

tgether

A Decentralized Consensus Platform

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Abstract

In an age where the validity of media and information is increasingly difficult to trust, tgether offers a decentralized solution for verifying content through purpose-driven communities. Built on a web3 stack, tgether provides a customizable framework where communities can determine their objectives, governance structures, and consensus mechanisms. By leveraging blockchain technology and Chainlink Automation, tgether enables trustless environments for discussions, reviews, and decisions. This platform empowers communities to reach agreements on diverse topics, from fact-checking content to scientific peer review and beyond, offering a decentralized alternative to centralized content moderation. This document outlines the architecture, decentralization approach, and long-term strategy of tgether, emphasizing its potential to expand into various use cases, including commerce and collaborative decision-making.

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1. Introduction

It is becoming increasingly difficult for everyday people to find reliable sources of media. The ever-growing presence of AI, combined with the influence of centralized powers on content, has created circumstances where individuals cannot depend on the validity of what they see or read. The root of this issue, which together aims to solve, is how we can be sure that the message conveyed by a piece of content is true and what “truth” means in its context. This project does not attempt to solve the philosophical “what is truth” dilemma but instead relies on a humanistic dependence on reputation and peer review, a proven approach in advancing social and scientific discourse.

together allows users to create purpose-driven communities, providing a framework of parameters for decentralized consensus. The primary design focus throughout the project is customizability. Communities, which are collections of users defined by a set of parameters, can range from complete monarchies to autocracies to democracies and everything in between. Communities and their members can propose and vote on their purpose and how they review and reach consensus on posts brought to them.

The beauty of this customizability is that communities do not have to be limited to fact-checking. They can reach agreements on any purpose where there is a market for review. Simple examples include ungated scientific peer review, assessing the probability of AI-generated content, or even a group of parents vetting child-friendly content or creators. Additionally, together is built so developers can extend it. Through the use of Chainlink Automation, developers can integrate custom proposals into their community, expanding the platform’s functionality beyond what the platform providers could have envisioned. Ultimately, our goal is to empower web3 developers and provide them with a service to build on, enabling consensus for their specific use cases.

2. Architecture Overview

The current infrastructure of together consists of six smart contracts that provide different layers of functionality, which can be mixed and matched as needed for a community’s use case:

- **togetherCommunities:** The Communities contract serves as the central hub of the platform. It defines the initial parameters that make up a community, such as who can create proposals and the criteria they must meet to vote on those proposals. Communities leverage Chainlink Automation to sort and process all proposals and emit events for other contracts to use. This

system allows the contract to function as a “community-as-a-service” model, enabling developers to reuse their communities as they see fit.

- **tgetherMembers:** The Members contract governs user access to communities. By default, it uses a karma-based “Creds” system, where members can demonstrate their value within a community. However, there is an option within tgetherCommunities to delegate creds and access to a custom contract, unlocking unlimited possibilities where users can define membership and access levels based on principles they establish. Creds can be used to gate access to proposals, voting, or any other aspect a community deems necessary, offering options for robustness or to avoid spam if needed.
- **tgetherMembersInfo:** The MembersInfo contract is an optional module that allows users to define themselves with a name, credentials, or other identifying information.
- **tgetherCommunityConsensus:** The Community Consensus contract sets the rules for how a community assesses posts. As the first "Custom Proposal Contract," it leverages Chainlink’s log automation to monitor when a created proposal has been processed, enabling the contract to update its parameters accordingly.
- **tgetherPosts:** This contract allows users to create NFTs of any string content. The NFT is not intended to signify ownership or exclusivity but provides an easy way to expand functionality in the future to include any asset. Currently, a string can represent anything from direct content to links to social media sites, IPFS addresses, or any information users wish to propose to communities.
- **tgetherPostConsensus:** Post Consensus allows anyone to submit a post for community review. These reviews can be initiated by any members but use logic to determine which reviews count and how much they should count, based on the parameters defined in Community Consensus.

The goal of this project is to allow communities to define how they want to exist. Creds provide a balancing factor where Communities and Community Consensus parameters can be adjusted to range from full democracies (where creds mean nothing) to weighted autocracies (creds matter up to a maximum value) to complete autocracies (where more creds equal more power). It is expected that most communities will define what a “cred” represents, which could include asset ownership, the number of substantive reviews a member has contributed, or any metric a community decides. The default karma system offers a ready-made option for quickly getting a community started but is designed to be expanded upon.

3. Decentralization Approach

We chose to build this application on a web3 stack because it allows communities complete autonomy. A significant problem in today’s media infrastructure is that platform owners also own the content they store and can modify or delete content they disagree with. While this is within their rights as private businesses, it leaves a gap where users should have the freedom to develop ideas and opinions in a space not owned by anyone. tgether seeks to create a true town square where anyone can discuss ideas and receive feedback and critique from others.

4. Long-Term Technical Strategy

The long-term technical strategy for tgether focuses on incentivization, infrastructure improvements, and expanding use cases beyond content.

4.1 Incentivization:

A key next step is to introduce an incentivization layer for post reviews. We believe creating a market for “good” reviews is crucial. As with other aspects of tgether, we do not define what is “good”; instead, we allow users to choose which communities have fair and balanced review processes for specific use cases. This feature is not included in the MVP to allow proof of the concept before addressing the complexities of value storage and distribution.

4.2 Infrastructure Improvements:

There are three major upgrades planned for tgether’s long-term success:

- **Redefining Posts:** We plan to expand posts to enable consensus on any NFT across any chain. This enhancement will unlock the possibility of using communities to review assets of all classes, not just content.
- **Improving User Experience:** Currently, tgether operates on the Arbitrum network, but we aim to create a seamless experience where non-crypto users can interact with the platform “without” a wallet and use fiat currency. We also plan to integrate technologies like The Graph to make community data accessible to off-chain users. Our goal is to use the network as a decentralized data store while making it user-friendly for those who do not want to engage deeply with blockchain technology.
- **Robust Upkeep Funding:** Currently each contract requiring a fee for Chainlink Automation has an option to set a fee address to receive message values. Before Mainnet we would like to create a robust architecture to receive these fees, transfer them to LINK, and fund upkeeps.

4.3 Expanding Use Cases:

We believe in the power of decentralized consensus. Once we have established content-related use cases, we expect this method of agreement to extend into commerce. We plan to expand tgether to provide customizable consensus contracts for B2B buying groups and co-ops, B2C collective bargaining subscriptions for goods and services, and peer-to-peer ownership of assets. While this may seem ambitious, we believe the platform is built to be customizable for collaborative consensus in any transaction.

5. Conclusion

Together is a decentralized consensus platform that enables users to create purpose-driven communities to reach agreements on any topic. The platform's design emphasizes flexibility and customizability, allowing communities to define their own objectives, rules, and decision-making processes. Built on a robust web3 stack, Together leverages blockchain as a secure and transparent data store, with automated consensus mechanisms powered by Chainlink Oracle Networks to ensure trustless interactions. This unique combination offers communities full autonomy while maintaining integrity, security, and scalability across decentralized environments.