

## **UPPSALA** UNIVERSITET



# User behavior influences structural properties of growing networks

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#### Posted by u/l \_ 23 hours ago

Not the A-hole AITA for treating my stepson differently to my biological son?

I (38f) am a mother to my biological son Kai (10m) and a stepmother to my husband James' (42m) son from his first marriage, Luca (12m)

James and I have Luca every Thursday, every other weekend and parts of school holidays. Luca's mother remarried a man who is a lot wealthier than us and so the kid has a lot of nice stuff, designer clothes, games consoles, goes on fancy holidays with them etc. We aren't on the poverty line by any means but times are tough and we don't have a lot of disposable income right now.

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NTA: I however think Luca should be asked to go on holiday with you because it's not about holiday it's about quality time with his dad. Regarding the other things I think your husband should grow up. Aren't you allowed to do anything fun when Luca isn't there, which is the majority of the time?

37 more replies

23 hr. ago

NAH. I think you are both advocating for quality time with your children. I do have a suggestion though. You say:

This December I want James, Kai and I to go on holiday because we haven't been away at all this year.

Maybe it would be better if it's just you and Kai that go on a holiday together, and then James and Luca can do their own vacation together as well.

☆ 454 & □ Reply Share \*\*\*

.\_\_. OP · 23 hr. ago I would much prefer for us all to go away together if we can afford to, I don't think two separate holidays would be financially doable for us as it's double the rooms etc.

#### **D**ata

- In the /r/AmITheAsshole subreddit people post stories having ambiguous moral valence
- Users are asked to vote whether these people are assholes or not and provide a brief justification
- This explicit request for a judgement is a rule of the subreddit (Fig.2)
- Each thread (Fig.1) = dynamic process influenced by the behavior of the community

### **2** Research Questions

How does the structure of the network reflects different behaviors of users participating in a thread? Do conversation networks evolve in time coherently with other social networks?

## **3** Methodology

- **Temporal network of interactions** G(V, E, T), i.e., set of users, set of (directed) replies and ordered set of timestamps that correspond to the events in our system, i.e. users voting
- Compute the average shortest path length (ASPL) for each single temporal network at each time
- Check the robustness: analysis repeated on the 50 most popular threads of the last calendar year

#### r/AmItheAsshole Rules 1. Be Civil $\sim$ 2. Voting Rules $\sim$ 3. Accept Your Judgment $\sim$ 4. Never Delete An Active Discussion $\sim$ 5. No Violence $\sim$ 6. How To Post $\sim$ 7. Post Interpersonal Conflicts $\sim$ 8. No Shitposts $\sim$ 9. Do Not Ask For Advice $\sim$ 10. Updates and META posts are $\sim$ restricted 11. No $\sim$ Partings/Relationship/Sex/Reproduc tive Autonomy Posts 12. This Is Not A Debate Sub $\sim$ 13. No Revenge Stories $\sim$ 14. No Medical Conflicts $\sim$

#### Fig.2: rules of the



# 4

- Instead, in the AITA subreddit we observe that the ASPL increases while

The structure of the growing network is different from what the literature would suggest, since it is governed by two different processes caused by two different users behaviors.

spontaneous behavior of the **users**. While most users obey the rules and directly answer others engage in discussions without being involved in the

**Fig.5** (left): different evolution of the sub-structures, result of different users' behaviors (averaged over 50 samples).

- two sub-structures —the star and the peripheral sub-graph
- The progress over time is not the same for both, since the underlying social dynamics are different: the peripheral evolves spontaneously, while the star grows because of the





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