



Koii
Lightpaper

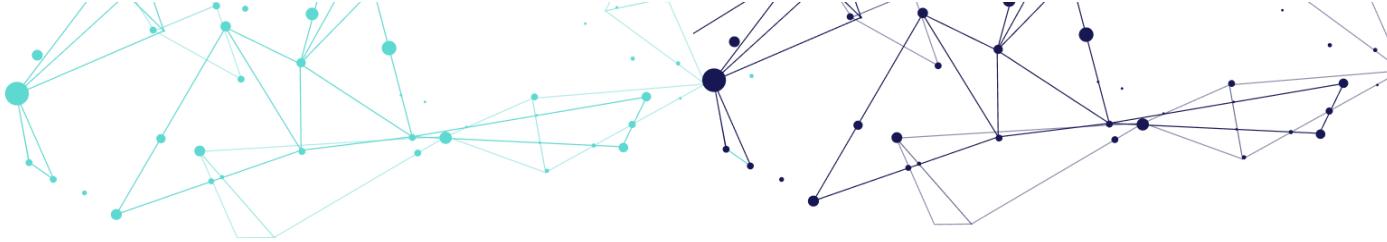


Koii

The Web 3.0 Attention Economy

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Koii Labs Inc.



Directors' Responsibility Statement

The Directors of Koi Limited have issued this Lightpaper and have taken all reasonable care to ensure that the facts stated in this document are true and accurate in all material respects, and that there are no other facts the omission of which would make misleading any statement in the document, whether of facts or of opinion. The Directors accept responsibility accordingly.

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IMPORTANT NOTICE: Please read the entirety of this “Summary of Legal Considerations, Risks and Disclaimers” section carefully. We recommend you consult a legal, financial, tax or other professional advisor(s) or expert(s) for further guidance prior to participating in the KOII Token Generation Event outlined in this Lightpaper. You are strongly advised to take independent legal advice in respect of the legality in your jurisdiction of your participation in the Token Generation Event. You should note that in the Token Sale Terms and Conditions that you will be acknowledging and accepting as part of the process to participate in the KOII Token Generation Event, you will represent that you have indeed taken independent legal advice.

Please note that this is a summary of the “Legal Considerations, Risks and Disclaimers” document which can be found at koii.network/legal and which you must read in full before: (i) making use of this Lightpaper and any and all information available on Koi Limited’s (the “**Company**” or “**Koi**”) website at koii.network (the “**Website**”) and/or (ii) participating in the Company’s token generation event outlined in this Lightpaper (the “**Token Generation Event**”). Any undefined capitalised terms below shall have the meaning set out in the “Legal Considerations, Risks and Disclaimer” paper. This summary should not be relied on in place of reading the “Legal Considerations, Risks and Disclaimers” paper in full. The information in this Lightpaper and all information available on the Website shall hereinafter be referred to as the “**Available Information**”.

The “Legal Considerations, Risks and Disclaimers” paper, the full version of which was mentioned above, applies to the Available Information. The contents of the “Legal Considerations, Risks and Disclaimers” paper outlines the terms and conditions applicable to you in connection with (i) your use of any and all Available Information; and/or (ii) your participation in the Token Generation Event, in each case in addition to any other terms and conditions that we may publish from time to time relating to the Token Generation Event (such terms hereinafter referred to as the “**Terms**”).



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The information set forth in the “Legal Considerations, Risks and Disclaimers” paper may not be exhaustive and does not imply any elements of a contractual relationship. While we make every reasonable effort to ensure that all Available Information is accurate and up to date, such material in no way constitutes professional advice. Individuals intending to participate in the Token Generation Event should seek independent professional advice prior to acting on any of the Available Information.

The Company does not recommend purchasing Tokens for speculative investment purposes. Tokens do not entitle you to any equity, governance, voting or similar right or entitlement in the Company or in any of its affiliated companies. Tokens are sold as digital assets, similar to downloadable software, digital music and the like. The Company does not recommend that you purchase Tokens unless you have prior experience with cryptographic tokens, blockchain-based software and distributed ledger technology and unless you have taken independent professional advice.

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In no event shall the Company or any current or former Company Representatives be liable for the Excluded Liability Matters.

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You should carefully consider and evaluate each of the risk factors and all other information contained in the Terms before deciding to participate in the Token Generation Event.

This Lightpaper may be translated to different languages but in the event of a conflict between documents, the English version of the Lightpaper will prevail.



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What is Koi?

The Koi Protocol tracks attention on the open internet to equitably reward valuable content, and the network of Koi Nodes provide faster, cheaper, and more rewarding ways to build cross-compatible, chain-agnostic decentralized apps.

What's wrong with the web?

Traditional Web 2.0 platforms monetize by exploiting their users. Centralized social media apps aggregate photos, music, videos, and writing without paying the creators a single cent. Websites sell user data, post unskippable ads, and hide their best content behind paywalls. At best, a fraction of the value creators generate on the web ends up in their own accounts. At worst, users perform free labor while getting invisibly data mined.

Current blockchain-based “Web 3.0” solutions provide appealing alternatives by offering increased permanence, performance, and transparency in application development. However, as of this writing, these alternatives remain more theoretical proofs of concept rather than profitably mainstream.

Unfortunately, most decentralized apps (“dApps”) suffer from sky-high transaction costs, expensive infrastructure, and issues with scalability. Their “profitability” is driven by bullish token speculation, not economic fundamentals. Ultimately, they have failed to help the large majority of internet users graduate from being exploited in Web 2.0 into flourishing in Web 3.0.

Koi-X and Web 3.0

Koi’s breakthrough innovation is a scalable consensus protocol that tracks attention on the decentralized internet to reward reliable or creative stakeholders. This serves as the foundation layer of the Koi dApp developer framework, which provides the security, transparency, and incentivized performance benefits of blockchain-based technologies with just a few lines of code.



How it works

Koii's protocol is rooted in two critical components: **robust incentives** and a **scalable consensus**.

Earning KOII

Anyone can use the Network to earn KOII by deploying tasks, running a node, or producing and registering content on the Network. As communities build their own incentive models on top of the Network, they will automatically be cross-compatible, making it finally possible for individuals to capture all the downstream value they create online, without being caged to a host platform.

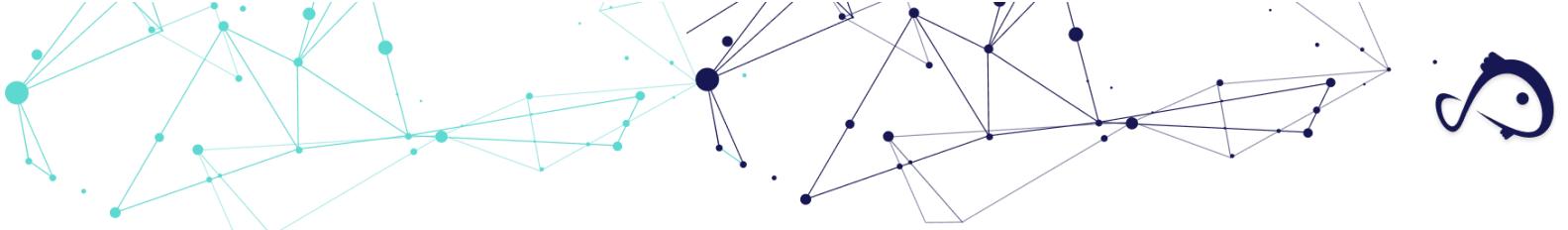
Scalable Consensus

The Koii protocol is tailor-made for dApps that do not require fast transaction times, providing a superior solution to the expensive infrastructure of Ethereum and similar networks. Traditional blockchains deploy resource-expensive Proof of Work protocols, accruing high energy usage and expensive fees. In contrast, Koii Nodes use energy efficiently by using [Proof of Real Traffic \(PoRT\)](#) to prevent spam, and a stake-based state transition model for more “gradual” consensus.

Building Communities

DApps deployed on Koii earn a percentage of the newly minted KOII every day based on the dApps' user engagement. Users can earn KOII by providing, creating, and registering content that garners attention. Network participants run “Nodes” on their computers, powering the Network, eliminating hosting costs and powering stable and elastic network scalability (see “[How it works](#)” for more details on Bundler Nodes). Nodes are rewarded in KOII tokens based on Tasks defined by dApp creators.

Check out the [official Koii Protocol paper](#) for a full breakdown of the consensus process.



The Koii Ecosystem

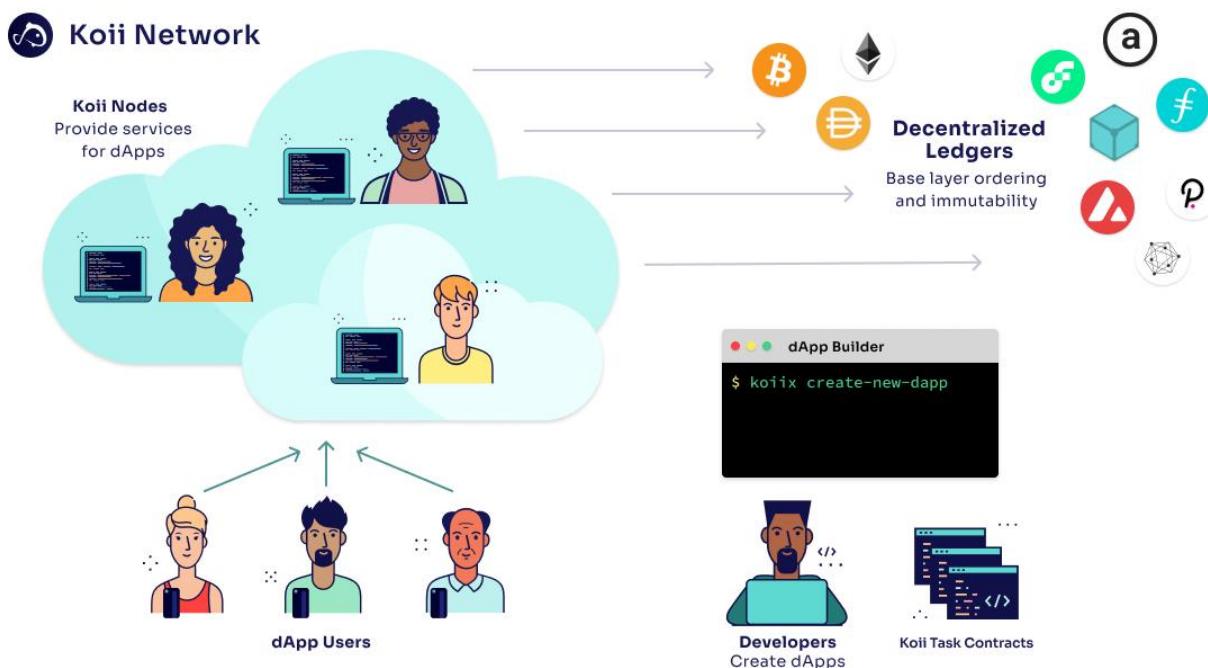


Figure 1: Koii dApp and creative ecosystem. See [developer docs](#) for more details.



Proofs of Real Traffic (PoRT)

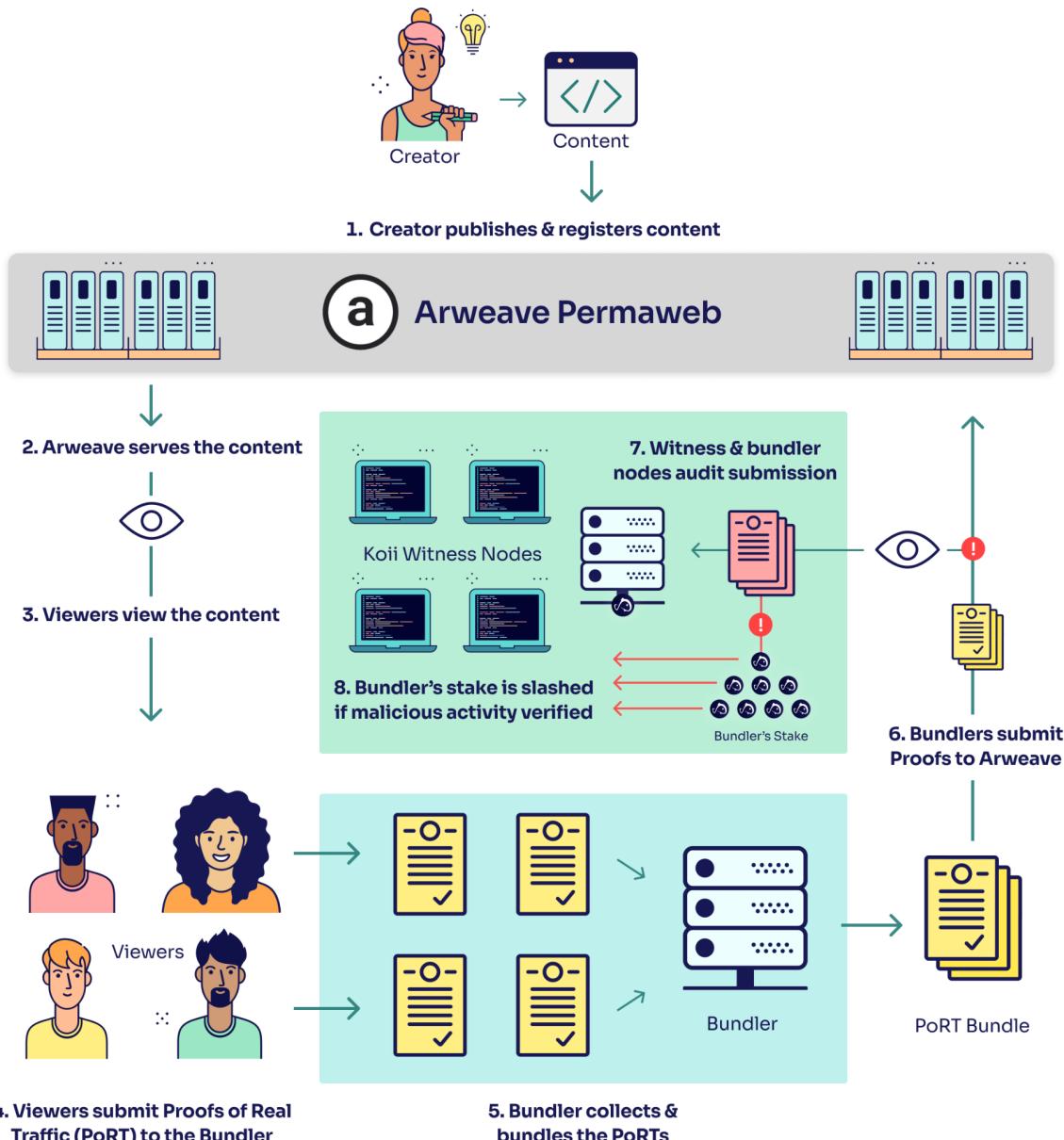


Figure 2: Proofs of Real Traffic (PoRT) diagram. See the [Koii Protocol](#) for more details.



Koii-X

The Koii framework (“Koii-X”) makes it possible to launch decentralized applications quickly, along with built-in incentive mechanisms. Arweave’s unique storage network makes it possible to build highly scalable layer-two applications using Koii Nodes for services and security.

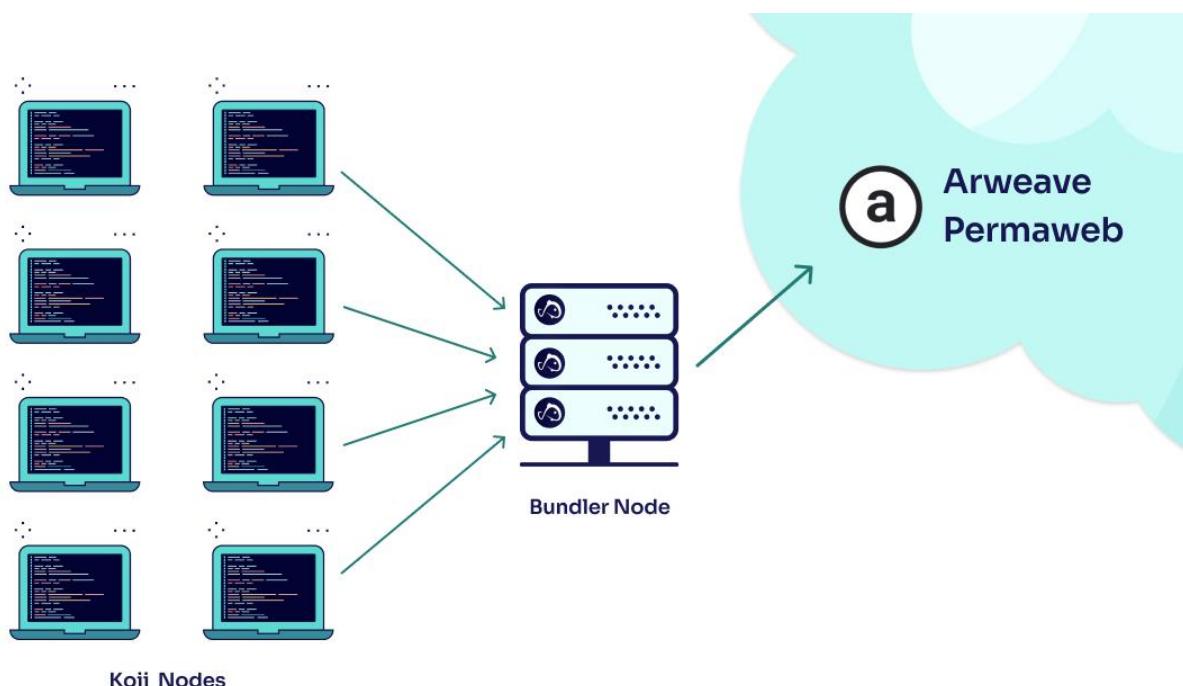


Figure 3: Nodes can stake KOII to act as bundlers, and collect network data to be written to Arweave or other decentralized networks.

Using Koii’s command-line interface, developers will soon be able to quickly create dApps that scale appropriately to their needs. Koii provides this scalability by building flexible side chains (“bundles”) on top of the Arweave permaweb. This infrastructure enables feeless interaction for Nodes and increases interoperability. The first application of this new ‘gradual’ consensus process allows Koii to track and verify traffic (“attention”) across content gateways, which links token distribution to traffic volume, creating direct incentives for content creation.

Finally, the Koii Network is engineered to scale independently of transaction speed. Since transaction speed is not the basis for a sustainable and easily scalable network, Koii sidesteps these issues and creates



a consensus mechanism to accommodate the data structures and volume needed to reach critical network mass.

Running a node

Koii Nodes stake their tokens in order to participate in consensus activities (e.g. voting, slashing, and bundling) and to generate and store information to fulfill Koii Tasks. Node operators are compensated for reliably completing Koii Tasks.

Koii Tasks

Every Koii dApp will use the Koii Software Development Kit (“SDK”) to access the network of Koii devices to run their backend. Work that the Network runs for dApps are divided into “Koii Tasks”. Tasks are customizable and use the Koii smart contract as the base.

Customization allows Task creators to specify conditions for Node participants, which allows creators to qualify contributors to suit their needs. Some Koii Tasks will be running on virtually all Koii dApps, like reputation assessments and attention proof verification. Others are tailored to the needs of the dApp, such as StoreCat’s web scraping, and oracle services.

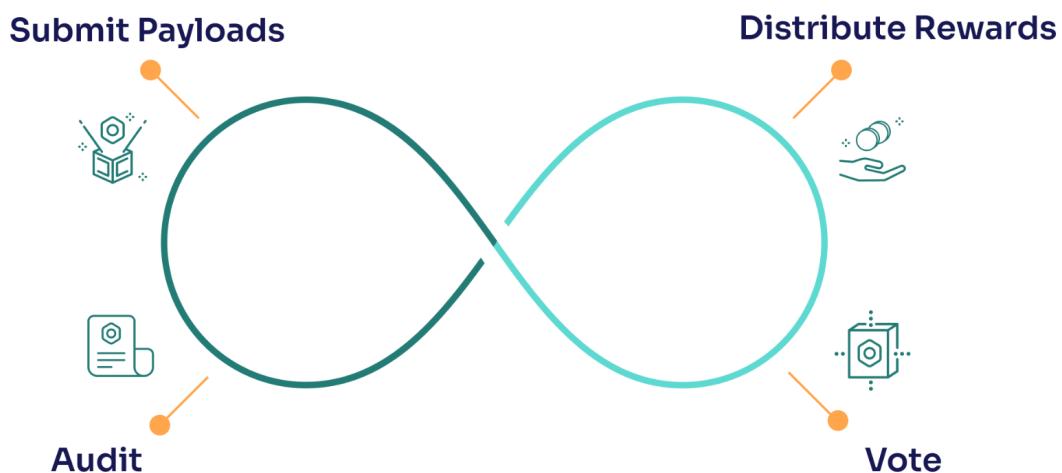


Figure 4: Koii Tasks include four main steps: fetching raw data, creating attestations, permanently storing that data, and updating Arweave’s state to match.



Tokenomics of Koi

Koi's incentive mechanism rewards content creators and publishers relative to the amount of traffic logged by the gateways detailed in the Proofs of Real Traffic diagram. 1,000 KOII are minted daily and awarded proportionally to owners based on the number of views relative to the ecosystem.

Koi Token Distribution

The Koi Network provides a new monetization model for decentralized applications. To participate, creators and dApp developers register their content to begin tracking the attention they create. Koi Nodes track gateway traffic for the registered content over a 24 hour period, preventing manipulation by verifying each Bundler's record against the others. Once consensus is reached, 1,000 KOII are distributed in proportion to the verified attention scores. Node operators receive KOII for helping to keep the system running.

Staking and Rewards

The goal of the Network's incentive model is to reward reliable participants. To ensure reliability, voting power is scaled to the time and amount staked. Whenever a Node is discovered breaking the rules, other Nodes vote to slash its stake, and receive a share of the slashed amount to incentivize their effort. Rewards are distributed proportionately to each Node's voting power, which encourages participants to stake as much as possible.

Initially, the Koi Foundation will provide grants of up to 1,000,000 KOII each year to new projects as task credits. These grants will accelerate adoption and ensure Node operators receive reasonable compensation during the growth phase.

Bridging Blockchains

While Koi uses the Arweave as the main immutable data store, other blockchain networks are easily integrated to expand the possible applications and services. As an example, Arweave-based NFTs can be displayed and traded simply on other decentralized exchanges, and all Koi content is generated according to the same standard. As Koi expands, we will explore incorporating additional decentralized storage networks, as well as consensus networks like Avalanche, and Hyperledger private blockchains.



Community Development

We are prioritizing ease of adoption by flattening the barrier-to-entry for people to make dApps with Koi. That means extremely simple syntax for the dApp command-line build and SDK plug-in, multiple templates for different kinds of dApps, and refined tutorials to help anyone with a great idea.

Early Prototypes and Future Growth

In order to bootstrap the Network, the Koi team has developed several early proofs-of-concept, which will be provided as open-source tools and eventually as examples of the Koi-X Framework.

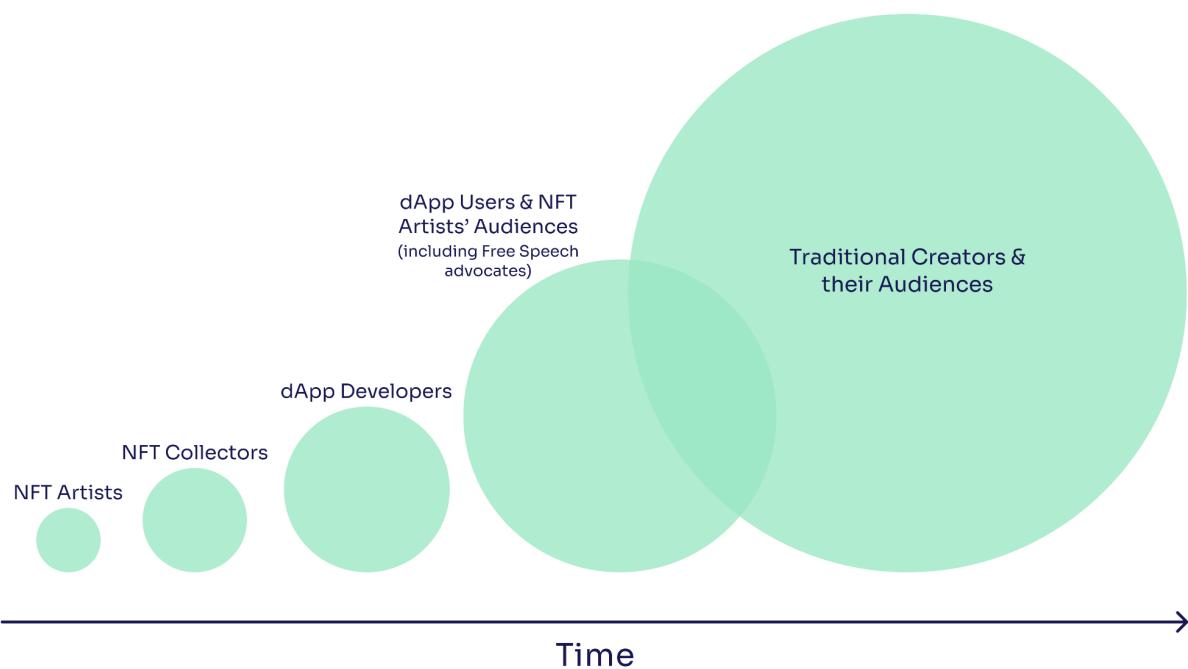


Figure 5: The Koi Network provides the tools to build dApps that allow participants to own their contributions, along with scalable web services and incentives that are tailor-made for this new paradigm.

Koi.Rocks: An actual utility case for NFTs

Koi has already developed the decentralized platform for NFTs. [Koi.rocks](https://koi.rocks) permanently archives each NFT and rewards creators based on traffic tracked by the protocol. We have partnered with digital artists to ensure their work is stored securely and ownership cannot be undermined.



∞

🔍
Get KOII
Connect Wallet

You're subscribed:

Spartan + Wi-Fi (for fun)
Dimisfun

Follow your Heart
Yerol

World of Meme v5
Fanilaykos

-cloud Drag, Drop, Earn.
Or click for more archive options

Top Content

24hr
1w
1m
1y
all

Top
▼

Show NSFW Content
OFF

Rank	Content	Views	KOII earned	Actions
1	are u alive? LILBRY <small>Registered: Jan 01, 2021</small> <small>explore block</small>	37 Views	200.852 KOII earned	share tip artist
2	alien palms xylophone <small>Registered: Jan 01, 2021</small> <small>explore block</small>	12 Views	29.616 KOII earned	share tip artist
3	Astrid's cute little face kaylakroot	9 Views	11.472 KOII earned	share

All Time

356,355

861,569,235

KOII earned
All Time

Total views
View Details

Media of the Week
View Details

Happiness is...
~boo
subscribe
tip artist

Register your NFTs for a chance to win 100 KOII with Media of the Week.
Check out the previous winners.

The Revolving Gallery
View Details

Intention
Kiratsinh Jadeja
subscribe
tip artist

Figure 6: The [Koi.Rocks](#) portal allows anyone to create NFTs and start earning KOII whenever they generate attention.

StoreCat: Mapping the web

StoreCat ([getstorecat.com](#)) uses Koii “Tasks” to run decentralized web scraping while simultaneously mapping the web. Tasks allow decentralized applications to assign ‘Tasks’ to Koii Nodes, making it possible to expand the complexity of dApps’ value creation by leveraging Nodes’ processing power. This process ensures that data remains public and data gets transparently stored on Arweave’s permaweb and will always be accessible.



Ecosystem Growth

The Koi Network is designed to grow well beyond its initial scope. Technology architecture compliments social incentives to make it possible to govern not only the Koi Network, but also to build governance structures for the communities that are built on top of it.



Governance

The Koi Network is governed by token holders through a decentralized smart contract system. The longer a token holder stakes, the larger their voting power, ensuring incentives remain aligned for the long term. As projects are built using Koi, they can also employ the same structure to build flexible, cost effective voting systems.

During the initial launch of the Network, the Koi Foundation will provide guidance and lead technology development as necessary, paving the way for decentralized community governance.

Education

The Koi Protocol was founded by core team members from WeTeachBlockchain.org, Ivan On Tech, AltHash Education, and Arweave, and is working with developer communities around the world to develop strong onboarding tools to make it easy to use this new web infrastructure.





Thanks to Our Partners

Arweave, and specifically Sam Williams, has been an incredible partner to help us launch Koi. Their permanent storage system helped us iterate the Koi idea to what it has become and their gateways power the Koi attention tracking model.

Without the Outlier Ventures Base Camp program, none of this would have been possible. They invested in our seed round to help us off the ground and their tutelage and experience have been and continue to be pivotal in our growth.

Fenbushi Capital led our first seed round, and is leveraging their network of investors for our second and third funding rounds. They have provided invaluable guidance (and [great memes](#)) on developing the right product for the right people.



Provalidator



Cyberright



KYVE





Appendix A: Generation Event & Public Sale Summary Sheet

Token Functions

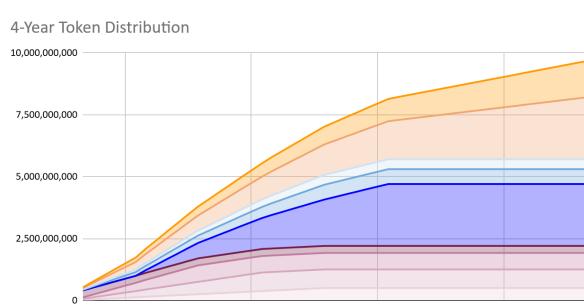
- 1) Spending the token by burning it to register / mint information, whether media content or dApps, to the Koii Network which stores it permanently on the Arweave and ensures that content earns its owner attention rewards.
- 2) Pay for "Bounties" to request Koii Tasks from the Koii Network, exchanging KOII for the computing power of the Nodes.
- 3) Reward Node-runners for participating in the network.
- 4) Reward content creators who registered their content and have earned attention rewards.
- 5) Stake while running a node, to ensure security in the nodes and also to get priority for your node (the more you stake, the more likely your node will be chosen to participate in the bounty, so the more rewards you will get)
- 6) Participate in governance of the network, voting on decisions such as changing the core technology stack, mint or burn rates, and more.



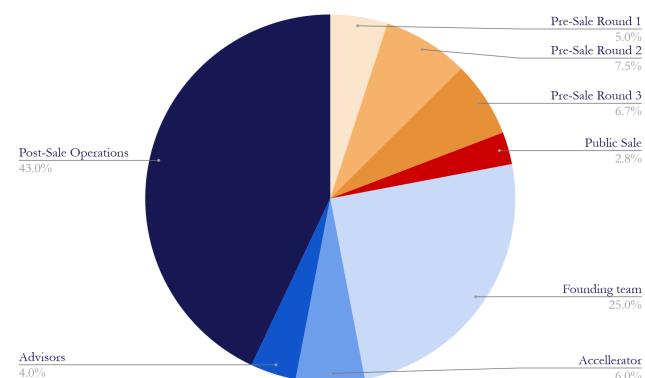
Token Allocations

Tokens will be issued at launch, with an approximate 3.65% inflation which will be given to content creators and app developers who join the network. Over a 5 year period, the initial supply will be dispersed into the community, until 50% of the network is owned by community and non-seed investors. Operating a Koi Node can also generate additional income, proportionate to the volume of computation resources supplied by the node.

	At Launch	Year 1	Year 2
Total Supply	10,000,000,000	10,365,000,000	10,730,000,000
Burn Rate	0%	1%	2%
Inflation Rate	3.65%	3.64%	3.63%
Circulating Supply	510,357,000	~3,900,000,000	~7,000,000,000



Token distribution over 4 years



Breakdown of tokens at network launch



Token Economics and Rights

Token Governance

The KOII token is the primary utility token of the Koi network and provides a medium for value exchange between various Koi Network services and participants. As a result, any holder of the KOII token is entitled to voting rights proportionate to their share of the ecosystem.

When a proposal is made, token holders vote by proxy (feeless) or direct (minimal fees) using a Koi app (node) or directly via the Software Kit (SDK). Before a proposal is brought to a vote, it will typically be debated during the monthly town hall session, allowing the community to further explore its merit.

Incentive Model

The Koi Network provides several types of incentives to ensure network-positive behaviour by voters:

1. Staking

Every participant must stake in order to vote, and the length of the staking period impacts voting power proportionately. (Longer stake, larger vote)

2. Reputation

Since each node's voting record is transparently displayed on the permaweb, past reliability increases probability of inclusion in future KOII-earning votes. Conversely, past bad behavior can result in exclusion from Koi Tasks.

Governance Security

The Koi Network operates as a layer 2 protocol using Proof of Stake (PoS) to secure the network. During the initial "spin-up" period, the foundation will hold the majority of the stake, ensuring minimal risk of a 51% attack or other network hijack.

Network Hijack

Because the data created by the PoS process is stored on-chain on the Arweave Permaweb, a true 51% attack (full or partial network rewrite) is not possible without compromising the entire Arweave, which implements a Proof of Access (PoA) algorithm and has never been successfully attacked in years since it was released.



Collusion

There are two main types of collusion that could occur on the Koi Network:

1. Vote Suppression

In a vote suppression attack, Bundler Nodes could cooperate to ignore votes from dissenting Participants.

2. Proposal Suppression

The other avenue for a conspiratorial party would be to hijack the social process around the DAO to prevent dissenting proposals from reaching the wider audience.

Both of these classes of events are prevented through the integration of a ‘stake slashing’ vote via the main Koi Contract. This vote can be triggered directly (without Bundler intermediaries) and can be used to submit “Evidence” to demonstrate a Bundler’s lack of fair interaction. To avoid this, we have implemented a system whereby all Bundlers will return a cryptographically signed receipt every time they receive a vote from a Peer Node. Any time that a receipt with a valid bundler signature is submitted as evidence, but does not appear in a bundle, the bundler loses their stake immediately without any need for a vote.

As the network grows, we hope to expand community channels to include fully decentralized forums, so that Bundlers can be held accountable for any misbehaviour. Once this final piece is in place, any bundler who seeks to ignore a proposal or does not issue a receipt can be identified systematically.



Token Generation Event Details

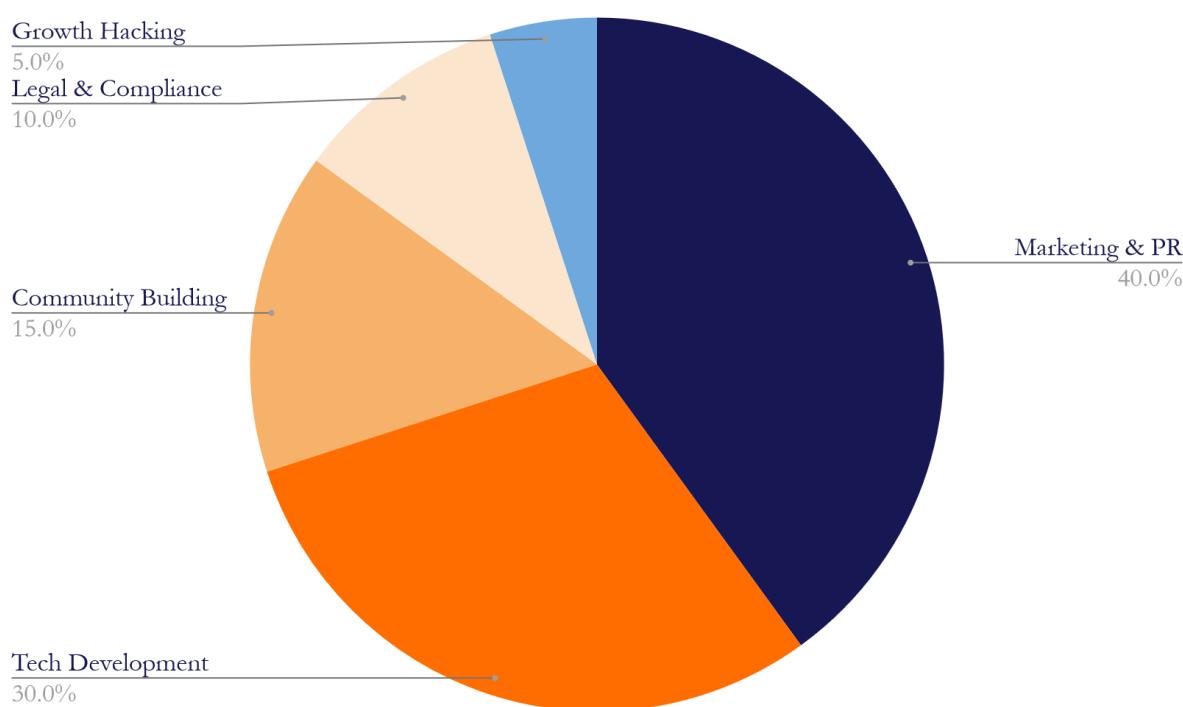
Hard Cap

The initial public sale will offer a hard cap of 283,333 tokens, representing 2.8% of the total supply

Maximum Tokens being Created

The total supply of tokens created on genesis will be 10,000,000 KOII tokens. Thereafter, 1,000 new tokens will be minted daily. Tokens only leave the supply when they are burned to register content to the Koi Network and Arweave.

Intended Use of Proceeds from Sale





Team



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Founder & Architect



Kayla Kroot
Creative Director



Abel Sebhatu
Technical Director



Colin Zarzour, JD
Operations Director



Anna Godfrey
Director of Community



Ghazanfer Anwar
Lead Systems Developer



Andre Vallesteros
Systems Developer



Makda Sebhatu
Smart Contract Developer



Ahmad Kayyali
Lead UX Developer



Dong Jin
Lead StoreCat Developer



Salman Arshad
Lead Spam Prevention Developer



Soma Li
Jr. UX Developer



Yang Mi
Sr. UX Developer



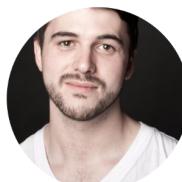
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Sandeep Singh
India Community Lead



Kelly García
Graphic & UI Designer



Josh Smith
DevOps



Nick Parolini
Community Lead



Advisors



Sam Williams
CEO, Arweave



Peter Yang
Fenbushi Capital



Charlotte Kapoor
Outlier Ventures



Brendan Joyce
leagueheads.com



Kevin Abosch
Animoka Studios



Matus Steiss
Outlier Ventures



Kiefer Burgess
University of Waterloo



Ilya Abugov
Sanctor Capital



Jon Rice
Cointelegraph

About us

Koii was founded on fairness, trust, and one immense objective: to give creators a space where they permanently own and earn the value they deserve from their content.

Alex started working on the project in its infancy in 2016, and slowly built a network of advisors, mentors and partners dedicated to a decentralized web built for creators, by creators. In early 2021, the Koii project exploded with the support of Outlier Ventures' accelerator program and renewed investor interest in a blockchain built for media, not just currency.

After bootstrapping the project for months, initial investor funds and a lean burn rate allowed the project to grow, attracting more talent. For months the team obsessed on the product above all else. We've spent most of our time working on the underlying node network, building powerful attention-tracking software and quietly leading the industry for sustainable, secure NFT creation and storage with our inaugural dApp, koi.rocks.

The time for quiet work is over - with the testnet already letting hundreds of creators register content, earn attention rewards, and benefit from a decentralized network of nodes and bundlers, we pivoted to ramping up marketing, community building, and excitement. You're reading this at the right time -



with art installations powered by Koii live in [Paris](#) and [outer space](#), three successful funding rounds closed, and an energized team, the wait is over. The people's internet is here.