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Building Tesla, and SpaceX - Elon & Kimbal Musk on the Third Row Tesla Podcast - Podcast Notes

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10-13 minutes

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Check out the Third Row Tesla Podcast website.

Key Takeaways

- . Why use Twitter over other platforms? Elon doesn't trust Facebook, and Instagram isn't
 - "It's hard to convey intellectual arguments on Instagram" Elon Musk
- In college, looking towards the future, Elon realized there were 5 core things that would have an enormous impact on the world where he wanted to focus his energy:
 - **The internet** (leading up to help create PayPal)
 - Making life multi-planetary (SpaceX)
 - Genetic engineering (Elon has yet to form a company in this area)
 - Artificial intelligence (the premise for Elon's company, Neuralink)
 - Sustainable energy (hence the reason for Tesla)
- The meaning of life according to Elon:
 - "We must propagate human civilization on Earth as far into the future as possible. and become a multi-planet species to again expand the scope and scale of consciousness, and increase the probable lifespan of consciousness" - Elon Musk
- "The only publicly-traded share that I have at all is Tesla. I have no diversity." Elon Musk
 - Elon also owns stock in SpaceX, but it's still a private company
- Elon had a ton of ideas for PavPal, but the rest of the team deemed them too risky
 - "I think if PayPal had executed the plan that I wanted to execute on, it would probably be the most valuable company in the world" - Elon Musk

Intro

- Elon Musk (@elonmusk) is the founder of Tesla, SpaceX, Neuralink, and The Boring Company
 - For more Elon, Check out the Podcast Notes from his appearance The on Joe Rogan Experience
- Kimbal Musk (@kimbal), Elon's brother, is the co-founder and Chairman of Big Green
- Hosts:
 - Sofiaan Fraval (@Sofiaan)
 - Omar Qazi
 - Vincent Yu (@vincent13031925)
 - Vivien Hantusch (@flcnhvy)
 - Kristen Netten (@Kristennetten)
 - Galileo Russell (@Gfilche)

Books Mentioned

 Elon read The Hitchhikers Guide To The Galaxy by Douglas Adams as a teen and says it had a huge influence on him

Twitter > Every Other Social Media Site

- Elon first joined Twitter back when they only had10,000 users
 - "I just started tweeting for fun really, and my early tweets were quite crazy ... Some people use their hair to express themselves, I use Twitter." - Elon Musk
- Why use Twitter over other platforms? Elon doesn't trust Facebook, and Instagram isn't his style
 - "It's hard to convey intellectual arguments on Instagram" Elon Musk

The Problem with Monopolies & Communism

- The problem with monopolies and communistic governments: The feedback loops are too slow
 - Looking at the opposite, smaller companies and capitalistic governments are much better at being responsive to the happiness of customers/people
 - These competitive systems drive innovation, and better products equals more profit
 - Ex.: Elon says there's a candy oligopoly, and therefore, there hasn't been much innovation in the candy industry

Life-Changing Moments

- Elon had an existential crisis at 12-years-old (!) and started reading Nietzsche and Schopenhauer to find answers, which he now admits was a mistake
 - After reading The Hitchhikers Guide To The Galaxy. Elon came to realize that "the universe is the answer"
 - "We must propagate human civilization on Earth as far into the future as possible, and become a multi-planet species to again expand the scope and scale of consciousness, and increase the probable lifespan of consciousness" – Elon Musk
- In college, looking towards the future, Elon realized there were 5 core things that would have an enormous impact on the world where he wanted to focus his energy:
 - **The internet** (leading up to help create PayPal)
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 - **Genetic engineering** (Elon has yet to form a company in this area)
 - Artificial intelligence (the premise for Elon's company, Neuralink)
 - Sustainable energy (hence the reason for Tesla)
 - Elon's original motivation for founding Tesla: If an energy source isn't sustainable, it'll eventually run out and cause an economic collapse

Why Build a Gigafactory in China?

- China is the biggest consumers of cars in the world
 - There's also a lot of uncertainty with tariffs—by buying locally, Tesla is able to sell cars at a lower price point
 - (There are also a lot of talented and motivated workers in China)
- Elon has found that Chinese suppliers are much more efficient than those in the U.S.
 - The Shanghai factory produces more Model 3s than Tesla's Fremont location

Elon's Teen & College Years

- As a kid, Elon taught himself how to code so he could create video games
- . Elon was born in South Africa, but always had dreams of coming to America where a lot of the advanced technology was being produced
 - "I wanted to be where I could have an impact on technology" Elon Musk
- At 17, Elon left Africa and moved to Montreal where he held some odd jobs, working at a wheat farm and later, his half-uncle's lumber mill
 - Elon went on to attend Queen's University for a few years before transferring to the University of Pennsylvania (UPenn) where he studied physics and economics
- Elon later began his Ph.D. at Stanford, but not long after, decided to put it on hold; he had a feeling that the internet was about to take off and didn't want to miss out on the technology wave
 - This drive led Elon and his brother, Kimbal, to create Zip2
 - At the time, Elon was legally in the U.S. but was technically supposed to be attending Stanford. Kimbal, on the other hand, was a certified illegal immigrant.

- The brothers shared just one computer, and were forced to shower at the local YMCA because they lived in an office
- Most VC firm didn't take internet companies seriously at the time, but Elon managed to raise a \$3 million round, equating to a share of 60%
- Before starting Zip2, Elon tried to get a job at Netscape but never heard back from them
 - (He even used to hang out in the Netscape lobby to network with employees, but was often too shy to talk to anyone)

The Bigger They Are, The Harder They Fall

- Giant companies often become arrogant and tend to believe they're too big to ever fail
 - Yahoo was a behemoth in 1998, but today, their stake in Alibaba is worth more than the company itself
 - YellowPages refused to partner with Elon and Kimbal; now, almost no one uses their service.
 - At one meeting, a YellowPages executive threw a phonebook at Kimbal!
 - People laughed at electric cars when Tesla first launched; they're now worth more than most auto companies

The PayPal Days

- After selling Zip2, Elon and Kimbal had about \$20 million in capital, which Elon wanted to put towards building another internet company
 - Noticing several trends—that money was becoming digital, that checks that weren't very secure, etc. - Elon began pondering and eventually created 'X.com,' which later acquired Peter Thiel's company to form PayPal
- Elon had a ton of ideas for PayPal, but the rest of the team deemed them too risky
 - "I think if PayPal had executed the plan that I wanted to execute on, it would probably be the most valuable company in the world" – Elon Musk
- The team at PayPal was extremely talented and would later become known as the PayPal Mafia (the founders eventually went on to form companies like YouTube, Yelp, Palantir, and LinkedIn)

SpaceX

- In 2001, Elon went on vacation to South Africa and contracted a severe case of malaria—he lost 50 pounds and nearly died, but made a full recovery within ~6 months. After his return to full health, and with an interest in space, Elon set out on his next big project: SpaceX.
- SpaceX's original goal was plain and simple: Send a plant to Mars to get the public excited about space and help NASA secure more funding
 - (This small goal eventually blossomed into making the human race a multiplanetary species)
- Attempting to buy rockets, Elon noticed they were quite expensive; the materials themselves weren't that pricey—their high cost was due to the fact that the rockets could only be used once
 - To make humans a multi-planetary species, Elon knew rocket technology had to improve and become reuseable
- Commenting on SpaceX: "I thought we had a 10% chance of success" Elon Musk
- · Recruiting people to be part of the SpaceX team was difficult—engineers saw Elon as an internet entrepreneur, not a rocket engineer
 - "Nobody who was good was willing to join, so I ended up being the Chief Engineer" Elon Musk
- 2008 was one of the worst years in Elon's life:
 - o The third SpaceX launch (in a row) had failed, Elon was in the midst of a divorce, and Tesla lost its financing round due to the market crash

The Start of Tesla

- Going from lead-acid batteries to lithium-ion increased the mile range of electric vehicles by 4x
- Elon calls Martin Eberhard "literally the worst person I've ever worked with"
 - "And I've worked with some real douchebags—to be number one takes a lot"
 - Elon says that Martin lied about the numbers needed to produce the Tesla Roadster at a profit
 - "Not only had he misled me directly, but he instructed others to also lie"

- Elon had trouble finding someone to run Tesla because there weren't many experienced executives in the electric car industry
 - Elon tried really hard not to be the CEO of Tesla as he was focused on SpaceX and didn't have much free time, but eventually came to realize he had no choiceotherwise, Tesla would likely die
- One of Tesla's early problems: The name "Tesla Motors" has previously been trademarked in 1995. The trademark owner refused to communicate with Elon, so Elon did what anyone would do in that situation—he sent someone to sit on the owner's doorstep and not return until he had agreed to negotiate.
 - Eventually, Elon purchased the trademark for \$75k, a relatively cheap price, all thing considered (the Tesla domain name cost Elon another \$10 million)
 - (Elon planned to name the company "Faraday" if he were unable to secure the trademark)

Additional Notes

- Elon owns Gene Wilder's former house, one of his favorite actors
- Elon has a dog named Marvin the Martian
- "The only publicly-traded share that I have at all is Tesla. I have no diversity." Elon Musk
 - Elon also owns stock in SpaceX, but it's still a private company
 - Every now and then, he'll liquidate some of this stock to provide funding for side projects (such as Neuralink and The Boring Company)
- Elon imagines a direct democracy on Mars with short laws (so everyone can understand them)