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Introducing Governatooorr: An Autonomous AI-powered Delegate for DAO Governance

Valory launches 'Governatooorr'. Governatooorr is a cutting-edge experiment in combining AI with Web3, offering a simple, robust, and extensible model for building AI-based Web3 apps. Specifically, the Governatooorr is an autonomous, AI-powered delegate irreverently posed as a "solution" to governance apathy.

This light-hearted service's design technically could mean humans no longer need to read governance proposals to vote and decide organizations' outcomes. But Valory's core goal is to use it to provoke discussion about how to build open-source software to harness AI for the betterment of humankind, including boosting productivity and coordination.

Valory are the pioneers of co-owned.ai, a concept and technology. They have built Governatooorr using the open-source protocol they co-created, Autonolas, hosting it on Propel. It was simple to connect Open AI's ChatGPT to an application built on Autonolas, thereby adding AI capabilities to an always-on, decentralized application that can proactively record results on blockchains and beyond (see below for further details).

Governatooorr exists at the edges of emerging technologies and aims to create discussion around the potential and dangers of such a product. Hence, the design and language used around it are cartoonish.
This experiment contributes to an early model of AI-enabled governance.

How to use it

1. Feed the Governatooorr (it likes tokens)
   Governatooorr is designed to allow token holders to delegate their governance tokens in a DAO to the Governatooorr so that it can act as a delegate.
   On-chain, a multisignature wallet is managed autonomously by the Governatooorr and anyone can contribute ETH to the wallet to cover operational costs.
2. Are you here for Good or Evil?
   Users can express their general voting preference between allegiance to the DAO, “good”, or disruption, “evil”. In this rudimentary binary, a preference for “good” will equate to a vote for whichever voting option of the proposal ChatGPT deems to contribute “positively” to the DAO, versus contributing whatever it sees as “chaos”.
3. Computer says yes (or no)
   The Governatooorrr can then take the aggregate preference of users to determine the majority’s vote, establishing a prompt for ChatGPT that is sent with the governance proposal to vote on voters’ behalf.
4. Always on
   On top of this, the service is proactive; it can watch for new delegations and collect all votable proposals to vote as they arise, simply drawing on voters’ pre-established preferences.

As one can see, this is an extremely simple, demo implementation. It is clearly not appropriate for serious governance participation… Yet!

The Potential for Good and Evil

It will be exciting to see how Governatooorr is used and adapted… Are the majority of members for the vanilla collective good or out to cause some drama?
Despite being a light-hearted demo, the Governatooorr touches on serious themes. Coordination, decision-making, and even defining “good” or “chaos” — let alone realizing it, are age-old challenges for humankind.

There are scenarios where one cannot substitute human oversight, certainly. It is not hard to imagine chilling results were an organization’s proposal to be decided by a collective desire for “chaos”.

Nevertheless, governance within and outside of crypto faces challenges that may be aided by technology, too. Most DAOs struggle to raise voting participation rates. DAO governance can be overwhelming; often the whole DAO has to vote for protocol parameter or policy tweaks or committed individuals are burdened with implementing repetitive, manual and trustful operations, like payroll.

Arguably, some of the votes and other manual, labor-intensive tasks could be done more efficiently, and in some cases better, via AI. Using autonomous services to free members’ and operators’ time from annoyances and distractions would allow them to focus on more important votes and tasks. In other words, autonomous services can give humans greater autonomy whilst strengthening decentralization and facilitating smart, data-driven decisions.

In its initial form, Governatooorr cannot solve the pressing issues facing DAOs. However, it provides an intriguing playground for exploring how to design AI-based applications to solve organizations’

problems, beginning with governance processes.

How to Combine AI with Web3 Open-Source

To build Governatooorr we combined ChatGPT with Autonolas' open-source framework and protocol, hosting the service on Propel.
Here we explain why this is an excellent starting point for combining AI with Web3.

Chat GPT

Using ChatGPT enables Governatooorr to analyze a governance proposal and choose one of the voting options based on a voter's pre-set general preference. We chose ChatGPT as a quick and powerful solution for this demo, however, we are committed to decentralization and encourage others to join us in the pursuit of more decentralized options.

ChatGPT is a Large Language Model-based chat bot. Large Language Models (LLMs) are not deterministic — for example, they do not always give the same answer given the same input. Therefore, they alone are not reliable enough to simply link ChatGPT to an on-chain app, where any decision is usually immediately recorded and implemented. To overcome this limitation and build a more robust and easily extensible application, supercharging ChatGPT's abilities, we combined it with Autonolas.

Autonolas

Autonolas' open-source framework and protocol enable a novel type of decentralized application called an 'autonomous service', which allows for easily combining Web2 and Web3, including AI. Specifically, Autonolas allows for full stack decentralization, decentralizing off- as well as on-chain. This enables more complex analysis to take place off-chain whilst retaining decentralization. Specifically, complex logic (including linking to AI like ChatGPT), is performed off-chain in a decentralized manner then the result is recorded on-chain. Decentralization is achieved here via Multi-Agent Systems, where multiple agents reach consensus on any analysis and action to be undertaken.
Using Autonolas, then, means the Governatooorr can use multiple agents to ask ChatGPT the same question and then come to consensus on the answer. For example, if one of four of the agents receives a wildly different answer, the DAO can feel confident of the answer that was given not once but three times and the service will discount the outlier.

This robustness significantly increases the reliability of the service, versus hoping ChatGPT gives a reasonable answer in every instance. As a result, the service can increase the autonomy of the DAO and its members (versus humans voting on every little detail or simplistic on-chain applications), opening up a world of possibilities to free human time and make smarter decisions.

A governance vote is just one example of why full-stack decentralization is key to harnessing AI for productivity.

Governatooorr is the latest of many open-source kits using Autonolas, available for exploration and adaptation via the GitHub repository.

Propel

The autonomous Governatooorr is deployed and operated via Propel, a subscription service from Valory. Propel allows developers to run an agent as a part of an autonomous service without DevOps hassle, facilitating progressively decentralizing if/when they wish.

Conclusion

Ultimately, Governatooorr is a groundbreaking experiment that showcases the potential and risks of AI-enabled governance, contributing to the discussions around incorporating AI in crypto and beyond.

Valory is committed to acknowledging and mitigating the potential risks associated with building with AI as they build open-source software aimed at increasing human autonomy and prosperity.

Try out the Governatooorr here to learn more about this service and how it could benefit your organization.