

**DAO MAKER LABS**



# Social Mining Whitepaper (Draft)

The term DAO (decentralized autonomous organization) was popularized—some may argue, even coined—by the Ethereum blockchain-enabled stateless fund called The DAO, which held an initial coin offering in 2016. While many assume this fund was the first-ever large-scale attempt at creating a decentralized company, the true title of that is Satoshi Nakamoto's creation.

Bitcoin's value-add is disputed: some members of the cryptocurrency community believe it's a store of value while others assert that it is a currency. Irrespective of its value-add, Bitcoin is undisputedly decentralized. From the point of its existence, it has attracted an entire ecosystem that revolves around it, much like the creation of a new company—however, in this company, there is no central authority and anyone is allowed to participate and add value to the prosperity of the company while acquiring a reward for that value-add. Subsequently, those who have managed to add tangible growth to the of Bitcoin have been well-rewarded. Early miners, who have protected the network, have treasure troves of binary capital worth millions of dollars, early buyers who promoted the merits of Bitcoin have amassed record returns on their holdings, and companies that have facilitated the usage and transfer of Bitcoin have acquired payments from the community in return for their service.

Therefore, Bitcoin can be asserted as a company, a truly decentralized company valued at nearly \$200 billion. It has employees who join the ecosystem to either secure the company or expand its exposure and global utility and demand. Some of these employees, like exchange founders, have expanded their services to create entire departments (exchanges) that may compete against each other, but at the end of the day offer an aggregate growth of the Bitcoin Company in the form of greater, easier, and more accessible access to Bitcoin. Other departments, i.e. wallets, ensure the Bitcoin Company is able to penetrate new markets, access business development, and offer a better user experience.

**The Bitcoin Company, however, is unique.**

Payments are issued not in the form of newly printed capital but the appreciation of existing capital that the employees hold. Such is the nature of decentralized companies; such is the nature of a true DAO.

In the Bitcoin Company, everyone has a genuine stake in the success of the operation and for this reason, even long-standing employees of the Company, who have now amassed fortunes, are as motivated as ever to work hard to expand the aggregate value of the DAO. Unlike a centralized operation where only a few people (at the top) would benefit from the value-add of any individual employee, everyone benefits from the value-add of every single employee of a DAO. The Winklevoss brothers, one of the earliest major supporters of Bitcoin, are asserted as Bitcoin billionaires; however, their efforts to grow the Bitcoin Company benefitted not just them, but also all other members of the Company.

In the construct of traditional companies, employees are paid with the surplus capital printed in a country, and the wealth generated at the top mildly trickles down to the bottom. Bitcoin is the first company where one must pay to be an employee; in return, Bitcoin's existence as a DAO ensures that the value-add is proportionally distributed across the Bitcoin Company, aligning each employee's holding with the amount he or she gains from the Company's growth irrespective of who added that value. Thus, everyone is incentivized to grow the Bitcoin Company.

Unlike a traditional company, the Bitcoin Company offers the unique opportunity of scaling incentives. At a traditional firm, the value of an employee's work is dictated at the top and thus, even the most talented employees limit their value-add as there is no incentive to deliver beyond what their work has been valued. On the other hand, the Bitcoin Company lets each employee decide the value of their work and scale their potential reward by simply buying more Bitcoin. If an employee of the Bitcoin Company feels he/she has the capacity to add extensive value to the Company, he/she is not bound to the value dictated by a central authority and can instead increase a stake in the Company and eventually yield a greater net reward from the Company's appreciation sourced from his/her work. However, Bitcoin is not a perfect DAO as not all highly talented employees have the initial capital reserves needed to hold a stake large enough to correctly proportionate their value-add with their reward.

For this reason, while a DAO may, in theory, have the potential to allow anyone to control the value of their work, reality does not materialize as such. **This is one of the caveats in decentralized ecosystems resolved by Social Mining**, a system inspired by a brilliant yet unintended invention.

## **Serendipity: STEEM Almost Solved the DAO Dilemma**

STEEM is one of the most popular blockchains and its flagship application, Steemit, is well-known across the blockchain community. While many people know STEEM is home to arguably the most popular blockchain-enabled application, few recognize it as the closest thing to a fair, decentralized system. However, the architect of STEEM, Dan Larimer, did not intend to create STEEM as the fairest decentralized ecosystem to date; in fact, he has not only left the blockchain but has gone on to create EOS and Voice in order to diminish the existence of both STEEM and Steemit.

Yet, STEEM and Steemit have thrived.

Only a year after STEEM's creation, Larimer exited. If any startup were to lose its founder at such an early stage, it would naturally have gone defunct. However, through the STEEM token, users of the blockchain and its key application, Steemit, acquired a vested interest in the success and growth of the platform.

The difference between the decentralized Bitcoin Company and the (more recent) decentralized STEEM company was that the Bitcoin Company requires a person to have enough initial capital to have a stake in the ecosystem large enough to legitimize the need for growing it. The design of the STEEM token and its distribution mechanism was different: it legitimized the efforts of even people who had little to no capital as they'd still greatly benefit from the ecosystem growth.

Steemit has been carried forward entirely by its own community and, at several points, the STEEM token has managed a much higher price than its value during Larimer's presence. Because a large portion of the STEEM supply is owned by Steemit users, they have made a

constant and active effort to bring new users to the platform. Steemit's users have built the network's decentralized exchange, native hardware wallet, individualized node hardware, advanced blockchain explorer, and countless other features as well as business partnerships.

Naturally, only a small portion of Steemit's users have given the active effort needed to carry the application forward, but these users were rewarded more than the people who exerted no effort for ecosystem growth; the people who made no effort to improve the ecosystem are Free-Loaders and the Free-Loader dilemma in decentralized ecosystems will be covered in a following passage. Due to the STEEM blockchain's unintended ability to counter the Free-Rider Problem, Steemit became a decentralized autonomous organization (DAO).

Despite having no real leadership, a defective consensus system in which a few rich people can collectively choose blockchain validators, an extremely complex three-currency system that eludes most people, and many validator-decided hardforks that were against the community's desire, STEEM has managed to do a lot. STEEM blockchain owes its achievements to the unintended ploy of game theory Larimer built into the token's distribution mechanism. STEEM is the only token that has managed to convince people to reward the active members of the community, thereby being the first open ecosystem—decentralized or not—that incentivizes active effort irrespective of whether or not a person has initial capital. Due to this, the people who joined the STEEM community and built resources for it have now become STEEM whales even though they started with little to no funds.

## **DAO Maker: Creating a Pluggable Version of the World's Most Brilliant Accidental Invention**

DAO Maker's Social Mining enables any tokenized ecosystem to take the best aspects of STEEM and integrate them into its own community. First, it's important to grasp how STEEM works.

## **An Explanation of how STEEM works**

In economics, the Free-Rider Problem dictates that when an individual's efforts benefit a system, everyone benefits even though the effort was input by one. Thus, each market participant has an interest to not put the effort and just wait for someone else to put the effort. This creates a negative-cycle game theory dilemma.

STEEM's creator unintentionally solved this problem by allowing an inflation of STEEM; this inflation is distributed to those people who hold STEEM. The initial intent was that this feature would give people the desire to constantly hold STEEM for future emissions of the token. However, STEEM came with another unique feature: users could delegate the rewards (inflation) their STEEM generates to another user.

The combination of these features is the key reason STEEM and Steemit thrived despite the exit of their founder.

Whenever someone made an effort to improve Steemit (the ecosystem's flagship application), bring in new users, or establish business partnerships for the platform, STEEM holders delegated their inflation to that user; however, they were still able to hold on to their entire stake. Through this, they paid an indirect fee while simultaneously warranting that their stake went up in value. The network's newly minted tokens that were rewarded to active participants ensured that not only active participants continued their effort to improve the system, but also encouraged more people to avoid being Free-Loaders. While typically token dilution would negatively impact the price, the efforts put by active participants made improvements that were significant enough that the token grew in value by magnitudes.

Typically, an individual's action that improves a system would benefit everyone in the system, even the source of the improvement, equally. As any effort comes at an opportunity cost, it's in people's best interest to retain the opportunity utility and wait for someone else to face the opportunity cost of adding value to a network. However, since Steemit users could delegate the inflation of the token (rewards), the active participants benefited more than the Free-Loaders. Thus, for those individuals whose opportunity cost was lower than the

additional reward for adding value to the network, it made sense to become an active value-adding member of Steemit.

Simultaneously, as the Free-Loaders could see that active members' actions grew the ecosystem and the token price, they were willing to give away the inflation their token drew. This aspect took advantage of people's limited ability to grasp time-value of money; they were able to hold on to what they have at the instantaneous present but rewarded active users with their share of future token inflation. As the network innately gamified delegations, active participants accrued delegated STEEM as a growing figure in their wallet and felt immediate positive sensations even though the reward for their immediate work was paid with token inflation that would happen in the future.

### **Social Mining: A Pluggable STEEM Format for Any Tokenized Product**

DAO Maker's social mining allows any tokenized product to replicate the features of STEEM so that a token can be used to counter the Free-Rider Problem. The software creates a token supply inflation and the token holders decide who gets these newly minted tokens. This turns the typical passive community of a project into constantly active one as either network value-adders or value-add rewarders.

DAO Maker's social mining software improves on the STEEM system such that only tangible and validated value-add is rewarded. Additionally, it mandates all token-holders to allocate the rewards to value-adders of their choice.

In contrast, STEEM only partially countered the Free-Loader Problem as not all users delegated their share of token inflation to people who improved the system. These people double Free-Loaded as not only did they benefit from the value-add of active participants, but they also benefitted from the delegations of users who made sure active participants were rewarded and encouraged to do more. By ensuring that each user must delegate the inflation to value-adders of their choice, there is no room for Free-Loading.

Additionally, STEEM faces inflation even when no member of the system has added value. Thus, there are instances on token dilution without ecosystem growth. Such instances lead

to only negative shocks on price; on the other hand, DAO Maker's social mining ensures token dilution only happens to reward for ecosystem growth. Thus, there are no instances of over-valuation of value-addition.

## **A Deeper Dive into DAO Maker's Social Mining**

In short, DAO Maker delivers a software that allows the members of a tokenized ecosystem to self-validate each other's efforts. People can become active members of the community even if they are not long-term heavy investors of the token. Subsequently, DAO Maker is paving the future of the digital economy. It enables not just monetary funds, but even human capital to be injected into a token.

As people—the community of a project or product—execute their aggregate skillsets and networks for the benefit of the project or product, they will be able to earn cryptocurrency, which they may then stake to further their presence in the ecosystem, or spend for their livelihood.

The future of tokenized ecosystems is frictionless. Anyone can be a part of it.

People will have the ability to declare their skillsets and expertise, and then they will be directed to the blockchain or protocol that is in dire need of such talent. Each time a person who becomes a part of DAO Maker's Social Mining needs his or her work validated, he/she may upload documents that provide proof of work. This work will subsequently displayed in the news feed of other members of the relevant community; these members will then have the ability to validate and value the work. All the work a person will perform will be located in their user profile which will enable them to be redirected to other blockchains or protocols that are in imminent need of the person's talent(s).

Every user will have the ability to grow influence in an ecosystem through either holding tokens (executing monetary funds) or adding value to the system (executing human capital). In centralized companies, a person is not incentivized to pursue more as his or her potential gains are capped by the designated salary.

Decentralized companies, like the Bitcoin Company, enabled people to shatter the ceiling of value associated to them by centralized companies but with a caveat: one must have sufficient starting capital to validate the exertion of extreme effort for the purpose of benefiting from ecosystem growth. The DAO work structure, however, effectively counters the problems associated with both centralized companies and the present state of decentralized companies. Subsequently, the DAO work structure delivers the most advanced format for work in decentralized ecosystems by settling clear and recognizable incentive paths; each person will work and add value to an ecosystem out of self-interest but will be paid by the collective.

### **Three Governance Groups**

The DAO Maker splits communities into non-hierarchical subsets by distributing members into the meritocratic group, oligarchic group, or validator group.

#### **The Meritocrats**

Social Mining is pinned on enabling the ecosystems where people can add value to an ecosystem and earn with it. This is a mutually beneficial interaction between an individual and the collective ecosystem. Optimizing, encouraging, and scaling such interactions is the path to effective decentralized autonomous organizations.

The creators or "builders" of an ecosystem will be part of the meritocrat group. Within the DAO Maker, the meritocrats will have a higher voting power as they are the hard working and actively involved members of the community. They will generate value-adds for the ecosystem and evaluate the legitimacy and value of others' work, thereby ensuring that the ecosystem can grow and maintain its path in the right direction. The members of this group will be the ones who deliver the most important work for the ecosystem, and they will therefore be given the heaviest voting power over the value of others' work.

To create a meritocrat group, a project must effectively counter the Free-Rider Problem as otherwise it will constantly be a rational decision to choose one's work over project growth, unless a person has an incredibly high stake in the project. It should, however, be possible

for every holder to feel incentivized to add value to a network, irrespective of holding size beyond a minimum pre-set threshold.

### **An Explanation of the Free-Rider Problem**

In economics, the Free-Rider Problem dictates that when an individual's efforts benefit a system, everyone benefits even though the effort was input by one. Thus, each market participant has an interest to not put the effort and just wait for someone else to put the effort. This creates a negative-cycle game theory dilemma.

### **How Social Mining Solves the Free-Rider Problem**

Typically, an individual's action that improves a system would benefit everyone in the system, equally. It may be perceived that the person who sourced the improvement benefits no more or less than other people in the system, but as any effort comes at an opportunity cost, the person who sourced the improvement lost the opportunity cost of the time that was spent for delivering the improvement. Thus, in every system, it's in people's best interest to retain the opportunity utility and wait for someone else to face the opportunity cost of adding value to a network.

DAO Maker's Social Mining directly targets the dilemma described above.

For the DAO Maker to operate, a project must allocate a token fund to stimulate community efforts. These funds are distributed by the members of a decentralized ecosystem through a voting power allocated to each token holder (stake holder) in the ecosystem. Social Mining creates an ecosystem where the community—specifically, the stake holders of a tokenized ecosystem—must discern the worth of the value-added efforts of each member of the community. Thus, for stake holders whose opportunity cost is lower than the combined gain of adding value to the system and receiving community-discerned rewards, it is rational to not be a Free-Rider.

		Person A	
		Freelance Work	Project Business Development
Person B	Freelance Work	(\$50, \$40)	(\$70, \$20)
	Project Business Development	(\$20, \$60)	(\$40, \$40)

This table shows how Social Mining can disrupt the unproductive impact of the game theory engaged between members of a decentralized ecosystem.

**Situation A:** Both person A and person B do freelance work; A earns \$40 while B earns \$50.

**Situation B:** Person A expands the project's business development, earning \$20 from token appreciation; person B does freelance work and also benefits from person A's efforts, making a total of \$70.

**Situation C:** Person B expands the project's business development, earning \$20 from token appreciation; person A does freelance work and also benefits from person B's efforts, making a total of \$60.

**Situation D:** Both person A and B expand the project's business development; both earn \$40.

Under normal conditions, both person A and person B are incentivized to do freelance work as their maximum expected value acquisition is from doing freelance work; if the other person promotes the project, that's an added bonus to the person who did freelance work. This is what promotes the Free-Rider problem as not adding value to the ecosystem is the rational decision; being a Free-Rider in the tokenized ecosystem is rational.

Social Mining, however, acts as a disruptive force which can incentivize the person with a lower opportunity cost to add value to the project's tokenized ecosystem. Assume each person in a tokenized ecosystem has an even holding of a token. If person B, whose opportunity cost of expanding the project's business development is \$20, can be allocated  $x > \$20$ , where  $x$  is his earning from community-decided rewards, it is in his best interest to promote the project. Since his efforts add a value of \$20 to all token holders (including him), as long as the ecosystem composition is  $y > 2$ , where  $y$  is the number of stake holders, person A acquires more value than he/she would with just freelance work and the aggregate system acquires more value than has been allocated by it to person A.

### **Enabling Meritocracy in a Decentralized Ecosystem**

In traditional companies, a central authority must incentivize the rise of merit. This limits the capacity of an institution's growth on the central power's capacity to recognize and reward merit effectively; there is a natural limitation to this. Through the DAO Maker, decentralized ecosystems can counter the Free-Rider Problem and in turn enable the collective to ensure merit prospers, and this means of operating is far more scalable than the capacity of a central source of authority.

### **The Oligarchs**

Wealth is an effective means of adding value to an ecosystem as it provides the stimulus to the economy of a token; it drives the value appreciation which in result can offer greater incentive to add value, through work, to the ecosystem. Therefore, the members of an ecosystem willing to allocate wealth to the token play a vital role in offering long-term sustainability of a token's value, which subsequently leads to a higher appraisal of the ecosystem as a whole.

Members of the ecosystem who become long-term stakeholders become a part of the oligarchic group. While such community members may not exert the highest effort in the form of human capital, their ability to encourage exertion of human capital by others plays an important role in a decentralized community. Hence, members of the oligarchic group are given strong importance in work valuation. Given that they have they greatest stake in

the monetary value of a system, it is in their best interest to properly incentivize the work validated by the meritocrats.

## **The Democrats**

There will naturally be a portion of a project's community that may not exert the necessary effort needed to qualify as a meritocrat nor would their token holding qualify them as a part of the oligarch. Thus, while individuals in this group may not have extraordinary decision-making power, the collective will possess sufficient power to keep the other two groups in check.

While a meritocrat may have higher power on validating work, with sufficient mutual agreement within the democrats, a meritocrat's decision could be overturned. This ensures that there's an important line of check. Similarly, while an oligarch may be presumed to reasonably assess the value of validated work, the democrats, as a collective, could overturn the oligarch's decision, thereby ensuring a line of check on valuations that fall on to disagreement within the masses.

## **Metrics Behind the Governance Groups**

Various mathematical factors decide whether a community member becomes a meritocrat, an oligarch, or a democrat. The factors are aligned with both the success of a project, the incentivization of a mutually supportive community, and a desirable token.

## **Work Index**

The work index is designed to recognize the amount of value-added work a community member has done for the ecosystem. A higher work index eventually pushes a user towards qualification as a meritocrat. Two key aspects build up a user's work index: reputation and experience.

## **Reputation**

Reputation requires a dedication to the improvement of an ecosystem as it is acquired over time. However, certain users who brings outstanding value to an ecosystem at a rapid pace could acquire a higher reputation at an accelerated pace.

Reputation is rewarded by project founders, to winners of competition, fulfillment of key tasks, or by having one of the three most value-added tasks of a week. Reputation can also be delegated; if the community feels a user's efforts deserve more recognition, they may lease reputation to him/her in order to bolster the user's net work index. This ensures that the community, as a collective, is able to recognize work just as effectively as project founders. It is important to allow project founders to allocate reputation to certain users at an accelerated pace to ensure that sudden participation of users with outstanding merit is swiftly rewarded in order to incentivize continued participation.

Acquisition of reliability and trust from the rest of the community is an alternative and rational means of acquiring reputation. Users recognized by the community as elected validators, people who possess a stronger say on the validity of reported work, will receive a fixed amount of reputation on a monthly basis. Reputation will have twice the weight of experience in the calculation of the Work Index and thus scarce yet important soft assets, like honesty (among validators), will be well-rewarded and users with outstanding merit will receive an accelerated growth in network influence.

## **Experience**

While certain users may not be able to bring immediate outstanding value, their long-term dedication to the improvement of a project yields them experience with the management of a particular community, the project's nuances, and a recognition for value-add aggregated over time. These aspects are the defining points of natural experience and, in order to effectively reflect reality, the Work Index accounts for experience.

As all reported work is delivered to every community member in the form of a news feed, users can recognize the work of others in the form of upvotes or downvotes. While outstanding work can acquire reputation on a weekly basis, all work qualifies for earning experience. Users who add positive value will accrue positive recognition from the community in the form of upvotes; this will grow the user's experience metric. On the other hand, users whose reported efforts are of low quality or low exertion or possibly harm the project will receive negative recognition from the community in the form of downvotes; this

leads to a reduction in the experience metric. While voters who qualify as oligarchs will have higher weights in deciding the value of a particular work report, the collective, as democrats, can outweigh the oligarch if and when needed; this ensures the system remains in check. Given that qualification as an oligarch is a worthy position, various mathematical factors are involved in the calculation of user's investor index.

## **Investor Index**

The fundamental purpose of the investor index is to offer a degree of ecosystem influence to users who are willing to offer a monetary stimulus to the token economy. Investors are important for a tokenized project and DAO Maker gives investors an immediate utility in addition to the token's intended purpose: influence.

Community members who acquire an investor index above the average will have a stronger ability to evaluate the worth of work. The index records power in multiples: if a user has an Investor Index of 2, his/her influence is twice that of the average user.

Users in the 5, 0.1 Percentile to the right have a much higher voting power than those in the middle and on the left.

To ensure that the Investor Index is not abused, multiple factors are taken into account in order to calculate the metric: token index, hodl index, and accumulation index.

## **Token Index**

Token Index is based on the net instantaneous monetary stimulus provided by a particular user. The Index recognizes and appreciates users who, at a given point, hold more tokens than the average community member. As community members must prove ownership of a token-holding wallet to participate in a particular project's Social Mining, DAO Maker is able to scan blockchains every few hours in order to adjust every user's Token Index in real-time.

As Oligarchs are able to recognize and reward work with a greater power than the average user, the Token Index ensures that network rewards are strongly influenced by major token holders as these community members have a high vested interest in the success of a project. Hence, they are given a higher responsibility in terms of properly incentivizing users

who allocate human capital to ensure the growth of their vested interest. On the other hand, they have an equal vested interest in holding down the experience (and subsequently the reputation) of users who are damaging the ecosystem. Thus, the Token Index plays a vital role in ensuring who becomes an important validator of reward allocations in a decentralized ecosystem by properly assessing, in real-time, the individuals with the highest immediate vested interest in a project.

Given that rewarding work that is not of value leads to dilution without ecosystem growth and would subsequently lead to a depreciation in each user's holding, including those interested with a greater responsibility of allocation rewards, oligarchs are incentivized to not improperly manipulate the rewards of work.

### **Hodl Index**

While instantaneous token holding is important, long-term investors are more important as they ensure a prolonged sustainability of a token's value. The hodl index accounts for the amount of time a particular community member has held tokens in comparison to the average amount of time a token holder has held tokens.

DAO Maker will scan blockchains to monitor the amount held in the wallet(s) associated with a particular user. This will enable the system to remain up to date on the amount of time a user has held a particular amount of tokens.

The Hodl Index is extremely important because it recognizes individuals who have a long-term interest in the success of a project. Similar to experience in regards to meritocrats, the Hodl Index appreciates the responsibility allocated to those community members who have held a vested interest in a project for a greater period of time than the average user. Such users are well-acquainted with the projects needs and direction and effectively evaluate work that is of greatest value to the project. Moreover, the longevity of the time period they have spent as active stake holders improves their understanding of the particular community to which they allocate rewards to; this acquired emotional understanding of a particular community plays an important role in ensuring that an oligarch is able to

effectively recognize the need to lease reputation, in order to encourage new but driven users, if and when necessary.

In this figure, the mean holding period is approximately 17 and it is assumed that all three users hold 100 tokens.

User A is close to the average while User B is well above the average (high hodl score) and User C, due to recent token acquisition, is well below the average (low hodl score). However, in order to not disincentivize late adopters, the early stage growth of the hodl index is paced faster than the hodl index growth of long-term hodlers. Such a system ensures that there is a benefit for long-term hodling without disincentivizing new members of the ecosystem.

### **Accumulation Index**

The Accumulation Index is a stronger measure of rewarding an oligarch status. It is geared towards rewarding heavy accumulators while discouraging dumps from those rewarded by the Token Index. Accumulation Index also offers new adopters, who are willing to reduce circulating supply, an opportunity to hasten the growth of their hodl index.

The Accumulation Index measures the percent of tokens a user holds in comparison to the circulating supply and in comparison to the percent of circulating supply held by other users. This Index is designed to create a voluntary lock-up reward mechanism in addition to the Hodl Index. Users who maintain and grow their accumulated position improve their Accumulation Index, but users who acquire a high spontaneous Token Index but have a tendency to dump will suffer a low Accumulation Index, thereby ensuring the Token Index is not abused by individuals who purchase tokens for a momentary decision on network reward distribution. The Accumulation Index acts as an important penalization tool to those who dump their tokens as it not only pauses the Hodl Index, but it also lowers it in case a user decides to sell.

User A increased his token holdings by 17% and received a bonus of 2 days as shown in yellow.

User B dumped 50% of his tokens and lost 26% of his holding days.

User C accumulated 34% new tokens and received a bonus of 4.2 days.

As the Accumulation Index takes into account the percent a user accumulates or dumps in comparison to other users, it naturally takes into account market cycles. Though, as the Index compares percentage measures with regards to accumulation and dumping of circulating supply, users who have a higher tendency to move the markets with their buys or sells face stronger movements on their Accumulation Index.

Thus, if a user sells his tokens while others are accumulating, he/she is below the average Index and will face a penalty on the Hodl Index. However, the severity of the penalty is dependent on the amount of circulating supply he/she has sold. If the amount sold is arbitrary, i.e. 0.0001% of circulating supply, the penalty will be minor as the user's actions have little to no impact on the token's value. On the other hand, if a user sells a significant number of tokens, i.e. 2% of circulating supply, the penalty will be severe as this sort of dump can lead to market instability, which is something a person with a long-term interest in a project will never want; consequently, such an action would lead to a harsh reduction of the Hodl Index.

The three indices described above collectively build a user's Investor Index, which is the primary measure responsible for deciding a user's designated power as a validator of work value.

