White Paper of Gyber Experiment

GyberExperiment - is an experiment in the field of cryptography, computer science, sociology and economics to create a Cyber-social corporation - a new form of socio-economic interaction - a new form of economic unit.

GyberComputer - is a private distributed computing network of th e community, where the necessary functionality for the activities of the participants of the experiment will be deployed.

Gybernet - Is a secure community blockchain used by the platform to ensure the security and transparency of the experiment.

GyberToken of the GYBER community, necessary for interaction with the GyberNet Blockchain and the distributed GyberComputer supercomputer. To get GYBER, the burning of the main GBR token is necessary.

GyberCommunityToken GBR - is a platform management token, the main decision-making tool within the experiment. It is also used by the community as a means of evaluating work on projects within the experiment. To participate in the management, the wallet of the management token holder must be active, the activity of wallets is checked by a special algorithm when allowed to vote and sign the proposal.
MacroeconomicDao is a transparent system of interaction and decision-making based on Blockchain and proven smart contracts in the Solidity language.

Objectives of the Experiment

To create a mechanism of direct socio-economic interaction belonging to all participants, allowing to concentrate public and financial resources for the implementation and management of even the most ambitious, global projects. In fact, this is the implementation of a new form of economic unit, necessary to create a new form of global socio-economic space.
Using the economic potential of the implemented projects for more effective implementation of the following projects.

Main community projects :

1. Gyber Social Platform

To meet the communication needs of the experiment at the start stage, first of all, the main functionality of the Gyber Social Platform will be implemented - a social network owned by all users, managed by them through the DAO and expandable using the GitHub repository.
From the user's point of view, the starting model of the platform has the basic functions of a social network, such as text and voice chats, hosting and sharing videos and other types of files.
All the functions presented on the platform are implemented in accordance with the ethics and philosophy of the Gybernaty community, which guarantees users the security and control of data, leaving the possibility of full encryption of the account on the client side or encryption on the server using the client's public key.
In addition to the main functions, the platform provides an opportunity for the user to create projects for implementation as part of an experiment, becoming its implementer.

The user can offer a ready-made project or just an idea and, together with the community, develop it into a real project.

About the data

When designing and implementing the social platform, first of all, emphasis was placed on data security and confidentiality of their storage. There are several levels of data protection to choose from on the platform at the start-up architecture stage.
The data is processed by a special algorithm that allows you to use encryption at different levels and provide an almost absolute level of security for the client.
The platform stores all the bulk data in the IPFS network, in which nodes for additional content creation are deployed as part of the experiment.

Architecture

The platform is designed as an open scalable structure with different data input and output points with multiple cores. Each user will be able to write their own code module (which can be included in the node and offered to those who wish) or design a new feature so that it can be implemented in real production.
The code structure is managed through git hub repositories managed by the community. Everyone can create their own module and distribute it to everyone.

Distribution

The modular architecture we are creating is a network of nodes with a set of microservice containers. Each node can be supplemented with any existing modules, or any required modules can be written and embedded in the assembly of a specific node.
The platform practically does not store data on its servers. All massive user data is uploaded to the IPFS network in open or encrypted form, and the user has several levels of protection when encrypting their files. To maintain access to unpopular files on the IPFS network, the platform provides a pinning service, which is a network of IPFS nodes running in containers on the main nodes of the Gybernet network.
The network also has a virtual machine that combines the power of all currently operating nodes.

Encryption

The platform provides three levels of user data protection, but even the weakest level of protection provides optimal protection.
User data can be fully encrypted on the client side, providing 100% control over the data for the user.
Only some data is encrypted on the client side, and the rest is transmitted to the server for encryption with the key specified by the user.
Automatic mode configures the data protection algorithm by default.
The platform is built in such a way that users can control their data and have confidential access to it.
Also, the main principle of the platform is community extensibility, since this is an open source platform. Everyone can supplement it, and the community can support one or another module of the supplement and distribute it over the Gybernet network.

Stack

At the stack level, the network is a multilingual cross-platform containerized cluster managed by a community of experiment participants.
Each node consists of isolated cores communicating with each other, distributing the work received from the users of the Gyber Social Platform. Each of the cores is responsible for its own layer of processes. Initially, the development of the core core module is conducted in the Rust language. Each core has its own auxiliary infrastructure, which is also run in isolation on separate containers. As part of the experiment, parallel development of modules and cores is used to determine the best stack for solving certain tasks and ensuring maximum flexibility in the development of the platform architecture in the long term. Modules for the platform can be written by anyone and in any way, but to be included in the node and connected to the network, it must be checked by a special test algorithm that will check its compatibility with the network and whether it has the necessary functionality to ensure the operation of the node. There is also an aspect of trust in a particular node, based on the activity and connections of its owner within the experiment. The community should trust every node. We call it Proof of Community. The management of the production versions of the platform and the current state of the program code takes place through the github repository and is controlled by the developer community.

2. AiC (large-scale study of the field of artificial experiment)

A large-scale study of artificial intelligence, organized by the Gybernaty community, which aims to create an open community for the development and use of artificial intelligence (AI) models in the blockchain environment. Our project uses the capabilities of DAO contracts to regulate the operation of these models, ensuring transparency and openness in their development and use.

The problem we are solving is the high cost and complexity associated with the development and use of artificial intelligence models, as well as problems related to privacy and security when using these models in various fields. AiC offers a solution by creating an open community, whose members can jointly create and use artificial intelligence models in a blockchain environment. The use of DAO contracts ensures transparency, openness and regulation of artificial intelligence models.

The advantages of AiC are the ability of participants to share knowledge and experience by creating and using artificial intelligence models in a blockchain environment with minimal costs. In addition, the use of DAO contracts increases security and transparency throughout the entire process.
AiC can be used for both commercial and non-commercial purposes, allowing you to create artificial intelligence models in various fields, such as medicine, finance, transport and much more.

To develop high-quality artificial intelligence models, we use a number of programming languages, including Python, C++, Java and others. We use popular libraries and frameworks such as TensorFlow, PyTorch, Keras, Scikit-learn and OpenCV. These tools allow us to create and train artificial intelligence models, perform tasks such as deep learning, machine learning, computer vision and much more.

Blockchain technology plays a vital role in our project, as we strive to create decentralized artificial

intelligence models that can run on the blockchain and be used in various applications. We use blockchain platforms such as Ethereum, Polkadot, Solana and others to develop decentralized applications and smart contracts that regulate the operation of our artificial intelligence models.

Using DAO contracts, we give network participants the opportunity to make decisions regarding the development and use of an artificial intelligence model, as well as the fair distribution of rewards among participants. In addition, we are studying the application of machine learning technology to improve the functioning of blockchain networks and increase the efficiency of decentralized applications.

Management and Protection

One of the main goals of the experiment is to create a community-driven platform. To achieve this, the experiment organizers have developed secure smart contracts using the Solidity programming language, utilizing the trusted OppenZeppelin library for implementing governance tokens and utility tokens for the experiment. Additionally, the contract called TheMaceroconomicDAO has been developed to ensure a reliable and transparent decision-making mechanism throughout the experiment.

In designing the contracts, we employed up-to-date models and modern solutions to make our secure foundational contract structure highly scalable and integrable. After the deployment, the contract's source code can only be modified by the community of developers through the DAO contract's voting mechanism. The platform's source code is accessible through a GitHub repository, and all significant decisions within the experiment are made via proposals and voting conducted through the DAO contract.

The GyberComputer network's virtual machine also follows commands from the blockchain. By leveraging blockchain technology, our intention is to ensure the highest level of transparency and security for the platform's operations, providing the experiment with an open and reliable space for activities.

Tokenomics

The platform envisions the implementation of multiple internal tokens, but there are two main tokens in the community: GBR and GYBER, which is the utility token of the platform. GyberToken (GYBER) is the utility token required for interacting with the platform and can be obtained by burning GBR tokens. GyberCommunityToken (GBR) is the primary governance token required for generating internal tokens for the experiment, managing the experiment, making collective decisions, and modifying and expanding the platform. During the experiment, a significant portion of all existing GBR tokens will be distributed among four categories of token holders: developer community, experiment participants, major investors and funds, and the public market participants. Additionally, a reserve fund will be created within the project to optimize the experiment deployment processes.

Developers - 30% GBR
Experiment participants - 30%
GBR Investors and funds - 10%
GBR Public market - 15%

Main Experiment Mechanics

It all starts with an idea…

Each participant of the experiment can propose an idea or a project. After the idea is proposed, it enters the discussion phase, where it transforms into a project and gets refined, supplemented, and gains contributors.

Contributors

The person who proposes a project is considered the primary contributor and can invite as many contributors as they want. In case the primary contributor doesn't have enough reputation to implement a large-scale project, additional contributors may be required. Additional contributors can also provide social, financial, or economic resources beneficial for the project implementation.

Project Phases Projects in the experiment have four phases:

Discussion Phase

This phase allows anyone interested to participate in project discussions. During the discussion period, the project is further refined, qualitatively formulated, analytical work is conducted, necessary documents are prepared, and the circle of contributors may expand to move to the next phase.

Accumulation Phase

In this stage, anyone interested can invest in a specific project and become its super-client. Contributors can also gather funds for the implementation of the project. The start of the accumulation phase assumes that the project has detailed documentation, including all necessary economic and business calculations, a project roadmap, and complete technical documentation.

Implementation Phase

During this stage, contributors utilize the accumulated funds to implement the specific project according to the prepared documentation and roadmap.

Functioning Phase

This is the stage where the project is implemented and operational, offering its products to three categories of clients.

Client Statuses

In the experiment, there are three client statuses:

External Clients:

Clients who are not participating in the experiment can purchase products from all implemented projects using fiat currencies.

Special Clients:

All holders of Gyber tokens are considered special clients for all projects. Special client status grants them a special discount of at least 30% when paying with GBR tokens for any project's products.

Super Clients:

All holders of internal tokens for specific projects are super-partners of those projects. Super partner status entitles them to a super discount of at least 60% when paying with the internal tokens of the project for that project's products.

Internal functioning

To move the project into the accumulation phase, it is necessary to burn GBR tokens by 0.1% of the required amount for the implementation of the project.
The transition process consists in issuing a limited number of internal tokens of a specific project, for sale at a price of 1 BUSD.
The maximum amount for the implementation of the project is also limited by the reputation of the implementer or the general reputation of the implementers of one project.
Participants gain a reputation as a result of live activity in the experiment: posting and discussing projects, participating in financing and implementing projects.
Reputation can also be obtained as a result of the Gyber token staking.

There are no restrictions on assets received from the sale of wrapped tokens of the project.
Project implementers can freely dispose of assets by following the documentation and roadmap of the project.
Assets received from the sale of wrapped tokens are unblocked in parts or completely by a simple signature of a single or several implementers of one project, which are determined at the time of the project proposal and the release of internal tokens of a particular project.

Steaking

Staking is a universal tool within the framework of the project. With its help, you can improve the reputation of participants and receive passive income.
As part of the experiment, two staking options are provided:
GyberToken = 0.00000000007% of the total income of all projects in Gyber tokens.
Internal project tokens = 10 / [total number of tokens issued by the project] % from the income of a specific project.
The minimum term of staking is 1 year

Organization

The community is built on the basis of the personal and public interests of the participants.
Participants are verified by means of an electronic signature.
The maximum amount for the implementation of the project is also limited by the reputation of the implementer or the general reputation of the implementers of one project.
All important decisions in projects are made on the basis of the vote of the implementers by means of electronic signatures.
Each implementer is an active economic unit, which can represent entire companies in the real sector of the economy or even a set of organizations.

Responsibility

Each implementer is responsible to the entire community primarily by his reputation and can be excluded from the experiment for unfair treatment.

Also, the implementer bears internal personal responsibility to other implementers of a particular project.
The roles and tasks of the implementers within the projects are determined by the implementers themselves, but the common task of all implementers is the organization of the project and ensuring its functioning

Assets received from the sale of wrapped tokens are unblocked in parts or completely by a simple signature of a single or several implementers of one project, which are determined at the time of the project proposal and the release of internal tokens of a particular project.

The order of interaction of participants
A discussion group is created for each project, where everyone can get in. Further, private groups with a specific description can be created within the general group to discuss the project, in which participants are allowed by the implementers.

Private groups
The main form of organizing any work on a project within the framework of an experiment. They are used for discussion and concrete work on the implementation of the project in the circle necessary for a specific task.
The circle of participants in a particular private group is strictly limited to the participants required to solve a specific task.
Private groups can also be created inside already existing private groups, which provides a more

subtle interaction within a specific topic.

The Macroeconomic Dao

Ecosystem
Each Dao in the ecosystem involves the implementation of a specific project, enterprise, event, decision-making or any other public action proposed by the community of experiment participants and developers.

Social DAOs are used for making decisions within the community and organizing any social events within the community. They do not concern either business ideas or external public projects. It can be just a vote for some proposal, or a collection of resources (public and material) for some internal event or a charity gathering.

The current state of the code of the entire platform is supported by the state of the main branch of the repository on GitHub, in order to make changes to which it is required to pass a Code DAO vote. In this way, decentralized management of the global code structure is carried out.All members of the developer community can be Code Dao initiators.

Commerce DAO is a simple implementation of the concept of crowdinvesting, where entrepreneurs and enthusiasts can offer a business idea or a real business plan for implementation at the expense of investors, in turn, investors get the opportunity to consume the products of the implemented project on exclusive terms and the opportunity to receive a share of the profits of the implemented project.

Economic DAO is a completely new concept of organizing public financing, project management and socio-economic interaction, which allows accumulating social, financial and economic resources for the most effective implementation of any relevant public projects and ideas.

Practical logic of organization and self-management of users

At the first level, the system is a peer-to-peer structure consisting of all users of the community who have equal privileges and own equal parts of a common active resource representing the aggregate, creative and economic potential of the community.
The main application function of the community is effective interaction with the aim of realizing the interests, ideas and projects of all users, increasing the overall active resource of the community, developing the community and users.

Using the functionality of the extensible creative platform Gyber Social, users can safely communicate, share relevant information, propose ideas and projects for implementation and work collectively on all stages of project implementation and management. The platform includes all the necessary functionality for news exchange, communication and teamwork on projects, and its architecture is built in such a way that it ensures the security of user data and the ability to control them directly from users and is comprehensively and easily expanded by users directly or through collective interaction.

The main method of user interaction is shared spaces: news, messages, ideas and projects, which are shared thematic folders in which each user can create folders with content, thereby sharing news, messages, ideas and projects with the community.

News, messages, discussions of ideas and projects added by users to shared spaces represent the main content, which, in turn, can form its own internal directory tree, access rights to which are determined by the administrators of the main content.
Internal catalogs of the main content are directly related to the subject of the main content and constitute its internal interactive user interaction environment.

When the main content is added to any of the fields, a child directory is created in the root of a specific common field, and the author becomes its director (main implementer) and can assign administrators (additional implementers), groups, access rights to it and change them. Also, each child directory in a specific field must have some mandatory attributes and some additional ones. These attributes are determined based on the thematic features of each of the common fields.

The concept of socio-economic selection
Basic concepts:

A new kind of financial community is a peer–to-peer community of people organized for effective interaction in order to implement ideas and projects of interest to them, at the expense of the collective capital of participants, promotion and management of them, by means of advanced information technologies and financial mechanisms.

The social and investment circle is an unlimited number of members of a new type of financial community interested in the implementation of a specific idea and project.

The active group (the core of the provision) is the optimal number of participants from among the social and investment circle who want to actively participate in the implementation of a specific idea and project.

A professional coordination group is an auxiliary administrative resource of a new type of financial community, hired for a fee from professionals, which may consist of both community members and non–community members. The main task is professional assistance, ensuring the project activities of active groups.

Social relevance is a project parameter directly determined by the sufficiency of the number of participants in the social and investment circle for the implementation of the project at the expense of the collective capital of participants on the principle of minimum individual participation.

The threshold of social relevance is the ratio of the cost of implementing a project and the number of participants in the social and investment circle sufficient for its implementation at the expense of the collective capital of participants on the principle of minimum individual participation in financing.
The collective capital (of the participants) is the total investment ability of the participants interested in the implementation of a particular project.

The principle of minimum individual participation (in financing)
is a principle in which the full cost of the project is distributed equally to all participants in financing, and the amount of individual participation in financing is determined by the minimum possible size, that is, it decreases as the number of participants increases until the threshold of the relevance of the project is passed.

Interaction

Properties of User spaces

The main functional workspace of the expandable creative platform is the project space. It forms projects from the ideas of the community, offers interesting projects for implementation, discusses projects, and direct intellectual work on the implementation and management of projects.The main concept of the project field is the idea-project-implementation model, a pipeline that accepts relevant ideas for collective implementation at the entrance, forms concrete, ready-to-implement projects based on them and implements them at the expense of an actual community resource, which is formed by the ratio of the total active community resource and the number of users interested in implementing a specific project.After the initial formation of the project, it is discussed and as interest in the project grows from the community, the Director determines the active project group, which will be engaged mainly in the intellectual management of the project.Project financing is based on the principle of minimal individual participation, which is described in detail in the community concept sheet.The main content in the general project space is a social and investment circle consisting of users interested in the implementation of a specific project.The circle may consist of users with different attitudes to the project, for example, an active group, a passive group, which in turn, if necessary, may have their own internal gradations.The final structure of the circle is individual and comes from the internal qualities of the project and the external conditions of implementation. The main distinguishing quality of the social and investment circle, after the final formation of a specific project, is the unconditional unity of its participants. The circle includes and consists exclusively of those users who are interested in implementing a specific project.If internal contradictions arise among the participants of the social and investment circle, a separate discussion is held in a special directory within the circle, where the main contradictions are identified in order to form a unified solution for the implementation of the project that meets the interests of the overwhelming majority of participants. If this is not possible, the project can always be divided into several independent ones and identify the most relevant one for implementation on the principle of minimum individual participation in financing.