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Webinar

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Introduction

Vice Chair Robert K. Steel

Good morning. My name is Bob Steel, and it's really a privilege for me to be here part of The Economic Club of New York. And let me just say today, welcome to all of you. I always think these numbers are pretty compelling. This is the 725th meeting of The Economic Club of New York. And for over a century, the Club has been the leading nonpartisan forum for discussion on economic, social, and political issues. There have been over, I like this also, there have been over 1,000 guests that have addressed the Club in the last century, and so it's a pretty exciting place. And we're fortunate too, to have Barbara Van Allen as our leader who does such an amazing job.

Also too, today we have joining us virtually students from Baruch, Fordham, and CUNY Graduate, and also our largest crew of 2023 Fellows. Also speaking of Fellows, starting October 1st, in just a few days, we'll be taking applications for our Class of 2024 Fellows. The applications are available for you to review and hopefully nominate people on the Club's website.

Now, well, let me turn to the order of business of today, which is a real privilege for me. And that is to introduce my friend, Walter Isaacson. And then my job is to have the privilege of speaking with him for a little while. And the plan will be for Walter and I to

speak, and I'll do my very best to ask short questions so he can have long answers.

And then after that, as we get to the end, I'll invite you, if you have a question or two, to also engage with Walter. So now let's move into this with great enthusiasm. Walter is a Professor of History at Tulane and he's a best-selling author of biographies, as you all know, of Jennifer Doudna, Leonardo da Vinci, Steve Jobs, Benjamin Franklin, and Albert Einstein.

Walter is a graduate of Harvard College and of Pembroke College at Oxford, where he was a Rhodes Scholar. He began his career as a journalist at the *Sunday Times of London* and then moved to the *New Orleans Times-Picayune*. He joined *Time* magazine in 1978 where he served as the 14th editor beginning in 1996. He also then went to CNN as the CEO and also was the CEO of the Aspen Institute where we met in the early 2000s. He's today the host of *Amanpour & Company* on PBS and CNN and a contributor to CNBC, and hosts the podcast "Trailblazers" with Dell Technologies.

So today, as part of our Author Series, we have one of the most distinguished authors, Walter, and he's here to talk about his Elon Musk biography, which was published just a couple of weeks ago, so this is incredibly timely. So now, Walter, why don't you join me on the stage and we'll get started.

Conversation with Walter Isaacson

WALTER ISAACSON: Thank you, Bob. Thank you for hosting me.

ROBERT K. STEEL: It's great to be here and also to have you spend time with our Club members. You know, the book, for those of you as you get into it, is really three or four different stories that move through the book. But I think the first, and where the book begins is trying to give each of us a picture of who Elon is and how he became this person and his childhood and his characteristics and his personality and some psychological perspectives, which I think build the foundation to try to bring understanding to the arch of his life. Tell me how to think about that, or if you think I'm on the right track.

WALTER ISAACSON: Right, right. If you want to understand Musk, you really have to go back to the adversity of childhood that shaped him. The Muse of Fire is the prologue, like Shakespeare's. Because he grew up in South Africa in a very violent time and was scrawny, socially-inept. He says he has Asperger's. When you're with him, he's definitely on the autism spectrum. And he got beaten up all the time. They sent him to a wilderness camp, sort of a veldskool, it's called. And it was a place that encouraged the other kids to beat up kids to take their food, and so he almost didn't survive the first year. The second time he went he had gotten bigger and he said, I just learned to punch everybody on the nose really hard, even if they beat me up. If I punched them in the nose, they would respect me.

And it's that weird sort of combativeness that was ingrained into him. At one point, he's at school and he gets pushed down the concrete steps and his face was beaten so badly he had to go to the hospital for almost a week. But the scars were nothing compared to when he got home and his father, who was a Jekyll and Hyde personality, berated him for more than an hour and said...(Audio Issue)...called Elon stupid. And all of us have some demons from childhood probably – although I grew up in New Orleans where we don't believe in demons – but he has had this darkness inside him.

But the question is how do you harness your demons? And he harnessed them, he sat in the corner of the bookstore down there, in the library as a lonely child with no friends. And he went science fiction, I mean just everything on the shelf, just like Jeff Bezos did as a lonely, young kid. And read the comic books. And he said the heroes in the comic books were trying to save the world, but they were wearing their underpants on the outside so they looked ridiculous. Then he paused and he said, but at least they were trying to save the world. And that too is almost a metaphor because he comes out of this experience with these epic quests, this sense of himself on epic missions, like a comic book character. Happy to a little bit ridiculous. I mean he does, Musk wears his underpants on the outside, metaphorically at least, and driven by three great missions.

ROBERT K. STEEL: I think there are two things that I thought about that you just

touched. One is you talk about his decision to pursue these epic quests is not serendipitous. It's quite determined, where he decides he wants to do these kinds of things. And the other thing, Walter, I took away is that with these quests come risk, and he's quite comfortable being a risk taker. And, in fact, on occasion you wonder if he isn't actually a bit of a, pursuing risk for the pleasure of being in a risky situation.

WALTER ISAACSON: That's what Peter Thiel says. He doesn't just accept risk, he pursues it and puts his chips back on the table. Well, first, on the three quests so we can just put them on the table. One is to make humans travel space again. It was amazing that we went to the moon 50 years ago and then never went back. And now NASA can't get rockets into orbit. And so he says we have to be a spacefaring species, both for the adventure and to protect human consciousness. Second, bringing us into an era of sustainable energy through electric cars, solar roofs and batteries. And the third is to make sure, since he had read Isaac Asimov so often, that the robots don't turn on us, that we have safe artificial intelligence.

And to do that, he accepts risk. I mean in some ways risk becomes almost associated with childhood love, his second wife said, that adversity was. This is a room that would understand this. There are other rooms like NPR audiences that don't. But we used to be a nation of risk takers really well. However you came to this country, whether it was on the Mayflower or across the Rio Grande, whatever, there was some form of

adventure and risk or challenge that you did. And we took risks when we got to the moon. We took risks when people started auto companies.

Now, we've become a nation, I feel, and I know Musk feels even more strongly than I do, that has more referees than risk takers. It's got more regulators than people willing to innovate. It's got more people in the room saying, no, you probably can't do that, or the legal team says you shouldn't, or the regulators say you ought not, which is good. We need those guardrails. I think he would feel that in the past 20 or 30 years we've erected more guardrails than flight paths. And it's because people have not as much come out of places like this and been risk-taking innovators.

ROBERT K. STEEL: I found it that, you know, after he has two or three failures with the rockets and SpaceX is financially hanging on by a thread, and the next rocket kind of has to work. And it seems to be that he's pretty serene about that, is what it comes across in your book. And calling balls and strikes on very hard decisions that someone will say, we have this problem and he'll say, well, how big a problem is it? And they'll say it's a 2% problem. And he'll say that's fine, we'll live with a 2% problem. And he doesn't wring his hands and worry about the 2%. He says it's 98% and let's punch green and go.

WALTER ISAACSON: He's pretty much an engineer and an analyst in that way. And,

as you mentioned, in 2008, three rockets had blown up and Tesla has a supply chain issue that only our friend Antonio Gracias could help sort out. So both run out of money at the end of the year. And he's taking his own checking account and writing the checks. And they say, well, you can only save one of these two companies. And he says, no, if we give up on SpaceX, that will be the end of private space exploration. If we give up on Tesla, because Ford and GM had just given up on EVs, it'll be the end of that dream. So he keeps pushing it through.

Now, on that risk taking, I mean you're exactly right, it's a calculus. The fourth rocket does get up and so he saves the company a bit. But there was a time I watched where he said what are the top risks? And they went through some of them and one of them, this is, I think, on flight two, was called slosh baffles. I won't go into it too much. But it's in the tank, the fuel tank, and if the rocket is moving, the fuel, once it's brought down can slosh around a bit, so you put baffles in it to do it. And they didn't have very big ones because they didn't want to add to the weight. And they said, well, it was a bit of a risk so you'll have that. And he said, well, rank them. And they said, well, that's number 11 on our risk list. So he says, okay, we're going to eliminate the top 10, but not the top 15 and the slosh ends up, after a while, destroying the flight. He said, well, from now on, I'm going to number 11 on the list.

But at the same time, Boeing, which goes to number 100 probably on its list. SpaceX

and Boeing, about seven years ago, were given contracts – Musk was a fixed price contract, Boeing was a cost-plus contract – to get cargo and astronauts to the space station. I can't even count the number of times, it was one last week and one two weeks earlier where SpaceX has launched, it sent rockets up into orbit and then it lands them and reuses them. The one that was last week was on its 17th launch. Boeing hasn't been able to land a rocket or reuse it. Musk has made 33 missions to the space station, 12 sets of astronauts to the space station. Boeing has yet to do a test flight. So you can be risk-averse like Boeing and NASA, but you're not going to get to orbit.

ROBERT K. STEEL: Yes, I think, you know, the old expression, don't let the perfect be the enemy of the good, is that Musk is continually saying we don't have to have 111 checkpoints. We can have 12 now.

WALTER ISAACSON: You know, safety problems, I mean they haven't...Teslas have actually been very safe cars. But you're right, he took off, he walks the assembly line every day because he believes knowing how to manufacture a product is as important as designing the product. And he says, what are all these sensors on each step of the line? We can cut them from 30 to like 4. And all the way through he's doing decisions like that.

ROBERT K. STEEL: You should go, use this as the jump into the algorithm, which is his

lens, which you just touched on.

WALTER ISAACSON: When he and Antonio Gracias, his mutual friend of ours, were working on refocusing the assembly lines and the manufacturing, Musk knew he had to get to 5,000 cars a week or he would be, it was the most shorted stock in the history of the world, 2018. And there was almost no way he could do it. The shorts had perfect information. They had inside information. They had drones flying around the Fremont factory. And Musk remembers at one point, he loves military history, that for World War I, they started building fighter planes in the parking lots of some of the...

So there's a loophole in the California law that says if you're an auto repair facility, you can build a temporary tent. It was like for muffler shops. He built a tent maybe ten times the size...20 times the size of this room, three or four football fields, using the gravity of the slope to make an assembly line chain, to do a third assembly line, and gets it done within two weeks. And it's the biggest loss ever on Wall Street for shorted stock because they get to 5,000 by the end of the month and the stock takes off from there.

From that, he gets to the algorithm. And the algorithm's in the book, but he chants it like a mantra, like your parish priest would, or somebody would do the liturgy. And it's five steps. Step 1 is question every rule and requirement. Somebody would say, he'd say why is that felt, piece of felt between the battery and the chassis. And they'd say, well,

that's a requirement. Who made the requirement? They'd say, well, the sound engineers made it. He said, find me the sound, I don't want to know what department, I want to know the name of the person. And they'd have to go find the person. And he'd say, well...and even the little patches in the holes, everything they asked for, he said, I want the name of the person who made that. And so you eliminate, he said, there's no rule or requirement that's necessary other than the laws of physics. He'd go to the principles and the laws of physics.

Step 2 is delete, delete, delete. And that's where you see sometimes slosh baffles getting deleted. But 95% of the time, unnecessary parts. Anyway, that's the algorithm for manufacturing. I'll let you read the other three there.

But an important part of it is, as much as I think Steve Jobs was a total genius, Steve Jobs would design a product, be it the Mac or the iPhone, and then it would be thrown over the wall to some manufacturing facility in China or something. He never visited the factory. Musk spends about ten times more of his mental and physical presence on the factory lines as he does in the design room. And he believes that designing the machine that makes the machine is more important than designing the original product.

And I think that's another change he has helped bring, which is it used to be auto companies had, 70, 80% of their intellectual property was either outsourced, from

overseas. Early on in the book he decides no more outsourcing. He's going to make the battery cell. He's going to make the battery pack. He's going to make the, you know, factory line, the paint and the chassis and everything else, and do it in America. Do it in Giga-Nevada and in Fremont and then in Texas.

Because he feels that you can't be innovative unless you're iterating on an hourly basis. He makes all of his designers and engineers not sit in some facility but have their desks facing the assembly line so they can see if they designed a patch that has to be in the hole, or if they had a special way of painting around the headlights, and it's holding up the line, they'll innovate so they can figure out how to make the product better. Which is why he's made a million cars so far this year, a million Teslas, and I don't know, GM has made 100 or so. I mean it's just shocking.

ROBERT K. STEEL: Yes, I think this point you just made is that I didn't expect to be pulled into his focus on engineering and manufacturing when I opened the book. But that was really, and as you said, he observed that it's much more challenging to manufacture at an acceptable standard than it is to design or ideate the products.

Let's shift a bit. Talk about, you know, this is challenging because it's a bit like live TV, writing about Mr. Musk, because, you know, Ben Franklin doesn't argue. Da Vinci doesn't argue and Einstein doesn't argue whatever point of view, and they don't do

something else tomorrow. So it's a bit of a different craft. Talk a bit about your access and the idea of how it was working with him and why he decided to do this and give us a picture.

WALTER ISAACSON: Yes, the degree of difficulty, well, after I did Henry Kissinger, who was also alive and argued back, I said, alright, next time I'm going to go back...

ROBERT K. STEEL: He's probably still arguing.

WALTER ISAACSON: Yes, still is. Definitely, at age 100, he still says, Walter, you still do not understand why I had to bomb Cambodia. But after dealing with him and his wife, I decided, okay, I'm going to go back 200 years and did Ben Franklin. And after doing Steve Jobs, which was also, okay, 500 years, I'm going to Leonardo. I think after this one, I'm going to have to do Plato or Aristotle or something.

You know, when Antonio Gracias set up a phone call a few years ago to discuss with me, I mean for Musk and myself to discuss this. I said, a couple of things, if I do this book, I don't want to do it based on five or ten interviews, or 20 interviews. I want to be by your side for two years, every meeting, morning, noon, and night, walking the assembly line. I'm going to get a trailer in South Texas next to your house. I'm going to, total immersion, because no biographer has really been able to have that type of access

to somebody like him. And he said, fine. And I went, oh, okay.

I said here's the other part. You'll have no control over this book. I don't even want you to read it in advance. I'm not going to send you an advance copy. And he said, fine. I went, wow, that was pretty quick.

And I was actually staying at Joel Klein and Nicole Seligman's house, most of you know them, out in Sag Harbor, and I went downstairs after this conversation. They have people sitting around. And suddenly, people are going, oh, my God, you're doing...I said, what happened? They said, oh, he just tweeted out, Walter Isaacson is writing my...I went, I guess I better tell my publisher and editor that this is happening.

But it was extraordinary. I mean Boswell had that with Dr. Johnson, I guess. But it was exhausting and fun and thrilling to be with him at all times. Every meeting, I mean, as you know from reading the book and you know the people involved, even at Twitter the night before the deal was scheduled to close with Pappy Van Winkle bourbon and Morgan Stanley bankers and lawyers all there, they decided to do a flash close while the market isn't open so that he can fire Parag Agrawal, the CEO, without the double trigger that would have happened if there had been the market open, which is a very hard jujitsu move to do. It meant figuring out where the money wire, what the numbers were, and then sending it out, and cutting off Parag's email the instant that happened,

and when he had his letter of resignation. I mean I'm going too detailed into it. But I'm like, whoa, and I'm sitting in this meeting.

And then right after, not right after, it was around then, he has another meeting called Mars Colonizer. Well, he moves from something like this to talk about what are we going to wear when we colonize Mars? What are they going to dress like? What are the robots going to do? And I'm going, wait, we just had Twitter and you're worried about then a valve on the Raptor engine, and now you have a meeting on what are we going to wear when we're on Mars. It was so weird being next to him.

ROBERT K. STEEL: Well, the Twitter situation we'll come back to in a bit, but basically his view was that he thought management, his view would be something like this, I think, Walter. He did not think the management had done a good job and was straightforward. By exercising this jujitsu move, then he could claim several hundred million dollars to stay in the company that he was buying, and it would not move to those people. And he thought that was appropriate. And so he exercised an ambush closing and dismissed all of them so as to block them from receiving part of their reward. And so you can have a point of view, but that was the move that he was to accomplish and it was to keep the money inside Twitter because he thought he would need it.

WALTER ISAACSON: And you could have a point of view is a good way to say it because what I try to do is I'm the storyteller. I'm not telling you this was, I don't preach at you. I let you decide. I'll give you all the facts. I've talked to Parag. I've talked to all of them. And so many people these days in the era of talk radio and cable TV shout shows, lead with their opinion. So many journalists do that. And like, I've got this incredible story to tell. I'm going to tell you the story and then you make what you want of it.

ROBERT K. STEEL: That sounds like, I think it's hard for most of us normal people to just look at this nomadic life of perpetual motion and emotion that he has where, as you just said, the ranginess of the things he's considering in front of him on the dashboard and he has around him, this pretty chaotic personal life, where a lot of us imagine going home to our den where we're comfortable and familiar and kind of unwinding and thinking. And instead that's not how he rolls.

WALTER ISAACSON: There's a wonderful, or horrible depending on how you want to read it, scene, right around Thanksgiving from a year ago, where his girlfriend, Grimes, is in the hospital because they're having kids. It's actually a surrogate so it's complicated. But the surrogate is having problems, so Grimes has moved into the hospital, and it's a few days later leading into Thanksgiving. And in the same wing of the Austin hospital, unbeknownst to Grimes, is Shvonne Zilis who runs Neuralink, who is

pregnant also with two of Musk's children, twins, all done by IVF. I mean it gets complicated. And they don't know that they're in the same hospital both giving birth this way and having some complications.

And at some point, Thanksgiving night, Musk decides that there's a problem he has to solve in Los Angeles with the Raptor rocket engine manufacturer. Now most people aren't working the Friday after Thanksgiving. But it's almost like, instead of going to the den with his family and relaxing, he had to get out of these situations and the drama he has left and fly to Los Angeles to convene an emergency session on the Raptor engine on Thanksgiving Friday.

ROBERT K. STEEL: Did he ever get uncomfortable with you being in the room?

WALTER ISAACSON: Surprisingly, he never did.

ROBERT K. STEEL: Because I just wonder, saying you'll do something is one thing and doing it is another. And sometimes we all kind of would like a do-over.

WALTER ISAACSON: Right. I had a certain approach, which was I was just damn quite. I sat, you know, you could see a few pictures of me in things, both in Twitter headquarters, I'm just sitting in the corner really quietly. And I learned even when the

meetings broke up, I would stay there and he would stay in the conference room. He would usually had 15 minutes between meetings. And he'd just usually stare vacantly and batch-process, I called it, meaning sequentially try to process data he had inhaled. And I learned not to fill his silences.

And every now and then I'd ask him a question and sometimes he'd go silent before he answered. He'd just stare, maybe a minute, two minutes, sometimes three full minutes, which is a very long time. And I would outlast him. I just wouldn't say a word. And then eventually in a monotone, he'd start talking. But never, well, actually twice he asked me to leave the room and both were classified secure communications with General Mark Milley in one case and in another involving the launch of the U.S. intelligence satellite. And I stepped out of the room. But in two years, those are the only two times I stepped out.

ROBERT K. STEEL: Thanks. Talk a bit about the last few, it seems like, you know, in the last months we've had this focus on AI and we had the panel in Washington and people are trying to get their arms around this. Talk a bit about the Musk perspective on Neuralink, on AI and Neuralink.

WALTER ISAACSON: Yes, very early on, as I said, and early on meaning like 12 years old, reading, some of you probably read Isaac Asimov as a kid and iRobot, and how we

have to have rules so the robots will not harm humanity. So this has been an obsession of his and he meets Demis Hassibis who formed DeepMind and invests in it because he feels he wants to keep up with how this could play out and make sure there were guardrails and safety. Even though he's a risk taker, he doesn't want to do it with the robots.

At one point, Demis decides to sell DeepMind to Google and Musk tries to prevent it. He and Larry Page used to be best friends. Musk used to stay at Larry's house because Musk was the richest couch surfer in America and always, he didn't have a house in Silicon Valley. And they had a big fight at one of his birthday parties in which Page is not worried about AI destroying us and Musk is.

So he tries to break up that deal, raised the money to do it, and he can't. So he starts OpenAI with Sam Altman, the famous company now that's...Chat-GPT4, all of the chatbots. Then they have a falling out. Musk is not the easiest dude to be a partner with. And partly because Sam wants to turn it and did turn it from open AI to closed AI. And Musk thinks it should be open and nonprofit. Musk had donated money as a nonprofit and then, as you know, Sam turned it into a for-profit with Microsoft having a stake.

So Musk starts his own AI group within Tesla and summons me back right as I'm finishing the book, you know, maybe three or four months ago, and says, one more

chapter. You have to be around. I go to Shimon's house, which is where he was. And we sit by the pool and at first he makes me put my phone inside because he says I don't want people to be able to eavesdrop, whatever. But then I'm taking notes, and he's starting his own AI company. And he says, for those of you who are very involved in the large language model trends, you know, generative AI, he feels those are really smart and they've learned to do things by reading billions of documents, but they're almost just parlor tricks. You can ask them, you know, who are the five best popes and it'll give you a chatbot answer.

What really counts is real world AI, something where I could say, you know, I need a little bit more coffee, and a robot would be able to figure it out, come here, pick up the coffee cup, walk across the room, get it, and wind back. Something no robot can come close, a five-year old could do that, but not a robot. So real world AI, self-driving cars, robots that can understand and maneuver, that's his goal. He's got the greatest data, I mean, first of all, you need processing power and he's created Dojo, which is his Nvidia, almost a competitor, but it's like a GPU, except it processes video data.

And he's got data streams that are great, which is 8 billion frames a day from Tesla cars around the world, each of which has eight cameras and all the video goes back to Tesla. So you can train a car how to drive and that's what they're doing now instead of trying to do self-driving through line by lines of code, red light, stop, green light, go. It's

just watching what humans around the world do in every situation. And likewise, Optimus is the robot.

And then the final link to this is he believes if it's going to be safe, we have to have instant communication, mind-meld with our machines. That seems pretty odd. But if you look at the history of the digital revolution, it's those who create better human computer interfaces, whether it's graphical interfaces or Siri-like voice, those are the big leaps ahead. And he wants to do it with a chip that's implanted in the brain and the chip has, you know, about a thousand threads that can read your neural network signals and communicate instantly with the computer back and forth. And it sounds odd. I've been there looking at what they do with the monkeys. The monkeys can now play pong without using their hands. They just think and the cursor moves. And this month he got FDA approval to do the first trials in humans.

ROBERT K. STEEL: And the idea here is there's specific presentations of disease where people can imagine that this will be...

WALTER ISAACSON: One of the interesting things he does is he has these grand missions like get humanity to Mars or make AI safe by having a mind-meld with our machines, and then he backfills with a business model. When he first decided to get humanity to Mars, friends of his that you know, from Reid Hoffman to Antonio, they do

an intervention. They say, hey, dude, you know, there's no business model here. He said, no, but we have to get humanity to Mars. And after the fourth rocket finally gets up, they started getting contracts to send up communication satellites. So a little bit of money.

And then he figures out, if I can replicate the internet in outer space, internet communications are a trillion dollar a year business, if I can just get 10% of that, I have ten times the budget of NASA. So he now has 5,000 Starlink satellites up. And not here in Manhattan, because you don't need it, but in New Orleans, you know, I've got a Starlink satellite and I get my internet access that way.

Likewise with Neuralink, sorry for the long answers, but Neuralink, it's fine to say in a decade or two we're going to mind-meld with computers, but what's the business model? The first tests are to be able to, if you've got a neurological problem, disorder, whether it be ALS or Parkinson's or you're paralyzed and your limbs can't move for a variety of reasons, the chip is going to be used to bypass whatever problem you have in your nervous system and make you think and make your hands move, for example. It's going to start with the hands, which are easy.

So that will be what he's going to do for the next few years is try to fund Neuralink by helping...I mean, I remember when he made that pivot I was there. He was walking in

Texas. He's like, alright, we now have to pivot...(Audio Issue)...this idea of mundane and practical are miracles that, I mean it's like we'll just make paralyzed people walk again, he said. And that was like just the interim step. And, you know, for most people that would be a life's mission.

ROBERT K. STEEL: Sure. But that kind of rhymes with life on Mars or changing our relationship with hydrocarbons or, you know, it's a simple single sentence. But that he comes backwards then to figure out the support in a business case. Maybe let's move to talking about what the business formerly known as Twitter and kind of, you know, this is a big idea too that clearly he didn't have it fully thought out when he started.

WALTER ISAACSON: And I'll turn it to you. I don't know what you want to say, but you were part of that ride a bit when he didn't have it clearly thought out. And if you ever need something clearly thought out, you ask Bob and Bob's first sentence is, there are three ways to look at it. And that's what Bob, Bob is processing, I think, when he does that to figure out what are the three ways?

ROBERT K. STEEL: Exactly. You know, I think that...

WALTER ISAACSON: I've known Bob too long.

ROBERT K. STEEL: My kids say the same thing. Dad, three ways. You know, I think, I believe, and you should comment, I believe that his original idea was that this was a couple of things. This was an underperforming public square and that we would benefit from having a public square. I think he also had, if you go back to PayPal, he had some grandiose ideas that this could also be a connectivity for financial relationships also. And I think those were really his original ideas. And he didn't really know how that could happen, but this rhymes with your big, but that was the big idea.

Then he got a bit out over his skis which is not a new move for him. And this was different. This was a public company and a lot of complication, so then how do you go from there? And the conversation that I and some others had is once he was out over his skis is what do you want to have happen here? You know, do you really want to end it? Because he was over his skis and it was unclear what he should or could do. And in the end, he made the decision that he wanted to proceed to own the company.

WALTER ISAACSON: One problem with asking him what do you want to do is that he's mercurial. And I'd be with him all day, so in the morning he would be, this is great, I'm going to take Twitter and it's going to be the booster that gets us to what PayPal should have been. Before he got ousted by Peter Thiel from PayPal, he wanted, as you said, to be a social network combined with financial services and payments or content. Instead, it just became a way to, I mean a good way to transfer money. So that's one thing.

Jared Birchall, who you know well, and this is off the record, right, says, whenever things were tough on Elon, he would go dark and it would bring him back to those moments on the playground where he kept getting beaten up. And Jared said to me, and so did Cathy, Twitter, you know what that is, it's the world's biggest playground. He can own it. And that's what they were saying when this was being pursued.

And he did have some grandiose notions about free speech and that keeping people like Trump or others off, that more free speech was better than more restrained speech. And he hadn't really thought that through. I mean in this room everybody believes in free speech, but we've also gone a bit deeper into the question of, you know, should you be able to threaten people? Should you be able to scam people? Should you be able to say anti-Semitic or racist things? And should it be amplified? Even Ken Howery, who is a very, I would say Libertarian, he was a Trump appointee to be Ambassador to Sweden, and not exactly a Left-Wing nut, while we're standing in the half-built Gigafactory in Texas, on the mezzanine...(Inaudible comment in the distance)...oh, okay, next question...

ROBERT K. STEEL: Yes, I think the only thing I'll say on that is that, like lots of people in the room, part of what I do is to give advice to people and I think that Mr. Musk is really unusual where he actually...most people when you give them advice, they want you to tell them the conclusion or what you recommend for them to do. And they want

that for two reasons, I think. One is they're curious what you think and the other is it then gives them a shield to be able to say, well, our advisors told us this. And I think that Mr. Musk is unusual where he actually doesn't want you to tell him what you think. He wants you to give him all the information in a very organized, clear way. And when you get to where you're going to turn to the last page of the recommendation, he says we're done.

Because he believes that he's smarter, more knowledgeable and able to make a better decision. And if someone is going to decide, it's going to be him and he doesn't need to know what you think because he believes he's better. And it's an odd dynamic when you're used to giving people advice. And the money shot is you tell them what you think, and he says, that's okay, I don't need that. And then he decides what he thinks. And this is in the book too, where he's very comfortable being the decider, and actually I think he enjoys it.

WALTER ISAACSON: And, as I said, he's mercurial so there would be times in the morning where he'd be really excited and just almost giddy. And there would be times in the middle of the day where he's calling his lawyer, you know, Alex Spiro and others, and saying, get me out of this deal. Or calling you and saying, what is Option C or something? And there would be times late at night where he'd get dark and brooding and almost angry, well, definitely angry. It's like that Judge Kathaleen, I can't remember

the chancellor, judge in Delaware, how could you do this to me?

ROBERT K. STEEL: This goes back to the first question of the complexities of his personality.

WALTER ISAACSON: And the multiple personalities, I mean I won't say multiple personality disorder, but you have to, as Grimes says, his girlfriend, you just have to pick which Elon you're going to be with. There's some Elons that don't like me and I don't like them, she said.

ROBERT K. STEEL: Maybe what we should do is pivot. If people have a couple of questions, I'll do my best and we'll get through a few before we close out. And if people would just say their name and affiliation, great.

QUESTION: Chris Fralic, First Round Capital. A question, what percent of his time did he spend on Twitter? And how many direct reports did he have across all of his orgs?

WALTER ISAACSON: On the second question, it's a phenomenal number of direct reports, but in most of his orgs he drills down deeply on, I will say 10% of the things that have to happen. He micro-manages those things. For example, the use of materials for the valves of the rocket engine, I'll watch him spend an hour on. That's an incredibly

important thing. I mean Bezos hasn't gotten those valves to work, valve leaks is why, Boeing...But there's still 99.9% of the stuff you've got to do at SpaceX, like make government contracts, hire people, whatever. And Gwynne Shotwell handles those.

Likewise, at Tesla, you have a pretty good team. Zach Kirkhorn just left, the CFO. He was great. But there's Drew Baglino, Lars Moravy, and Franz von Holzhausen, who is the designer. And Musk will serially focus on something tiny, and he'll make a big decision. Like, I was there about six, seven months ago where he kept pushing the robo-taxi. I want a car without a steering wheel. That's going to be the next Tesla because self-driving is going to work and we're going to make millions of these robo-taxis. It's going to transform humanity, meaning people won't own cars anymore.

There'll just be robo-taxis. I mean this vision that you can call ridiculous, but he tends to turn impossible things into things that are just much later than he thought they would be.

But they keep saying, no, no, no, we've got to do a version of the robo-taxi with steering wheels and pedals because we've got to go up against Toyota. We have to have a global, cheap car. And I watched him finally process and he'll say, okay, let's do it. And turns his focus onto designing the factory, each station of that factory and how it would be able to be the platform to make both, the robo-car and what I'll call the \$25,000 car. And designing it in Mexico but saying I need to start it in Austin so the designers can

watch. A long way of saying that's what the UAW strike is about, which is moving to electrification and to automated assembly lines is the underlying problem that the UAW faces.

He spent too much time on Twitter starting in October, which is when he first went into headquarters, a couple of days before the jujitsu flash close. And even there's a scene in the book on Christmas, this past Christmas Eve, where he has a very contentious meeting with the old infrastructure team at Twitter. He says, I want to get, we have three server farms. That's ridiculous. I want to get rid of Sacramento. And it has to be done by the end of the year because then we have to start paying for this year's thing. And they say, no, that's impossible. It's going to take six months to move them.

It's really bad, he says, physically why is that impossible? What are the reasons? And they start saying, well, there's regulation, there's rules. He said, no, no, what are the physical reasons I can't move those? Christmas Eve he's flying from Twitter headquarters, San Francisco, to Austin. He's got two of his young cousins with him. And as they get over Nevada, one of them says, why don't we just move the servers ourselves? That's the dumbest idea, by the way, you can think of, but there are pictures of it in the book. He turns his plane around and they land in Sacramento where it's Christmas Eve. There's no car to be gotten. They finally can rent a car.

They get to this facility and they have to talk their way past the security guard who

finally realizes it's Elon Musk and lets him in. He has pliers from Home Depot and they get, one of his guys rents a U-Haul and that night, they said, well, you can't, you need an electrician to open up the floor panel. And he turns to the security guard and says, you've got a pocket knife. And the guy goes, yeah. Musk opens it up himself and cuts the cables of the servers and they move 200 server racks into the thing to prove they could do it.

This is risk taking and awesome and it's like shooting off a rocket, because it cuts both ways. He proves you can move those servers. They're stunned. And a month later, Twitter is still having some operational issues. And then he lets Ron DeSantis announce his candidacy and it crashes because they don't have backup servers. So you've got to read the whole story and say, is this guy a genius? Is this guy a nut? Is he taking too many risks? The answer is read the story. Make your own judgment. I say that because that's the type of thing he was doing at Twitter, which is personally cutting the cables to the servers, and he probably should have been focusing on some other things.

I think now Linda Yaccarino is going to be an interesting thing. It was an impulsive hire. It was April, a Monday, and he was launching Starship. We were all down in South Texas. And surprise, I may have mentioned this earlier, it gets to T minus 14, and they look at him. He says, abort, because there's some leakage. And he was invited and was supposed to go to an ad sales conference in Miami, but he wasn't really going to go

because they were launching the rocket. But late that night, Antonio Gracias is with him, they jump on a plane. Everybody goes to Miami. And there, Linda Yaccarino, the head of Global Ad Sales for NBC-Universal, is moderating it. And they have dinner afterwards. He's launching the rocket again on Thursday so he has to get back. But he decides she's the person to be the CEO of Twitter.

And he was right because he was about to hire, I met last night the person again, an engineer who had done a search engine, to be the CEO. He didn't need another engineer. He needed somebody who understood human emotions and advertising desires. And so Linda is the right person. But even yesterday, at the Code Conference, it was not a pretty sight. And I guess I should be neutral, I shouldn't care. But I'm actually like praying for her to succeed because I like her and it's exactly what Twitter needs.

ROBERT K. STEEL: Okay, thank you. Yes, sir...

QUESTION: (inaudible) that your next book is going to be Socrates or...

WALTER ISAACSON: It's actually not. I'm going to go back, in the way back machine. I'm not going to go back that far, but I'll leave it there.

QUESTION: (inaudible). Given his ____, is there going to be a sequel in the future?

(inaudible)

WALTER ISAACSON: Well, you know, surely there'll be epilogues in the new editions. I think there was a moment right after Starship launched, made it into space, but then didn't make it into orbit, and right after xAI launch, and he told me what he was going to do with it, I said, okay, we're implanting the chips at Neuralink, we have all that. We know what Musk is like. You have all that data. We know we've got Starship up. Tesla is now going to build a global car. X.com, once known as Twitter is going to be a financial services and payments platform, not an advertising medium. So it seemed like a good place to end. Yes, there will be epilogues. And ten years from now, somebody else will write a book on Musk. But I think this book gives you what you need to know about the guy.

ROBERT K. STEEL: Yes, ma'am.

QUESTION: (Inaudible)

WALTER ISAACSON: Yes, it's not a prerequisite but there is a non-trivial correlation. If you look at all the characters I've written about, they've all felt like misfits a bit. Starting with Leonardo, who, you know, is growing up in the small village of Vinci and he's

illegitimate and his father decides not to legitimate him, which you can do. He's gay. He's left-handed. He's distracted, sort of ADD. And runs, he doesn't run away, but as a kid goes to Florence and ends up being tortured doing the deluge drawings, you can even see here at The Met, but also the greatest engineer and artist of his time.

And I go through all of those. Einstein and Kissinger growing up Jewish in Germany. Ben Franklin, age 17, also running away, having been an apprentice and indentured actually to his brother, so he escapes. And Steve Jobs, not only being adopted but the first adoptive family, it changes. And he's in a working-class family, a father who didn't go to high school, finish high school, feeling out of the environment.

So a lot of these people do have these, I don't quite fit in challenges. And I think there's some correlation. I can, same with, you know, Bezos. Jeff grows up with a single teenage mother, not quite knowing his father until later. And then an immigrant refugee, Mike Bezos, Miguel Bezos, from Cuba comes over. But it's not a prerequisite. I mean Bill Gates went to a nice private school in Seattle. His mother was the head of the United Way, the sweetest person ever.

But I do think that I had a really nice, magical childhood. My parents were the kindest people and the smartest people I've ever met in my life. I grew up in New Orleans and all we did is go to Mardi Gras parades and get fake IDs so we could go to bars. But it's

sort of why I'm Boswell, not Dr. Johnson. I get to write about great innovators, but I'm never going to go shoot a rocket to Mars. So I think there is an inverse correlation that sometimes, and we see it maybe in our kids, they're very, very comfortable. Maybe they don't have enough demons driving them. But I'm not sure I want to trade in and have demons driving me or for my daughter.

ROBERT K. STEEL: Yes, ma'am.

QUESTION: What's Elon's obsession with X, Y, and Z...

WALTER ISAACSON: Well, he loves the letter X, you know, from the X-Men comics and Xavier. Xavier is the name of his eldest surviving child. He had a child die in infancy. And Xavier transitions to become Jenna and it's a psychological drama in the book. And so he names his next-born child, X, it looks like a Druid password, the full name, but they call X, X. He loves the letter X because it's a mystery, it's the unknown variable. And he says, we always have to seek...

(Audio Issue)...

Right, and one of the people, Doug Field, I think it was who was at Tesla that didn't work out and then went to Apple for a while, but then also didn't work out, I know we're

on the record so let me be careful here. I don't think he feels that Apple innovates enough right now. The car is not the issue. It's the self-driving component, and to make an electric car that's self-driving, it's got to be both. And in terms of the software for self-driving, he sees his main competitor obviously as Waymo and Google, not Apple, because he doesn't think Apple has gotten very far on the software side.

And there's a major difference between the way Waymo, the Google-Waymo team is doing it and Musk, is Waymo is actually, has some self-driving in San Francisco now, but it's in certain blocks. It's circumscribed. Because they do it based on maps, Google Maps, and it has to know, alright, exactly, how do you turn at this corner. The downside of that is you can't take the car and drive it to Sacramento. And the second downside is you can have the maps and they're going to be 99.9% correct and then they're going to tear up the street at midnight one night and put orange cones and that's not going to be on the maps.

So he's trying to do something fundamentally different, Musk is, which is no matter what happens, there was, I think, a nice scene at the end of the book with Dhaval Shroff and all the team showing him this human imitation machine-learning from the video we input, and they just make it like a James Bond movie with the trash cans flying off of trucks and orange cones and explosions and a UFO landing and a llama walking across the road, and at least on the screen, this Tesla FSD12, Full Self-Driving 12, with

machine-learning can navigate all of these things, which obviously a Waymo wouldn't. I think he spends approaching zero percent of his mind share thinking about Apple in the car field at the moment. He's got a lot of issues with Apple, good and bad. He actually gets along with Tim. The big issue is X.com on the phone and whether or not if you're doing transactions on what used to be known as Twitter, whether that data is Apple's or his.

ROBERT K. STEEL: Good. Well, listen, we need to draw it to a close. Let me just make a few comments as the curtain falls. On the back of your programs today are the list of upcoming events for the Club. And hopefully you'll find things of your fancy. Barbara and her team do a great job of giving us Club members access to great talks and great presentations. So hopefully you'll find things there on the program that look interesting. Thanks to all of you for your time this morning.

And Walter, you can see I feel like it's really a wonderful gift in my life to have Walter as a friend and then also to get to visit with all of you today has been a great treat too.

WALTER ISAACSON: And also a round of applause for Bob. Thanks everybody.