

# Research on context and retention

Non-Constitutional

## Abstract

TogetherCrew is a project, incubated in RnDAO, that aims to empower communities with their data. With a team of network scientists, TogetherCrew is researching how Web3 social networks behave, with a special emphasis on retaining new community members and community health

TogetherCrew is requesting read access to Arbitrum's Discourse and Discord API to run an analysis with our partners (researchers at the University of California Santa Barbara) and present it to the community for research purposes.

For clarity, this analysis ONLY uses data that is already publicly available. No private data will be collected.

No data will be sold to third parties nor used without consent.

This proposal also allows us to test Hivemind, a bot that reads public data from Discourse and Discord and allows community members to ask questions: e.g. "has anyone discussed the topic of Treasury management before?" or "What were the most common objections to proposals related to incentives?"

No budget is required

as this research has already been funded through other sources (academic grants and previous Web3 grants from Aave, Aragon, Celo, Pocket Network and MetaCartel to develop the data pipelines, infrastructure, and previous [research on community health](#)).

## Motivation

Our understanding of Web3 social networks is still in its infancy. Studying the configuration of a social network and its impact on member retention could yield valuable insights to improve the resilience of Web3 communities.

Additionally, the social network mapping analysis gives us a potential tool to identify high-context community members (e.g. a recent analysis of Optimism's community enabled their community team to [identify potential community ambassadors](#) who had been missed). This analysis could be used to suggest members to invite to the offsite (non-binding, just as an exploratory analysis).

## Specifications

We care about data privacy. We only collect data that is already in the public domain (e.g. public discourse posts yes, but not the email addresses associated with their account). Feedback was provided by the Arbitrum Foundation on our [privacy policy](#) and [terms of service](#).

The solution is based on an (open-source) bot that will get read access to selected community platforms (for now Discourse and public channels in Discord). This bot has already been deployed in 100+ communities, including Optimism, Celo, Aave, Aragon, Shardeum, etc. The permissions are configured to be low-risk

(no admin permission, no managing channels, etc. so even if the bot was hacked, the discord and discourse servers wouldn't be compromised) and we have battle-tested for scalability and reliability.

The analyses of the data are performed by the TogetherCrew team of scientists and our research partners at the University of California Santa Barbara. Those handling the data have undergone ethical data management training and could lose their academic credentials for unethical conduct.

The architecture has been developed by our tech lead who's ex-Accenture and built a data startup in the medical industry. So although the data we manage is low risk (no private data, only public handles, etc.) we're still investing in data security progressively.

We don't use the data to train any AI models. Some analyses might use AI, in which case we favour open-source models that don't feed on user data.

Changes to the Terms of Service or Privacy Policy:

TogetherCrew currently has no changes planned, but should a change be planned, TogetherCrew will give a minimum of 2

weeks' notice to the DAO, via a new proposal post, before such changes take effect. Thus allowing any delegate to submit a snapshot vote to suspend the service if desired.

## Steps to Implement

A favourable snapshot vote will give the foundation the permission to give us read access to the Discourse API and public Discord channels. No further actions are required. We'll present our findings to the community (progressively over 1-3 months).

Additionally, we'll run a pilot of Hivemind which uses this same data to answer community questions.

## Budget

No budget requested

We do hope in the future to develop additional functionalities communities would pay for. E.g.:

In partnership with SingularityNET we've been developing [Hivemind](#) - an AI-powered Q&A bot that acts as a research assistant enabling community members to ask questions such as:

- "How do I participate in governance?"
- "Has anyone proposed something on topic XYZ?"
- "What was discussed last month while I was away"
- etc.

And funded by the Arbitrum questbook program we're also developing [Dynamic Reputation NFTs](#), where members who desire to do so can mint their context score onchain. Those who don't desire it, don't need to take any action, the NFTs are opt-in only.

For now, the solution is made available free of charge.

Had there been a previous proposal?

We had posted about this some time ago but didn't move forward with it. Now with the discussion around context we're curious to explore that and see if we can provide a solution to the DAO.

[Community Health Analytics and reputation NFTs in ArbitrumDAO](#) [General

](/c/general/4)

TogetherCrew (one of RnDAO's incubated ventures) has developed a community analytics tool that can gather data from public conversations in Discord, Discourse (the forum), Github, etc etc. And more recently obtained a grant from ArbitrumDAO to develop Reputation NFTs. We'll make the reputation NFTs to ArbitrumDAO contributors as a pilot and so this is a thread to raise awareness about the initiative and answer any questions. How the NFTs work The Reputation NFTs will be created by the contrib...