



The Musk Effect on Dogecoin: A Data-Driven Analysis

Data Visualization, Project Work

**University of Insubria
MSc in Computer Science**

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Introduction

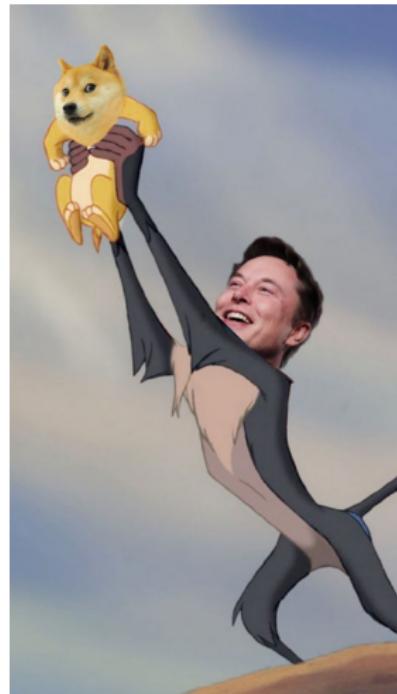


For those who may not know, **Elon Musk** is one of the world's most influential and richest people. He owns companies like *Tesla*, *SpaceX*, and the social platform *X* (formerly *Twitter*). His name is also linked to companies like *OpenAI*.

Introduction

Following various events in the stock market, the community coined the term "**Musk Effect**" to describe Elon Musk's ability to significantly move markets, sometimes with just a single **Tweet**.

In this presentation, I will cover some episodes specifically focusing on **Dogecoin**, a cryptocurrency famously supported by Elon Musk.



The People's Crypto



Elon Musk

@elonmusk · [Follow](#)



Dogecoin is the people's crypto

9:15 AM · Feb 4, 2021



480.7K



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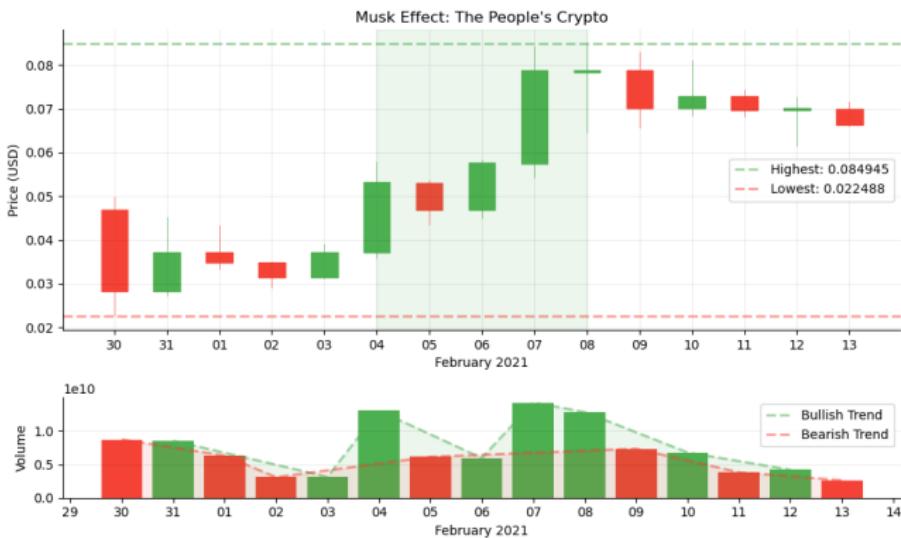


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[1] On February 4, 2021, Elon Musk called Dogecoin the "*People's Crypto*" triggering an immediate **50%** surge in the meme-inspired cryptocurrency's value. This statement fueled a bull run, which led DOGE to soar by as much as **166%** in the days that followed.

The People's Crypto



The **Candlesticks** shows price fluctuations with notable **Rise** in the four days after the tweet. The **Histogram** below highlights predominantly **Bullish** trading volume, indicating heavy buying activity during that period.

The Dogefather



Elon Musk

@elonmusk · [Follow](#)



The Dogefather
SNL May 8

8:20 AM · Apr 28, 2021



401.7K

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[1] On April 28, 2021, Musk's tweet about his **SNL Appearance** drove DOGE up **192%**. However, after he called it a "**Hustle**" on the show, the price plummeted, losing **78%** of its value in two months.

The Dogefather



This striking episode is shown by the **Candlesticks**, highlighting the rapid **Rise** and **Fall** in price. The **Histogram** reflects a strong **Bullish** trend followed by a sharp **Bearish** shift after Musk's criticism, showing investor panic.

Doge Devs Collabs



Elon Musk

@elonmusk · [Follow](#)



Working with Doge devs to improve system transaction efficiency. Potentially promising.

12:45 AM · May 14, 2021



481.1K

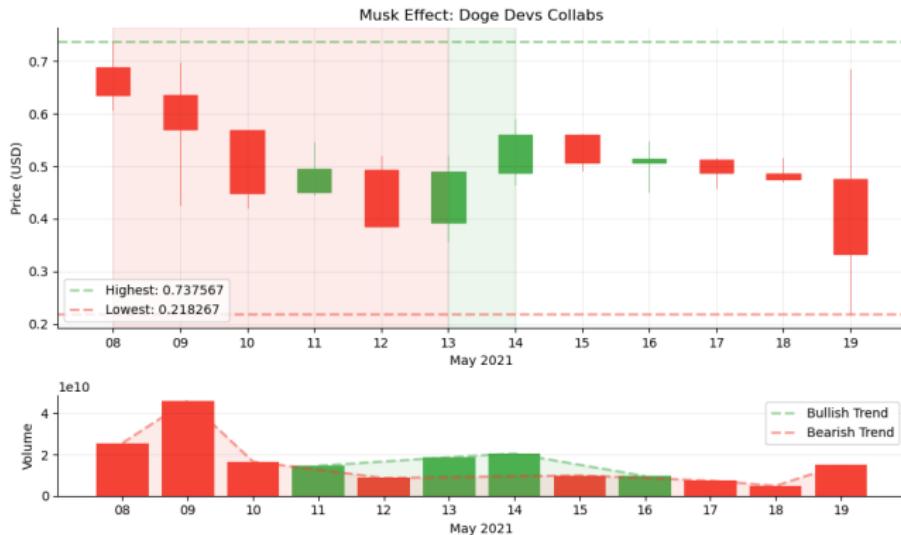
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[1] After *SNL*, Musk stayed active, tweeting that he was collaborating with ***DOGE Developers*** to improve transaction efficiency. Investors quickly seized on this, pushing the token up **75%**, but it soon resumed its downtrend.

Doge Devs Collabs



From the charts, we can see that this tweet from Elon served as a ***Small Consolation*** for some investors, helping to slightly reduce their losses.

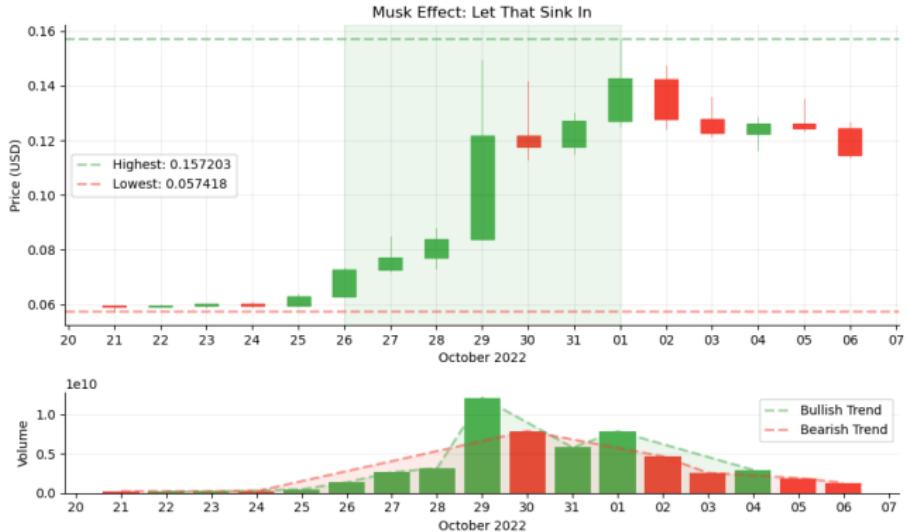
Let That Sink In

[1] Another unforgettable moment in this saga was Musk's acquisition of **Twitter**, investors quickly jumped on the opportunity, speculating that the platform might integrate DOGE.

Given Musk's enthusiasm for both ventures. This speculation led to a rally, with the token soaring by up to **160%** in just 7 days.



Let That Sink In



From the **Candlesticks**, we can observe the incredible **Rise** in value. The **Histogram** clearly shows that people started investing, driving a **Bullish** trend.

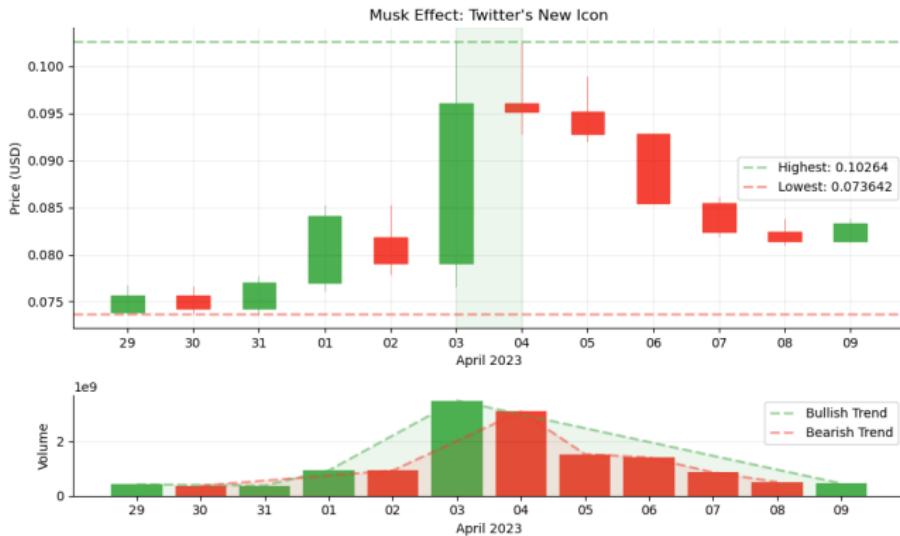
Twitter's New Icon

[1] One of the latest pieces of news was that the *Dogecoin Logo* was briefly displayed in place of Twitter's iconic blue bird on the homepage.

This unexpected change ignited excitement among investors, leading to a **38%** surge in DOGE's price. Speculation about Musk's potential plans for integrating Dogecoin with Twitter only fueled this surge.



Twitter's New Icon



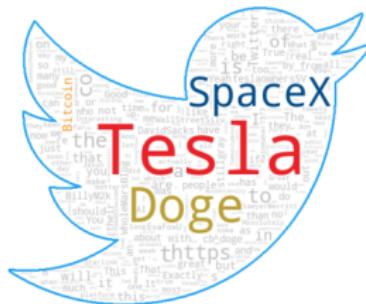
From the **Candlesticks**, we can observe a sharp **Rise** in value within just one day. The **Histogram** indicates that the trend quickly shifted **Bearish** the following day, as investors opted to secure their gains and exit the market.

Exploring Topics in Musk Tweets

I analyzed Musk's tweets to identify the **Topics** he discusses most frequently. I found that the words he uses most often are: *Tesla*, *SpaceX*, *Doge*, and *Bitcoin*.

From this chart, we can conclude that Musk uses Twitter as a serious communication tool for his **Business** purposes.

Exploring Topics in Musk Tweets

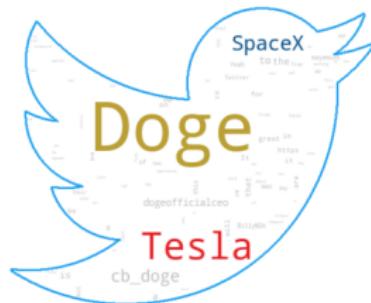


Exploring Topics in Musk Tweets

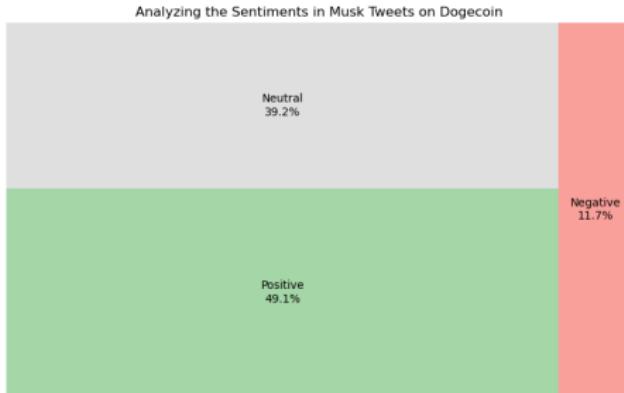
I wanted to explore a potential ***Correlation*** between Musk's business purposes and Dogecoin. By filtering some data, I created the following chart.

From this chart, it is clear that there have been tweets where Elon linked these topics. Could this be a sign of his ***Trust*** in DOGE?

Exploring Topics in Musk Tweets on Dogecoin



Sentiment Analysis of Musk Tweets on Dogecoin



From the initial hypothesis, I conducted a sentiment analysis of Musk's tweets about Dogecoin. The results confirm the hypothesis, showing Elon tends to ***Speak Positively*** about DOGE, suggesting he may take it seriously.

Department of Government Efficiency (DOGE)



[3] After the 2024 U.S. Elections, **President Donald Trump and Elon Musk** founded the DOGE (Department of Government Efficiency) with the goal to streamline the federal administration, reduce costs, and optimize resources. This could be a positive trend for Dogecoin.



*Is now the right moment
to buy Dogecoin ?*

References

This project was carried out using a Jupyter notebook, and all the charts and graphics utilized are saved in the corresponding **Repository** [5] on *GitHub*. The data originates from *Kaggle*, and the following **Datasets** [2] [4] were utilized.

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