EPIST

An Answer-to-Earn, Verifiable Knowledge Economy

April 2022

epist.xyz

Abstract

Knowledge is power. Yet in our world of information excess and misinformation, high-quality knowledge from reliable sources is scarce and hard to find. At times, it's hard to cut through the noise and find the relevant information pertinent to one's needs and interests, and at other times, critical knowledge is gated behind barriers that limit access. Ultimately, this leads to limited knowledge exchange, resulting in missed opportunities, reduced economic growth, and inequality in our society.

Blockchain technology introduced a new paradigm. Projects like Braintrust, Audius, and Mirror.xyz are becoming increasingly popular with creators and contributors because they leverage a new, fairer way of distributing earnings and rewards. Instead of centering and emphasizing the importance of themselves as platforms, web3 projects truly put users first, as demonstrated by their ways of engaging with and rewarding community members.

Epist, an answer-to-earn web3 knowledge economy, introduces a blockchain-based bounty system that aims to solve two key problems in the traditional knowledge sharing process: 1) lack of incentives for knowledge contributors and 2) lack of verifiable proof of expertise.

At Epist, experts are properly rewarded for sharing their knowledge (vs. platforms taking all the revenue while creators get none). The answer-to-earn model aligns incentives and elevates the quantity and quality of knowledge sharing, making Epist the go-to resource to source high-quality insights for question askers.

In addition to providing a superior Q&A experience, Epist is also a verifiable reputation system for knowledge and expertise. As the process of knowledge exchange is recorded on-chain, knowledge contributors have irrefutable proof of expertise through earning EPI tokens in their respective subject areas. In the landscape of "the future of work", the Epist expertise reputation system is more credible than self-proclaimed LinkedIn profiles, fake testimonials or other unreliable reputation guarantees.

Table of Contents

1. The Old Way of Knowledge Exchange and Why it Doesn't Work

Countless opportunities for knowledge exchange go to waste every day. Why are beef prices going up in my area? What exactly am I buying when I buy an NFT? For about $1,000 crypto assets, is it worth it to have a cold wallet?

How would you go about answering these questions?

1.1 Existing Venues for Knowledge Exchange

Traditionally, there are a few places where knowledge exchange happens.

In the offline world, educational institutions serve as centers of knowledge. While they provide an important value to our society, they also fall short on a few dimensions. First, most people graduate out of our education systems in their late teens or early twenties, and lose access to classes and office hours for the rest of their lives. Second, costs of education can be a daunting barrier for underprivileged students, thus preventing them from accessing these knowledge exchange opportunities. Third, given our constantly and rapidly changing world, one may not be able to find what they want to learn at high schools or even universities. Case in point: at the time this whitepaper is written, the authors of this paper cannot find any class that teaches tokenomics at Harvard University or Stanford University.

In addition to the educational institutions, personal connections represent another source of knowledge, but with its own set of limitations: 1) one's personal networks may be small (especially for those socioeconomically disadvantaged), 2) one's desired expertise may not exist within even fairly broad personal networks, as often is the case when learning something completely new (e.g. blockchain), and 3) beyond one's family and closest connections, most people are so busy with their lives that it may be difficult for you to claim their time to ask questions.

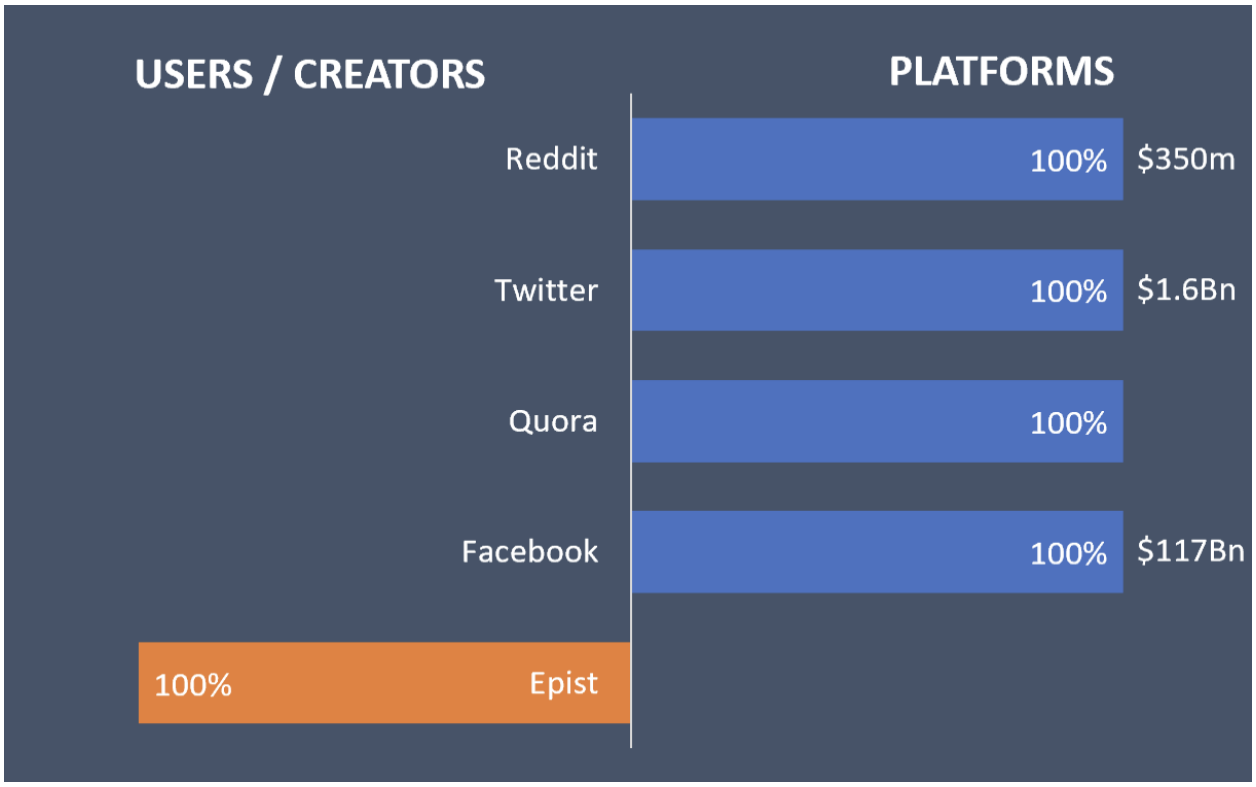
The Internet and the web introduced a new realm of possibilities. Platforms like Twitter, Facebook, Reddit and Quora have hundreds of millions or even billions of users. If one has a question, someone on the Internet likely has an answer. However, after posting one's questions on social media, the responses are often either nonexistent, or irrelevant (trolls, self-promotions, etc.). Why?

1.2 Misaligned Incentives and Extractive Big Tech Platforms

The core problem is misaligned incentives. In web 2.0, users are able to get amusement, social interactions, and perhaps altruistic gratification. However, they have few incentives to share their knowledge and respond seriously, because their time is not compensated. Ultimately, who benefits from users participation? The platforms.

Of the billions of dollars platforms like Facebook, Reddit, or Quora make, little goes to users who devote time and energy into content creation. Big tech companies expect their users to contribute for free, while they financially exploit and benefit from the content. It's no surprise that users are rejecting this approach and are unmotivated to take time out of their busy days to engage seriously.

Exhibit 1: Users vs. Platform Revenue Share



2. Web 3.0 and the Creator Economy

Epist is built on the idea of fairness, on the idea that users and creators should always come before the interests of rent-seeking shareholders who wish to gain wealth without an ongoing level of reciprocal contribution. This vision is made possible by the advancement of decentralized blockchain and web3 technologies.

Thanks to growing developer interests and capital inflows, the new creator economy of web 3.0 represents a new paradigm for ownership and aligned incentives. The way our economy works is about to go through fundamental changes in the coming decade.

2.1 Evolutions of the Web

After the “view-only” web 1.0 era which was dominated by portal websites, web 2.0 started to take over the globe around the early 2000s, with participatory features that allowed users to interact with websites as well as one another. While web 2.0 has been hugely successful in terms of its reach (though some may argue the popularity was due to the rise of mobile technologies instead), it also gave us a highly centralized world where our digital lives are controlled by a few select corporations - the Big Tech (Google, Facebook, LinkedIn, Twitter, etc.).

Few of us saw the downsides in their early days when the Big Tech kept their fees / advertisements at a minimum, and appeared user-friendly to grow their networks and valuations. Yet, as they expanded, they hiked fees, sold user data, served endless ads, and finally stayed true to their goal of maximizing shareholder profits. Instead of rewarding the users who contributed their time to build up the Big Tech networks and ecosystems, they exploit and extract. How could they do that? Because they know that we don’t have better alternatives - that is, until very recently.

In web 3.0, users and creators get to participate in the value creation made possible by them. Through the tokens they receive for using and contributing to the platforms, their net worth grows as the rising value of the ecosystems pushes up the prices of the tokens.

2.2 What Web 3.0 Knowledge Economy Looks Like

Web 3.0 knowledge economies and networks have a once-in-a-lifetime opportunity to build ecosystems with positive social impact over a long period of time. To be successful, these knowledge economies must have the following characteristics:

1. Alignment of Incentives: knowledge contributors should be rewarded for their efforts. Other socially positive behavior on the platforms, such as referrals to grow the expert networks, should also be rewarded.
2. Closed-Loop Tokenomics: tokenomics must be well designed and should not cause unhealthy inflationary pressure on the economy. Any system that hands out tokens without limits on new issuances will eventually crumble. It is more preferable to have a closed-loop economy where token payments are initiated from within the community.
3. Decentralized Governance (or a path to): decentralized ownership by economic participants in the ecosystem is key to long-term viability of any platform. To avoid the temptation of becoming increasingly extractive (alas, human nature), users need to be at the center of the governance model.
4. Invisible Hands of the Market: pricing of the knowledge exchange should be guided by market-based mechanisms (e.g. supply and demand of expertise / knowledge).
5. Transparent, Immutable Knowledge Exchange Records: in order for knowledge exchange to be repeatable and scalable, a credible reputation system based on secure digital identities should be developed. Thanks to blockchain technologies, as long as key information of knowledge exchange processes are recorded on-chain, it is technically trivial to achieve this goal.

3. Introducing Epist: An Incentivized, Verifiable Knowledge Economy

3.1 For Knowledge Contributors: Answer-To-Earn

Everyone is an expert in something. Whether you have a PhD in astrophysics, or you have simply spent an afternoon researching the most cost-effective mobile plan in your local area (one of the authors of this paper has a weird life mission not to pay telecom companies a cent more than needed), you know something that others want to know.

With Epist, you get compensated for sharing your unique insights. Your time is valuable. It's only fair that you get something in return.

The answer-to-earn system also provides a market-based pricing signal for information and knowledge. If the bounty is set too low for the amount of research and writing required, contributors may withhold sharing their knowledge until the bounty is increased.

3.2 For Question Askers: Improved Answer Quantity and Quality

Question askers post their questions with a bounty and choose the winner(s) once the open question period expires. The bounty system is designed to attract more knowledge contributors, which in turn attracts more question askers because they can get better answers more efficiently (both in terms of time and costs) on Epist. This is a virtuous cycle.

Exhibit 2: Knowledge Economy Virtuous Cycle

3.3 For Everyone: Verifiable Expertise Reputation System

Because the bounty system is implemented with smart contracts residing on the blockchain, Epist enables the creation of a provable expertise reputation system.

Through answering questions and getting awarded bounties in respective subject areas, experts now have a way to demonstrate their expertise through the irrefutable proof having earned EPI tokens. This is a much more robust system than having friends and family endorse someone on LinkedIn for their skillsets, because real tokens are involved and community fees (% transaction fee for every bounty exchange) act as a disincentive against wash trading.

4. The EPI Token

4.1 Token Design and Smart Contract

The EPI tokens are the lifeblood of the Epist platform, powering knowledge exchange and incentivizing positive behaviors for the ecosystem.

The EPI token contract has been deployed on Polygon and adheres to the ERC-20 token standard. EPI tokens have a fixed supply of 1 billion tokens, which means that the total number of tokens in circulation can never surpass that amount.

You may view the open-sourced EPI token contract here.

4.2 Token Distribution Plan

Our goal is to maximize the success of the Epist ecosystem to enable a truly revolutionary model for knowledge sharing. We are in the process of designing the token distribution plan to achieve that goal, with the following characteristics in mind:

1. Majority of the tokens will be reserved for community incentives & awards, treasury and platform enhancements.
2. Tokens for developers and early investors will come with a multi-year lockup period.

On April 14, 2022, immediately following the deployment of the EPI token contract, the entire token supply was transferred to a multisig Gnosis safe for safekeeping until the token distribution plan is finalized. The Epist team will update this section once updates are available.

4.3 Utility of EPI Token

The EPI tokens have a variety of utilities, including:

1. Bounty Currency: a) post a bounty and the best answer(s) get the rewards, and b) add to someone else's bounty to increase the competition and quality of answers
2. Referral Awards: get extra rewards for referring experts to Epist
3. Tipping: show your appreciation for a great answer
4. Staking: share in the community fee pool
5. Verifiable History: expertise reputation system for your digital identity

4.4 Applying Quantity Theory of Money to EPI Token (Bounty Currency only)

In order to estimate the utility value of EPI as a bounty currency (to simplify and be conservative, one can temporarily ignore the other utility values provided by the EPI tokens), we took some inspiration from the quantity theory of money (QoM). It is a helpful framework to conceptualize the relationships between the size of an economy, price levels, money supply and transaction frequencies.

The main equation we'll use is as follows:

$$M * V = P * Q$$

Where, 1) M is money supply, 2) V is the velocity of money, 3) P represents price levels, and 4) Q represents quantity.

To illustrate, see below for a highly illustrative calculation of the Epist ecosystem utility value based on the bounty currency use case, as the platform grows (i.e. more questions are posted and answered on the platform).

Exhibit 3: Quantity Theory of Money Application on EPI Tokens (Highly Illustrative)

Quantity Theory of Money Application on EPI Tokens (Highly Illustrative)

Sym.	Item	Scenarios					Notes
Q	# of Questions Per Day ($000's)	1.0	10	100	1,000	10,000	*Platform growth assumption*
	Time Cost Per Answer (hrs)	0.5	0.5	0.5	0.5	0.5	*Assumption*
	Hourly Wage (US$/hr)	$10.00	$10.00	$10.00	$10.00	$10.00	*Avg. wage assumption*
	Avg. Number of Answers	5	5	5	5	5	*No. of bounty hunters per question*
P	Price Per Question	$25.00	$25.00	$25.00	$25.00	$25.00	*=G6*G7*G8*
P*Q	Size of Epist GDP Per Day ($000's)	$25	$250	$2,500	$25,000	$250,000	*=G9*G5/1000*
P*Q	**Size of Epist GDP Per Year ($000's)**	**$9,125**	**$91,250**	**$912,500**	**$9,125,000**	**$91,250,000**	*=G11*365*
V	Velocity	15	15	15	15	15	*Assumption (ref: USD velocity ~4-5x, Bitcoin ~3-4x)*
M	**EPI Monetary Base / Ecosystem Utility Value ($000's)**	**$608**	**$6,083**	**$60,833**	**$608,333**	**$6,083,333**	*=G12/G14; utility value as bounty currency only*

As with any currency model, the QoM is highly sensitive to changes in assumptions, such as velocity of money (further influenced by staking mechanisms) and platform growth. While the numbers and assumptions above are highly illustrative and unlikely an exact reflection of the future, the model is helpful for reasoning through the underlying drivers.

5. The Future of Epist

5.1 Category Expansion

The Epist platform will initially focus on the crypto community and crypto-related topics. Over time, as the mainstream acceptance of crypto grows and our community expands, Epist will branch into other topics.

Furthermore, the bounty system will also be generalizable to other types of contest-based processes beyond Q&A (e.g. art contest), and the Epist community may choose to explore those areas further as well.

5.2 Governance

While Epist will initially be guided by the vision of the founding team, the future of Epist is decentralized. The founding team is committed to the process of progressive decentralization for Epist, handing over the governance of the platform to the Epist community over time.

5.3 Vision

Epist's mission is to connect and empower the world's community of knowledge seekers. The team envisions a future where everyone is both an user and a contributor of knowledge on the platform. One can ask questions, pay for the bounty with EPI tokens, and earn tokens back by sharing their own expertise with others. Knowledge sharing becomes something we do every day, the same way we check the weather and read the news.

Everyone has their own unique expertise, and Epist is here to build a world where people are rewarded and recognized for contributing that expertise to the global repository of knowledge.

Disclaimer: The EPI Token is an ERC-20 token issued on the Polygon blockchain network. EPI is not a share of stock, does not represent a claim on profits, dividends, equity, or debt in any company or organization, and is not a financial instrument. EPI has been adopted by Epist for various activities on the network only, such as for bounty transactions, staking, rewards, reputational systems and educational purposes.