# ANALYZING THE PROLIFERATION OF FAKE NEWS: "THE MARCOS FAMILY CLEARED ALL ALLEGATIONS THAT WERE FILED AGAINST THE MARCOS FAMILY."

CS 132 - Group 57

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### **INTRODUCTION**

Our research aims to analyze how the narrative that the Marcos family won all cases filed against them disseminated on Twitter.

#### **RESEARCH QUESTION**

- Is there a correlation between the tweets claiming that the Marcos family won all cases filed against the Marcos family, and these tweets mentioning the Aquino family, the Liberal Party, or their supporters?
- Is there a relationship between the frequency of these tweets and the electoral campaign of Ferdinand Marcos Jr. for the 2022 Presidential Elections?

#### **HYPOTHESIS**

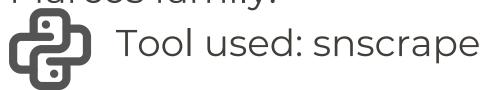
- Tweets claiming that the Marcoses won all cases are more likely to mention or not mention the Aquinos or the Liberal Party.
- These tweets are also more frequent during the 2022 election campaign period.

#### NULL HYPOTHESIS

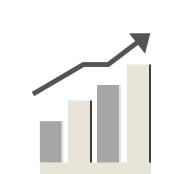
- There is no correlation between the tweets claiming that the Marcos family won all cases filed against the Marcos family, and the tweets mentioning the Aquinos or the Liberal Party.
- There is no correlation between the 2022 elections and the frequency of these tweets.

## **METHODS**

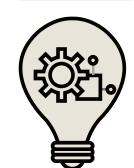
We analyzed 170 tweets from 2016 to 2022 that claims that the Marcos family won all cases filed against the Marcos family.



<u>Subject</u>	Term 1	Term 2	Term 3
Marcos	all	case	won
Imelda	lahat	kaso	lost
Ferdinand	wala	trial	nanalo
	none	charges	panalo
	not	filed	dismiss
	<none></none>	<none></none>	ibinasura
Coord to	rm - Cubia	act I	junked
	rm = Subje		acquitted
Term 1 + T			

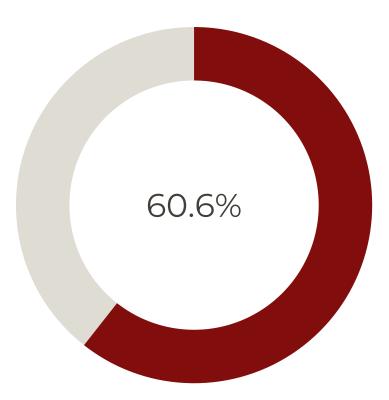


Statistical test: Chi-Square Test



Machine learning model: Latent Dirichlet Allocation

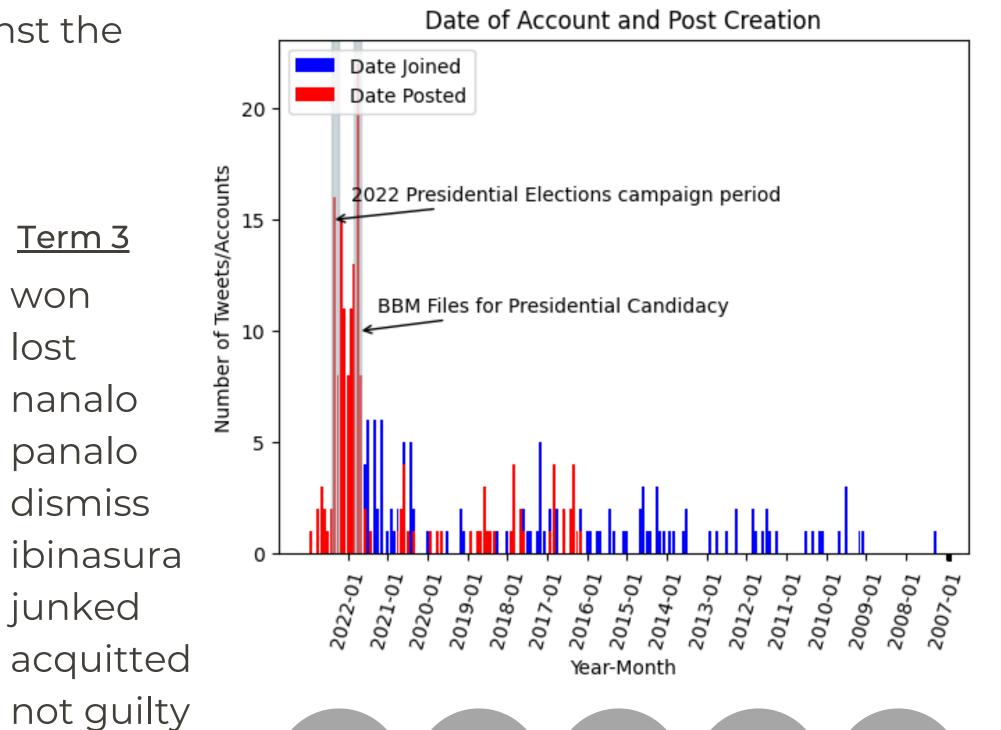
#### **IMMORAL SUPPORT**

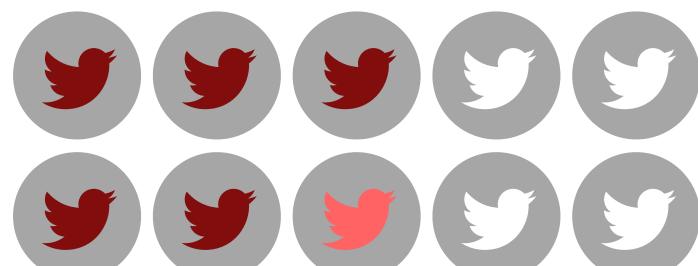


Tweets that were posted during the Presidential campaign period of Ferdinand Marcos Jr. from his candidacy filing on October 2021 to the election on May 2022

# DATA EXPLORATION

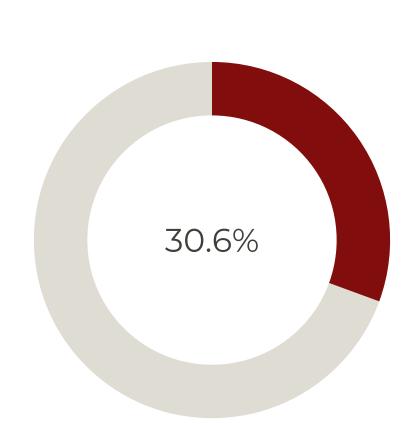
#### **DATE DISTRIBUTION**





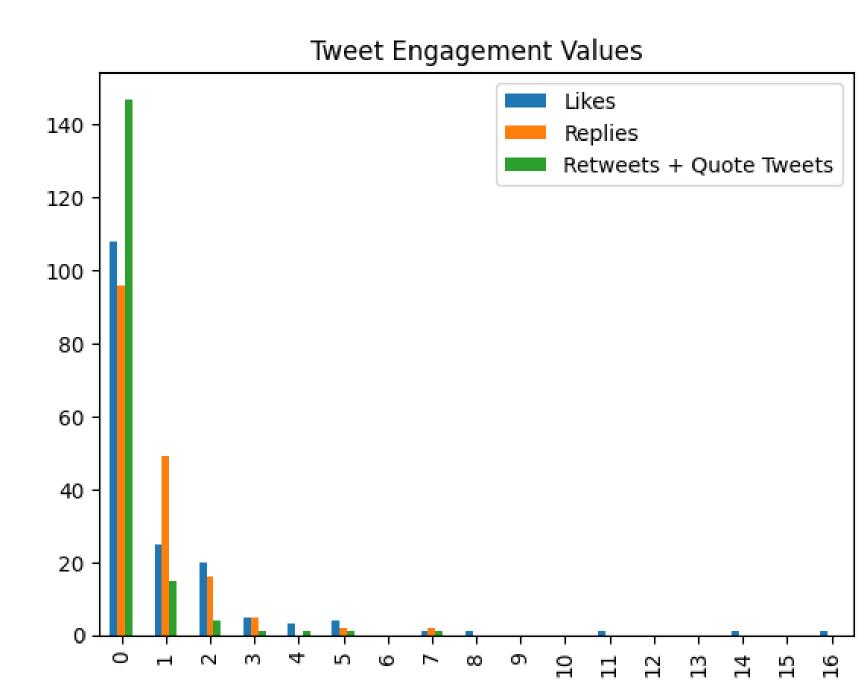
89 tweets were posted by accounts within 12 months from joining Twitter

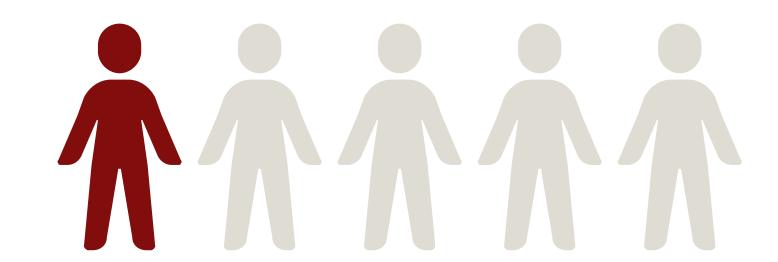
#### THE AQUINO CONNECTION



Tweets that
explicitly mention
the Cory Aquino
administration, the
Aquino family, or
members of the
Liberal Party of the
Philippines

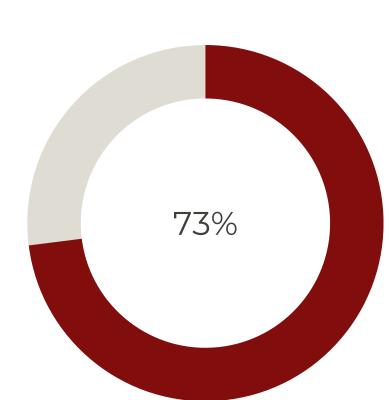
#### TWEET ENGAGEMENTS





38 accounts were made after Ferdinand Marcos Jr. filed for presidential candidacy

#### **HISTORICAL REVISIONISM**



Tweets mentioning the Aquinos or Liberal Party that portray them negatively using slurs or with accusations of corruption, plundering the national treasury, and conspiracy with the US government

## RESULTS AND DISCUSSION

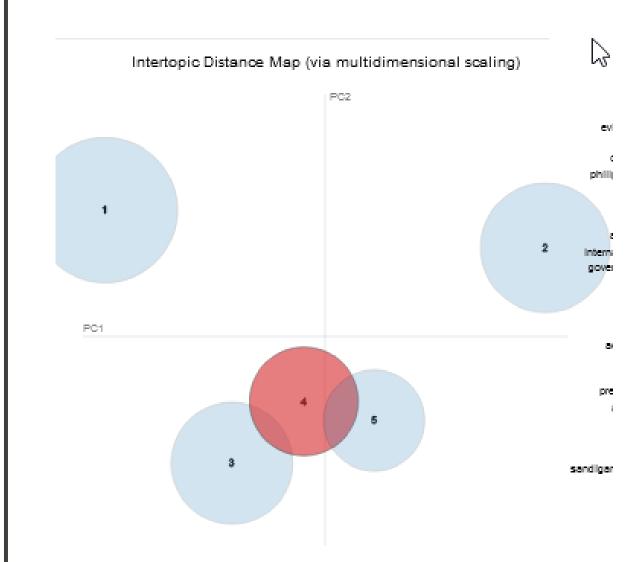
#### CHI-SQUARED TEST

Crit. Val. = 3.841;  $\alpha = 0.05$ ; df = 1

	Mentions Aquinos/LP	Expected	
Yes	52	85	
No	118	85	
<i>X</i> -stat: 25.62; p_val: 4.15e-7 -> REJECT			

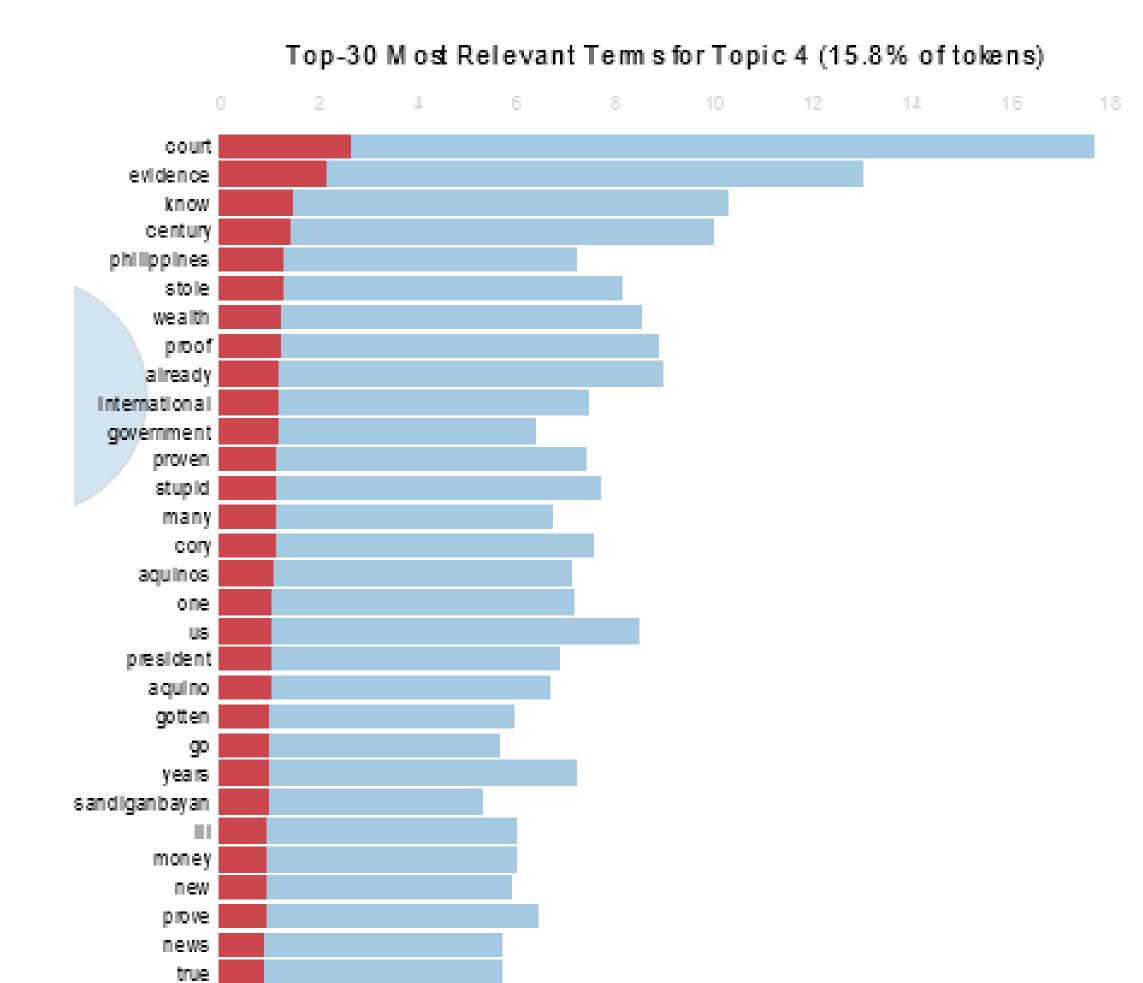
	Posted During 2022 BBM Campaign	Expected	
Yes	103	16	
No	67	154	
X-stat: 522.21; p_val: 1.40e-115 -> REJECT			

#### LDA TEST



Most of the common terms can be related to legal proceedings, stolen wealth, and the Trial of the Century in New York.

## MOST COMMON NON-SEARCH TERM WORDS FOUND IN TWEETS



# CONCLUSION

There is enough evidence to suggest a link between Twitter posts claiming that the Marcos family won all cases that were filed against them and an explicit reference to the Aquino family, the Liberal Party or either of their supporters. However, the users were less likely to mention the Aquinos or Liberal Party, rather than more likely as initially predicted.

There is also evidence suggesting that the 2022 presidential campaign of Ferdinand Marcos Jr. influenced a spike in tweets spreading this misinformation on Twitter.