# (Don't) Ignore Your Haters: Antagonistic Mutualism in Online Communities

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#### Introduction

A growing body of work in social computing has applied theories of organizational ecology [1,2] to online spaces, finding that online communities largely hold mutually beneficial relationships [3], or those that are "mutualistic" rather than "competitive". However, in practice, some communities interact with each other in unexpectedly antagonistic but non-competitive ways.

Through a case study, we call attention to and characterize this important nuance in inter-community relationships on social computing platforms.

#### Research Design

**Empirical Setting.** Reddit is a social media platform comprised of topic-specific communities called subreddits.

**Case Study.** We focus on the relationship between r/Bitcoin, a large subreddit with 4.6 million members focused on discussion of cryptocurrencies, and r/Buttcoin, a subreddit dedicated to mocking individuals in r/Bitcoin and the cryptocurrency world.

**Data.** We collected every mention of a subreddit being mentioned on r/Buttcoin and r/Bitcoin through the Reddit Pushshift API [4].

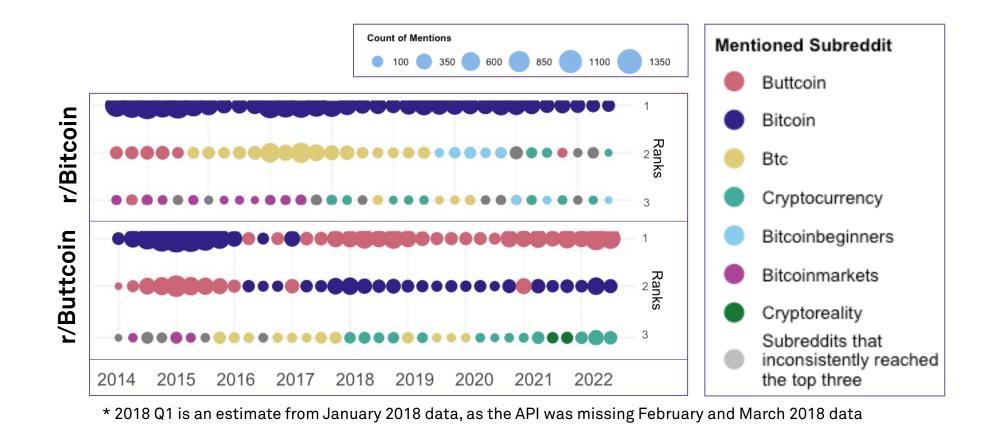
### Antagonistic Mutualism

Fig 1. Community clusters



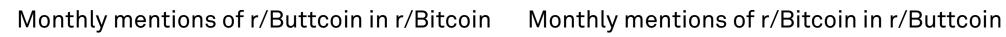
• We found that more commonly used approaches to identify community clusters that lean on topical and user overlaps result in separate clusters for r/Buttcoin and r/Bitcoin, which would suggest communities are not related.

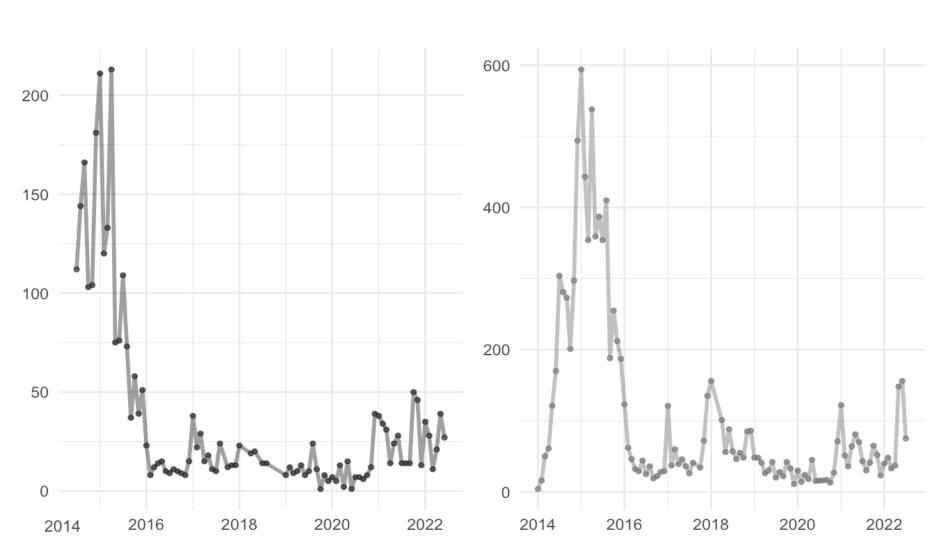
Fig 2. Top three mentioned subreddits, by quarter



- r/Buttcoin and r/Bitcoin are among the top 3 most mentioned subreddits on the other over time, even though they are not in shared community clusters as noted in Fig 1.
- r/Bitcoin shows more variation in what subreddits are mentioned; it also most frequently mentions itself.
- For both, only a few subreddits are mentioned frequently.

#### Fig 3. Counts of cross-subreddit mentions





 Monthly mentions of r/Buttcoin in r/Bitcoin and vice versa followed highly similar trends over time.

#### Fig 4. Archetypal examples of mentions

Drawing on a random sample of 100 mentions of each subreddit on the other, we categorized typical ways the two subreddits mention one another and developed archetypal examples presented below:

## Archetypal examples of typical "Bitcoin" mentions in r/Buttcoin

"r/bitcoin really is the gift that never stops giving. I hope they never stop being idiots blinded by their own inability to critically think about crypto. So fun to laugh at them."

"Stop trying to find more victims of your Ponzi scheme here... please go back to r/Bitcoin."

"Wow, I just got banned from r/bitcoin. They really can't take a joke."

## Archetypal examples of typical "Buttcoin" mentions in r/Bitcoin

"r/buttcoin is just full of jealous losers who are mad that they missed their chance to make millions."

"That's the stupidest thing I've ever heard, r/Buttcoin would love you!"

"r/btc is so stupid, it makes me understand r/Buttcoin a bit more."

"I'm a hardcore bitcoiner, but I still like to look at r/Buttcoin. I don't think I'm the only one, there's nothing wrong with having a laugh."

#### Implications and Future Work

Our work highlights how two subreddits generate substantial activity in each other in antagonistic ways, but existing approaches for mapping community relationships do not capture this form of antagonistic mutualism. Our preliminary work points to limitations to the user-overlap approach to measuring community relationships. Future work should extend this case study into a systematic study of how antagonistic mutualism shapes the ecology of social computing platforms.



Acknowledgements + References





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