DAOStack to optimize DAO for VR-Chess

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Abstract

Given a group of N different chess players of different levels, it's relevant to ask an objective question: how to organize them to make chess decisions in the most optimal way i.e. write a DAO organization system to generate the best chess moves for a group of chess players.

DAOStack provides the tools to organize as a group and provide a stack of different levels of implementation to generate DAO decisions.

VR-Chess is a specific version of chess which allows to analyze the board using arbitrary number of virtual chess boards in natural and completely editable VR social network room. It's perfect place to experiment with DAO organization formats without having the commitment to meet in physical space.

The long term goal of the project is to provide a layer of DAOs inside virtual reality social network apps, which in the future will allow more complex social cooperation and simulations in larger scale virtual communities. In hope to promote the DAO research and experimentation and combine several 21st century technologies in meaningful and hopefully useful and beneficial way to humanity.

1 Overview

Efficient social organization is a very old question. Usually centralized models of management considered to be the most efficient self organizational models of groups. We suggest to challenge this common knowledge, by providing an open competition to any pair of {group, DAO stack developer} to generate any model that will compete in VR chess competition. To estimate the strength of DAO organization we ask at random different groups to use random DAO module. Assuming every group is willing to participate in the experiment, the average number of win/lose per each DAO management option will allow to objectively estimate DAO organization quality for this task (i.e. VR Chess).

VR chess as the test case was chosen for several reasons:

1. Chess gives the ability to objectively estimate the strength of game playing without any conformation bias. The strength is objective and does not assume anything about the nature of cooperation strategy.

2. Tree traversal in chess can be analyzed in parallel, but can be improved by hive mind as well. The question of balancing different exploration paths and different minds that estimate the quality of paths, looks like a hard enough DAO organization question in which balancing the two is open problem. For example central planning has maximum parallelization (i.e. each thing is made only once) while capitalism has maximum hive mind optimization (i.e. each thing is made several times losing resources on repeating some of the steps but it allows several competitive systems to slowly evolve as they implement different details and some of the details work better - and people start to use it). The optimal model is probably somewhere in the middle - there is no good reason to believe capitalism optimizes this property.

3. VR gives the ability to share analysis and move virtual pieces in a natural environment where the strength is estimated not based on visualization and imagination but based on actual strength and understanding of chess and creating good variants.

4. The social interaction in VR is more similar to working environment than other options like forums or non VR sites.

5. VR social networks are growing and open their interface to implement any module in javascript including to implement DAOStack as on the testnet as well as on the mainnet of different solidity supporting blockchain platforms. This looks like ideal testing ground for different competitive DAO ideas (i.e. imagine that communism would be implemented first in virtual environment - this could save million of lives, as probably such bad ideas would be filtered already on virtual stage of testing).

6.* As a side note the hope is to test different DAO self organizations and people will contribute their own pieces of code to self organize in order to play chess. We provide DAOStack as initial and useful library to organize DAO and to provide simple code based on blockchain to compare them, but other tools are not forbidden.

7*. The long term goal of this project is to create a code base and experience inside VR environments to implement different DAO and to learn to fine tune the DAO organization for different tasks at different scales. For example it might be that playing chess together is crucially different than writing a good novel together or managing a city as DAO. The actual organization management in the actual world can gain a lot from testing first the ideas inside virtual

environments and to estimate the potential of different DAO strategies.

2 Implementation in VR

There are several VR social networks where something of the sort is possible today. AltspaceVR, VRChat, NEOS (soon decentraland and facebook's horizon) and even just regular webVR can allow such functionality. Other than that, some system might need to implement the DAOStack logic in room internal editor like RecRoom. The later have no support for external javascripts but some version of blockchain might be implemented with internal logic of the game together with DAOStack, or simple library can be written specially for those spaces.

The initial focus is on AltspaceVR as the community is very friendly, and in general the SDK is well documented and has good support. The only true alternative here is VRChat. Currently VRChat is much more popular, but we're generally expecting a huge advance in the technology and the intention is to eventually implement the idea on as many social platform as possible. The popularity of VR is constantly growing and there is a sense that it's the new thing - like there was TV or PC or smartphone the VR is just a next version of this branch. So we're actually in the beginning of VR era, and this project is one of the first of the kind in current VR. A great kicj is expected in the 2020 with facebook's releasing their social network in VR (i.e. horizon).

3 Testnet and mainnet

It's probably clear that at the beginning of the room life cycle the DAOStack will run on the testnet. It's very unlikely people will choose to pay money to vote for an experimental DAO chess program at first. The economical model is based on the popularity of the idea and spreading it as new chess variant and promote it as a hobby parallel to other chess events. We can take DAO of k GMs that will beat Magnus Carlsen for example. Or a DAO with the top players against 100K participants and the best DAO etc. etc. The main events can be made on top of the mainnet - as the event is important and we need to validate the voting we can use any solidity supporting system and its mainnet creating a useful balance between voting security and voting pricing.

While the idea gains popularity as VR sport we can hope for large and sponsored virtual and physical events in it. The DAO module might be equivalent to a race car for formula one competitions. Another hope is that we will be able to come back and win the machines once more i.e. human DAO against the best of machines.