

Braintrust: The Decentralized Talent Network

The Braintrust Technology Foundation

Abstract

The way we work is undergoing a massive transformation. The traditional "work until you retire" contract between employer and employee is being disrupted by short-term, rapidly changing engagements. Work history is moving from subjective records to immutable ones with ratings and verifiable expertise. Inefficient, overpriced middlemen are being replaced with software and liquid markets governed by algorithms. The highly centralized hierarchies of the past are being replaced by decentralized networks.

Blockchain projects like Bitcoin and Ethereum, Compound, and Filecoin have proven the utility of decentralized networks. These are the first instances of an open web: where participants come together to build a network, provide and pay for services, and govern development without a central authority. These were conceived out of an observation that the old centralized system (one with little trust, no resilience, and no resistance to censorship) no longer served the needs of the people or a rapidly evolving global market. These realizations serve as the building blocks for new decentralized applications that will influence every aspect of our lives, including how we work.

Braintrust is a **decentralized talent network** that replaces our outdated, fragmented labor market with a liquid, algorithmically controlled marketplace governed by network participants. The network runs on the Ethereum blockchain with a native token called BTRST, which users earn by introducing and onboarding clients (demand) and talent (supply) to the network. In addition, clients use BTRST to enhance their job postings, and talent use BTRST to enhance their proposals or take courses to level up their skills. Lastly, by forking the <u>Compound governance protocol</u>, we've enabled a one-token, one-vote system that gives token holders proportional control over how the network is governed. These native token uses provide strong incentives to clients and talent to use the network and participate in the governance of the network. We refer to this incentive alignment as the ownership economy.

On the Braintrust talent network, clients place their "asks" by posting jobs to the network, specifying parameters such as skillset, geography, and rates. They are matched accordingly with talent, who respond with "bids" by submitting job proposals. The core innovations of the Braintrust network are programmatically rewarding network participants based on their contributions to building the network in its native token and developing a protocol, to replace expensive and ineffective centralized middlemen. In achieving these two goals, the network can dramatically reduce the capital required to build the network, cutting fees for talent to zero, and cutting costs for clients by up to 70% in some cases.¹

Braintrust is a live, self-governing decentralized network with tens of thousands of talent participants and hundreds of Fortune 1000 enterprises processing millions of dollars in transactions each month at the time of this writing. All of the development and maintenance of the network has been done by a global network of contributors on the Braintrust network.²

This paper:

- Outlines the fundamental problems of the established talent network model and other extractive Web 2.0 marketplaces.
- Details the emergence of Web 3.0 networks and the ownership economy, in which users benefit from aligned incentives and decentralized control.
- Introduces Braintrust, giving an overview of the network and critical pieces of infrastructure driving its success.
- Provides a summary of core network functions, including achieving efficient price discovery through its matching and incentive mechanisms.
- Delivers an overview of Braintrust's native BTRST token, its supply, allocations, and use cases, including governance of the network.
- Explores the network's roadmap to a future of talent self-governance and category expansion.



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Whitepaper

1. The Way the World Works (And Why It Often Doesn't)

The way we work is broken. Companies know they are only as valuable as their talent: the people who build the products, drive the processes, and imagine the innovations changing the world. Yet those same companies rarely give talent control over how they work or are rewarded for their work. They rely on extracting value but don't return it equally to those who create it. When times are good, shareholders reap the benefits. When times are bad, workers take the hit. We have accepted this, simply because most didn't have the power to demand better.

1.1 The Great Resignation

However, workers are increasingly abandoning that extractionary model. In the wake of a global pandemic that demonstrated that remote work is both possible on a mass scale and, in many ways, more efficient, workers are unwinding out of traditional employment arrangements to become their own nodes in sprawling freelance networks, a global phenomenon described as "The Great Resignation." While that unwinding was already clear before 2020, it was accelerated by the pandemic that saw 36% of the American workforce working as freelancers — a significant increase from just 28% the year before.⁴

This work revolution coincides with a social revolution, spurred by heightened awareness of broader societal inequities. Modern talent networks have long extracted disproportionate value from workers, building their enterprise value by levying high fees on their users. This is part of a larger phenomenon occurring in corporate structures, with the income gap of Americans between the top 10% and bottom 90% growing 20x to nearly \$50 trillion since 1975, a figure the RAND Corporation determined last year by forecasting modern salaries if income distributions of past decades had stayed the same. In short, the rich have gotten richer, while workers have remained marginalized.

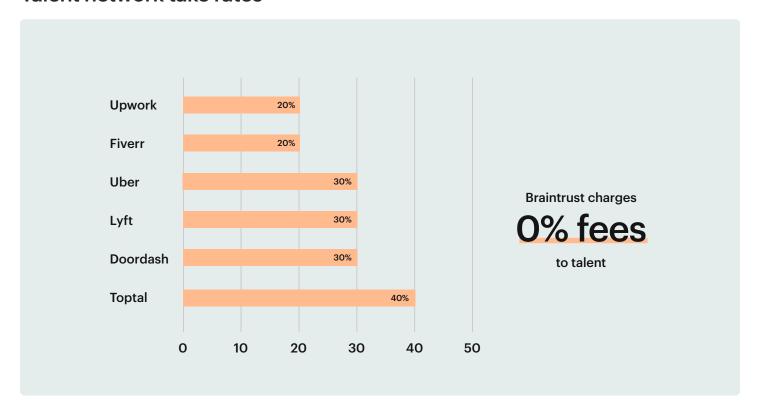
1.2 The Problem of Extractive Talent Networks

That same dynamic remains common in talent networks, which should understand that talented people are their chief product and their most important assets — yet don't treat them that way. DoorDash allowed customers to give drivers tips, only to later seize a portion back as revenue (only reversing course after significant public backlash). Fiverr takes 20% of every commission from its workers, whether they're working a \$5 gig⁷ or a \$100 gig. Upwork charges users the same for all projects earning \$500 or less — and then charges less for higher-earning projects. These networks are disproportionately taking more from their users that make the least.

On the other end of the talent network spectrum, large consulting firms (such as Accenture or PwC) warehouse high-quality talent then impose a hefty markup to their clients. Due to large overhead and a lack of network transparency, they are incentivized to charge exorbitant fees in order to increase profit margins. Such markups are possible because no existing talent networks offer experienced, enterprise-level workers with the demand and supply available on an Uber or Fiverr. Lacking other avenues to secure top talent on a project basis, clients are held hostage to the exorbitant prices of those talent network giants — leaving companies reluctant to engage in larger projects.



Talent network take rates



1.3 The Old Way's Damaging Network Effects

Those examples are in line with the old way of making profits as a talent network: charging high fees or markups while offering talent no ownership or control over company decision-making. Networks hold people's work history, data, and reputation in walled gardens so they can exclusively monetize their own workers' information. Because talent has no vote on key decisions, the networks allow themselves to be flooded with users, ultimately driving down pay — sometimes below the minimum wage, as a Georgetown University researcher concluded in a study showing that some Uber drivers were earning less than \$5 an hour.¹⁰

2. Welcome to Web 3.0 Networks and the Ownership Economy

We believe that talent networks and professional staffing firms will eventually be replaced by systems that embrace the ownership economy. The model will benefit talent and enterprises alike thanks to network transparency, aligned incentives, and decentralized governance mechanisms. This new model is enabled by the emergence of Web 3.0 network technologies, including tokenization that provides the currency for decentralized commerce.

2.1 The Evolving, Decentralized Web

If Web 1.0 built the readable web, Web 2.0 created the interactive internet we know today. These technologies enabled unimaginable information abundance and wealth creation, but also generated huge fees and gatekeeping intermediaries. This drove most internet activity to consolidate around a handful of Big Tech companies — namely Amazon, Apple, Facebook, Google, and Twitter — lining the pockets of their investors, but not of the ordinary users who give these networks their value.¹¹

In contrast, Web 3.0 is the decentralized and user-owned web, enabling a distributed model that returns value to the users that create it. It is made possible by blockchains that serve as immutable public ledgers of both value and the person responsible for producing it, allowing for peer-to-peer transactions that obviate the need for fee-extracting middlemen.

2.2 The Defining Traits of Web 3.0 Talent Networks

For talent networks, this creates the opportunity to build something novel: a decentralized, autonomous network designed to serve the interests of its users. Aligned incentives help maximize both capital efficiency and flexibility for users (talent) and clients (companies), enabling:

- Specialization and flexibility: These systems aren't constrained by a profit maximization incentive that requires them to seek as large a customer base as possible. This allows them to trade a one size fits all approach for specialized solutions that most effectively meet the needs of their users. Talent can pick and choose projects, and client companies can rapidly scale their workforce along with market demand.
- Autonomous markets: Network operators leverage their network effects to extract disproportionate value from their users.

 The tech required to build and run such markets is now ubiquitous, and can easily be run at a fraction of the value that today's dominant platforms cut from their users, allowing that disproportionate value to be returned back to the talent that powers the network.
- Community ownership and governance: Everyone is an owner, owning not just a portion of the benefits from the value they produce, but also their work histories, reputations, and data. This is in stark contrast to extractive models, which often monetize that critical information at their own users' expense.
- Permissionless systems: Effective control of a network by its users requires equal access to the information driving network decisions.

 Permissionless systems ensure full transparency by creating easy, equal access to data often through an immutable digital record stored on a public blockchain.
- **Efficient capital:** Transparency allows new information to be quickly reflected in such systems, enabling accurate price discovery and low transaction costs.
- Aligned incentives: Decentralized networks significantly lower overhead, allowing firms to charge low or no fees to talent while providing client companies with average savings of 50-75%. The network serves its users because the users control it, and they are motivated to grow the network because they retain the value they create.

3. Introducing Braintrust: The Decentralized Talent Network

Braintrust is the world's first decentralized talent network. That means Braintrust is owned and controlled by its users rather than a central corporation, and its talent and client pool have enough work and enough workers to enable capital-efficient price discovery.

3.1 The Connector Network, Built on Crypto

Braintrust's use of crypto is essential to its success in achieving decentralization at a significant scale. The blockchain is immutable: it provides a record that cannot be altered over time, making the user's record of ownership and control over the network incorruptible. This form of blockchain is a permissionless system because it can be accessed by anyone around the world with an internet connection, no prior authorization is required.

A critical innovation of the Braintrust network is the ability to programmatically distribute ownership and control of the network to those who contribute to its growth, in a fully permissionless way. The Braintrust talent network implements this primarily through its referral engine. Anyone in the world can create what is called a "Connector Account", obtain a unique referral code, and share it with new talent or clients that could serve as supply or demand on the network. When those referred parties join the network and start transacting, the network automatically rewards the referring party with tokens.

3.2 The Power of Decentralized Price Discovery

One of the key benefits of the Braintrust network is its ability to provide efficient price discovery for the services sought or provided. Typically, such discovery isn't possible to top-flight companies in need of highly-skilled temporary workers, forcing Fortune 1000 companies to either hire staff at perceived market value (a time-consuming, resource-intensive process) or engage the marked-up talent of a large consulting firm, accepting their extortionary prices as "market value."

In a decentralized network, users are able to track in real-time the true market value of assets, including labor. Consider Compound and Uniswap, where the valuation and supply/demand of listed digital assets are easily observed by the public. Because they have earned a critical mass of buyers and sellers, a fair market price is indisputably produced by the price discovery activities on these networks.

3.3 The Three Factors Driving Adoption of Braintrust

While many networks achieve price discovery by simply matching a buyer and a seller at an agreed price — say, the value of a BTC or shares of AAPL— users of a talent network like Braintrust must align on three factors:

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- **Price:** This is the hourly or project proposal rate and, like other networks, plays a significant role in determining the eventual transaction value. Example: Client A offers a full-stack developer job for \$50 to \$100 per hour, which talent may bid on while proposing their own rates.
- \rightarrow
- **Skills:** If the price was the only factor, then Client A would always select whichever bidder proposed the lowest rate. However, companies also factor in the skills of the talent they contract to ensure quality return on their investment. Talent is defined by the breadth of their abilities, proven proficiency, experience in the specific skills related to the job, and fluency in the language the job requires.
- \rightarrow
- **Location:** With most freelance work moving remote and online, the physical proximity of talent to employers is often less critical: what usually matters is whether their time zones will allow them to properly interface and coordinate particularly for jobs that require significant synchronous work. Clients will typically offer some flexibility, with postings including caveats such as "workers must be able to overlap with PST for at least three hours per day."

These three factors influence talent and enterprise clients alike.

Talent placing bids by submitting proposals must thoroughly list skills (profile completeness), set competitive prices (posted hourly rate), and ensure locations align with existing client demand (time zones supported).

Clients placing asks by posting a job must offer competitive pay and keep the required skills and experience as broad as possible to avoid unnecessarily discouraging bids. Expansion of acceptable time zones for talent is likely to increase success in filling their order.

3.4 The Path to a Better Network

Talent are charged no fees: they are paid their full contracted rate (whether that be per hour or per project). Clients are charged 10% of the total contract value, an amount that is significantly less than in other networks and consulting firms.

Client fees are collected in USD, converted into BTRST, and sent to the Braintrust DAO through the Fee Converter, a smart contract that was proposed, voted on, and implemented by the community in October 2021. This process makes it possible for client fees — in the form of BTRST tokens — to pay for network operations and to fund community programs.

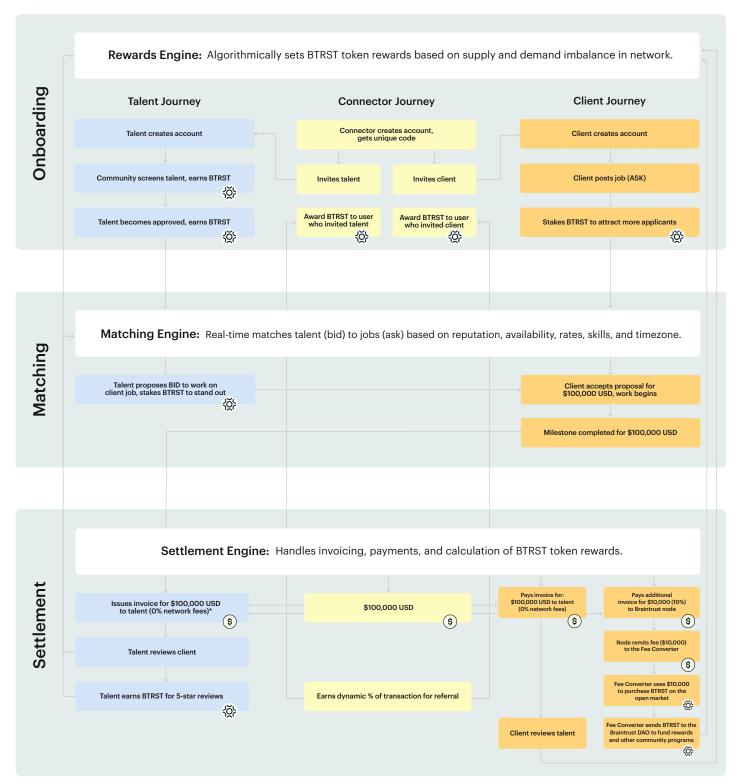
The Fee Converter makes it so that demand for BTRST is programmatically linked to the GSV of the network: the better the network does, the more clients that hire Talent for jobs on the network, and the more funds the network earns to fuel additional community-led development. In short, Braintrust is designed to be self-sustaining, rather than chase profits by ramping up fees.

The bid and ask matching process significantly decreases the time to hire for companies that need top talent quickly. Companies that use Braintrust save, on average, between 50% to 75% over traditional talent networks and staffing firms. That average doesn't account for the additional financial benefit of being able to quickly capitalize on market opportunities. Companies take on significantly less risk and compliance costs over hiring full-time employees without compromising on the quality of potential candidates, thanks to Braintrust's highly transparent, community-driven talent screening process.

This reward flywheel — in which the Talent and clients both benefit through aligned incentives — has proven to be a highly scalable and cost-efficient method of growing the Braintrust network since it launched in 2020. It's a key component of how Braintrust has grown from a few hundred community members to 50,000+ community members in just over a year.



Braintrust token economy



^{*} Standard credit card / ACH processing fees applied https://www.usebraintrust.com/payments

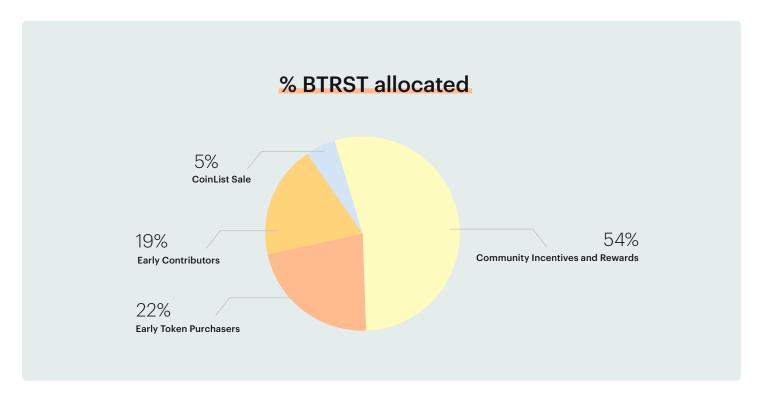
4. Introducing the Braintrust Token: BTRST

The BTRST token launched on the Ethereum mainnet on September 1, 2021 using the ERC-20 standard. The token powers the entire decentralized network's governance, incentivizing the community to build the network through referring clients, as well as screening new talent. It has a fixed supply of 250 million tokens, meaning the total number of tokens in circulation can never surpass that amount.

The open-sourced BTRST Contract repositories can be found on Github <u>here</u>. The open-sourced BTRST ERC-20 has been deployed <u>here</u>.

∤ర్లు Figure 03

Token distribution



Token distribution table

(subject to future community management and governance)

Segment	Allocation % of total supply	Release Schedule
Community Incentives and Rewards	54%	Unlocked at network launch and distributed over time in accordance with community incentive and reward programs, including the connector program described below.
Early Token Purchasers	22%	2 year lock, 1 year cliff, then monthly.
Early Contributors	19%	4 year release schedule, 1 year cliff, then monthly.
Token Sale	5%	3 month/6 month lock, releasing monthly depending on tier.



4.1 Uses of the BTRST token

The BTRST token has a number of uses, including:



Governance: BTRST token holders can discuss ideas for improvements, propose changes, and vote on governance proposals. Because each token represents one vote, users who hold more tokens have greater say in how the network develops.



Bid Staking: In a competitive market, talent may stake tokens to stand out, offering their tokens as collateral, which they would lose if they fail to deliver on the contract (based on community-based adjudication). Clients can also stake tokens, which go to qualified applicants if the clients don't go forward with the job — encouraging talent to apply knowing they will be compensated for the time they spend crafting a proposal. Token bid staking helps "un-stick," or reduce friction, in the network, keeping it more transparent by addressing mismatches of supply and demand.



Career Benefits: The tokens are also expected to be redeemable for special perks offered by other community participants exclusive to the Braintrust community, including free and discounted software, products, and career resources. Users can also earn tokens by taking courses on <u>Braintrust Academy</u>, an independent community-run organization which teaches talent valuable skills to help them earn more on the network.

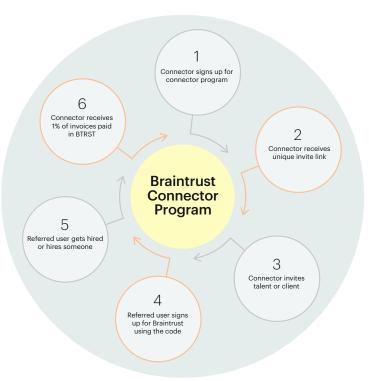
4.2 The Braintrust Connector Program

In decentralized finance (DeFi) systems, liquidity providers (LPs) play a crucial role in adding liquidity to the market by setting the initial price and equal supply of assets. In the Braintrust network, these providers are called "connectors." Anyone can sign up, get a unique code, and start adding their network to Braintrust. When those connector-introduced users start transacting, the netwok pays out rewards programmatically to the connectors as a percentage of the transactions — or Gross Services Value (GSV) — they produce. Connectors earn tokens for each successfully paid invoice, giving them more network ownership for helping drive talent and value to the network.

This connector system makes it possible for established recruiters to bring their business onto Braintrust, earning them residual token rewards when their talent or clients are matched to jobs on the network. The more they refer to the network, the more they will earn as a percentage of their referral's invoice from completed projects. This not only incentivizes talent to build their own token-rewarding referral trees but also encourages skilled recruiters to bring their quality talent networks onto the Braintrust network.



Connector program process





4.3 The Token-Enabled BTRST Governance Model

The Braintrust governance process is comprised of three key components:



Smart Contracts: Anything on-chain can ultimately be subject to a distributed governance process.



A Multistage Stakeholder Proposal Process: Forked and adapted from the Compound Protocol, this serves as the official method of proposal submission, consideration, amendment, and approval. Proposals can begin either as open text or code to be considered and discussed by the ensemble of stakeholders; they are then ultimately subject to a formal, on-chain vote. Following a period of community examination, ultimate implementation and deployment of approved, coded proposals are expected to be overseen by the community's representatives of freelancers, talent agencies, and clients from around the world that want to further the vision of growing decentralized talent networks.

On-chain voting happens on the Braintrust platform (<u>Voting Portal</u>), but is ungated and visible to any community member for participation or observation.



Off-Chain Discussion Environments: Modeled after Uniswap's approach to community engagement, these serve as non-binding channels for discussion and debate that are critical to reaching both (off-chain) consensus and (on-chain) approval.

Discussion occurs within the Braintrust Discord server.

Off-chain voting occurs on the Braintrust Snapshot page.

4.4 Voting in Braintrust's Proposal System

Areas of decision-making in Braintrust's governance are substantial in scope and include changes to network fees, the reputation system, technical parameters, governance processes, and token reserve management. Changes to the areas noted above are made via an on-chain proposal system, adapted from the Compound fork.

Over the long term, the governance of the Braintrust network is expected to increasingly decentralize via community-driven governance as well as on-chain governance activities.

Another area of exploration for the Braintrust governance system is quadratic voting, which has proven to be an effective scheme for keeping incentives aligned between users of the network and other token holders.



How governance works

1

Ideate

Consensus building/ draft proposal

Users provide ideas, feedback, and sponsorship.

When momentum builds, proposals are drafted and submitted for off-chain voting.

2

Vote off-chain

Gather majority consensus

Each proposal goes through 2 voting steps on Snapshot:

- 1. Temperature check
- 2. Consensus check

Proposals that pass these steps and require changes to the smart contract then move to on-chain voting. 3

Vote on-chain

Make changes to the smart contracts

On-chain voting occurs on the Braintrust platform.

Proposals include contract code that can be implemented automatically and without Braintrust's direct intervention. 4

Execution

The changes go live

The Execution Period (also called Enactment Period or Time Lock) is where the community conducts a final technical and security review.

The voting results are recorded.

4.5 Decentralized Dispute Resolution

In the case of a disagreement about invoices and payments, Community-Adjudicated Dispute Resolution gives decision-making power to the community. The Dispute Resolution Program is made up of Jury Members and a Jury Arbitrator. Jury Members can be any BTRST token holder. Should a dispute require a judgment, three Jury Members are randomly selected from the pool to weigh in on the decision. In addition, Jury Members may be called to be eyewitnesses. Eyewitnesses weigh in on subjective statements based on their expertise. For example, a claimant may say something like: "The content writer should have been able to complete more output based on the time he invoiced me." Three eyewitnesses would be called to make a judgment on that statement as to whether it was reasonable or unreasonable. Jury Members serve a one-year term and are self-volunteered.

Another crucial member of the Dispute Resolution Program is the Jury Arbitrator. Jury Arbitrators are elected through the off-chain Braintrust governance process and serve a 6 month term. They do not issue rulings but walk claimants and disputants through the process, organize the claims and counterclaims, recruit eyewitnesses, and randomly assign Jury Members to serve for a specific claim. Learn more about Braintrust dispute resolution <u>here</u>.

5. Braintrust Contributors

Braintrust has adopted a truly decentralized approach since day one. Everyone who has built the Braintrust network over the years has been an independent contractor working on projects within the network, making it the cumulative achievement of not just a single core team but of dozens of teams across the globe. The network's decentralized and organic future development is expected to be fostered by The Ownership Economy Association, an <u>association</u> tasked with advancing its goal of replacing high-fee middlemen by building a mutually beneficial market through its autonomous software and robust talent community. Because of this approach, Braintrust can confidently state that the same users who render or pay for services on the network are also the ones building, supporting, governing, and, ultimately owning it.

6. The Future of Braintrust: Category Expansion

Just as Braintrust was built by its users, its users will also define and create its future. The network is expected to be fully governed by its users, whose relative influence will be determined by the number of BTRST tokens they have accrued from contributing to the network's success.

The future of Braintrust will not just lie in the tech industry. Knowledge workers in a number of lucrative fields — consulting, law, accounting, advertising, and others — are subject to the same societal and economic conditions that are driving more traditional employees to the ownership economy. Braintrust is expected to naturally adapt and evolve to include these types of workers, as client demand for different types of jobs increases both opportunity and outreach. Due to its decentralized governance, BTRST token holders will be able to vote on which industries to enter into, and when, ensuring that their needs are met in any future expansion. Through that shared decision making, they will fulfill Braintrust's mission — to lessen global economic disparity by returning value to those who do the work — through a new type of talent network: one owned by the people who make their living on it.

The BTRST Token is an ERC-20 token issued on the Ethereum blockchain network by the Braintrust Technology Foundation, a nonprofit foundation. BTRST 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. BTRST has been adopted by the Braintrust network and users for various activities on the network only, such as for staking, governance, voting, and educational purposes.



References

- ¹ See Section 1.2, Figure O1: "Talent network take rates," page 5
- ² Braintrust is constantly evolving and the contents of this paper are subject to change. The most current version can be found at https://usebraintrust.com/whitepaper. For feedback and comments, please join our Discord: https://usebraintrust.com/discord
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