decided you wanted to come to the United States. So there are many colleges in the United States, and you picked one that I would say is a very good school, but it's not as well known. And how did you hear of it in India? It's the University of –

MR. NADELLA: Oh, yeah, that's right. It's like I'd never been to the west of Bombay and I showed up in Milwaukee. [Laughter.] And you know –

MR. RUBENSTEIN: Well, how did you happen to pick – it's a good school, but University of Wisconsin-Milwaukee can't be that well known in India. [Laughter.]

MR. NADELLA: I mean, look, for me, the choices came down to where would I get my RAship[3] and it's pretty straightforward when you look at it that way. [Laughs.]

MR. RUBENSTEIN: All right. So you went there, and did you have a winter coat? Did you bring – did you realize it was different? [Laughter.]

MR. NADELLA: I didn't. And I remember, I first – I remember landing in Chicago thinking, wow, it's so quiet and so beautiful. And then I drove over to Milwaukee and I think, wow, the lake, it's just awesome. This was August, obviously. [Laughter.] And then the winter came, and unfortunately I'd picked up this bad habit in – you know, in the '80s in college – of smoking. The best thing that happened to me in Milwaukee was you had to smoke outside the engineering department, and the fall was fine but the winter, I must say, you know, it was sort of – I recall this in the book – the Indians, the Russians, and the Chinese. The first ones to drop out were all the Indians. [Laughter.] And then the Chinese.

MR. RUBENSTEIN: So you stopped smoking.

MR. NADELLA: The only ones who could withstand it were the Russians.

MR. RUBENSTEIN: So you kicked the habit.

MR. NADELLA: Yeah.

MR. RUBENSTEIN: And you got a degree in computer science.

MR. NADELLA: That's right.

MR. RUBENSTEIN: So you had an electrical engineering degree, a computer science degree, and then your first job was with Sun Microsystems?

[3] RAship - a Research Assistantship typically held by graduate students.

MR. NADELLA: That's right.

MR. RUBENSTEIN: And what did you do at Sun?

MR. NADELLA: I was a developer at Sun. I worked on, interestingly enough, a lot of their – when I joined Sun in the – in 1990, the ambition there was to be a desktop computer business. And so I worked, in fact, at Sun. I even spent a summer at Lotus doing a bunch of their software for the Sun workstations.

MR. RUBENSTEIN: OK. So you did that for a while, and then you got an offer to go to Microsoft. But you also had applied to the University of Chicago Business School. So how did you decide which to do, University of Chicago Business School or Microsoft?

MR. NADELLA: Yeah, in fact, I was going to leave to go to business school full-time just during that time I got the job offer from Microsoft. And for a while I was – it was, you know, unclear to me whether I would want to join Microsoft. But the guy who I eventually went up and went to work for convinced me, saying, look, if you're going to go to business school only to come back to high-tech, you should drop out now. And so somehow during all of that I figured out that, yeah, let me go and give this Microsoft thing a shot. And then, you know, in a very convoluted way I went and even finished up my degree much later.

MR. RUBENSTEIN: So you were actually working at Microsoft while you were going to the University of Chicago Business School.

MR. NADELLA: Yeah.

MR. RUBENSTEIN: But did you tell people at Microsoft you were doing that?

MR. NADELLA: I didn't, you know, because I felt that, hey, you know, that would just confuse things, as to how does one do this.

MR. RUBENSTEIN: But if you were – you know, they said here's an assignment for the weekend or something, you would say, well, I have to go to school. How did you hide the fact that you were going to school?

MR. NADELLA: I didn't. I didn't. The assignments got done. [Laughter.]

MR. RUBENSTEIN: OK. So you rose up. You get your degree from University of Chicago Business School, and you rise up, and at one point you're running the business solutions part of Microsoft. What is business solutions?

MR. NADELLA: In fact, in the mid-'90s or so, or late '90s, Microsoft bought a couple of companies. They were some of the largest acquisitions. Great Plains was one. It was headed by a gentleman who is sort of currently the governor of North Dakota, Doug Burgum. And so we

formed this group to get into business process automation – basically, ERP/CRM.[4] And so that group – and Doug then decided to leave Microsoft and eventually got that job.

MR. RUBENSTEIN: OK. And then later they come to you and say the online search business needs somebody, and you say Google has that business, we can't compete? Or do you say, no, I can beat Google?

MR. NADELLA: Right. [Laughs.] I had finally got this – you know, when Doug retired from Microsoft, I was like looking forward to running a business unit, and that was, you know, the job I had. And so Steve comes to me once and says, you know, hey, look, we have this need for some real strong engineering leader to go and take over this online services place where we have a real competitive challenge. And he says, and the chances are low whether you'll succeed or not, and if you don't succeed there's no parachute, so this may be your last job. [Laughter.]

MR. RUBENSTEIN: In other words –

MR. NADELLA: But I think you should do it. [Laughter.] And with an offer like that, you know, how can one refuse? [Laughter.]

MR. RUBENSTEIN: So you took that job. And then later he comes to you and says I'd like you to take on another business, which is the cloud[5] business, where you're also way behind another company. You were way behind Amazon at that point. So did you want to take on that business as well?

MR. NADELLA: Yeah, for sure. I mean, that – you know, I had – working in our online group perhaps – in fact, Steve saw the connection more so than anyone else, which is develop a keen sense of what is the cloud business; or how do we take the business which we had, which was a very strong server business, even though Amazon had the early lead, of how can we catch up and, in fact, do better. And that was the intuition that Steve actually had, and that led him to move me to what now is our cloud business.

MR. RUBENSTEIN: Well, explain this to an outsider. Amazon was thought to be a retailer or seller of books over the internet, and other products. How did they build a gigantic cloud business, and they're in the same city as you, and you're a big computer company and you miss the cloud business for a while? How did that happen?

MR. NADELLA: You know, it's one of the classic issues with all of us in business, right? Which is when you have a business that's growing super well, it's got great gross margins, you don't look around and say, oh, here is another business that's got crummy growth margins and that's what we should do next. It's sort of the hardest challenge in business, which is for you to be able to – in fact, technology or adapting to technology change is easier than business model.

MR. RUBENSTEIN: Right. So, as you're rising up, and ultimately you're offered the top job because you did a good job in building the cloud business, you're also dealing with personal

[4] ERP is Enterprise Resource Planning and (CRM) is Customer Relationship Management.
[5] The cloud refers to software and services that run on the Internet, instead of on a local computer.

issues. In your bio, it often says that you have an Indian arranged marriage, but that's not the case, right?

MR. NADELLA: Yeah. I guess it's a little more complicated than that, because my wife and I grew up together. Both our parents or our fathers were in the civil service together. And somewhere along the – and we went to the same schools and colleges and so on. And so eventually I – you know, both of us, you know, decided to get married. We went and told our parents so they blessed it, for sure, but it was definitely not an arranged marriage.

MR. RUBENSTEIN: OK. So you then – as you're married – your wife is trained as an architect?

MR. NADELLA: That's right.

MR. RUBENSTEIN: So your first child is born. And then, when your child was born, it turns out he has a severe case of cerebral palsy. So how did you realize how severe his problem was? And what's his situation now?

MR. NADELLA: Yeah, you know, both my wife, Anu, and me were only children of our parents. And so I was 29 years old when Zain was born, and if you had even asked me a couple of hours before Zain was born – because there was a lot of anticipation in the family and in the household of the first son, and was all about, hey, is the nursery going to be ready, is Anu going to – when is she going to go back from her maternity to her job as an architect, how will our weekends change. But, of course, that night pretty much everything changed. And then I watched as Anu recovered from her C-section. She would spend all her time basically – she decided that she's not going to go back to work as an architect, but give Zain every chance he can. She was driving up and down to every therapist. And whereas I was more about completely shaken because of what had happened, and mostly thinking about why did this happen to me. What happened to all those plans I had? And this is not what we planned for.

And quite honestly, it took me maybe multiple years, and without being schooled directly, by just watching my wife and how naturally she took to her responsibility, I eventually came to the realization that nothing actually happened to me. Something happened to my son, and I needed to step up and see life through his eyes as a father, and do my job. And that, in some sense, you know, is – part of writing this book is where I reflected a lot more. It was not a linear thing. It was not a one-time realization. But perhaps most shaped my thinking, as obviously a father, but then as well as a – as a leader and in a company.

MR. RUBENSTEIN: So your son is now 21. He's a quadriplegic, but he's lived at home the entire life.

MR. NADELLA: That's right.

MR. RUBENSTEIN: You also write in your book that you have two daughters, but one of them has severe learning disabilities, and your wife had to deal with that as well. What did she do to try to –

MR. NADELLA: Yeah. So by the time our youngest daughter came along, we were – you know, one of the great blessings we had, you know, with Zain in Seattle was we had a great community, whether it was the hospitals, the therapists, in the special needs community that we knew very well. So I would say as parents we were much more well-equipped to be able to deal with any of the challenges that come your way as parents of special-needs kids.

And so one of the things that we discovered was this school up in Vancouver, B.C., which was more based on the plasticity of the brain as a way to help students not just compensate but to essentially do these exercises that could rewire, essentially, the brain circuits. And so we just took a bet on that particular program. We, again, did the crazy thing of having my wife and the two daughters spend time in Vancouver during the school week, and thus my son and I would be in Seattle and we would sort of commute over the weekends. And we did that for a good five years.

MR. RUBENSTEIN: OK. So let's go back to Microsoft for a moment. You are becoming the CEO, again, in 2014, and you decide you want to change the culture of the company. So how do you go to Steve Ballmer or Bill Gates and say the culture that you put into this company, it's not good enough and I want to change it. Was that an easy conversation? Or you just go ahead and do it? [Laughter.]

MR. NADELLA: You know, one of the things that both Bill and Steve were very clear as I was getting into – becoming the CEO is saying the best advice and the best – and all the confidence they gave me is, look, don't try to be like us. Steve very distinctly said, look, you know, don't try to be – or don't even try to please us. Be your own person. Do what, you know, it takes for you to lead the company. And in some sense, that's what they prepared me for. I mean, it's not that I was waiting to be CEO, but I would say the challenges that came my way along my 25 years at Microsoft essentially prepared me to have my own point of view – not just on culture; what to do in terms of our mission, our products, and culture. And that's what sort of eventually you end up doing.

MR. RUBENSTEIN: So one of the ways you wanted to change the culture was to provide more what you call empathy. Now your personal situation gave you greater empathy, but what do you mean by changing the culture to have more empathy in the company?

MR. NADELLA: Yeah, I mean, the two things that I focused the most on was that sense of purpose or mission, and culture. And the reason I felt we needed to do that is I feel that they are necessary conditions to then pick the right strategy, because ultimately you got to build products, in our case, and innovation that customers love. But I wanted to dig a little deeper and say, OK, what helps us do that?

On the culture front, the – if I sort of step back, one of the realizations I had was when a company is successful, what happens is the product that makes you successful, the capability around that product, and the culture all get into this beautiful virtuous lock, right, and round and round it goes. But ultimately, the product that made you successful stops growing, and you need

to come up with a new concept, a new product, a new idea. That's when culture will matter, because the culture cannot fight the creation of that new concept.

And so I felt we needed to move to a learning culture. And this is where, a couple of years before I had become CEO, I had read this book by Carol Dweck out of Stanford [University] called "Mindset," which was more in relation to my kids. And the simple concept in that book, which I loved a lot, was it's better to be a learn-it-all even if the know-it-all has more innate capability, because the learn-it-all ultimately will do better. And I said, well, that applies to CEOs. That applies to companies made up of people. And I said: What if we introduce that as the meme to have the cultural dialogue at Microsoft?

MR. RUBENSTEIN: OK. So Microsoft was famously siloed. You know, one part of Microsoft didn't talk to the other, and so forth. So how did you get people to change and actually want to cooperate with each other?

MR. NADELLA: Well, I mean, look, I think this – it goes back to it. It was not that we didn't want to cooperate. We had a structure that reinforced how we thought about our products, how we did accountability for products. I mean, so that's what, you know, most people sort of saw. In fact, we needed to change the conception of these products or how these products are conceived more through the lens of our customers.

So we made some structural changes, the cultural memes that we introduced. Both of those helped us break, essentially, what was inhibiting us from thinking about products differently. Because in high-tech – and I would say pretty much in all business – no competition, no customer respects your org chart, right? I mean, nobody cares. What they care about is, are you serving them well. And sometimes, though, when you create these – you know, when you strike these stable categories and you make them business units and you measure them, you get disconnected from what customers expect. And so you got to keep breaking those barriers down.

MR. RUBENSTEIN: All right. So when you're doing that, do some people go around your back and say to Bill: By the way, Bill, you know, he's trying to change the culture of the company you built – he's trying to change it. That ever happen?

MR. NADELLA: [Laughs.] Look, I – [laughter] – God, I mean, these are tough questions, David. [Laughter.]

The good news there was Bill and Steve were very clear. I guess as having been sitting CEOs, they understood the challenge of running a company when someone else is, you know, hovering around you, so to speak. And so they were – and in fact, if anything – you know, Steve obviously left the board. Bill had been one step removed because Steve was the CEO after him. They were very clear that – who runs the company. But they are also very happy to give me feedback.

MR. RUBENSTEIN: OK. So – [laughter] – so let's talk about your products. Two of the products that you have that you may have referred to earlier, Office and Windows, they are cash

cows. They were, and I guess they still are, producing enormous profits, and I guess very high margins. So how do you – are they still very important to the company?

MR. NADELLA: Absolutely, absolutely.

MR. RUBENSTEIN: But they're much less significant than they used to be.

MR. NADELLA: Right. I mean, one of the things that we have done is, in sort of even thinking about Windows separately or Office separately or our management and security separately, one of the big changes in Microsoft – which is, in fact, the fastest-growing business inside the company – is what we describe as Microsoft 365. So instead of thinking of any piece of software or any one device, what if we conceive of this as the core communications, productivity, and security solution for modern work? So that was the big change we made, by bringing, I would say, all of these different product categories and making it even work on whether it's the Apple device or the Android device, and obviously Windows. And so that has helped us a ton, both not only make these products more relevant in today's context, but also a huge growth vector for us.

MR. RUBENSTEIN: Let's talk about some of your other businesses. Cloud, which is a business you ran, now are you number two in that business, number three, or?

MR. NADELLA: We're number two, and in the enterprise we are – probably we're very close to number two. And the core of what we have bet on is that let us, in fact, build a worldwide footprint of our data center. So, for example, we are the only cloud provider that operates in China under Chinese law. We operate in Germany under German law. We have 43 data center regions. So that means we support the real-world needs of even large enterprises and multinational companies. And that's really helped us a ton grow that business significantly.

MR. RUBENSTEIN: And you think that'll continue to grow, that's a great business?

MR. NADELLA: I think the secular trend of – in computing is cloud, but one of the other shifts which we are well-positioned for is it's not just the cloud, it's also the edge of the cloud. In other words, take a factory or take an automobile. The automobile is going to have more compute power than most computers. And you want to be – once you have compute power, you will collect data and you want to be able to reason over data. So this idea of having the intelligent cloud and the intelligent edge is going to true, whether it's a farm, a factory, an automobile. And so we are very well positioned for that.

MR. RUBENSTEIN: You mentioned cars. Everybody else seems to be producing driverless cars. Are you in that business as well, or you can't say that?

MR. NADELLA: In fact, this is the other decision we made, was it's super important for us to not just build trust in the context of the security technology or the products we built, but also trust in business model. In other words, as every industry – whether you're in hospitality or whether you're in cars or whether you're in financial services – everyone's becoming a software company. It is important for us to be viewed as a provider of tools, platforms, enabling

technology, versus getting into their businesses. So in our case, we have drawn that line. And we have fantastic relationships, whether it's with the American car manufacturers, the Germans, the –

MR. RUBENSTEIN: But you're not going to produce your own cars?

MR. NADELLA: We won't produce our own cars, but we will provide anyone who is either building autonomous or other – you know, connected cars – real technology that can help them compete, in fact, with some of these Silicon Valley companies.

MR. RUBENSTEIN: Now, it used to be that you were a software company, but then you got into making some hardware when you got into the Xbox[6] business. Is that still a good business, Xbox?

MR. NADELLA: It is. In fact, it's a – it's a very, you know, big business for us. In fact, one of the other things that Microsoft now is, between Xbox, this modern workplace, our cloud business applications, we have a very diversified portfolio which helps us, in many ways, be much more complete in what we can offer. But to your point around hardware, I don't think of hardware separate from my software. If anything, Xbox has taught us that it's a complete experience that we build. And that's what we now have replicated with Surface[7] and Surface Studio and what we're doing with HoloLens[8] and Mixed Reality[9]. So we're going to continue to innovate, to invent new categories, all the way from silicon to the cloud.

MR. RUBENSTEIN: So Xbox, do you play Xbox games? Are you really an expert in that? How do you – how do you deal with new games that came out?

MR. NADELLA: [Laughs.] I watch Xbox games. So we now have the most – you know, the most amazing phenomena in the last, I would say, three or four years, has been that there are more people watching people play games than people playing games. And it's a good business, let me tell you. [Laughter.]

MR. RUBENSTEIN: But people want – the people that produce these Xbox games, are they very young? I mean, what do they look like? On your campus you can spot them as they're walking around, they're just different looking, or? [Laughter.]

MR. NADELLA: There is a particular edge to them. [Laughter.] You know, we have – we're organized very differently. We have these studios. But even Xbox, like, for example, some of the teams that are producing the new Xbox, it's going to have 7 billion transistors. So there are

[6] Xbox is a video gaming brand, comprising gaming consoles, applications (games), streaming services, and an online service, Xbox Live.
[7] Microsoft Surface is a series of touchscreen Windows personal computers, tablets, notebooks and interactive whiteboards.
[8] HoloLens is a pair of mixed reality smart-glasses - a self-contained, holographic computer, enabling one to engage with digital content and interact with holograms.
[9] Mixed Reality, formerly Windows Holographic, is a mixed reality platform that merges real and virtual worlds where physical and digital objects co-exist and interact in real time.

people who are doing silicon and ASIC[10] work on one end, and then there is the studio edge on the other end.

MR. RUBENSTEIN: Now, Surface you mentioned. If you walk down one of your offices – you have a lot of buildings in Redmond, but – and somebody's using an iPad, what do you say to them? [Laughter.]

MR. NADELLA: It better be using Microsoft software on it. [Laughter.]

MR. RUBENSTEIN: OK, so – but what do you use? You don't use an iPad, right?

MR. NADELLA: I don't. [Laughter.]

MR. RUBENSTEIN: Do you use –

MR. NADELLA: I love my Surface.

MR. RUBENSTEIN: You use Surface? OK.

MR. NADELLA: You know, if you really want a device that actually can do something, I think the Surface is a great device. [Laughter, applause.]

MR. RUBENSTEIN: Really? All right. OK. But just to check out what the competition's doing, you don't want to, on the side, just look at what they're doing?

MR. NADELLA: Absolutely. I mean, I'm – look, I love Microsoft software on all devices.

MR. RUBENSTEIN: OK. What about – what do you use for, like a mobile phone? Do you have a mobile phone? What kind do you use? Not an iPhone, I presume.

MR. NADELLA: No, I mean, I use an iPhone, an Android, and I also use a Windows phone. But most importantly, again, my main focus is to make sure that we're not device-centric. My vision is very straightforward. It's about the user. It's the mobility of the user's experience. And as long as we have our software on any endpoint, or on any device, that's sort of a start.

MR. RUBENSTEIN: What about your retail stores? Do you have – are they growing? Is that an important part of your business, having retail stores?

MR. NADELLA: You know, retail stores, for us, have become a very critical part of just getting people to be able to both understand the product offerings that Microsoft has, whether it's the Xbox on one side or even small business solutions on the other side. So they've very much part. But it's not the only channel. We have many other avenues to reach customers. But it's an important, critical part of it.

[10] ASIC is an integrated circuit developed for a particular use, as opposed to a general-purpose device.

MR. RUBENSTEIN: So when you came in, you were coming in right after the acquisition of Nokia, a mobile telephone company. And you had to openly close that down and took a $7 (billion) or $8 billion write down. Was it hard to do that, and go to your – in fact, your predecessor and say: That was not a good acquisition? Or was that a tough decision? You had to lay off, in effect, 20,000 people.

MR. NADELLA: I mean, the last part is the tough part. I mean, all – you know, the strategic call and so on. At that point, I decided that it was important for us to think more about the mobility of the experience versus define our future in mobile by just our own device share. I mean, if you look at it, we have, you know, a lot – hundreds of millions of people using our software on all of the phones. And they're on all Windows phones. So we needed to amplify that. But that said, the thing that weighed the most heavily on is the impact on people. I think that these kinds of shifts are hardest when you have to care – you know, make those kinds of changes. But we did.

MR. RUBENSTEIN: OK. So the biggest acquisition you've made under your leadership is LinkedIn[11]. I think you paid about $26 billion for it. What has LinkedIn got to do with Microsoft? I didn't understand that. What's the logic behind it? Not that you need to explain it to me, but – I assume your board was happy with it – but what is the reason that you wanted to buy that?

MR. NADELLA: Yeah, there were two acquisitions. Minecraft[12] and LinkedIn were the two big acquisitions. With LinkedIn it's very straightforward, in the sense we have a billion users of Windows and Office together. The commonality of that is professionals of the world use our software to get things done. LinkedIn is the world's professional network. And the vision was to bring these things together to help people as they're doing their work to even have their social network. In fact, one of the new integrations we have is right in Outlook to be able – as you get a piece of email from someone that you don't know outside the organization – you can now see their LinkedIn profile. Not just that, but you can even see the people inside your organization who are connected to that person. And that's going to help you.

If you're in sales, for example, one of the other integrations we have is between Dynamics 365[13] and LinkedIn, so that you can be very effective in B2B[14] sales. So anyone who is doing business to business sales, this becomes an indispensable tool. Talent management – LinkedIn is another place where you start with recruiting, but you don't end with recruiting because you can go into Dynamics and finish the entire process. So whether it's Office 365[15] or Dynamics 365, the integrations with LinkedIn, I think, can add significant value and are already playing out.

---

[11] LinkedIn is a business- and employment-oriented social networking service.
[12] Minecraft is a popular video game.
[13] Dynamics 365 is a cloud-based ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) enterprise system.
[14] B2B (business-to-business) is the exchange of products, services or information between businesses, rather than between businesses and consumers.
[15] Office 365 is a subscription plan offering access to Microsoft Office applications and other productivity services including cloud services.

MR. RUBENSTEIN: All right. For those who live on the East Coast, it seems as if there are five companies that are more or less on the West Coast that are running everything in the United States, more or less. So you've got Microsoft, Apple, Facebook, Google, and –

MR. NADELLA: Amazon.

MR. RUBENSTEIN: Amazon. So they're running everything. And you have three Chinese companies, Baidu, Tencent and Alibaba. So everything is these eight companies now. Is that an unfair impression? I mean, do you all kind of rule the world, these companies?

MR. NADELLA: I like to sort of separate myself from all the other seven. [Laughter.] And I say that in all seriousness because I think we're different, even in our business model. You know, I used to love the FAANG[16] thing, because luckily we were not part of FAANG. And unfortunately, now, we are part of this five. And I would love to get out of that. The reason I say that is because we are about creating technology platforms and tools so that not only the East Coast of the United States but every part of the world can use digital technology to create a surplus in their company, in their industry, in their region. Because this notion that there'll be like five or six Silicon Valley companies that are going to basically make profit, is an untenable, unstable situation. And so our business model, our approach to markets is to create more surplus outside, as opposed to just inside of Microsoft.

MR. RUBENSTEIN: Now in your book, "Hit Refresh," and how long did it take you to come up with the title for that? Did that come to you naturally, or was that – [laughter] –

MR. NADELLA: You know, it's – I must say, it took a long time. But Bill captures the essence of what I guess is the message of the book, which is when you are pushing yourself through this uncomfortable process of transformation, you need to have that browser logic, that smartness to sort of say, OK, so what is the stuff that needs changing and what should remain? Because if you change everything all the time you're not going to make much progress, and so that's why it's "Hit Refresh."

MR. RUBENSTEIN: But how did you have a chance – you're running the company and you have all these other things you're involved with. How did you have time to write a book? How long did it take? [Laughs.]

MR. NADELLA: It – you know, that's a great question, because in some sense it was a lot harder than initially when I signed up to do it.

MR. RUBENSTEIN: And do you write it out longhand, or did you use Surface to –

MR. NADELLA: [Laughs.] I used the Surface.

MR. RUBENSTEIN: Surface, OK.

[16] FAANG is the acronym for five high-performing technology stocks in the market – Facebook, Amazon, Apple, Netflix, and Google (now Alphabet, Inc.). Coined by CNBC's "Mad Money" host Jim Cramer, the original "FANG" included Facebook, Amazon, Netflix, and Google.

MR. NADELLA: And I had good help. But the two stanzas, which is Microsoft's own transformation, because the entire purpose of writing the book was not to – most business books are a look back, right, of grand successes or grand failures. And the entire purpose here was to write about essentially the meditation of a sitting CEO while going through this process, with all these existential questions and really half-answered – half answers you've discovered. So therefore, that was the idea and that is my day job. I think a lot about these questions, whether it's Microsoft's own mission, purpose, culture, our strategies, technologies, or even the broader implications in society. The only chapters that were hard were the look back of my personal life. But, you know, I somehow made it happen.

MR. RUBENSTEIN: And so, but did somebody say on your board, it's a little presumptuous. You've only been here two and a half years and you're going to write a book about your life?

MR. NADELLA: And obviously I didn't position it as a book on my life or anything. And it's clear – I mean, I'm very, very clear that this is not about trying to claim any victory. It's not about claiming that we reached any destination. If anything, this should be more viewed as, OK, what's that tough process of continuous renewal.

MR. RUBENSTEIN: And I should point out, all the profits are going to go to philanthropy, right?

MR. NADELLA: That's right, Microsoft Philanthropies[17], yeah.

MR. RUBENSTEIN: Microsoft Philanthropies, OK. So there are three parts of the book at the end where you talk about the future. And let's go through them. One is, I would say, artificial intelligence. Do you think artificial intelligence [AI] is something that we should worry about? Some people say artificial intelligence will end the human race as we know it, because the robots or others will outsmart humans. Are you worried about that?

MR. NADELLA: I think, first of all, AI is just not another piece of technology. It is, I think, perhaps, one of the more profound technologies that's going to shape all our lives, all our economies and societies. But here is the way – I want us to grab the opportunities AI gives us to empower people, first. And then, be very clear-eyed about some of the broader implications of AI, whether it is displacement or even this challenge, which I think a lot of people warn against, which is the runaway AI or the – you know, the runaway optimization problem or the control problem.

But I'll give you one example. At Microsoft we launched an app called Seeing AI, that's available on the app store, which uses the most cutting-edge computer vision technology in our cloud to be able to recognize objects, see people. And now people with visual impairment can use this app to navigate through their life. In fact, one of my colleagues at Microsoft, Angela Mills, whom I worked with very early on in my Microsoft career, was telling me a few months back when she first, you know, started using the app at how she can walk in with confidence into our own cafeteria and order food, because she can see the ingredients and read the menus using

[17] Microsoft Philanthropies is the philanthropic arm of the Microsoft Corporation.

this application. She can go into the conference rooms with more confidence knowing that this is the right conference room. That's empowering her to fully participate.

Similarly, we put some AI-powered tools into Word so that anyone with dyslexia can start reading. The latest release of Windows 10 – in fact, we were inspired by Steve Gleason[18] and the ALS[19] community, where a group of very passionate Microsoft employees, and across research and the Windows team came together. And now we have eye gazes and input, because if you are an ALS patient, the only muscle you, in some sense, have, is the eye gaze. And now you can use that to be able to communicate. So I bring up these examples mostly to illustrate that AI can in fact help more people be part of our economy, part of our society. And then we have to deal with some of the tougher issues.

MR. RUBENSTEIN: But you don't think that AI will eliminate human jobs, for example? Some people think AI will eliminate the need for some people to work, or therefore there won't be jobs for people. You're not worried about that?

MR. NADELLA: No, I worry about that as well. And so, for example, let's take that challenge and talk about what is all the things that we could do. The first thing I think we should do is really focus on education and skills, whether it's in schools or whether it's even for anyone who's been displaced at work. And in that context, LinkedIn and LinkedIn data, since there are many people who are public officials here, I think this is perhaps one of the places where we should have a fantastic feedback cycle. So instead of talking about all jobs going away, what if we had a network which allowed us to digitize all the jobs, the skills required for the jobs and the training required on a continuous basis, so that we could, in fact, use private money as well as public money to then cultivate those skills. So that's one thing that we should do.

The second thing that we – I would say, is let's not fall a complete victim to this lump of labor fallacy that all jobs that are going to be there in the future have already been created. Let us in fact work to see what can be these new jobs, whether they are digital artisanal jobs – I'm so inspired by what this Minecraft generation does – or even people-on-people jobs. We may have to support some of these jobs with wages, but that's a set of policies I think that we can come up with.

MR. RUBENSTEIN: To give everybody some assurance, you don't think AI will eliminate the need for Congress, right, because those jobs will still be here, right? [Laughter.]

MR. NADELLA: I think that Congress is – you know, I think can be rest assured that no AI is going to replace them. They need to do their job.

MR. RUBENSTEIN: OK. So another thing you talk about is Mixed Reality or virtual reality. Is that coming soon?

MR. NADELLA: It's, to me, the ultimate computing experience because, just imagine, if you can – if your field of view was essentially both what you see and also digital artifacts right there

[18] Steve Gleason is a former NFL player who has ALS (amyotrophic lateral sclerosis).
[19] ALS is amyotrophic lateral sclerosis, commonly known as Lou Gehrig's disease.

in front of you – so the mix of analogue and digital, what people call virtual reality and what people call augmented reality to me is just a dial. Do you want to be fully immersed in the digital world or do you want to see the real world with digital artifacts? So I think – you know, the first time I saw this NASA demo – the NASA scientists were always dreaming of how can we be on Mars along with the rover and see that Martian surface? And lo and behold, with the HoloLens they were able to do that, because you can essentially see the Martian soil right next to you.

And now, of course, there's Mixed Reality and what we're doing with HoloLens and VR[20] is changing even how people collaborate. I mean, the one recent example we showed was Ford. You know, the way they would design cars would be to make the car and make a clay model – which, you know, weighed something like 5,000 pounds and people would have to sort of move it from place to place so that engineering and sales could comment on it. But now the ability to have presence, which is now mixed with these holograms, completely changes collaboration. So I'm very, very excited about what Mixed Reality can be.

MR. RUBENSTEIN: And you also mentioned the possibilities for quantum computing. What is quantum computing?

MR. NADELLA: [Laughs.] So here's – you know, earlier I was talking about how the Xbox has 7 billion transistors. And in fact, the early supercomputers had something like 13,000 transistors. And so, in some sense, you could say: Wow, we have so much compute power. We talked about the cloud. The cloud's got millions of machines and you can just elastically call that upon. But if you look at some of the unsolved computational problems, even today as we sit here in 2017, we don't know how to model the enzyme that's part of natural food production. We can't model the catalyst or build a – you know, develop a catalyst that can absorb carbon. We can't, you know, envision a material that's superconducting at high temperatures.

So these are unsolved computational problems. In fact, if you sort of tried to solve these problems using classical computers it would take as much time as time there was from big bang to now. And obviously we don't have that kind of time. And that's where I think quantum computing comes in. And just to kind of give you the simplest intuition of what a quantum computer does is, assume a corn maze and you wanted to trace a path through a corn maze and you started it in a classical computer. You'd start tracing a path, you'd hit an obstacle. You'd retrace, take another path. And you'd go on and on and on. But the quantum computer is that ultimate parallel computer, where you can take all these paths simultaneously. So it'll really give us, I think, the compute capacity we need, quite frankly, to solve some of these most pressing challenges.

MR. RUBENSTEIN: So, you still enjoy the job.

MR. NADELLA: I love it.

MR. RUBENSTEIN: OK. And how long do you anticipate doing it? Another 10 years, 20 years? How long?

[20] VR is the acronym for virtual reality.

MR. NADELLA: I mean, my lawyer's not here, but I think that's a public disclosure, isn't it? [Laughter.]

MR. RUBENSTEIN: OK. So let me ask you a final question. In my business, if I increase the value of something by $250 billion, I would get 20 percent of those – the profits. [Laughter, applause.]

MR. NADELLA: See, that's why you're capital, I'm labor.

MR. RUBENSTEIN: Right, right, right. [Laughter.] So have you ever thought about joining private equity, because 20 percent of the profits –

MR. NADELLA: In fact, Steve once said this to me after retiring. He said, you know, I finally figured this. I'm capital. You're labor. [Laughter.] And, you know, there is something to be said about it.

MR. RUBENSTEIN: Well, thank you for the great job you've done for Microsoft. Thank you.

MR. NADELLA: Thank you so much. [Applause.]

MR. RUBENSTEIN: OK, thank you. Let me give you a gift. Right here. One second, right here. Here. Right here.

MR. NADELLA: Ah. Thank you so much.

MR. RUBENSTEIN: This is an original map of the District of Columbia, the first map. And we'll send it to your office, OK?

MR. NADELLA: Thank you.

MR. RUBENSTEIN: All right. Thank you.

MR. NADELLA: Thank you so much.

MR. RUBENSTEIN: All right. Thanks again. Appreciate it. Thank you.

MR. NADELLA: Thank you very, very much.

Satya Nadella
CEO of Microsoft Corporation

Satya Nadella is CEO of Microsoft. Before being named CEO in February 2014, Nadella held leadership roles in both enterprise and consumer businesses across the company.

Joining Microsoft in 1992, he quickly became known as a leader who could span a breadth of technologies and businesses to transform some of Microsoft's biggest product offerings.

Most recently, Nadella was executive vice president of Microsoft's Cloud and Enterprise group. In this role he led the transformation to the cloud infrastructure and services business, which outperformed the market and took share from competition. Previously, Nadella led R&D for the Online Services Division and was vice president of the Microsoft Business Division. Before joining Microsoft, Nadella was a member of the technology staff at Sun Microsystems.

Originally from Hyderabad, India, Nadella lives in Bellevue, Washington. He earned a bachelor's degree in electrical engineering from Mangalore University, a master's degree in computer science from the University of Wisconsin – Milwaukee and a master's degree in business administration from the University of Chicago. Nadella serves on the board of trustees to Fred Hutchinson Cancer Research Center as well as the Starbucks Board of Directors. He is married and has three children.