utrum

Incentivized Review Platform

— WHITE PAPER —

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INTRODUCTION

The cryptocurrency industry has officially gone mainstream. This has led to an increasing number of investment opportunities in the industry. Coinmarketcap.com lists more than **1500 cryptocurrencies**, 900 of which are coins and 600 tokens. In 2017, the market capitalization of cryptocurrency grew by over **1600%**, finishing off above the **$600 Billion** mark. Projected growth of this industry is over $2 trillion by 2020. Crowdfunding generated by the numerous ICOs in 2017 rose to nearly **$2 Billion**.

The primary reason for this tremendous growth is how the mainstream public have begun to embrace cryptocurrency and blockchain technology. While cryptocurrency was once something only discussed or understood by technology enthusiasts, mainstream media has contributed to a widespread awareness, particularly of Bitcoin and Ethereum. In 2017 the world saw a major shift of visibility and interest for cryptocurrency as a technology and an investment opportunity.

For investors, the cryptocurrency industry is more lucrative and faster-paced than other markets, albeit more volatile. There are two main reasons for this highly lucrative nature of cryptocurrency investing. The first is the liquidity of the cryptocurrency market. With so many new exchanges, investors have more options and access to the markets than ever before. It is easier and faster than ever to exchange fiat (physical currency) for cryptocurrency, and vice versa. Because of this liquidity, cryptocurrency has become an ideal asset for investors.

The second reason, is the ease of entry for anyone, even the most inexperienced, to become a cryptocurrency investor. The decentralized and unregulated nature of cryptocurrency allows anyone to participate. Inexperienced investors mean more lucrative movement of assets and higher volatility.

THE PROBLEM

As the investment opportunities within cryptocurrency evolve, new complexities have grown with them, leading to confusion and increasing the risk level for even the more experienced investor.

Unlike traditional markets where certain predictable and time-tested economic and technical factors help the skilled investor make smarter decisions, cryptocurrency is still inherently unpredictable. And with no trusted entity to ensure the authenticity of specific decentralized assets, ICOs, Coins, and TIFs (Tokenized Investment Funds) many scams, Ponzi and MLM schemes have sprung up.

As a result, most cryptocurrency investors, skilled and unskilled alike, are finding it increasingly difficult to distinguish between good and bad crypto investments. This often leads to legitimate projects lacking sufficient investors while scams, overt or covert, generate false hype while collecting large sums of money. *Many investors have lost their hard-earned life savings due to a lack of awareness, a trusted entity on authenticating investments, and cryptocurrency knowledge.* This diversion of focus and funding has caused injury to trust, projects, people and innovation.

Because cryptocurrency is unregulated it is up to the community to provide the needed measures to authenticate and educate investors. Until now savvy investors have relied on digging for information or looking up to other community members to do so, in the hopes they are providing unbiased and quality information. Most of this digging takes place in online communities such as reddit, slack, twitter, discord, facebook, and telegram. *The problem with this approach is the difficulty in determining the authenticity of the information provided*.

THE SOLUTION

Utrum is a platform that provides unbiased information and metrics on cryptocurrency assets, ICOs, and other related investment opportunities within the cryptocurrency space. One of the initial challenges is incentivizing those who have the skills and knowledge to share with the community, while authenticating these sources and assigning a trust rating to their content. While some centralized/privately operated solutions have attempted at addressing these issues, they do not address the most pressing problem of trust through bias and manipulation as discussed.

A blockchain-based solution guarantees transparency, accuracy and quality to provide trust for trustless parties. Utilizing the blockchain, Utrum will provide:

i. Security

The blockchain provides a secure platform for those who wish to share information (i.e. contributors) and those who wish to access information (i.e. investors). The information and metrics shared regarding a particular investment opportunity, such as reviews, predictions, and opinions are provably immutable and cannot be altered. Because Utrum will incentivize using cryptocurrency, the blockchain also provides a secure payment ledger.

ii. Confidentiality

One of the challenges in creating unbiased reviews is corporate interference. Utilizing blockchain features, the identity of contributors is protected while maintaining the quality of information. This layer of anonymity promotes honesty without consequence when/if negative information is shared. It also promotes good behavior on the part of projects/ICOs.

iii. Ownership

A decentralized blockchain platform keeps it in the hands of the users. Contributors and members alike validate information provided, resulting in a self-regulating community of authenticating all information within the ecosystem.

UTRUM PLATFORM

WHAT IS UTRUM?

Utrum is a decentralized reward platform which will provide cryptocurrency stakeholders an ecosystem where they can share information in earnest. The Utrum team understands that as new blockchain technologies are being developed, it is increasingly difficult for investors to intelligently and informatively find the best cryptocurrency investments in the industry.

Utrum will provide an ecosystem that solves the problems by connecting experienced analysts and developers with investors and new comers. Contributors are rewarded Utrum Tokens (called "OOT" tokens) for contributed content, while investors and newbies are able to access the reviews, ratings, market predictions, and in-depth analysis of assets and opportunities based on trustworthiness and profitability factors. Members are rewarded OOT tokens for ratings they provide.

Utrum is building on the philosophy of leveraging crowd wisdom while subjecting collected information to a "trial by Jury." According to Digital Maoism, the collective opinions based on this "Jury" model are more accurate when it does not define its question, in other words, the effectiveness of an answer can be evaluated using simple results that are numeric or empirical.

In addition to the Jury model, Utrum will implement a quality control mechanism to filter information individuals rely on. On the Utrum platform, the collective does not create the questions. Instead, the collective simply answers whether the specific reviews, market predictions, and analysis are trustworthy.

In this way, the collective engages through votes and rating the information provided. Ratings reflect the overall trust, people place in the information being provided by Contributors. **To protect the system from manipulation and improve scoring accuracy, Utrum will use Artificial Intelligence to learn from community engagement and ratings.**

WHAT ARE THE FEATURES OF UTRUM?

i.   Comprehensive Database of Cryptocurrencies and Assets

The Utrum platform will have a list of all digital assets (coins, tokens, etc.) in the cryptocurrency industry as well as team and financial details for each project. This information serves as the basic foundation of cryptocurrency investment fundamentals.

ii.   Rating System

The different cryptocurrency related products and services in the industry will be subject to reviews, analysis and ratings by users of the Utrum platform. Ratings help users ascertain the trustworthiness of digital assets, including cryptocurrencies, tokens, exchanges, wallets and investment funds. Voting of an asset is limited to 1 per user.

Utrum recognizes the challenges associated with rating systems that are incentivized, and how issues can arise from other ratings patters or inauthentic influencers. We are addressing these challenges and intend to solve these problems within our Platform.

1.   **Pros and Cons** - Reviews utilize a pros/cons feature users engage with.
2.   **Blindfold Rating** – Projects or other member reviews are rated by users on a scale of 0 – 100. The resultant rating is hidden for 24 hours, reducing rating pattern influence and encouraging authentic ratings based on real information.

iii. Background Information

To help investors mitigate the risk of cryptocurrency fraud, Utrum will provide background information on the teams behind leading ICOs, cryptocurrencies and assets. This information is provided by threat analysts who will be part of the Utrum ecosystem and, with time, AI machine learning will provide insightful research into teams. Analysts will verify details such as domain info, team social profiles, past history, as well as video calls to confirm the identity and authenticity of the team founders.

iv. Machine Learning Algorithm

The machine learning algorithm integrated into the Utrum platform learns from the rating patterns of members to detect fraudulent practices. As the community grows, this AI becomes smarter and will soon be able to provide accurate results based on the cumulative decisions made by community members.

v. Built-in Reward System

Utrum uses an integrated reward system to incentivize contributors in providing accurate, useful information. The reward system will utilize OOT tokens. Contributors who create articles, reviews and predictions earn OOT tokens. Content validators also earn OOT tokens.

vi. Dynamic Reputation System

Utrum assigns a dynamic reputation score for members that keeps changing as they post and other members rate their posts, reviews, and analysis. This approach will motivate analysts and contributors to perform better.

Utrum's unbiased and transparent approach will protect against endorsement of any stake holders within the ecosystem.

KEY FEATURES OF UTRUM PLATFORM

MEMBERS OF THE PLATFORM

The Utrum platform has different user types which interact in various ways. These groups are interdependent in creating the Utrum ecosystem. They include:

a. **Crypto Developers:** These are blockchain and cryptocurrency entrepreneurs who are either creating a cryptocurrency, ICO, service, investment fund or other assets in the cryptocurrency industry. Within Utrum, developers can create business pages for open assessment of the trustworthiness of assets being introduced by analysts and members.

b. **Analysts:** There are at least three categories of Analysts being introduced to the platform. (1) Threat Analysts will perform background checks. (2) Crypto Analysts will perform in-depth technical analysis. (3) Market Analysts will focus on trading and chart predictions.

c. **Members:** Novices to cryptocurrency and Investors seeking curated insight into cryptocurrency, ICOs and other blockchain projects are the primary members group of Utrum. Members can utilize the information provided through the Utrum platform in identifying smart investments and trustworthy projects.

d. **Trustees:** The Utrum platform is a community driven ecosystem with no centralization. However, moderators, called Trustees, will provide general oversight and input according to the best conduct, interest, and goals of the community.

GOVERNANCE MODEL

The Utrum platform will begin with 12 elected trustees. As the community grows, a community election will be held every 6 months for new trustees to be added to the ecosystem.

Any major strategic decisions involving the platform will be resolved through community voting, the Utrum team providing oversight into a fair voting process.

OOT TOKEN AND OTHER PARAMETERS OF THE PLATFORM

In addition to member groups and governance, the Utrum ecosystem relies on several other functions for its operation. These include:

a. **OOT Tokens**. Utrum Tokens, called OOT tokens, are the cryptocurrency utility tokens used within the Utrum platform. As a utility, they are used by investors and other members to access in-depth technical analysis and market predictions. Members can use OOT to seek expert advice or buy and sell crypto-related services within the platform marketplace. Crypto developers can use OOT to make promotions. Contributors and members within Utrum also earn OOT tokens as rewards based on their contributions. Although OOT tokens are a utility token for use within the Utrum platform, OOT will also be able to be bought or sold outside the Utrum ecosystem on cryptocurrency exchanges.

b. **Trust Factor Credits (TFC).** Trust Factor Credits, or TFC, are credits used exclusively within the Utrum platform. Members and contributors earn TFC for their predictions, analysis, and ratings. TFCs are used in calculating the appropriate OOT reward earned by an action.

c. **Trust Factor Score (TFS).** Trust Factor Score, or TFS, is a scoring system for translating community trust into a meaningful and measurable metric. A TFS is given to cryptocurrencies, ICOs, analysts and members. In simple terms, TFS reflects how many people in the community trust the information or member in question.

d. **Member Vote Coefficient (MVC).** All contributors within the platform may participate in any rating process. Every member has a coefficient, which begins as 1 by default. The coefficient is used to determine the weight of the voter. This is calculated using the end result of the rating process. This dynamic coefficient changes after every rating process, according to the accuracy of the voter as compared with the crowd decision.

THE PROCESS

RATING PROCESS

Contributors are rewarded OOT tokens whenever a user rates content within a period of 30 days. This allows articles or other content provided by a contributor enough time to be discovered and given adequate assessment by the community. This also promotes an active, healthy community ecosystem by motivating both contributor and curator.

Any crypto-related matter, ICO, product, service, currency, reviews etc. can be rated through the platform. Every rating process has a blindfold period with associated payout times.

- Crypto Reviews - 72-hour blindfold - 30-day Pay-out - 70% to post and 30% to voters

- Crypto Tech Analysis - 48-hour blindfold - 30-day Pay-out - 70% to post and 30% to voters

- Crypto Market Predictions - 24-hour blindfold - 30-day Pay-out - 70% to post and 30% to voters

- Crypto Educational Reviews - 72-hour blindfold - 30-day Pay-out - 70% to post and 30% to voters

- ICO Reviews – 72-hours blindfold - 30-day Pay-out - 70% to post and 30% to voters

- First to Review - $5 for reviewing any crypto or ICO

- Expert - The experts will earn 2x rewards because of their expertise and the expertise is determined by their Trust Factor Score.

- Trustees - Trustees are the guardians of Utrum platform, and their job is to curate reviews. They can earn 2x rewards when they rate others.

Trust Factor Algorithm is the core of the platform. Trust Factor Score of Cryptos, ICOs, reviews, posts etc. are calculated using this algorithm.

Trust Factor Score of analysts (reviewers, experts etc.) has a different calculation method which is based on quantity and quality of their reviews, posts and analysis.

The Problem

Within Utrum, as with every incentivized platform, there is always a possibility of members attempting to manipulate the system to gain rewards. *It is also observed that there is a loyal fanbase for every crypto token who are driven to manipulate the overall ratings by using group votes*. Being a responsible and transparent platform, we must address this problem.

Traditional Approach to Evaluate Votes/Ratings

In most traditional voting systems, votes are cast, counted and results delivered or expressed. In a rate-based voting system, the approach is to take an arithmetic average of the ratings.

In some systems, an evaluator takes a sample subset of voters or votes and evaluates as described above, assuming this subset statistically represents the entire voter pool. This is applicable if you have a large sample amount compared to complete pool. However, you also need to define both the accuracy and uncertainty of your measurement. These methodologies for evaluation are prone to manipulation.

UTRUM METHOLODOGY

Utrum proposes to motivate users to vote on conscience over influence. Voting/rating is defined to be a limited-time process. From time "zero" to final the voting moment, voters are expressing their free will about the matter upon which they are voting. After the results are declared to the public, the voters are unbiased and the voting/rating session is ended. To accomplish this, the Utrum platform will use a "blindfold voting" approach in which user rating results are hidden for a period of time. This directly removes the influence rating patterns might have over a user's activity.

- Utrum methodology time stamps each vote/rating, disallowing modification.
- Every rating is from 0 to 100. Every vote is equivelant to the rating multiplied by the coefficient of the voter.
- Every vote is counted and evaluated separately.

- Voters are rated inside the system. In the future, voters will have the opportunity to be promoted as experts, based on a number of upvotes which they have received.
- Votes are filtered according to timed and "distributed attack" filtering methods.

All votes, excluding those filtered, are collected in a pool and counted. If we were to chart the votes it would be something similar to the following example:
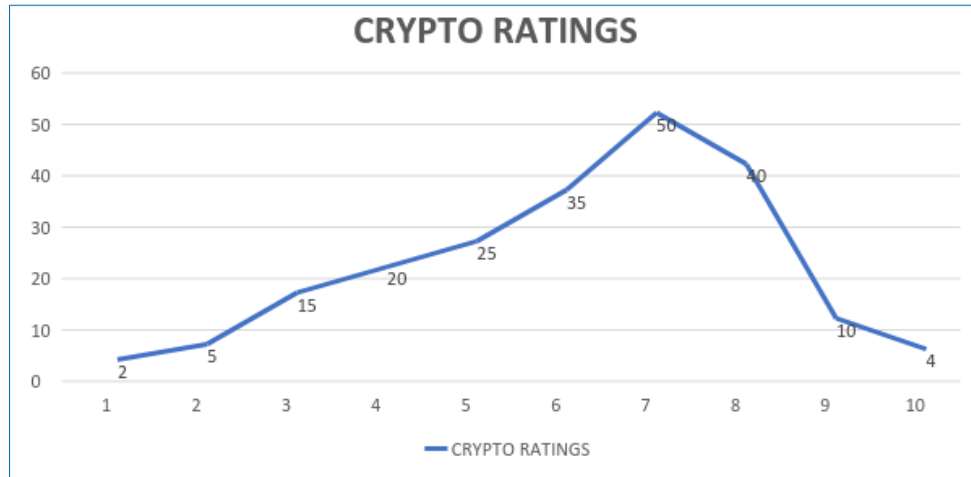
If you look at the chart, you will see X-axis is the rating intervals, and Y-axis is the number of votes in corresponding intervals.

Definitions and the equation to get TFS result of voting prcess:

VOTE includes voter id; vote time; rate; mvc; weighted rate

MVC: member voting coefficient. $0.1 \leq MVC$

$WRATE_U$ = voter's weighted rate = rate * mvc

N: total voter quantity in the process

$$TFS = weighted\ mean = \frac{\sum_{u=1}^{N} WRATE_u}{\sum_{u=1}^{N} MVC}$$

D: Maximum acceptable deviation from the weighted mean (TFS).

D = deviation = TFS*0.1   Down limit = TFS-D   Up limit= TFS+D

Example:

VOTER	MVC	RATE
01	0.1	100
02	3	50
03	2.1	70
04	1	20

TFS = (0.1*100+3*50+2.1*70+1*20) / (0.1+3+2.1+1) = 327 / 6.2 = 49.52

D = 49.52 * 0.1 = 4.95

Range = 44.57 <> 54.47

Manipulation Scenario 1

A Telegram or Slack group may organize an attack aimed at increasing/decreasing the rating of a crypto-product in the Utrum platform. They will most likely attempt to manipulate the ratings on a large scale by means of either downvotes or upvotes.

Timed Manipulations

We define a Timed Manipulation as a significant amount of votes/ratings in a certain time interval with similar values (all up or all down). A manipulator with a purpose to increase/decrease rating of a crypto-product may try to use "some" number of votes with a certain value or interval. These manipulated votes will be used within a certain time interval.

Utrum Approach

In order to protect the integrity of the ratings system, Utrum has a feature to detect Timed Manipulations. Every rating is time-stamped. During the process of rating from the time "zero" to the final rating moment, there is a stream of votes.

To identify Timed Manipulations the system can evaluate votes used in different time-frames which should be close to the whole window of time, within an acceptable range. For example, imagine a rating process of 30 days. The mean of these 30 days is 60 over 100. So, each day should have a mean around 60 with some difference. But if there is timed manipulation, you will see significant spikes, for example, a particular day with a mean of 80.

In the example, our time-frame is 24 hours for 30 days. We can also do further segmentation to detect exact manipulated votes. So, we can define another time-frame of 1 hour within the manipulated 24 hours. Using this approach we anticipate being able to catch every manipulated vote.

CRYPTO RATINGS
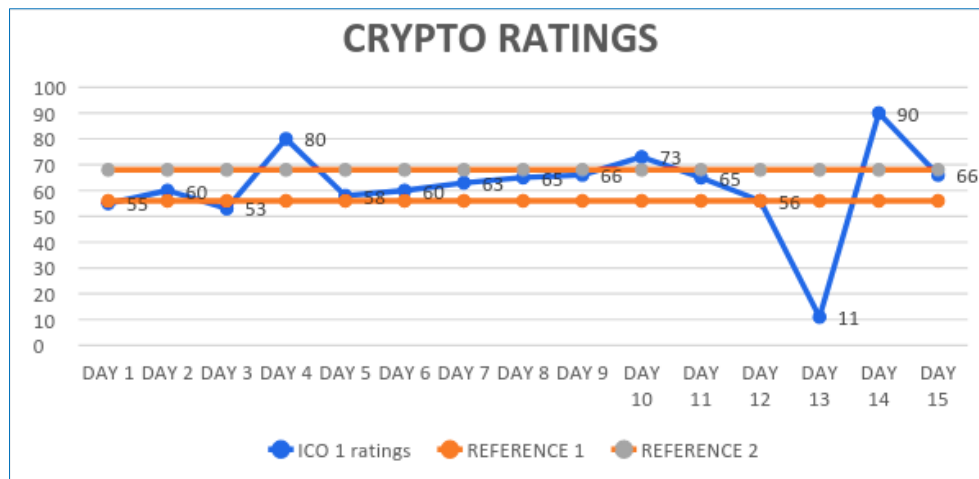
The above graph demonstrates upward and downward attacks made on certain days. Days outside orange lines are considered manipulated and need to be investigated further. This graph will be constructed again after these manipulated days are recalculated.

Manipulation Scenario 2

A Telegram or Slack group may organize an attack aimed at increasing/decreasing the rating of a crypto-product in the Utrum platform. They will most likely attempt to manipulate the ratings on a large scale by means of either downvotes or upvotes. This time, however, votes are distributed over a period of time.

Distributed Manipulations

We define a Distributed Manipulation as a meaningful amount of votes/ratings throughout the process with similar values. A manipulator with a purpose to increase/decrease ratings may try to use "some" number of votes with a certain value or a value interval. These manipulated votes will be distributed throughout the process of rating.

Utrum Approach

In order to protect the integrity of the ratings system, Utrum has a feature to detect these types of Distributed Manipulations. Every rating is time-stamped. During the process of rating from the time "zero" to the final rating moment, there is a stream of votes. To identify Distributed Manipulations, we count the votes with their ratings. And when we graph this, it looks something similar to the following:

CRYPTO RATINGS
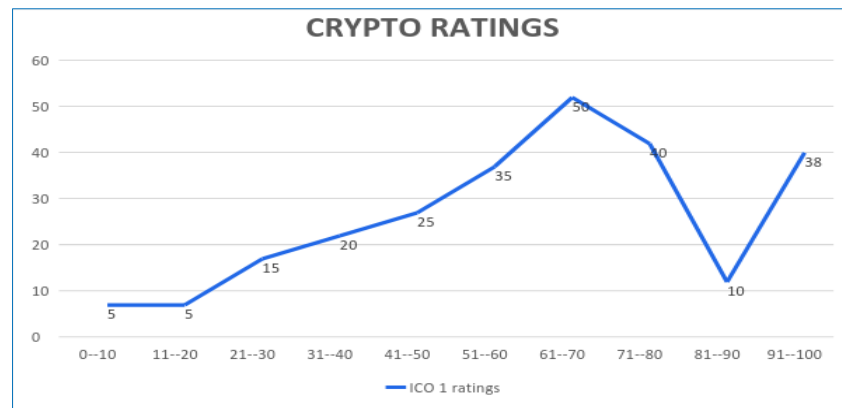
X axis is rating intervals and Y axis is quantity of votes used in those rating intervals. In this scenario, we had 5 votes for 0-10 ratings, and 50 people voted in a rating interval of 61-70.

We can easily spot the variance in 91-100 interval, where there are 38 votes. These 38 are most likely manipulated. So, we will remove them from the final estimation of the rating votes.

Member Vote Coefficient

After this filtering process completes, we go back to the first stage and generate a new mean and deviation. Votes found to be out of scope are marked and signed with a coefficient calculated according to the difference from the mean. Each voter has a dynamic coefficient, set to 1 by default. According to the accuracy of rating, their coefficient is increased or decreased.

Distance from mean	Coefficient for future votes	Distance from mean	Coefficient for future votes
%5	+0.1	%50	-0.4
%10	0	%60	-0.5
%20	-0.1	%70	-0.6
%30	-0.2	%80	-0.7
%40	-0.3	%90 and more	-0.9

TRUST FACTOR SCORE FOR CRYPTO-PROJECTS

Determination of TFS of a crypto-project (TFS_{CRYPTO}), ICO or cryptocurrency is a different and separate calculation than that of the TFS for posts, reviews, analysis etc. The Trust Factor Algorithm is used to filter irrelevant and/or intentionally manipulated votes and determine weighted average of honest voters, to produce the TFS. TFS_{CRYPTO} includes some further differentiations to improve the precision of resultant data.

A crypto-related project, either ICO or actively traded cryptocurrency, consists of 5 important aspects:

- **TEAM:** The team behind a project or service. TFS_{TEAM} *(Separately voted, rated, and included as additional key aspects)*

- **PRODUCT/SERVICE:** The product or Service that is introduced. $TFS_{PRODUCT}$

- **MARKET DYNAMICS:** Like most markets, the crypto-market has sentiment, balance of powers, a direction, and several other influencing factors. TFS_{MARKET} *(E.g. A crypto-project offering a Bitcoin clone with no additional features compared to Bitcoin or similar competitors, offers no real advantages for investors)*

- **COMMUNICATION:** Active and appropriate usage of social media, direct conversation with investors, regional meetings with the communities, and similar activities have crucial importance to connect a team with their community. $TFS_{COMMUNICATION}$ *(Good communication goes beyond an active social media presence. A smart investor pays attention to the communication flow, organization and watches for clogged information within these channels)*

- **INVESTOR CONFIDENCE:** This is a measure of the confidence of investors in a particular project. $TFS_{CONFIDENCE}$ *(E.g. Bitcoin is the most well-known, having survived many years and grown significantly in that time. This inspires confidence in investors)*

  Calculation of TFS_{CRYPTO} inherits all these 5 TFS' which is a simple average of 5.

TRUST FACTOR SCORE FOR MEMBERS

Whenever a member makes a review, post, technical, fundamental, financial or coding analysis his contribution is evaluated through a rating process. After the "blindfold" period, a rating is calculated using the Trust Factor Algorithm.

The Trust Factor Score of an individual is issued upon publishing a post. As a member's TFS improves, they have the opportunity of being promoted to Expert.

An Analyst has a Member Vote Coefficient, or MVC, which increases or decreases via the Trust Factor Algortihm. Put simply, the MVC is an indicator of a member's accuracy in evaluating reviews, posts or crypto-projects.

The TFS of an Analyst shouldn't be confused with their MVC. Although a Technical Analyst may have a very high TFS, perfect analysis and may attract many members, this does not mean they are successful at evaluating ICOs or the fundamentals of a crypto-project.

With these definitions and considerations in mind, we are building the following correlations through calculation of the dynamic TFS of an Analyst.

R_a: total quantity of votes (for rating) of the analyst's posts

V_a: total quantity of views of the analyst's posts.

R_p: total quantity of votes (for rating) of all analysts' posts on the platform

V_p: total quantity of views of all analysts' posts on the platform

$ATFS_{post}$: It is the average rating of all posts of the analyst in question

The equation for to calculate TFS of the analyst ($TFS_{analyst}$)

$$TFS_{analyst} = \frac{Ra * Vp}{Va * Rp} * \frac{ATFSpost}{ATFSplatform}$$

Example:

Utrum has a member called George the Crypto King. He is doing a great job contributing to the community. Members of the Utrum platform are benefiting from his analysis and they reward George via their ratings during the blindfold period.

During this blindfold period George's last analysis received 1000 views, but only 100 of them rated that particular post. This post generated a TFS rating of 65/100 which is determined through TFS Algorithm.

At the moment of calculation Utrum has 10,000 views for all posts done by all analysts with 400 member votes.

George has made 28 posts up to this date and the simple average of all his 28 posts, including this one, is calculated as 80.

Average TFS of all posts in the platform is 40.

So TFS of George is calculated as follows:

$$TFS_{George} = \frac{100 * 10000}{1000 * 400} * \frac{80}{40} = 5$$

The TFS of George has a direct correlation with the Rates/Views ratio. Utrum encourages members to rate posts regularly, to produce better statistics and accuracy of crowd ratings.

Since "Ra" is limited to the blindfold period, but "Va" is not time-limited, Ra/Va ratio will always tend to go lower. This means that if George stops posting, his TFS will decline by the time. As a result George is motivated to make posts with better quality and maintain his TFS.

In addition, a higher TFS should attract more members to view and rate George's posts which will result in better contribution to the community.

REWARD SYSTEM

The engine behind the reward system is the revenue of the Utrum platform and a 50% reserve pool that we pre-mined and allotted for platform contributors before the ICO. In the reward system two different tokens are used:

1. Utrum Token - OOT
2. Trust Factor Credits – TFC

TFC is further divided in to two categories for posting and rating

TFC Posting - TFCP

TFC Rating - TFCR

OOT is the token that is used to pay on the Utrum Platform.

TFCP is awarded to people who post.

TFCR is awarded to people who rate the post.

POSTING REWARDS

When a member posts a review, other members will rate this post according to its quality.

As a result, Trust Factor Credits are issued by the platform for the Analysts post. These are correlated to the post's TFS.

R_a: total quantity of votes (for rating) of the analyst's posts

V_a: total quantity of views of the analyst's posts.

The equation to calculate TFCP

$$TFCP = \frac{Ra}{Va} * TFS_{post}$$

Example: Alice has made a post, she gets and average rating of 27 and 20 people rate that post with 200 total views.

TFCP = (27) * (20/200) = 27 * 0.1 =2.7 TFCP

Alice is also awarded with 0.01 TFCP for each view she gets, even after the blindfold period is over. The system will pay out for 30 days.

RATING REWARDS

Utrum platform encourages members to express their free will on any post in the platform. To incentivize contribution with rating, Utrum defines an award mechanism called Trust Factor Credits for Rating (TFCR).

TFCR has a maximum cap, which is 10. According to member rating acccuracy to TFS (post or crypto), member TFCR is increased or decreased. It resembles MVC, but they are not correlated through calculations.

$$TFCR = 10 - |0.4 * (VOTE\ RATE - TFS)|$$

Member need to rate maximum 25 distant from TFS for to earn some amount of TFCR.

Example: Bob sees an ICO. He thinks it is about 81/100. After the lock period is over the average which is TFS appears to be 73/100.

Bob rate - average rate = 81 - 73 = 8

TFCR = 10 - |0.4 * 8| = 10 − 3.2 = 6.4

PAYOUT

The minimum payout is:

Total Amount USD = Daily Active Users (DAU) * 0.50 USD

Minimum Payout in OOT is:

OOT Payout = Total Amount USD / OOT Day Price

Every day at 00:00 GMT, all TFCR and TFCP are deleted and member gets OOT in return.

TFCP Total Payout = Total Amount USD * 0.7

TFCR Total Payout = Total Amount USD * 0.3

Personal payout =

(Your TFCP/Total TFCP) * TFCP Total Payout)

+ (Your TFCR/Total TFCR) * TFCR Total Payout)

Pay-outs are attributed every day but they are released after two-week lock period

THE FINANCIALS

Utrum is a unique blend of crypto and traditional business models which operates as a freemium model. It is a revolutionary approach where we share platform revenues with the user community in the form of content rewards.

- The crypto analysts can create premium subscriptions in which a percentage will be shared by the platform. Institutional Investors and members can subscribe to get trusted analysis from their preferred crypto analysts.

- ICO projects and crypto developers can promote their ICOs, tokens, coins on the platform, generating revenue. This promoted content will not disrupt user experience. We do not intend to allow banners and pop-ups in the name of promotion.

- The Utrum Marketplace will collect one percent (1%) of the transaction fee to buy and sell crypto-related services.

- An additional five percent (5%) of APR rewards will be given to token holders for an eight-week vesting period.

- Utrum revenue will be shared with the community in the form of content rewards. Our primary focus is to sustain the platform long-term.

- There will be a two-week lock period to release pay-outs to contributors.

- Reward pay-outs will be primarily paid from platform revenues. If the platform revenues are low, pay-outs are then made from the 50% reward reserve pool. As the platform grows, the system will sustain on revenues and inflation will be very low.

HOW IT WORKS

TOKEN SALE 25%

REWARD POOL 50%

0.834% REWARD
8 weeks vesting period.

TOKEN USAGE
- Members can ask expert advice
- Premium subscription for in-depth tech and market analysis
- Buy/ Sell crypto related services Crypto/ico developers can access
- premium features

CONTENT REWARDS
- 70% to reviews and analysis
- 30% to ratings
- 24 hours blindfold to see rating results.
- 15 day payout to reduce inflation
- Rewards will be given for 30 days after post date
- If platform revenues are less, then reward pool will pay out

REVENUE DISTRIBUTION
50% – content rewards
15% – tokens are burned
10% – Monthly Loyalty Bounties
25% – Infrastructure

utrum
Your Crypto Playbook

To help sustain the Utrum economy, Utrum will burn some OOT by sending it to an invalid address. *This happens only with Platform Revenues.* This method of burning OOT will be conducted until 15% of the total coin cap is burned, after which time, revenue will be allotted to the platform again. We aim to achieve a perfect balance with this strategy.

15% of the platform revenues will be burnt, until we reach 15% (32 Million) of total supply (216 Million)

184 Million OOT tokens will be left at the end after 15 % burn.

The final version of the Revenue allocation is:

Total Revenue * 0.50, goes to Reward pay-out

Total Revenue * 0.15, gets burned

Total Revenue * 0.25, goes to the infrastructure

Total Revenue * 0.10, goes to the monthly loyalty rewards

Example - If the Utrum Platform makes a revenue of $100,000 USD in a month from buy/sell services, premium subscription and promotion revenues:

$100,000 * 0.50 = $50,000 worth OOT goes to reward pay-outs

$100,000 * 0.15 = $15,000 worth OOT gets burned

$100,000 * 0.25 = $25,000 worth OOT goes to infrastructure costs

$100,000 * 0.10 = $10,000 worth OOT goes to monthly loyalty rewards.

LOYALTY REWARDS

In addition to OOT content rewards, Utrum will also provide monthly loyalty rewards to keep members active and engaged in the platform.

OOTER OF THE MONTH (OTM)

Every month, a contributor who has the biggest positive change in his individual TFS in that same month will receive 5% of the total platform revenues as a monthly bounty. This will encourage analysts to participate monthly as well as contribute quality information and reviews. Once an analyst has received OTM, they will not be eligible again for the next 12 months, giving equal opportunity to all analysts. The development team, support team, and Trustees (Platform Moderators) are not eligible for the OTM bounty. The OTM bounty has to be claimed by the awarded member within 30 days of receiving. If they fail to do so, the amount will be allocated back to the reward pool.

OOTER of the Month takes the following into account in calculating the score and determining the winner:

1. Quality of posts

2. Amount of views

3. Quantity of posts

The OTM winner is calculated as follows;

$$\Delta TFS = \left.TFS_{date2}\middle/TFS_{date1}\right.$$

Example: If our famous analyst George's TFS was 5 on 1st of January 2019, and at 1st of February it is 9, then his ΔTFS is;

$$\Delta TFS = \left.9\middle/5\right. = 1.8$$

If George's TFS increase rate 1.8 is the highest of that particular month, congratulations George, you're the OOTER of the Month.

OOT Resident Bounty (ORB)

A member whose account is older than 3 months with a minimum of 60 hours spent on the platform, is eligible for the OOT Resident Bounty (ORB). The system selects a member at random from eligible members. The winner of ORB receives 5% of the platform revenues generated in that month.   This is awarded one time for a member, once the member has won ORB, they are ineligible going forward. The development team, support team, and Trustees are not eligible for the bounty. This bounty must be claimed by the member within 30 days of receiving. If they fail to do so, the amount will be allocated back to the reward pool.

ADVISORS

James Lee – Blockchain Advisor

James Lee, popularly known as **JL777** is the **Lead Developer of Komodo Platform** which has a market cap of $500 Million. He is a strong advocate of privacy and liberty in it's true essence. He is the pioneer of decentralized ICO platform (dICO) which he developed to stop hackers and whales from manipulating crowd sales. His brainchild is BarterDEX which is a fully functional decentralized exchange using atomic swaps and electrum servers. He also developed Komodo privacy coin which uses zk-snarks and Jumblr for anonymity along dPOW (delayed Proof of Work) that provides bitcoin security to Komodo.

TEAM

Sridhar Panasa - Founder and Project Lead

Sridhar has been a bitcoin enthusiast since 2011. He is the CEO of a threat intelligence company serving global clients from 2008. He has over 10 years of experience in the fields of Identity Protection, Threat Intelligence and Cyber Investigations.

Linked in

M. Gürkan Aygörmez - Business Development

Aygormez is a business executive with fourteen years of experience as a director in multiple firms. His experience is indispensable in ensuring that the business model adopted by Utrum is sustainable.

Linked in

Chris Van Maarseveen - Research & Development

Chris has bought his first cryptocurrency at the age of 16, who was influenced by his father Barv. Fascinated by the technology and solutions offered by Komodo Platform, he joined their organization. At this young age, he got into research and development of cryptocurrencies and blockchain technology.

Onur Özcan – Growth Marketing

Ozcan has over six years of experience in marketing serving global clients. He is tasked with overseeing the marketing and user acquisition departments to create awareness in the cryptocurrency community.

Linked in

Maksym Logvinov – Full Stack developer

Logvinov is the full stack developer with three years of experience. He provides oversight for the development of the platform.

Linked in

Pratap Patil – UI/UX Designer

Patil has experience as a web developer and graphics designer. His role is to ensure that the website and web interface are both functional, simple and aesthetically attractive to the users.

Linked in

John Westbrook – Content & PR Manager

John has over 20 years of technology consulting, education, and development experience working with over 100 organizations and 40K students worldwide.

Linked in

Roadmap

CONCEPT	PROJECT ANNOUNCEMENT	ICO TOKEN SALE	ALPHA
SEPT 2017	DEC 2017	APRIL 2018	Q4 2018

TEAM	WHITE PAPER	EXCHANGE LISTING	BETA
OCT 2017	FEB 2018	MAY 2018	Q1 2019

ALPHA RELEASE

Crypto Database, Networking Module, News feed.

BETA RELEASE

Review Module, Portfolio, Market Predictions Module

The concept of Utrum was created in September 2017 after the founder Sridhar discovered that there was no authentic way to verify good cryptocurrency assets or differentiate the good from the bad. He conceptualized the idea to create a decentralized and incentivized review platform that could help investors and new comers overcome the chaos and quiet the noise in the industry.

Ask Advice, Knowledge Base, Market Place modules will be implemented as we move forward.

KOMODO PLATFORM

We have chosen Komodo over Ethereum, Neo and other platforms because of the following advantages:

- Komodo provides independent blockchain and Utrum is not dependent on Komodo at any time.

- Komodo provides bitcoin level security for the Utrum asset chain using delayed Proof of Work (dPOW) mechanism

- Komodo integrates OOT in to their multicurrency wallet (Agama) and decentralized exchange (Barterdex)

- Barterdex allows users to trade OOT with other coins, powered by cutting edge Atomic Swap technology.

- OOT will inherit privacy features of zero knowledge zk-snarks

- OOT to OOT transactions will have a minimal 0.00001 percent transaction fee.

- Fully scalable and Lightning fast transaction speeds as we have our own blockchain

Komodo dICO is as a Hack-Proof ICO process where the sale happens within the Atomic Dex exchange app like shapeshift using electrum servers. The sale process is completely decentralized without any point of failure. There are no smart contracts to be hacked and Attacker cannot change the receiving address as everything happens on the blockchain using atomic swaps.

CRYPTO ANALYSIS

MARKET PREDICTION

CRYPTO REVIEW

73 user reviews

Sort: **Popular** | Rating | Date

Pros
Komodo has advanced Tech, Barterdex is a game changer (in 10 reviews).
Innovative Team (in 12 reviews).
Privacy, Dex, dICO komodo is a complete ecosystem (in 5 reviews).

Cons
Communication is Poor (in 5 reviews).
Marketing needs to be improved (in 12 reviews).
Platform is not popular yet (in 2 reviews).

Ardor
Qtum

AbsolutionX
November 28, 2016 at 2:27 am

Pros
- Strong team lead by JL777;
- Security: Delayed Proof of Work, JUMBLR;
- Stability: Asset chains, Fiat pegged tokens;
- Scalability: Peer chains;
- Micropayments: CHIPS;
- Intelligence: Simple/Smart Contact Implementation;
- Interoperability: Atomic swaps, BarterDEX.
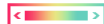
Cons
- Lack of marketing/public relations;
- Inactive community;
- Lack of popularity in the cryptospace;
- The development team is small and top heavy.

Advice to Team
Marketing has to be improved

Overall	80
Team	18
Product/Service	17
Market Dynamics	15
Communication	14
Investor Confidence	16

ICO ANALYSIS

utrum

Search

Messages Friends Notifications

My feed Portfolio Cryptos ICO Trading Reviews Tech reviews News Ask advice Knowledge base Buy / Sell

Trending in ICO

Monaize
Is an e-banking platform that provides a mobile-first current account for freelancers and small businesses.
- TFS 70
- 15 Reviews
- 20 Views
- Start in 30 days

Covesting
Decentralized copy-trading platform for crypto currency market.
- TFS 60
- 10 Reviews
- 90 Views
- LIVE

DMarket
The first decentralized marketplace where you can trade all your in-game items globally.
- TFS 40
- 15 Reviews
- 20 Views
- Start in 30 days

Bitclave
A platform that enables direct customer-to-business interaction with no need for intermediaries.
- TFS 70
- 12 Reviews
- 18 Views
- Start in 15 days

UTRUM CROWDSALE

216 MILLION OOT – TOTAL SUPPLY

- PLATFORM CONTRIBUTORS (50.0%)
- DEVELOPMENT TEAM (15.0%)
- OPERATIONS RESERVE (10.0%)
- TOKEN SALE (23.0%)
- BOUNTY AND REFERRAL PROGRAM (2.0%)

Token Allocation

- **54 Million circulation supply (till beta launch)**
- **216 Million Total supply, tokens will not be generated later**

Token Details

NAME:
OOT token

TICKER:
OOT

COIN TYPE:
Komodo Asset Chain

TOTAL SUPPLY:
216,000,000

CONTENT REWARDS RESERVE:
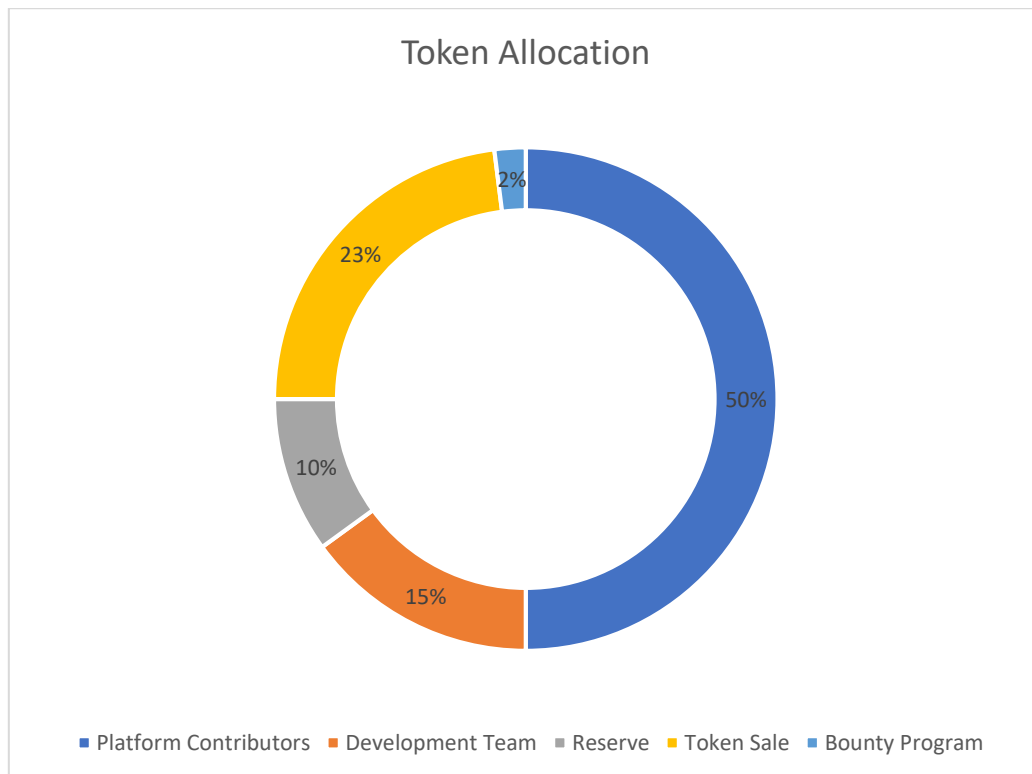108,000,000 (50%)

BOUNTY AND REFERRAL TOKENS:
4,320,000 (2%)

SOFT CAP:
$ 1 Million USD

HARD CAP:
$ 5 Million USD

ICO Process

ICO PROCESS	**Komodo AtomicDex Exchange App**
ICO TOKENS	**49,680,000 (23%)**
EXCHANGE RATE	**1 OOT = $ 0.12 USD**
ACCEPTING	**Bitcoin, Bitcoin Cash, Komodo, Z-cash, Dash, Litecoin**

ETH is not accepted because it is not yet integrated with Komodo

PRE-ICO	**24 April – 10 May**
KOMODO BONUS	**30%**
MAIN ICO	**20 May, no bonus.**
REFERRAL BONUS	**5%**

When a friend signs up using your unique link, you get 5% of the OOT tokens they buy. and they get an extra 30% bonus when they buy with KMD
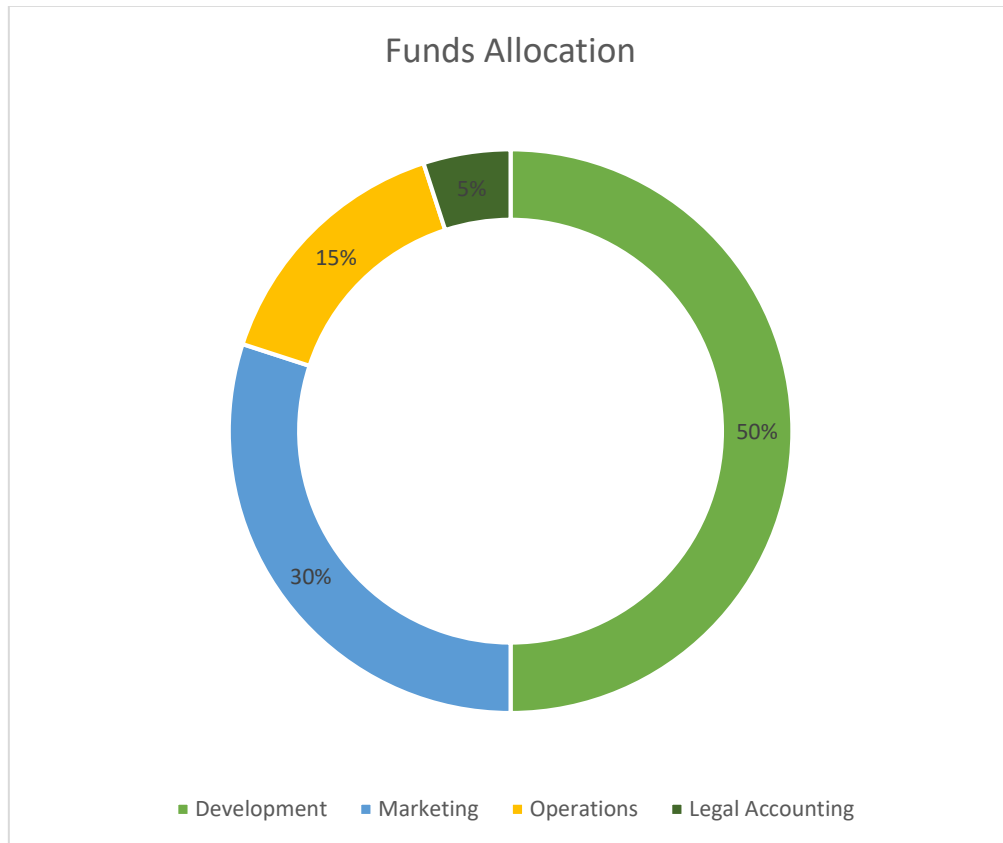
FUNDS LOCK

The operational reserve tokens will be locked for 2 years.
The tokens allocated to the platform contributors will be released based on the content.
Team tokens are locked for a time period and released 5% every year.

REGISTER FOR WHITELIST

ICO TOKEN SALE

Funds Allocation

- Development 50%
- Marketing 30%
- Operations and Infrastructure 15%
- Legal, Accounting 5%

SOCIAL MEDIA

Website	:	https://utrum.io
Blog	:	https://medium.com/utrum
Twitter	:	https://twitter.com/utrumdotio
Telegram	:	https://t.me/utrumdotio
Reddit	:	https://www.reddit.com/r/utrumdotio
YouTube	:	https://www.youtube.com/channel/UCehMosC6KxgxbWZv-FK62Bg
Facebook	:	https://www.facebook.com/utrumdotio/
LinkedIn	:	https://www.linkedin.com/company/utrum/
GitHub	:	https://github.com/utrum

LEGAL DISCLAIMER

OOT tokens and TFC tokens are cryptographic tokens intended to be used within the UTRUM platform.

- Utrum tokens (Symbol OOT and TFC) are ONLY the functional utility tokens within the Utrum platform.
- Utrum tokens are not currency of any kind
- Utrum tokens are not securities.
- Utrum tokens are not shares or interest in a collective investment scheme
- Utrum tokens are not Stocks, debentures, notes, warrants, certificates or any other instrument the purpose of which is to grant a right to interest, dividend, payment or any kind of return from any person.
- Utrum tokens are not for speculative investment. No promises of future performance or value or will be made with respect to OOT, including no promise of inherent value, no promise of continuing payments, and no guarantee that OOT will hold any particular value.
- Utrum tokens are not an equity interest or evidence of ownership in any legal entity
- Utrum tokens are not participation in the company.
- Utrum tokens are sold as a functional goods and all proceeds received by company may be spent freely by company without any conditions.
- Utrum tokens will not give any right to participate in the control, direction or decision making of any legal entity.

*Note - Version 1.1 - This whitepaper is a draft copy and subjected to change in the future.

TokenSale Agreement

https://utrum.io/docs/Utrum-Token-Purchase-and-Sale-Agreement-10-May-2018.pdf

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   https://eprint.iacr.org/2016/016.pdf

4. Steem Blockchain

   https://steem.io/steem-bluepaper.pdf

5. BigChainDB

   https://www.bigchaindb.com/whitepaper/

6. IPFS

   https://ipfs.io/