

# Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future

## Ashlee Vance

### Order of website

Title Page (Please insert full title of book)

Brief overview/intro to book if wanted

Timeline

Analysis (includes theme, tone/mood, and quotes/examples)

legacy (after timeline?)

Citations

### **\*\*Other small things:**

Need name and probably set (6)

Citations somewhere, doesn't specify what format but if there is then probably MLA (which can be done on EasyBib: <http://www.easybib.com>)

Include overview of companies? basic what-they-do info? This would be before the timeline to give reader background

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## **Analysis**

### **Theme**

- Hardwork and determination triumph over the impossible
  - "One thing that Musk holds in the highest regard is resolve, and he respects people who continue on after being told no" (3)
  - mountain biking, page 70 "That's Elon. Do or die but don't give up."
- ~~Theme for his companies—We need to start making smarter decisions about the environment?~~

### **Tone- Author**

- Ashlee Vance tried to write this book as unbiased as possible, presenting all sides of the story. Most biographies only focus on the parts favorable to the glorified subject; however, Vance put many hours into interviewing and acquiring the views of many people, not just his or Musk's alone.
  - While writing this book, Vance said, "{...} I could not let him read the book, for professional, personal, and practical reasons. Musk has his version of the truth, and it's not always the version of truth that the rest of the world shares" (2)
- Interesting interview with Vance on Elon Musk:  
[http://www.theregister.co.uk/2015/06/16/elon\\_musk\\_biography\\_interview\\_ashlee\\_vance/?page=1](http://www.theregister.co.uk/2015/06/16/elon_musk_biography_interview_ashlee_vance/?page=1)

### **Mood- Reader**

- Musk can often come off as harsh and abrasive- for example, when he fires employees that make grammatical mistakes in their emails, or ...
  - page 177
- Vance does not shy away from this side of Musk. It adds a sense of reality, that Musk should not be viewed blindly as saint simply based on his accomplishments.
- Vance seems to say that the focus should not be his personality, but his achievements. One cannot deny the technological advances he has brought...
  - quote quote quote

### **MUSK Characterization**

- “Bowling to his nature, Musk set an insanely ambitious timeline for all of this” (Mice in Space, 114)
- “ ‘He’s a very smart, very driven guy with a huge ego,’ [Dave] Bearden said. ‘[...] He has this belief that he is the guy who can change the world’ ” (MOS, 103)
- David Schmitz- “If Elon was not happy, you knew it. Things could get nasty.”
- page 176, 238
- Davis, Liftoff- “One of my favorite things about Elon is his ability to make enormous decisions very quickly” (236)

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## **Brief Overview of Companies**

### **Zip2**

- Gives reviews/description/location of a restaurant on a map, directions on how to get there

### **PayPal**

- Online banking company, allows for money transactions over the Internet.

### **SpaceX**

- Reusable Rockets to save money
- Prepare for life on other planets, like Mars

### **Tesla**

- All electric cars, free recharging stations, environment

### **SolarCity**

- founded by his cousins, Solar panels for household, replace as renewable energy source
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**Timeline:** Possibly highlight/color code sections to further divide into **early experiences**, **obstacles**, **achievements/success**; make things as clear as possible

### **Possible events to include:**

#### **Birth**

- Born in Pretoria, South Africa
- Parents Maye and Errol Musk

#### **Early coding experiences?**

- Musk taught himself to code at age 10; at 12, he wrote a game called Blastar, which sold for \$500.

#### **Canada**

- Queens University meet future wife

#### **USA**

- Musk transfers to UPenn on a scholarship in 1992

#### **First startup (Zip2)**

- 1995- Kimbal and Elon (brothers) come up with an idea to create a company called Zip2, which would today be considered a cross between Yelp and Google Maps. The public, however, has not become accustomed to the internet at this time; as a result, sales are bad and the small company suffers.
- early 1996, Globelink gains investors and changed its name to Zip2. with more funding the company moved to a larger office in Palo Alto and expands.
- April 1998, in a deal valuing 300 million dollars, Zip2 decides merge with its main competitor CitySearch.
- may 1998, the deal is called off as a result of internal conflict of Zip2. the CEO Rich Sorkin wants it to go through but others worry about lose their jobs and vote against it the media blows up the situation and the company lose a lot of money.
- February 1999, Compaq computer, a company that makes PC suddenly offers to buy Zip2 for 307 million dollars. the company celebrates and the Musk brothers come away with a fortune.

## **X.com/PAYPAL**

- 1995, Musk begins to think about the idea of online banking, however not many people trust the security of the internet, and discourage Musk (page 77)
- January 1999, Musk starts to plan his new online banking company
- March 1999, Musk creates X.com, his banking company

- March 2000, X.com joins force with its main competitor Confinity. Although they tried to work together, they failed because their different views on how the company should be presented to the public
  - coup is formed against Musk and they plan to take away his CEO status and push him out of power
- January 2000 Elon and Justine get married
  - Honeymoon pushed back to September, then have to fly back immediately when find out about kicked out
- June 2001 Thiel, new CEO, renames X.com as PayPal
- 2014, PayPal has about 153 million users, valued \$32 billion

### **Malaria**

- December 2000-January 2000 Couple takes a vacation... Sydney to watch the olympics
- When get back, Musk contracts a serious illness, which is misdiagnosed several times. It turns out to be malaria, and he spends 10 days in the ICU. Near death experience. Took six months to recover.
  - "Vacations can kill you."

**Turns 30 in June 2001**

## **SpaceX- Mice in Space (6)**

- Mid 2001, Mars Society holds fundraiser, Musk attends and becomes fascinated with Mars.
- Musk comes up with a plan of sending a robotic greenhouse to Mars to grow a plant which would produce oxygen there. There is also an idea to send mice to Mars and return having procreated. However, there are budget concerns, and the plans are too rough to risk much money on it.
- Late October 2001, Musk and a small team travel to Moscow to try to buy a rocket from the Russians. The trip lengthens into February 2002 and everyone they have met with has turned them down. On the plane back, Musk creates a plan to build the rocket themselves. He enlists Tom Mueller to help him figure out the cost and how to build it.
- April 2002- Musk's net worth soars when PayPal goes public. With this money he decides to commit to building a rocket company.
- June 2002- Space Exploration Technologies (SpaceX) is founded. The main idea for the company is to create cheaper rockets.
  - "Musk acquired an old warehouse at 1310 East Grand Avenue in el Segundo, a suburb of Los Angeles humming with the activity of the aerospace industry" (112)
  - Up until this point, aerospace companies were "building a Ferrari for every launch, when it was possible that a Honda Accord might do the trick. Musk, by

contrast, would apply some of the startup techniques he'd learned in Silicon Valley to run SpaceX lean and fast" (114)

- sets unrealistic goals to launch a rocket in November 2003, Mars by the end of the decade.
- July 2002, More money from Ebay buying PayPal.
- Mary Beth Brown- Musk's assistant

summer 2002 Nevada Alexander Musk is born but dies 10 weeks after.

- SpaceX has turned into a full-blown rocket factory by 2003. Goal time to launch their rocket, Falcon 1, changes to early 2004, but that deadline is missed as well.
- May 2005 the rocket is transported to Vandenberg Air Force Base for a test fire. They learn that they will have to wait several months before they'll be able to actually launch it, so they search for a new launch site. They decide on the Kwajalein Islands.
- June 2005 get to Island, November ready to try launching their rocket. While going through pre-launch, a major problem occurs in which the valve on a liquid nitrogen tank fails to close. The mission is aborted.
- March 24, 2006 The second try. All was well at first and the Falcon 1 got off the ground successfully, but after 25 seconds, a fire broke out and the rocket plummeted back down, crashing on the launch pad.
- March 21, 2007 Third try. It's a few minutes into the air and the rocket is flying perfectly. Everyone believes they've succeeded and that it's going to go into orbit. Then, the Falcon 1 starts to wiggle and ends up exploding. It is deduced that the propellant spinning around in the tank and threw the rocket off balance. Everyone is extremely discouraged.

## Tesla- All Electric (7)

- Fall 2013- Elon becomes interested in electric cars after a meeting with J.B. Straubel.
- July 1, 2003 Martin Eberhard and Marc Tarpenning incorporate Tesla Motors. Get Musk to invest in 2004.
- Plan to deliver Roadster in 2006, end up displaying that year and shipping the next year
- They displayed a red and a black prototype. At the event, Musk said, "Until today, all electric cars have sucked" (161)
- "By the middle of 2007, Tesla had grown to 260 employees and seemed to be pulling off the impossible. It had produced the fastest, most beautiful electric car the world had ever seen almost from thin air. All it had to do was build a lot of the cars- a process that would end up almost bankrupting the company" (168)
- August 2007, Tesla's board demoted Eberhard from his CEO position. The company then goes through several CEOs
- 2007, the car went through a lot of technical problems such as faults in the battery, the gaps in the body panels, and the paint for the carbon-fiber body.

- “[...] Tesla’s major issue no longer revolved around effort, engineering, or clever marketing. Heading into 2008, the company was running out of money. The Roadster had cost about \$140 million to develop, way over the \$25 million originally estimated in the 2004 business plan.

Inside Tesla: A Massive Factory Pumping Out Model S (found from Vance’s Website):  
<https://www.youtube.com/watch?v=-KqGTVa6N38>

## 2008- Pain, Suffering, and Survival (8)

- Justine Musk writes a blog about their marriage. They enjoy the celebrity life for a while, but marriage problems arise, which reflect in her blogs. Her posts show the public the less romantic side of Musk.
- Meanwhile, Musk’s companies suffer. The second launch attempt failed, Tesla reports kept getting worse, and he was going through his fortune quickly.
- Triplets arrived near the end of 2006, now have 5 children.
- June 16, 2008 Elon Musk files for divorce.
- Musk meets Talulah Riley, who later becomes his second wife
- Money is running out. The fourth and what may be the final launch for SpaceX took place on September 28, 2008. It reaches orbit successfully and becomes the first private owned rocket to do so.
- Tesla is being ripped apart by the press (like Vallywag). Musk manages to make a deal with investors that saves Tesla on Christmas Eve, just hours before the company would have gone bankrupt.
- Antonio Gracias quote (p.211)

## SpaceX- Liftoff (9)

- Falcon 9 flew for the first time and went into orbit in June 2010
- Dec 2010, SpaceX proved the Falcon 9 could take the Dragon capsule into space and recover it safely (Secretly placed the wheel of cheese that Jeff Skoll had given Musk inside the dragon capsule, from back in the mice to Mars days.)
- May 22, 2012 at 3:44 am docked with the ISS, first private company to do so.
- Why SpaceX is different
  - sends up a rocket every month
  - undercut its US competitors on price
  - made from scratch in the US, doesn’t rely on foreign suppliers
  - low cost, makes US an international competitor again against Russians/Chinese
  - Can make changes on the fly. If an error is spotted hours before the launch, engineers can change the software and update the Falcon in less than 30 minutes
- Dragon Capsule?

# Tesla- The Revenge of the Electric Car (10)

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SolarCity

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## LEGACY: WHAT'S NEXT?

### Hyperloop

- See Chapter 1: Unified Field Theory of Elon Musk

### Epilogue