Deciphering Crypto Twitter

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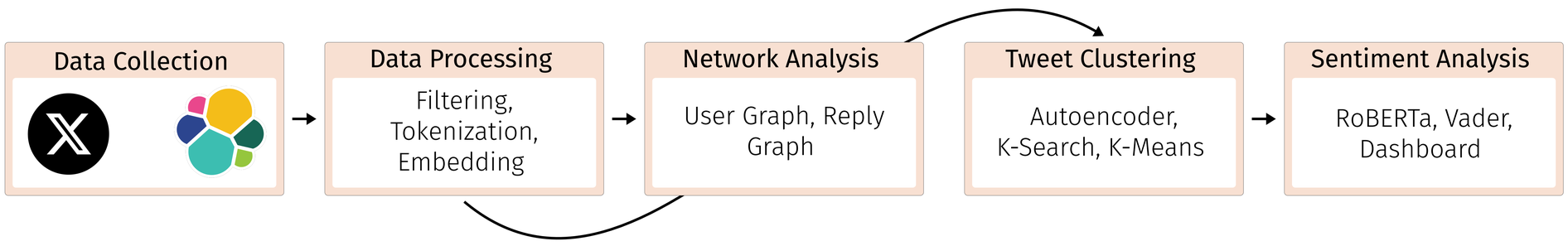
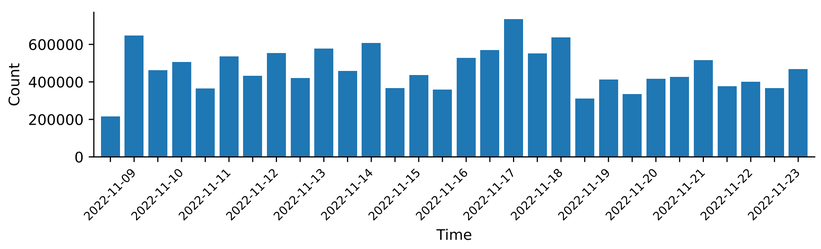
The rise in popularity of cryptocurrencies has led to an emergence of a new form of social media, known as *Crypto Twitter*.
What can this data tell us about the cryptocurrency ecosystem?

Data Collection & Processing

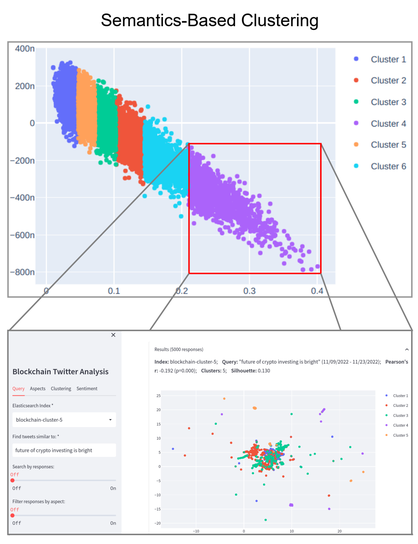




Tweet volumes over collection period. (39,828,572 total)

- Tweets are collected by searching against a list of 100 hand-curated keywords about cryptocurrencies or security.
- Autoencoder is used to reduce the dimensionality of the BERT embeddings for clustering.

Cluster Analysis

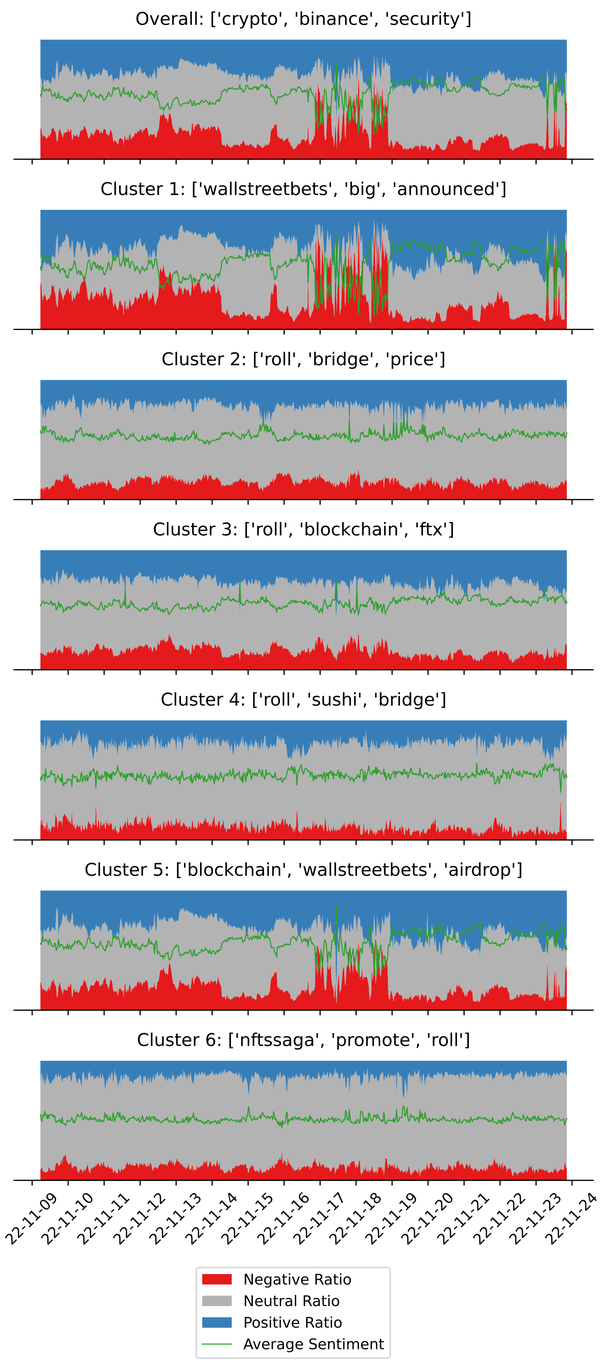


K-Means Clustering of Tweets.

- The tweet clusters can be characterized into on-topic, conspiracy theorists, meta discussions.
- Sentiment change across clusters over time show correlation to real-life events such as giveaways (airdrops) or scams.

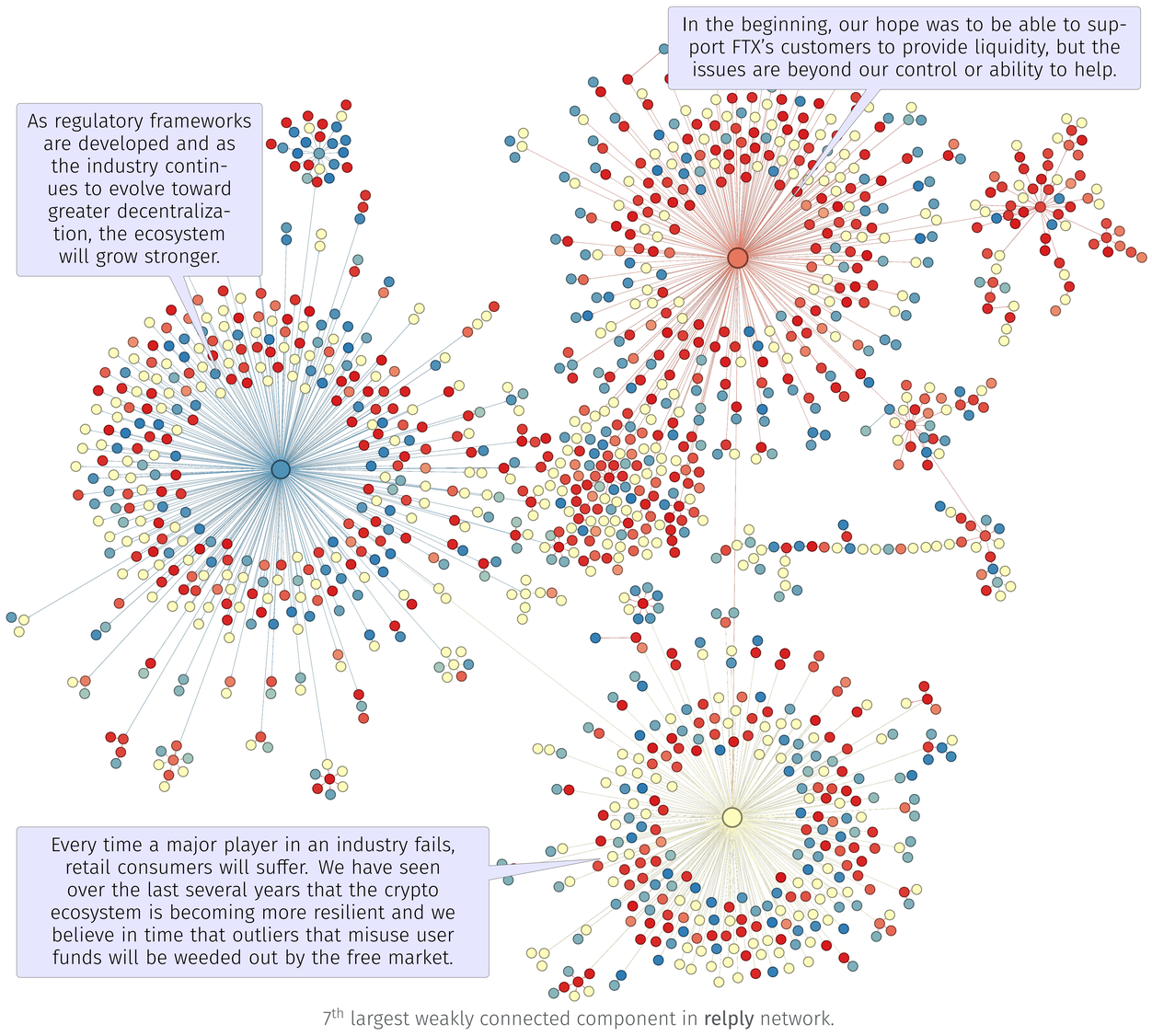
ID	Characterization	Top 10 Keywords
	Overall	`user, http, pump, just, signal, happen, crypto, wallstreetbets, event, kucoin`
1	Crypto Conspirators	`user, pump, http, signal, just, event, happen, wallstreetbets, kucoin, big`
2	Meta Crypto Twitter	`user, crypto, http, promote, roll, token, price, 000, binance, security`
3	Crypto Observers	`user, http, crypto, v2, rollup, address, tokens, claiming, compatible, evm`
4	Crypto Commenters	`roll, crypto, sushi, user, project, security, good, try, http, bridge`
5	Crypto Doubters	`user, http, pump, crypto, just, signal, kucoin, happen, event, wallstreetbets`
6	Interested Investors	`promote, user, crypto, price, roll, http, btc, binance, eth, bitcoin`

Top 10 most frequent terms of each cluster.



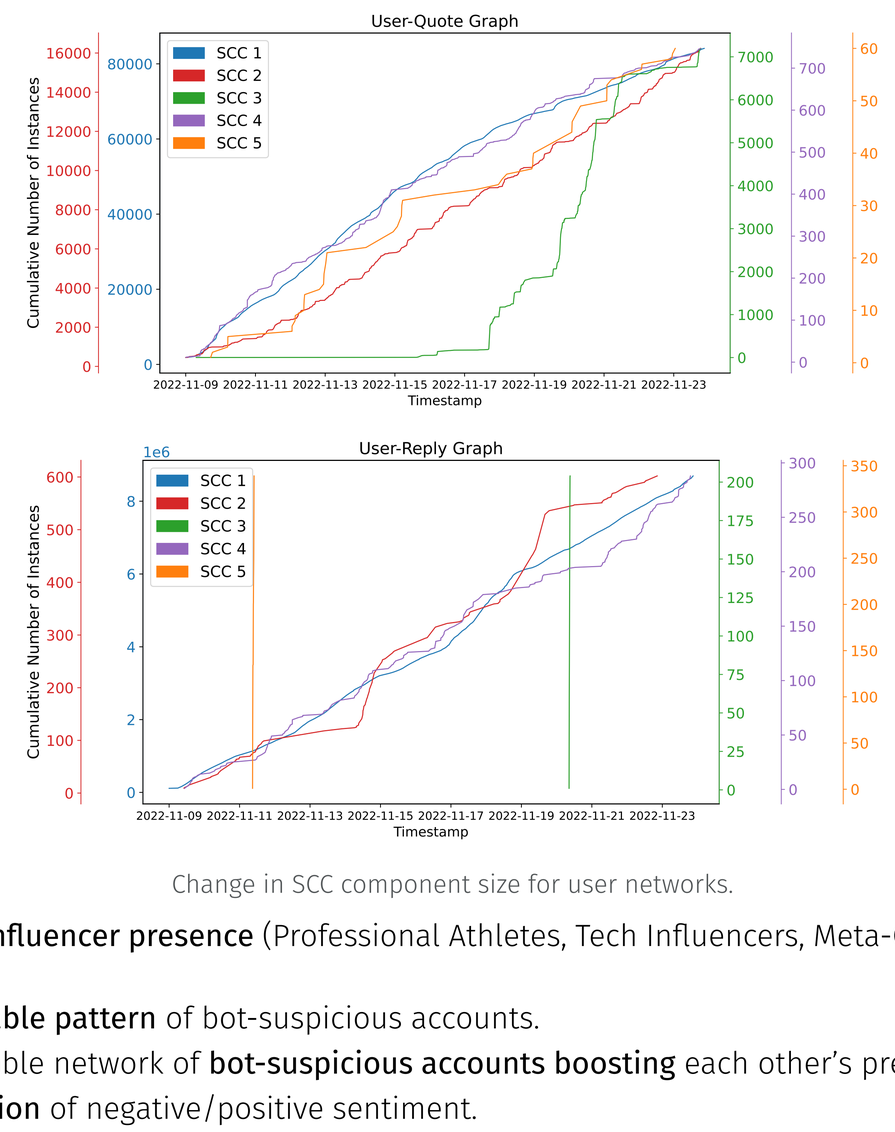
Sentiment Change Over Time.

Network Analysis



7th largest weakly connected component in **relply** network.

The three central tweets are from a single thread by Changpeng Zhao, former CEO of Binance.



Change in SCC component size for user networks.

- **Heavy influencer presence** (Professional Athletes, Tech Influencers, Meta-Commenters, etc.).
- **Obesrvable pattern** of bot-suspicious accounts.
- Identifiable network of **bot-suspicious accounts boosting** each other's presence.
- **Propgation** of negative/positive sentiment.
- Identification of potential **market manipulation attempts**.

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