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Alexandria Ocasio-Cortez Bluesky follower's network.

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Abstract

This analyzes the social network of samples of Alexandria Ocasio-Cortez's followers on the Bluesky platform. Using a dataset of 50, 000 followers and their posts, I examined how users interact through replies and posts. The network is very sparse, with most users having few connections, and only small groups showing strong mutual interactions. These findings show patterns of engagement and community structure among followers on BlueSky. The document starts with introduction and following results. It ends with discussion about findings.

Significance Statement

The study contains large database of BlueSky users posts with parent/roots hierarchy.

Introduction

BlueSky is a microblogging social media service with over 40 million users who publish short posts and interact through replies, reposts or follows. It is often used by public figures to promote their views. One of them is Alexandria Ocasio-Cortez, an American politician, activist, and member of the Democratic Party. This study examines the interactions between small fractions of her follower base of over 2 million accounts and explores the community structures and roles different accounts play within the network.

To explore the data more closely, data of 50 000 followers were extracted including all their BlueSky posts/replies. The dataset was cleaned to keep only the posts which connected minimum two users what resulted in around 800 000 posts of 7300 unique members.

Results

The **Global Blusky** network of the tested sample consists of 7266 nodes and 300257 edges with a low density of 0.0057 which indicates very sparse network. It is mostly weakly connected, with large component of 7264 nodes, but has small strongly connected groups (2560 SCCs), reflecting limited mutual interactions.

The Global Degree Distribution graph (Figure 1.) is highly skewed. Most nodes have very low degree.

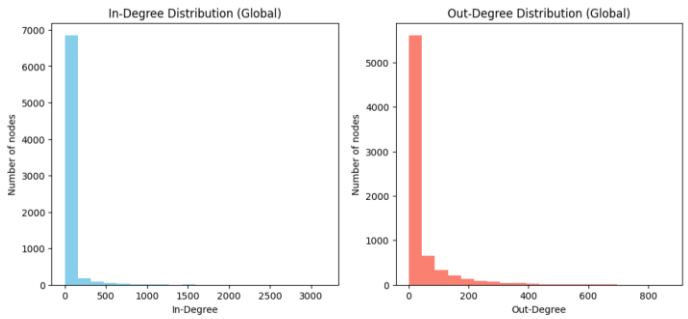

Figure 1 Global Degree Distributions

This structure motivates us to do community-level analysis to uncover more meaningful connections and influences.

Using Louvain algorithm, the global network was divided into **multiple communities** and only six largest were selected for further analysis. For clearer visualization purposes, disparity filter was applied to extract the backbone of each community. The size and color of the node is dependent on how high the node degree is.

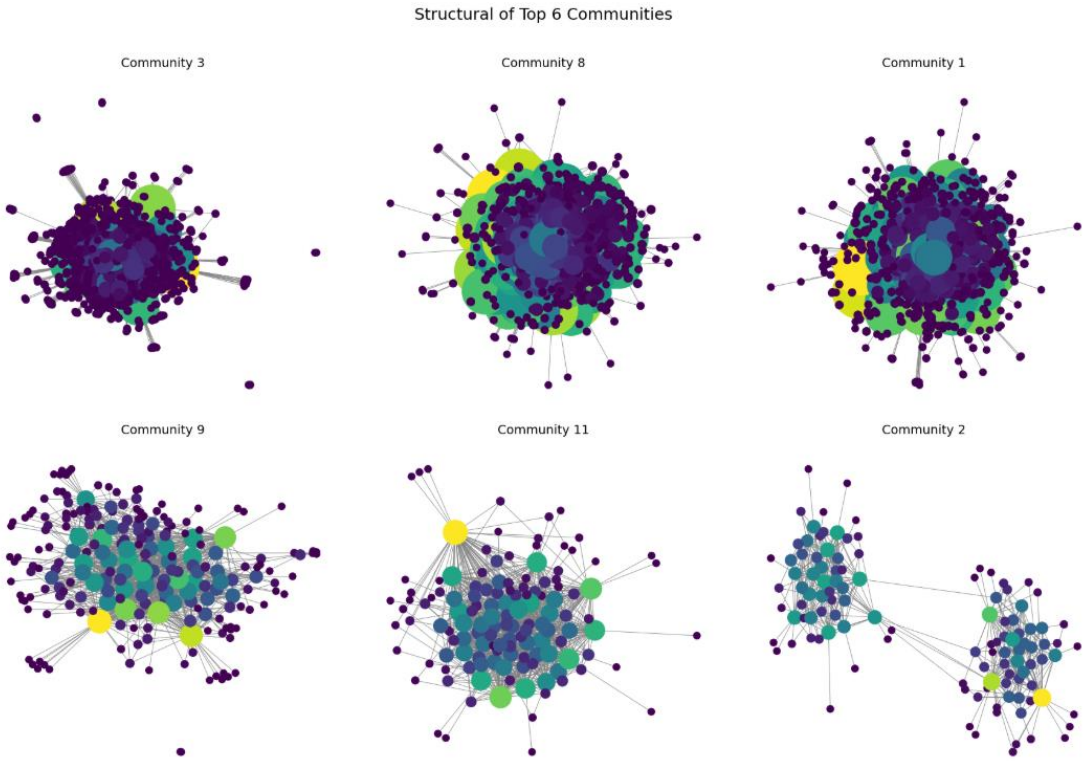

Figure 2 Social Network graphs based on Community. We can observe Community 3, 8 and 1 are densely connected forming tight clusters. There are a few big nodes with high degree nodes. Community 9, 11 and 2 are less dense and more heterogenous.

Community	Hashtags	Sentiments
3	#ithashappenedhere, #nokings, #trump	5.431
8	#epstein, #nokings, #epsteinfiles	5.369
1	#epstein, #epsteinfiles, #releasetheepsteinfiles	5.400
9	#survivormusic, #breakfastcrew, #strongertogether	5.798

Figure 3 Most common tags per Community and average Sentiment.

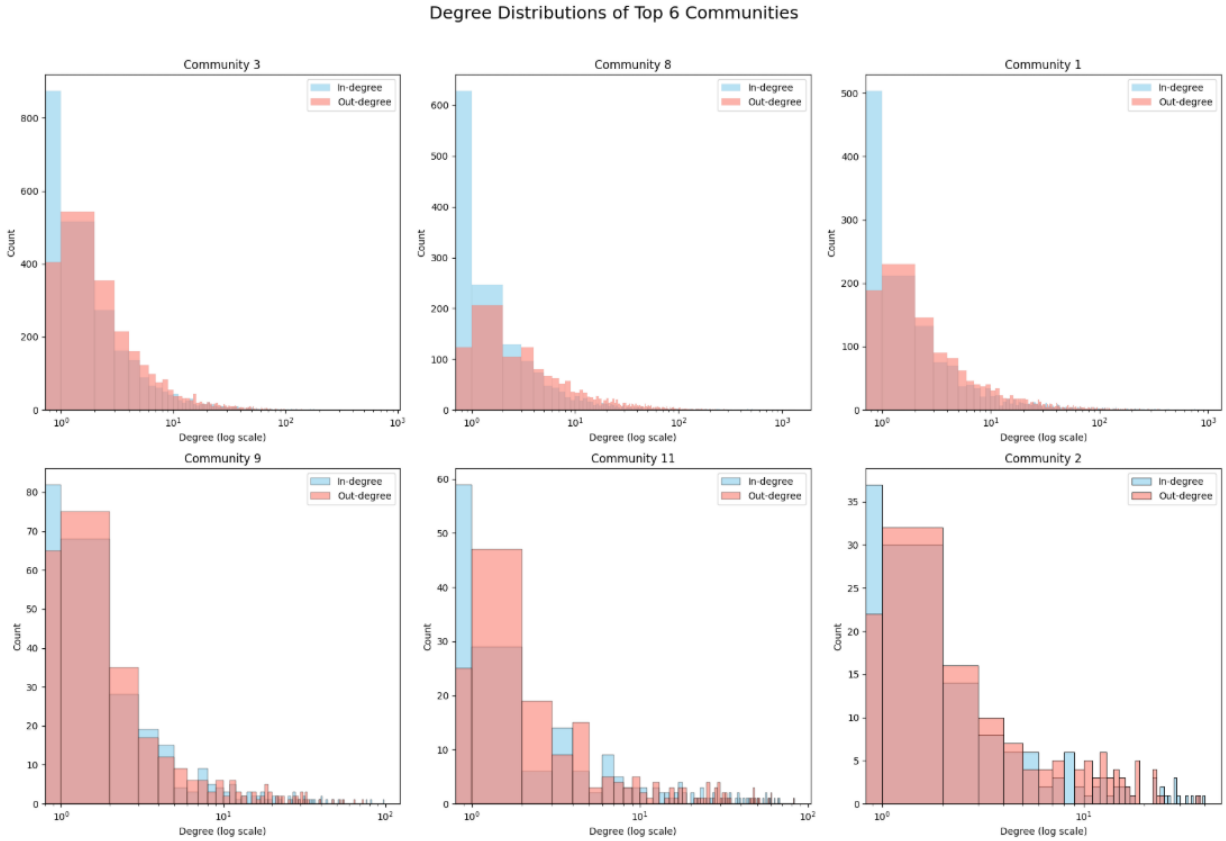

Figure 4 Degree Distribution graphs. Community 3,8 and 1 contain highly skewed In-degree numbers illustrating users whose posts are getting high numbers of replies and may be popular or influential. Community 9,11 and 2 are also skewed but with much bore balanced way. Both, in and out degrees look relatively similar.

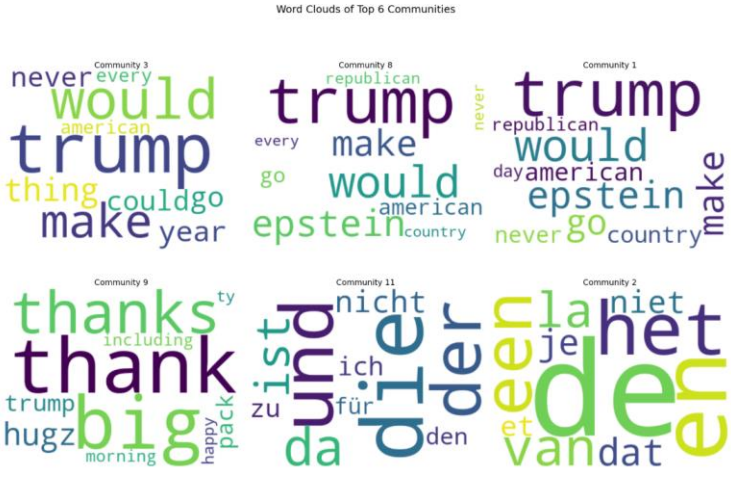

Figure 5 Word Clouds. Community 3, 8 and 1 have mainly words related to political topics. Community 9 contains optimistic words, and Community 11 and Community 2 are random German and Dutch words.

Discussion

The result shows that even after detecting communities, the graphs are sparse and the interactions are not very high. There are few users who interact much more and they have also many followers. Based on WordClouds we can see most of the biggest communities were involved into politics topics and only one seemed to have bit different areas of interest.

The study shows only small percentage of followers and not all the interactions due to lack of time and large size of the source data. If reposts and likes were added to the set, we could probably see denser network.

References

1 Wikipedia(n.d.)*AlexandriaOcasio-Cortez*. Available at: https://en.wikipedia.org/wiki/Alexandria_Ocasio-Cortez (Accessed: 10 December 2025).
2 Wikipedia (n.d.) *Bluesky*. Available at: https://en.wikipedia.org/wiki/Bluesky. Accessed: 10 December 2025.

Figures and Tables

Figure 1. Global in/out Distribution Graph

Figure 2. Network Graphs for top 6 Communities

Figure 3. Distribution graphs for top 6 Communities.

Figure 4. World Clouds for top 6 Communities