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Vision

FDD is an execution & optimization layer for community curated grants rounds, most importantly, the Bitcoin Main/Ethereum round. By actively reviewing the grants and contributors for fraudulent activities, we are able to record unique observations. These observations are then given to the protocol research initiative which identifies & prioritizes the highest leverage insights to assist decision makers in GPC.

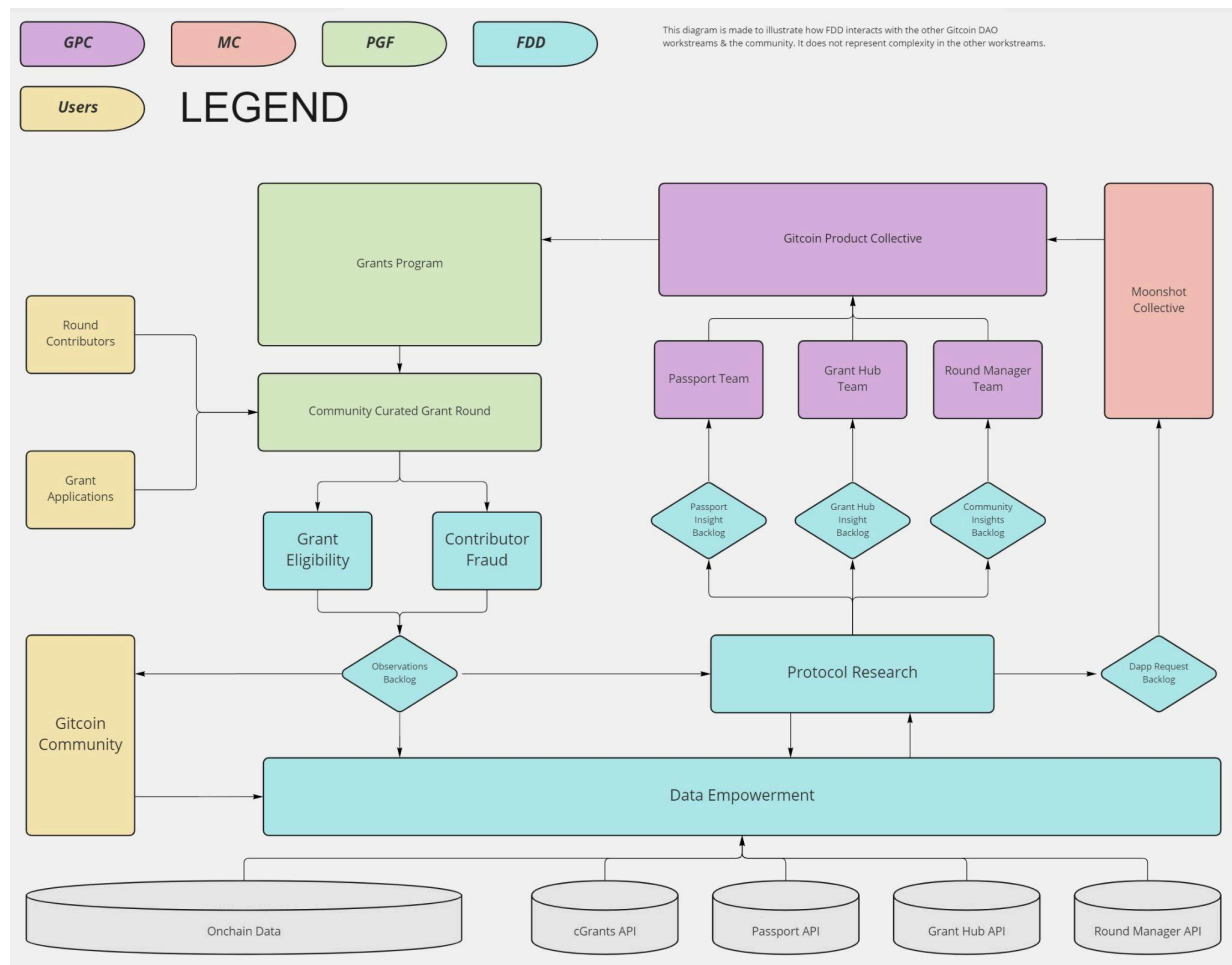
Data operations and data science are at the core of FDD. Our partnerships with GPC allow them to continue building. Grants Operations are able to run rounds free from excessive fraud. Providing ETL pipelines and storage for data requests will enable not only FDD, but the rest of the DAO and the community to benefit from easy data access.

We will leverage insights from open protocols to provide the Grants Operations team with insights which allow them to support the most optimal allocation of capital as possible in

Gitcoin led rounds. We will empower the community to more easily generate insights. We will continually optimize our scoring methods, data models, and processes to be the first vendor of choice for community-curated grants rounds to prevent fraud.

System View

The following system view depicts how we integrate with other components and workstreams at GitcoinDAO.



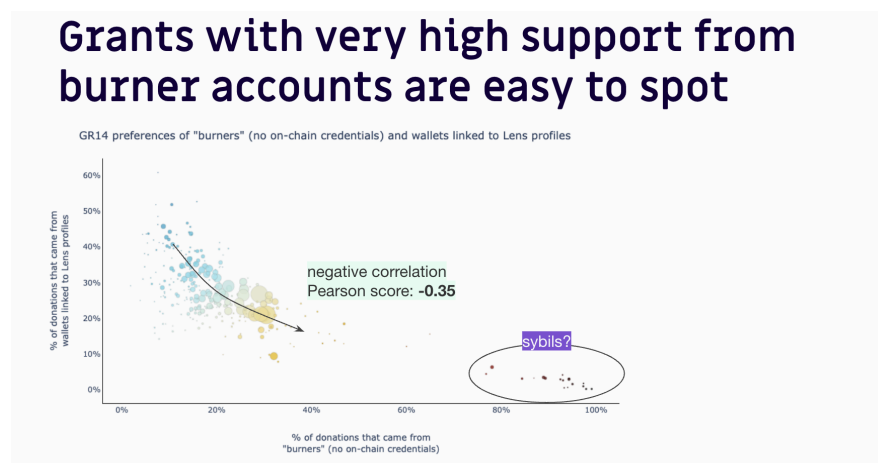
Current State

FDD primarily serves the purpose of executing reviews of grant applications and contributor fraud which are used to determine grant and user eligibility. These reviews produce a backlog of behavioral observations which our protocol research team must prioritize, define, validate and label. Validated insights are then provided to Gitcoin Product Collective. Any needs for new software solutions are put on a backlog provided to Moonshot Collective for rapid prototyping.

Grant Eligibility

Essential Intent Alignment: Grants Program Success

Reviewing grants for platform eligibility and main/Ethereum round eligibility is our primary function. This includes processing all disputes and appeals as well as new applications. Additionally, our grant investigations work with the data team to identify likely fraudulent grants. They document these cases creating reports & dashboards to reduce manual reviewing time. They partner with support to respond to eligibility questions, grant operations to clarify policy and assist tagging needs, and grant hub to provide insights to a product backlog.



Contributor Fraud

Essential Intent Alignment: Grants Program Success

Running the Anti-Sybil Operationalized Process (ASOP) includes running the Sybil Account Detection (SAD) algorithm every 24 hours during the round. These results are pushed to an

endpoint in the cGrants database which uses a heuristic to “squench” likely sybil donors. The SAD is the best known ground truth for which accounts are sybil. It is not perfect and requires continuous development, testing, and deployment. The SAD algorithm uses machine learning to bring intelligent awareness to help us detect which accounts are likely to be sybil based on behavior patterns. This requires a sophisticated ML operations flow and a partnership with data scientists to identify opportunities, engineer new features, and provide statistical cross-validation.

Model validation requires human evaluations of random samples of accounts which are also used as heuristic to continuously train the algorithm. These human evaluators create backlogs of behavioral observations which can be validated and used to create sybil stories - classifications of sybil user behavior profiles. Data analysts look for evidence of sybil behavior which may also be used by “sybil hunters” which flag accounts for review and manually squench the most egregious cases.

Protocol Research

Essential Intent Alignment: Protocol Adoption & Growth

The protocol research team is responsible for taking behavioral observations from the Grant Eligibility and Contributor Fraud teams and turning them into insights. They partner heavily with Data Science to assess problems and suggest solutions. These recommendations are then given to GPC to be added to product feature backlogs. Suggested features include stamps for Passport, programmatic filtering

This team aims to solve sophisticated problems requiring ongoing algorithm optimization to detect and prevent fraud. It also aims to identify assumptions and provide mathematical proofs which provide reasonable constraints to operate systems. By red teaming Gitcoin products our services provide an extra layer of security to increase anti-fragility in our systems.

FDD OS

Essential Intent Alignment: DAO Organization

Running the day to day operations of the workstream includes: interfacing with GitcoinOS, ensuring FDD contributors are paid and satisfied with their contributor experience, and aligning information and resource flow between FDD initiatives.

Data operations and data science expertise are needed services for all FDD initiatives.

Always-on Commitments

Grant Eligibility

- Deliver to the expectation that the platform is free of fraudulent grants and that main round eligibility approvals, disputes and appeals are consistently and fairly executed in a reasonable time frame.
- Keep continuously improving the quality of grant reviews

Contributor Fraud

- Executing a large number of Human Evaluations at a lower cost
- Managing and maintaining the Data and Machine-Learning infrastructure and improving their processes
- Providing and executing on a comprehensive security strategy that encompasses preventing and detecting sybil attacks as well as responding 24/7 to incidents

Protocol Research

- Maintain observations backlog: stamps and analysis done; recommendations for programmatic filtering of grants; highest quality sybil/non sybil signals; ideation, brainstorming and grant research
- Identifying both behavior and data patterns to run the analysis
- Provide data backed feedback to FDD OS

FDD OS

- Create accountability for outcome owners via strategic cadence and collaborative decision making
- Ensure contributors are paid on time and able to focus on the primary problems to be solved
- Improve existing operating system through dedicated roles, coaching/training, facilitation, documentation and tool support
- Ensuring FDD's initiative compatibility with Grants 2.0

Shared S15 Commitments

Since FDD interacts with various parts of GitcoinDAO we are having numerous on-going alignment conversations. For S15 we have come to the following Shared S15 commitments.

GPC Passport Team

- Provide a backlog of highest impact stamps to add to passport
- Providing recommendations for best weighting for Trust Bonus to “close the gap” between the Trust Bonus and FDD SAD Score

GPC Grant Hub / Round Manager Team

- Provide a backlog of behavioral observations and data validations to enhance programmatic filtering of grants

PGF Grants Program / Grants Ops

- Support Grants Program Success by ensuring the platform is free of fraudulent grants and the main/Eth round grants meet eligibility criteria

DAOops

- Working hand in hand to provide quick resolution to support requests relating to FDD actions, decisions, and sanctions
- Implementation of the Gitcoin compensation model and peer review process