

OxAI

Web3 Infrastructure Protocol for Decentralized AI Computation

OxAI.com

Abstract

OxAI is a web3 based infrastructure protocol which enables anyone with an internet connection to access decentralized AI computation, secure the output data as an NFT while retaining IP rights to it so that it may be monetized. This is done by providing an open source user chat interface to send queries, which are automatically sorted and routed to the appropriate AI application genre, where a network of operators compete in a reputation based ranking system to provide the user with the best response. The user can then pick the best response from a shortlist and save it as an NFT.

Introduction

The dawn of the AI era is upon us. It is estimated that AI could create up to 133 million new jobs, and add up to \$13 trillion to global GDP by 2030. Furthermore, AI could reduce annual global carbon dioxide emissions by 4 gigatons by 2030. AI has the potential to massively increase efficiency and human productivity, improve healthcare and reduce mortality rates, save energy and water, increase global food production, and improve security, just to name a few. All of these projections demonstrate the incredible potential of AI and the impact it can have on the world, and they show why it is so important to make AI accessible to everyone, everywhere.

Various tools have demonstrated the power of AI. GPT3 has demonstrated that AI can provide accurate and ever improving information in response to user queries, and is quite proficient in data analytics, programming and optimizations tasks. Midjourney has shown AI can generate precise, visually brilliant and complicated photos from written prompts.

At OxAI, we are inspired by the great potential of Artificial Intelligence (AI) and how it can revolutionize the way we live, work, and play. Our goal is to enable access to AI computation for anyone in the world, regardless of their resources or location. We are building an AI infrastructure blockchain protocol that will bridge the gap between AI and blockchain technology, and create a platform that offers powerful AI-based services without compromising data privacy or security.

The wider impact of OxAI would be a revolution in how employers approach business operations. With OxAI, employers can efficiently complete individual tasks with no need to worry about the cost of hiring and maintaining full-time employees. OxAI offers global competitive pricing and verification of work before payment, allowing employers to maximize their resources and gain a competitive edge. In the crypto world, OxAI would make it possible to monetize AI content in the form of NFTs.

How it works

OxAI provides the essential infrastructure to bridge decentralized AI-Generated data on-chain to Ethereum in the form of NFTs and a decentralized AI Operator Network.

OxAI will provide a chat UI. There may also be any number of open source front ends utilizing the OxAI smart contracts. When a user makes a query through the front-end, the information is sent as an ETH transaction. OxAI reads the query and utilizes a sorting bot to route it towards the specific genre of AI application required to produce the appropriate information (for eg. route data analytics to GPT3 and image generation to DALL-E). Within the specific application genre, there will exist many AI Operators which leverage various AI applications and data sets to produce varying responses. A reputation mechanism shortlists the best responses and presents them to the user. The user checks these responses and selects the best response - information is now user verified. This information is then converted into an NFT and all associated data is stored on IPFS and can only be accessed by the NFT holder [NFT holder can choose to make the information in the NFT public-read only; or private-modifiable; NFT holder can also mint multiple NFTs (read-only versions only), OxAI will charge a minting fee for each additional NFT, as well as a fee on each sale]. Users can buy AI Service NFTs on secondary markets if they wish.

Users may select the processing time limit they are comfortable with. For less complicated tasks, AI Operators can provide near-instantaneous results and the best results will be shortlisted as per process and verified by the user. More complicated tasks may be completed by human-augmented AI.

The user whose query generates the NFT would own the intellectual property rights to the NFT.

OxAI Smart Contract Relay

The OxAI Relay is the smart contract infrastructure which links Users and Operators:

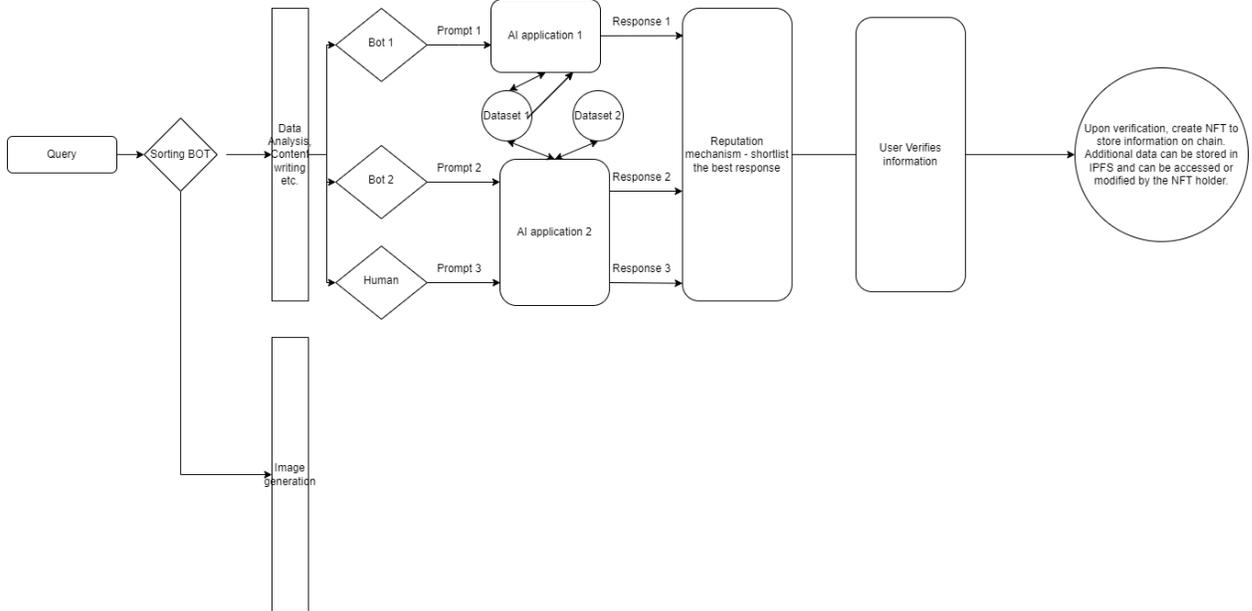


Fig 1: Schematic diagram of OxAI protocol

AI Operator Network

AI Operator creation will be decentralized and everyone is free to create and deploy their own Operators. These Operators will earn performance fees for responses that are selected and verified by the user. Operators can be deployed that perform various types of generalized or specific tasks. They may utilize any AI application and any dataset. This means that there will be no limits or restrictions on the type or temporality of information that can be requested.

OxAI Governance

The OxAI DAO

The OxAI DAO is the decentralized autonomous organization responsible for governing the OxAI protocol. The DAO is composed of token stakers. Anyone can become a member of the DAO by staking OxAI tokens - operators, users and investors can all play an active role in its governance.

The DAO is responsible for:

- Setting the rules, regulations, and incentives that govern the protocol and its users. This includes setting rewards for token stakers, operators and users.
- Developing and implementing new features and ensuring that the protocol is kept up to date and can respond to the changing needs of its users.

The OxAI Foundation

The OxAI Foundation is a non-profit entity which will steward the development of the protocol. The Foundation aims to provide OxAI users access to the latest features and technologies. The Foundation will be responsible for providing grants and other resources to developers working on projects related to the protocol, and will offer educational materials and resources to ensure users are informed about the protocol and its features.

OxAI Tokenomics: OXAI and eOXAI

The OxAI Protocol will feature two native tokens: the OxAI Token (OXAI) and the Escrowed OXAI (eOXAI).

OXAI

The OXAI token is a meme-coin which when staked, gives the stakers the right to be a part of and vote in the OxAI DAO. Therefore, the OXAI stakers comprise the OxAI DAO which will govern the OxAI infrastructure protocol.

eOXAI

eOXAI stands for escrowed OXAI. These are staked OxAI tokens and remain in escrow for up to 4 years.

When you stake your OXAI tokens you get an equivalent amount of eOXAI. You may stake your eOXAI and access OxAI tiers.

Voting power is only allocated to the non-vested balance of eOxAI tokens.

OxAI Fees

Here are all the fees that users will pay while using OxAI:

- Users pay transaction fees, cost of computation and a premium embedded into the query transaction in ETH. Cost of computation is paid to AI Operators, pending a 7 day cooldown in case of issues.
 - OxAI may enable AI Operators to set their own minimum premium they will accept. This could be 0-20%. Users can then choose instructions based on what operators will accept.
- AI Service NFTs generate royalties of 5-10% on sale and usage.

OxAI Tiers

In addition to paying per query, users may also opt for subscription based service. Staking tokens in OXAI gives you access to various tiers in the ecosystem. Each tier gives you access to various AI applications. The higher your tier, the more unique and complex AI you have at your disposal. Also, the higher your tier, the more requests you can avail per month.

The tiers are as follows:

Tier	eOXAI Stake
Cosmic Bull	50,000,000 eOXAI
Galaxy Bull	32,500,000 eOXAI
Star Bull	17,500,000 eOXAI
Moon Bull	12,500,000 eOXAI
Platinum Bull	5,000,000 eOXAI
Golden Bull	4,250,000 eOXAI
Silver Bull	750,000 eOXAI
Baby Bull	500,000 eOXAI
Free Tier	0 (Request Limit)

Reputation mechanism

To continually improve and produce the best responses, a reputation mechanism will be used.

The reputation system will score and track each bot's performance on the network based on the accuracy of outputs and response time. Outputs that are selected and verified by the user are considered the most accurate, followed by shortlisted responses that also earn points. Over time, the reputation system will be able to identify reliable and trustworthy Operators, whose outputs would have a higher chance to get shortlisted and in turn receive higher rewards.

A whitelist function for Operators qualified for certain types of on-chain execution for AI processing can also be introduced for Users to select from.

Likes and Dislikes: Users will be able to submit signatures as feedback to signal if they Like or Dislike an output, which is recorded on a ledger for the Operator(s). This would be referenced when distributing rewards, and bots with the highest complaint rates could be at risk of having their eOXAI token rewards slashed. The bots with the highest compliment rate could receive additional rewards.

OxAI Use Cases

- Democratize access to AI so that any human or AI with an internet connection can access it. You just need an EVM compatible wallet.
- Store prompts/responses on IPFS so that anyone can access user interactions for the purposes of data logging, future AI training, keeping tabs on AI companies and how they modify their private models,
- Unleashing AI onto live data across web2 and web3 via API so that AI Operators can use the advanced AI models with real-time data to create innovative applications
- Service NFT marketplace for AI Operators to monetize the applications they build on top of OxAI

Roadmap

- **Decentralized Access to Artificial Intelligence**
OxAI decentralizes access to AI computation allowing anyone with an EVM compatible wallet access to AI models in a permissionless manner. Supported chains include: Ethereum, BNB Chain, Polygon, Arbitrum, Optimism, Avalanche and Fantom.
- **Enable Artificial Intelligence to Connect Live to Real-Time Data**

OxAI's CyberStream Connect live feed Integration allows AI models to connect to and interact with real time live data across web2 and web3 enabling developers, AI Operators and other users to build innovative applications which were never before possible.

➤ **User Friendly Messenger Interface**

Using a familiar telegram bot setup for interactions ensures our initial target audience will be familiar with the onboarding process and will eliminate friction as we look to set OxAI up as the premier protocol for real time data AI computation.

➤ **Initial Suite of Apps**

Our initial suite of apps will allow users to access AI computation unleashed onto real time data using our CyberStream AI connection. Our Initial AI's receive constantly updating and changing information. The goal of releasing AI these use cases within a Telegram bot is to rapidly test and iterate on what users engage with the most, so we know where to focus on to enhance with on-chain computation, execution and functionality. Available via wallet connection on Ethereum, Arbitrum, Optimism, Polygon, Avalanche and Fantom.

➤ **Fully Decentralised and Open Source System**

In the future we may release the code for CyberStream connect and make it open source which will allow AI Operators on the blockchain to create innovative new applications and monetise them on the AI Service Marketplace.

➤ **Log Interactions onto the Blockchain**

All interactions between user and AI will be uploaded onto the IPFS with full data security and privacy to be stored indefinitely, ensuring the ongoing permissionless and decentralized development of Artificial Intelligence.

➤ **AI Agnostic Platform**

OxAI currently interacts solely with GPT3 OxAI but is built to be AI Agnostic and in the future as AI technology progresses OxAI will interface with multiple AI models, and through the use of the decentralized AI operator network will be able to facilitate AI to AI communication.

➤ **OxAI Service NFT Store**

The OxAI Service NFT Store allows AI Operators to distribute and monetize the applications they build on top of the OxAI protocol. Users will be able to find and use unique and innovative AI services which they can use through decentralised OxAI front ends.

➤ **Private Access to Public Keys**

Making use of public key cryptography for the sharing of private data via IPFS between user and AI, to enable the ability for both user and AI to sign transactions on the users wallet. Opening up the possibility for AI to execute transactions based on predetermined parameters decided between the user and the AI.

➤ **OxAI DAO Governance**

As the OxAI protocol achieves it's long term vision of becoming a fully decentralized AI agnostic infrastructure protocol for AI computation & aggregation, it will be governed entirely by the OxAI DAO and eOxAI stakers.

Initial Suite

The initial suite of OxAI Apps will allow users to access AI computation unleashed onto real time data using our CyberStream AI connection.

CyberStream constantly updates and changes analysis based on market conditions and sentiment. The goal of releasing AI use cases within a Telegram bot is to rapidly test and iterate on what users engage with the most, so we know where to focus on to enhance with on-chain computation, execution and functionality.

- AI Unleashed: Connected to real-time internet data to combine AI computation with live information across the internet
- Trader AI: Trained and updated in real time to give live trade updates and market overviews.
- Threadoor AI: Trained and updated in real time to provide AI-driven analysis from deeper insights into crypto markets.
- Permabull AI: Trained to give you hopium when you need it most, be cautious if he is ever bearish.
- Permabear AI: AI that will always lean bearish if it can and ensure you keep your head on your shoulders, if he's bullish it's a concerning signal.
- Macro AI: Trained to provide concise insights into top Macro economic analysis.

- Narrative Trader AI: Trained to be early so as to catch trends and rotate narratives.
- Gigabrain Trader AI: AI that gives out only the highest form of trading alpha as well as Gigabrain takes on the market.
- Countertrader AI: The inverse Gigabrain trader, trained to be a countertrade and sentiment signal. Max bullish at 69k and still waiting for 12k BTC to buy the dip.
- On Chain AI Analyst (ETH): Deep insights into on chain activities, in-flows/out-flows and whale wallet activity.
- On Chain AI Analyst (BTC): High level bitcoin analysis of on chain activity on the Bitcoin network with information on Supply/Demand dynamics, holder base unrealised P'n'L and lots more.
- Defi Alpha AI: Alpha and fundamental analysis on the best upcoming Defi projects to ensure you are always early and in the loop.
- NFT/Gaming Alpha AI: Alpha on upcoming NFT mints and deep research into the Gaming and Metaverse sectors.

In Development

Combining the Cyberstream Connect and the Decentralised AI Operator Network there are a number of novel and innovative use cases currently on the roadmap. Including but not limited to:

- On Chain Smart Contract Audits: via scanner (Etherscan etc) and Github API's the SC Audit AI can carry out Smart Contract audits on any contract address.
- Expert AI in different fields: Trained and updated on information from experts across different fields working with these bots will be similar to having on demand 1:1 consultations with experts as and when users need it on their journey in their chosen field.
- Real-time On Chain Cybersecurity: Monitor transactions in real time and decode into easily understandable information so users will know exactly what they are doing on chain at all times.
- On-Chain Data Logging: Store interactions onto the IPFS to create a database to be referred to in future for research, accountability and the training of

future AI models.

- Private access to IPFS data: Making use of public key cryptography for the sharing of private data via IPFS between user and AI, to enable the ability for both user and AI to sign transactions on the users wallet. Opening up the possibility for AI to execute transactions based on predetermined parameters decided between the user and the AI.
- Open Source CyberStream code, AI Operator network and NFT Marketplace: In the future we plan to release the code for CyberStream connect and make it open source which will allow AI Operators on the blockchain to create innovative new applications and monetise them on the AI Service Marketplace. The AI Operators and AI Service NFT Store will generate transaction fees.