"The world's most remarkable living entrepreneur."
—CHRIS ANDERSON, CURATOR OF TED



## Elon Musk In His Own Words

**Edited by Jessica Easto** 

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EDITED BY

Jessica Easto

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What I'm trying to do is to minimize future existential threats or take whatever action I can to ensure the future is good. I didn't expect these companies to succeed. I thought they would most likely fail.

—ELON MUSK

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#### Introduction

Elon Musk wants to change the world. If researching this book has taught me anything, it's that Musk's unapologetic, unbridled ambition unsettles (or enrages) people at least as much as it inspires them. And yet it would be difficult to argue on objective grounds that the depth and breadth of his work are not changing the world in important ways.

Musk knew from an early age that he wanted to leave his home in South Africa for the United States—in his words, "the greatest country that's ever existed on earth"—in order to be in the best position to make a difference. In college, he decided the fields that were most likely to impact the future of humanity included the internet, space travel, and sustainable energy. Since then, he's been working to improve them one by one.

When eBay purchased PayPal (Musk's second internet company) in 2002, he walked away with a cool \$180 million and promptly started pouring it into a seemingly insane venture: SpaceX, a private company that aims to "revolutionize space technology, with the ultimate goal of enabling people to live on other planets." Musk taught himself rocket science, became the company's chief designer, and set out to take the first step toward making life multiplanetary: reducing the cost of space travel. In the 14 years since then, Musk and his SpaceX team have transformed the way rockets are manufactured, reduced the cost of launches by millions of dollars, earned lucrative contracts from both commercial and government entities, and achieved numerous space travel milestones, including the ability to launch and land (and hopefully reuse) an orbital rocket booster stage. The company's eyes are now set on Mars.

Meanwhile, in 2004, Musk joined the newly created Tesla Motors and made the company's mission "to accelerate the world's transition to sustainable energy" by making fully electric cars that are practical, fun, fast, beautiful, and available to everyone. First came the Roadster, which proved that an electric luxury sports car with suitable range could exist. Next came Model S, a luxury sedan, and then Model X, an SUV, both of which have been designed with safety as a top priority (Model S is the highest-scoring of any vehicle ever tested). When Tesla announced the long-awaited mass-market Model 3 in March 2016, it received close to 400,000 reservations in only two weeks.

Along the way, Tesla has revolutionized the manufacture of one of the most complex commercial products on earth, continuously innovated and improved notoriously complicated battery technology, gone toe-to-toe with the automotive industry and Big

Oil, and invented and built practical systems for electric charging and power storage via Tesla Energy—which Musk hopes to build upon with the acquisition of SolarCity, a solar panel and installation company he's backed and advised since its creation in 2006. Between SolarCity, Tesla Energy, and Tesla Motors, Musk believes he has created a complete solution for all elements of sustainable energy: creation, storage, and transportation.

Musk is a maverick and a visionary, one with the rare ability to identify and navigate problems of almost incomprehensible scale and complexity—despite high barriers of entry and the risk of almost certain failure. Deeply involved with every aspect of his companies, he is primarily an engineer by desire and an entrepreneur and businessman by necessity. In the words of Bill Gates, "There's no shortage of people with a vision for the future. What makes Elon exceptional is his ability to make his come true."

Despite all of this, critics insist that Musk's companies are not successful: they don't make money; they don't meet their deadlines; their products are unsafe, untested, or unreliable; their ambitions are fundamentally flawed; and their CEO is a crazy, callous egomaniac who will not stop until he crushes his companies under the weight of his own hubris. I'll let Musk defend himself against these claims in his own words, but for now, it's worth noting that while scrutiny is certainly merited, the media's fixation on Musk's failures is often baffling, especially in light of his long list of accomplishments.

The truth is that even if all of his ventures folded today, Musk's efforts have already accelerated humanity's progress toward sustainable energy and multiplanetary civilization. He's exceeded expectations so many times that it's easy to forget the world in which he started, one with zero viable electric vehicle programs and outdated domestic launch vehicles that could no longer transport humans to space. With the sale of hundreds of thousands of Tesla Model 3s looming, other automotive companies are starting to take their own electric vehicle programs more seriously, most notably Chevrolet with its Chevy Bolt and Audi with its e-tron GT quattro. No aerospace company is closer to orbital rocket reusability than SpaceX—or to cost-effective rocket development, for that matter. A top executive at United Launch Alliance—Boeing and Lockheed Martin's space technology partnership and SpaceX's main US competitor—resigned in 2016 after admitting that ULA couldn't compete with SpaceX's launch costs.

In 2015, Musk cofounded OpenAI, a nonprofit dedicated to ensuring that artificial intelligence remains an open-source technology so that everyone has access to its benefits. Tesla's patents are also open-source, which makes them available to anyone who wishes to benefit from them and underscores Musk's mission-driven, not money-driven, motives. Perhaps one of the more admirable (or inexplicable if you are on Wall Street) aspects of Musk's character is that he seems unconcerned with financial gain. That might be an easy stance for a multibillionaire to take, but Musk came close to bankruptcy after pouring most of his personal funds into SpaceX and Tesla during a rough time for both companies in 2008. Instead, as you'll see, he seems unambiguously dedicated to contributing solutions for the betterment of humankind and to ensuring that the future of humanity is a bright and inspiring one.

## Part 1



PART ONE: GETTING STARTED

## Early Years

WHEN I WAS a kid, I would just walk around reading books all the time. And I was also the youngest kid in my grade, so I was quite small. I was kind of a smart aleck. It was a recipe for disaster. I'd get called every name in the book and beaten up.

—Time, July 19, 2010

THERE WAS A level of violence growing up that wouldn't be tolerated in any American school. It was like Lord of the Flies. There were a couple of gangs that were pretty evil, and they picked their victims and I was one of them. I think part of what set them off was that I ended up sticking up for this one kid who they were relentless on. And that made me a target.

—Vogue, September 21, 2015

WHEN I WAS, I don't know, five or six or something, I thought I was insane... because it was clear that other people... their minds weren't exploding with ideas all the time.

—The Joe Rogan Experience, "#1169 - Elon Musk," September 7, 2018

I DON'T THINK you'd necessarily want to be me... It's very hard to turn it off. It might sound great if it's turned on, but what if it doesn't turn off?

—The Joe Rogan Experience, "#1169 - Elon Musk," September 7, 2018

I SEEM TO have a high innate drive, and that's been true even since I was a little kid.

—Dr. Infographies, "I Don't Give A Damn About Your Degree," February 10, 2018

I HAD KIND of an existential crisis, and I was reading various books trying to figure out the meaning of life ... because it seemed quite meaningless. We happened to have some books by Nietzsche and Schopenhauer in the house, which you should not read at age 14. It's bad. It's really negative. But then I read *The Hitchhiker's Guide to the Galaxy*, which was quite positive.

—CHM Revolutionaries, January 22, 2013

IT TAUGHT ME that the tough thing is figuring out what questions to ask, but that once you do that, the rest is really easy. I came to the conclusion that we should aspire to

increase the scope and scale of human consciousness in order to better understand what questions to ask. Really, the only thing that makes sense is to strive for greater collective enlightenment.

—Bloomberg, September 14, 2012

WHENEVER I'D READ about cool technology, it'd tend to be in the United States or, more broadly, North America.... I kind of wanted to be where the cutting edge of technology was, and of course within the United States, Silicon Valley is where the heart of things is. Although, at the time, I didn't know where Silicon Valley was. It sounded like some mythical place.

—CHM Revolutionaries, January 22, 2013

ONE OF THE downsides of coming to a university in North America was that my father said he would not pay for college unless it was in South Africa. So I could have free college in South Africa or find some way to pay it here. Fortunately, I got a scholarship at UPenn, and so I did a dual undergraduate [degree] in business and physics at UPenn Wharton.

—CHM Revolutionaries, January 22, 2013

WHEN I WAS in college, I just thought, "Well, what are the things that are most likely to affect the future of humanity at a macro level?" And it just seemed like there would be the internet, sustainable energy, making life multiplanetary, and then genetics and AI. I thought the first three, if you worked on those, they were almost certainly going to be good, and then the last two are a little more dodgy.

—STVP Future Fest, October 7, 2015

I THINK I would make far fewer mistakes [if I were to go back in time and talk to my 20-year-old self], like, "Here's a list of all the dumb things you're about to do. Please do not do them." It'd be a very long list.

—Satellite 2020, March 9, 2020

THAT SUMMER OF '95 ... it seemed to me like the internet was going to have a big effect on humanity. I thought, "Well, I can either work on electric vehicle technology and do my PhD at Stanford and watch the internet get built or I could put my studies on hold and try to be part of the internet."

—*Who's Time*, April 22, 2014

IT WASN'T LIKE, "Oh, I want to make a bunch of money." ... With the internet, anyone who had a connection anywhere in the world would have access to all the world's information, just like a nervous system. Humanity was effectively becoming a superorganism and qualitatively different than what it had been before, and so I wanted to be part of that.

—STVP Future Fest, October 7, 2015

I HAD SORT of a, I guess, existential crisis when I was a kid and I was like, what's this all about? There's no meaning to life. I read all the philosophers that I could get my hands on. And then ultimately, I read Douglas Adams, and I think he had the best approach, which is that the universe is the answer. What's the question?

—Sway, "Elon Musk: 'A.I. Doesn't Need to Hate Us to Destroy Us," September 28, 2020

I STARTED IN '95, and nobody had made any money on the internet. Even in Silicon Valley, we went to venture capitalists in '95, and they had sort of heard of the internet—most of them weren't even using it—and [they thought] even if the internet did become widespread, nobody would make any money on it. Then Netscape went public, and that kind of changed people's mind-set—at least from the standpoint of the greater fool theory: even if these internet companies can't make money, at least some fool is willing to pay a lot if they go public.

—Web 2.0 Summit, November 7, 2008

I DIDN'T HAVE any money, so I thought we've got to make something that's going to return money very, very quickly. We thought the media industry would need help converting its content from print media to electronic, and they clearly had money. If we could find a way to help them move their media to the internet, that would be an obvious way of generating revenue. There was no advertising revenue on the internet at the time. That was really the basis of Zip2.

—lecture at Stanford University, October 8, 2003

## I was really into physics [as a young man] and I thought,

well, we don't want to have civilization collapse if we run out of oil, and that's the only way of getting around.... We won't be able to maintain civilization. We could have mass starvation. Civilization would collapse. So, we've got to have electric cars.

—Sway, "Elon Musk: 'A.I. Doesn't Need to Hate Us to Destroy Us," September 28, 2020

I'VE JUST GOT too much stuff in my head. You know, it's like having too many browser windows open or something.

—Sway, "Elon Musk: 'A.I. Doesn't Need to Hate Us to Destroy Us," September 28, 2020

I WANTED TO do another company with the internet because I thought we hadn't really reached the potential that we could have with Zip2. We had really sophisticated software —our software was at least comparable to what Yahoo! or Excite or others had. In fact, I thought in some ways, it was better. But because it was all filtered through these partners, it wasn't getting properly used. I wanted to do something that could be a more significant

contribution to the internet. The initial thought was financial services because money is digital, it's low bandwidth—at the time, most people were on modems.

—CHM Revolutionaries, January 22, 2013

PAYPAL GOT STARTED in late '98 to early '99, and it was a merger of two companies: X.com that I started and Confinity that Max [Levchin] and Peter [Thiel] started. We pooled our resources and tackled the problem [of payments] together. We went from starting the company to less than 14 months later having a valuation of \$500 million. These days, after you see things like the recent acquisition [of Instagram] by Facebook, you think, "Oh, well maybe that's not that great." But at the time, it was certainly like, "This is completely ridiculous."

—PandoMonthly, July 12, 2012

I WANTED TO be where I could have an impact on technology... or be involved in the creation of new technology, so that's what prodded me to go to, at first, Canada... and then ultimately, to the U.S.

—Third Row Tesla Podcast, "Episode 7 - Elon Musk's Story - Director's Cut," February 9, 2020

EVEN ON SAND Hill Road [in 1995], we tried pitching people to invest in an internet company, most of the VCs we pitched to had never used the internet.

—Third Row Tesla Podcast, "Episode 7 - Elon Musk's Story - Director's Cut," February 9, 2020

2008 [WAS] NOT a good time to be a car company, especially a startup car company, and especially an electric car company. That was like stupidity squared.

—The Joe Rogan Experience, "#1169 - Elon Musk," September 7, 2018

I CAME TO the conclusion that the more we can expand the scope and scale of consciousness, the better we're able to answer the questions, or ask the questions, to understand the nature of the universe. So therefore, we want to expand the scope and scale of consciousness.

—Sway, "Elon Musk: 'A.I. Doesn't Need to Hate Us to Destroy Us," September 28, 2020