

WHITEPAPER



REFINE MEDIUM
People's own media

The image shows a screenshot of the Refine Medium website displayed on a tablet. The website has a purple-to-orange gradient background with a network graph pattern. At the top, there is a navigation bar with links like Home, Documents, Features, Token Allocation, Invest, Road Map, Team, Contact Us, and Login. A prominent red banner in the center says "Bounty is live now !!!". Below the banner, there is a section titled "What is Refine Medium?" with a video player showing a thumbnail for "Refine Medium Introduction". The video player includes controls for Watch later and Share. At the bottom right of the tablet screen, there is a message about activating Windows. The overall theme is decentralized media powered by blockchain technology.

www.refinemedium.com

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EXECUTIVE SUMMARY

Video creation, conveyance & consumption trends around the world is experiencing a major disruption. The distinctions between print and digital media, video games and sports, wireless and fixed internet access, pay TV and Over-The-Top (OTT), social and traditional media are blurring. For consumers around the world, entertainment has become more of a necessity. It provides a gateway to happiness and gratification, during the momentary breathing spaces that people get in this rapidly progressing world. Unsurprisingly, the Entertainment and Media industry generates over \$2 trillion in annual revenues worldwide. The USA (\$750 billion), China (\$190 billion) and Japan (\$157 billion) are the world leaders in E&M markets.

Production houses and studios who once subjugated the E&M landscape are now eagerly looking over their shoulders at the adamant, aggressive and ambitious online streaming service providers such as Youtube, Netflix, Prime Video etc. This phenomenal growth of the online video content in the last decade has triggered a notable shift in the balance of power. While online and offline content providers are engaging in the tussle for control, consumers are the sole beneficiaries with unparalleled choice of contents. But is the shift of control from oligopolistic studios and production houses to like-minded video platforms a sustainable option? Or there exists a better option which raises the expectations of the content yearning consumers and simultaneously rewards them for watching and reviewing videos. And also, maintains a robust, transparent and egalitarian relationship between content provider and content creator. The response to this is definitely affirmative.

Entertainment & Media industry is subtly poised to experience the blockchain disruption and incorporate a pragmatic use of cryptocurrency. The existing greed driven business models of online video industry is set to experience a major setback with the emergence of blockchain based video platforms which will place the control back in the hands of the users who feed the entertainment economy- viewers and creators. The glimmer and shimmer of the yesteryear's entertainment industry can be ushered back with the radiance of today's technology.

Whitepaper Objective

The objective of the whitepaper is to reveal how astute marketing skills, combined with decentralised content delivery network powered by blockchain technology and virtual tokenisation, can completely transform the way in which we create, circulate and consume media. It will illustrate how a decentralised media platform is bringing streaming symmetry to all its community members and incentivises participants to partake continuously in a virtuous cycle.

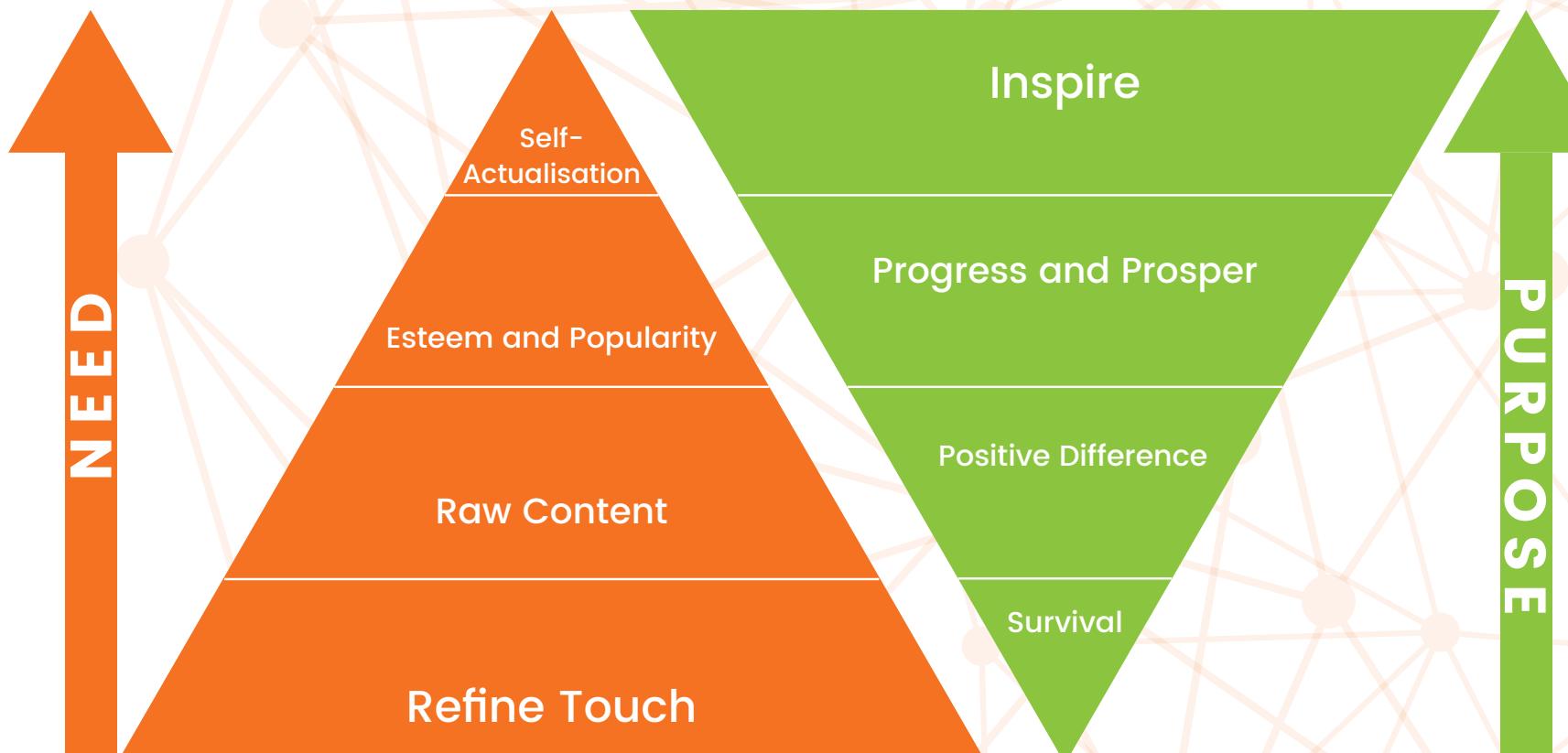
Mission

"Validation, Verification and Vindication of online media along with a rigid, immutable and secure ledger in order to build trust in the blockchain system."

Vision

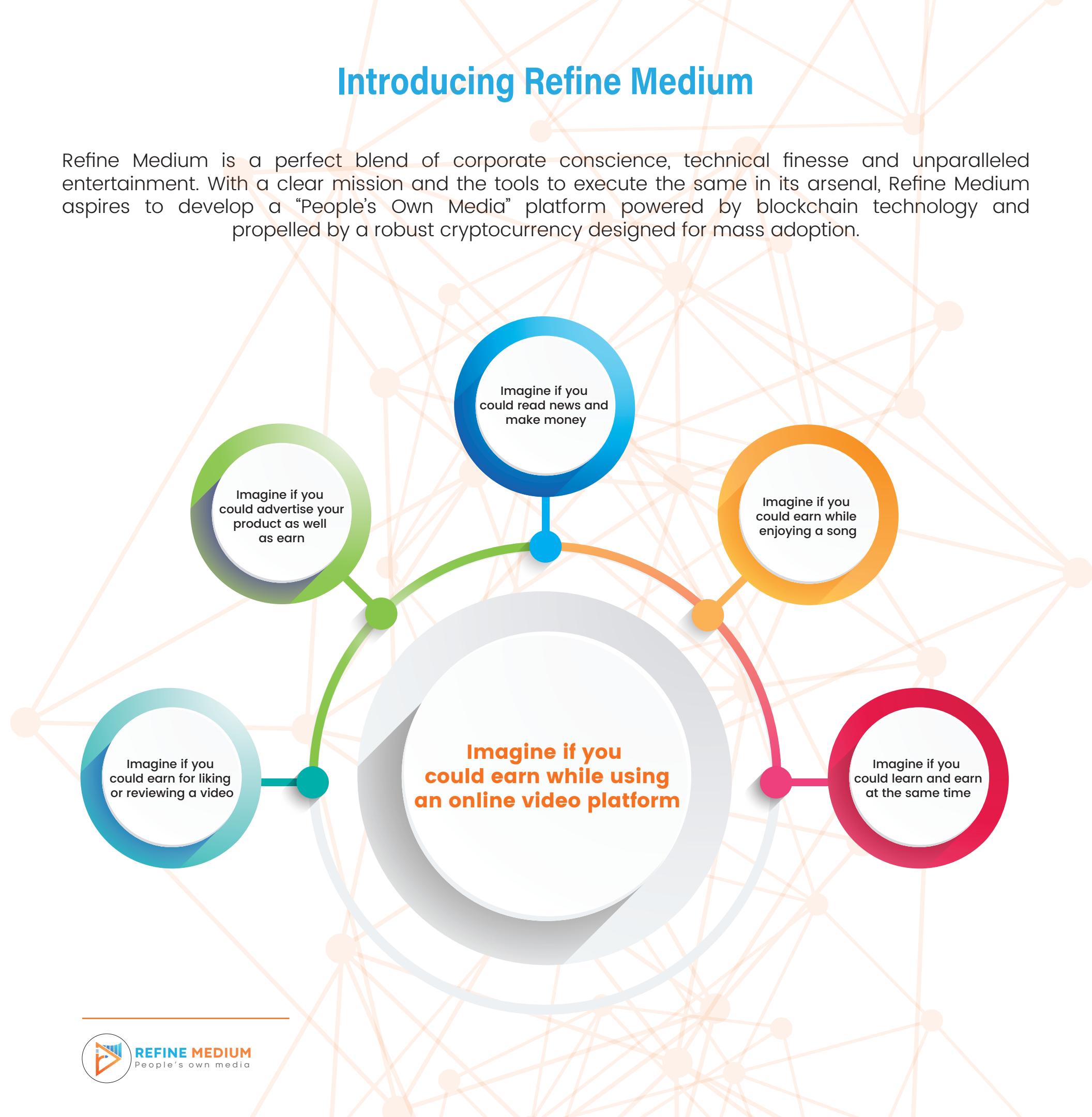
Refine Medium is constantly working with assiduousness, perseverance and diligence to achieve the immediate mission, at the same time, working on a roadmap for a vigorous future through state-of-art technological breakthroughs and with a desire to be a mandarine in online video industry. Thus, providing an impetus to ultimate user experience and satisfaction through online video industry. "The RefineRhombus" sets us apart from other video platforms who are just focussed on pocketing user money. Refine Medium raises the bar to a whole new level when it comes to social responsibilities towards the people, as humanity thrives forever. One should aim to inspire others through the content they upload on the Refine Medium platform. The platform helps in the self-actualization process with incessant support for the creator and acts as a source for them to inspire the masses. Therefore, Refine Medium has come up with a social video platform which aims to bridge the gap between "human being" & "being human" and intends to encourage the creators to "progress upwards in the Refine Rhombus." All returns from the initial token sale will be used up by Refine Medium to continue building the platform, amplify its ecosystem and fund its incentive instruments. Refine Medium aims to assist people, particularly those who are at the bottom of the Refine "Need-Purpose" Rhombus, to make better decisions and improve their livelihood.

The Refine Rhombus



Introducing Refine Medium

Refine Medium is a perfect blend of corporate conscience, technical finesse and unparalleled entertainment. With a clear mission and the tools to execute the same in its arsenal, Refine Medium aspires to develop a “People’s Own Media” platform powered by blockchain technology and propelled by a robust cryptocurrency designed for mass adoption.



Imagine if you could earn while using an online video platform

Imagine if you could earn for liking or reviewing a video

Imagine if you could read news and make money

Imagine if you could earn while enjoying a song

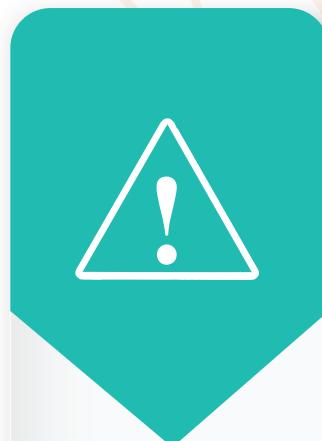
Imagine if you could advertise your product as well as earn

Imagine if you could learn and earn at the same time

Refine Medium Objective

With its world class services, Refine Medium intents to compete with Netflix, Prime Video , Youtube and Hotstar. But unlike all such services, Refine Medium achieves this with complete transparency, an egalitarian belief and comprehensive use of latest technologies. Refine Medium aims to be a pioneer in the online video industry with Refine token “XRM” as its most trusted cryptocurrency.

The Refine Medium platform is built upon “5 trusts”— Content Trust, Audience Trust, Data Trust, Monetisation Trust and Ecosystem Trust. Entertainment & Media companies all across the world are increasingly affected by the level of trust involved in them. Therefore, Refine Medium believes that trust will be a vital determinant of the ability to attract and sustain revenues in the future. With this belief, Refine Medium aims to spearhead the E&M industry towards the future with the help of an online video platform. The corporate objective of the Refine Medium platform is to provide a user with an answer to the following unanswered questions related to the E&M industry:



Is your content trustworthy?

Advertisers are raising questions about the quality, safety and appropriateness of the content advertisers advertise against



Is your audience who you say it is?

Media and academic reports have suggested that many social media accounts are bots.



Are you taking proper care of the data?

More E&M companies are assuming more responsibilities for protecting credit card numbers.



Are your investments paying off?

Direct measurement of audience engagement whether an agency is delivering the promised audience to a client has not been answered to satisfaction.



Is your company good for society?

The sheer size, reach and utility of today's media platforms are resurfacing this philosophical question.

PROBLEM OVERVIEW

A plenitude of media platforms have mushroomed in the recent years and are highly successful in generating a humongous revenue. However, the segment is supremely-centralised with a infinitesimal number of corporates controlling the entire distribution ecosystem. Here are a few fundamental problems that the current online media industry is facing:

Creator vs Service Provider

A Power Disparity Content creators are the heart and sole of the Entertainment and Media industry. Yet to endure their long due fame, remuneration and accolade, creators have all the reasons to demand for what is rightfully theirs. Celebrated while creating and beguiled while getting paid, creators are often sandwiched between creativity and business pursuits. The concocted belief in the industry that “creators are passionate about their art and not money” has deprived them of adequate remuneration and recognition. Apart from boosting their motivation, creators should be consummately compensated for the value they produce for the industry. Unfortunately, over the years they have suffered utter degradation- with minuscule negotiating power in distribution agreements, unconducive payment terms and ownership rights and inequitable sharing of economic bonanza.

Immaterial Content Discovery and Suggestion

With plenitude of unorganised contents, it becomes very cumbersome for the users to find the relevant video at the right time on the existing video platforms. Ranking of videos is solely determined by the retention time of a particular video. Paucity of adequate categorisation deprive users the access to relevant contents- “A lot of effort and wordplay is required to find what we really want at that point of time.” Creators, in order to maintain their ranking on the platform’s search list, have to make sure- that the title is concise and relevant, keywords are used at the right places, thumbnails are engaging enough and description of the content of the video is appealing, apart from all these what is required is a good retention time of the particular video. Moreover, videos released by the channel owners with higher number of subscribers tend to come up on top of the search list for a particular search query.

No Decentralised Content Moderation

Recently, there has been a myriad of copyright issues arising on existing video platforms. Platforms today are overflowing with “wanna-be creators” who want to make some quick bucks. In order to make that happen, one needs to allure a passel of followers which in turn follow quality content by successful creators. Hence, creators tend to indulge in content infringement of flourishing creations of their counterparts. This has compelled the platforms to set up a content moderation unit which governs “what belongs to whom and who should get credit for the traffic and fortune achieved through a particular video.” The problem associated with this type of governance is that it is supremely-centralised with platforms having the last say in case of a dispute. This has resulted in- false acquisitions made to defame and rob the original creators of what is rightfully theirs, delays in decisions which can have an adverse effect on the economics of the creators involved in a dispute and biased judgements in favor of ultra-successful creators as the decision is made by a centralised authority.

Manipulation and Illegal Monetisation of User Data

“User becomes the product” in this greed driven and fast paced online video industry. New revelations are made on a daily basis about the protection of personal data and the nefarious uses to which it can be put. Recent scandals have unmasked the true essence of the platforms existing today. Current protocols and regulations for data mining are unable to manage third-party access to user personal information. Disgruntled users whose intimate details have been exploited and traded have begun to register their discontent and are demanding a change of the rules and regulations governing the same.

Initial Ambivalence in Engagement with Nascent Blockchain based – Video Platforms

The world of online Blockchain based video platforms have mostly failed in drawing the right early adopters. Users are often perceived in two minds about the quality, performance and scalability these platforms can provide in contrast to existing centralised video platforms. Quality of services provided by the centralised video platforms are unparalleled because of which users find it arduous to indulge in a change.

Problem Diagnosis

The problem statements discussed reveal that the future of leading online video providers could be tumultuous. Unfortunately, consumers and creators will be the ones held hostages to these mushrooming problems. One solution to these very issues is disruption. Let us glance at the signs that imply us that an industry is prepared for disruption

- **Power Imbalance:** Oligopolistic behaviour (few companies holding a large amount of market share) results in larger incentive to preserve the past than innovate for the future. When changes do occur, these companies being huge, slow and often too steady to adapt to new technologies, can stumble.
- **Unaltered Approach:** When business practices do not change despite negative consumer sentiment, disruptions are bound to happen.
- **Outdated Technology:** Massive companies have incredibly complex backend system and business model which makes it difficult for them to adapt quickly to new changes. This is where startups with the capability of causing disruptions can shine.
- **Lack of a sense of trust:** With numerous video platforms in operation worldwide, insecurity of user data and continuous reports of data breach has its “precious users” in a precarious state. Consumers have the right to control the usage of their personal information which has been exploited and illegally monetized across the world for trivial business pursuits.
- **Delayed Payments:** In today's generation of new-age technologies which promise instant payment options, creators have to wait at least 30-60 days for receiving their end of pay cheque.
- **Umpteen Intermediaries:** Involvement of intermediaries in each and every stage of user engagement with online video platforms makes them slow, vulnerable and uninterpretable.
- **No revenue proceeds for viewers:** End-Users, considered to be the building blocks of an organisations' success, have been blatantly undermined in the online video industry. Online video platforms are yet to renumerate their viewers for their invaluable contribution towards the mass adoption of their organisation.
- **Lack of a first hand creator-viewer network:** A direct transparent relationship among the stakeholders is the utmost requirement of the online video industry today.

These facts coherently show that if ever there was an industry in dire need of new technologies and major disruptions, online video market provides no better platform.

REFINE MEDIUM SOLUTION

Industry Analysis

Over the last two decades, technology has kindled major disruptions in the Entertainment and Media (E&M) industry across the globe. This disruption is propelled by the powerful purpose of easily available and affordable internet for all. The internet access is skyrocketing, connection cost is decreasing and more number of devices are Wifi compatible. All these factors are enchanting the customers towards the online streaming segment- concurrently liberating us from cables, geographical restrictions, broadcast schedules and fundamentally changing the manner in which a video is created, circulated and consumed.

"As of 2017, almost half of the world's total population is watching online videos."

The global audio and video traffic combined is expected to reach 82% of all internet traffic by 2018. The market volume of Entertainment and Media industry was about \$1.5 trillion in 2013 and is expected to surpass \$2 trillion by 2019. In 2018, global digital revenues account for a staggering 50.8% of the E&M industry income. At the same time, traditional television is stagnating and its percentage in terms of revenue generation in the industry is incessantly plummeting.

Understanding Refine Medium

Refine Medium is a decentralised video platform rendering authentic and high quality video content. It is built upon blockchain technology designed to enable viewers, creators and innovators of the platform to connect via smart contracts. Refine Medium is a one-of-its-kind platform that will incorporate complete transparency, upright compensation for its creators at the same time rewarding users to review videos, no geographical barriers, easily discoverable and accessible content, consequential reduction in content piracy and notably low subscription fees for its users. The Refine token XRM is a cryptographic asset that will be vended in the nascent stages of the Refine Medium maturation journey.

The token will be snapped up by those who desire to demarcate their stake in the Refine Medium ecosystem and have a stern belief in the decentralised future of the blockchain based- online video industry. Refine Medium aims to transform the existing centralised industry through path-breaking technologies and make the segment more transparent, secure, decentralised and creator-user-friendly, thus, revolutionizing the social experience of its consumers.

Introductory Services

The following basic services will be offered by Refine Medium in the first phase of its introduction:



A solution for each step of user engagement: "People's Own Media" platform

1. Video Uploading- Made Easy, Fast & Secure:

The Refine Medium platform provides a profound insight into the blockchain technology being manoeuvred to develop a decentralised social video manifesto. Refine Medium leverages Ethereum blockchain technology in order to perform two major functionalities of enabling transparency in: content monetization and storing information of value to creators, innovators and the users that will win over the confidence of all the stakeholders of the platform. The model implemented by Refine Medium through blockchain technology creates a direct creator-to-consumer network, replacing intermediaries in the process. The blockchain validates informations on a distributed ledger which will provide varying levels of privacy (from anonymous to pseudo-anonymous to public) for users based on implementation and behaviour of actors within the infrastructure. Thus, making the video uploading mechanism exceedingly fast, easy to interpret and secured by blockchain protocols.

2 . Refined Protocols for Copyright Management:

"Copyright Agents" of existing videoplatforms will be replaced by "Copyright Moderators" in the Refine Medium platform. Refine Medium respects the intellectual property rights of others, and requests all the stakeholders to do the same. Refine Medium is strictly against copyright infringing activities and infringement of intellectual property rights on its website or related services. "Refine Medium possesses the right to remove all such contents if substantially notified that they infringe another person's or groups' intellectual property rights, with prior notice to the defaulter." Refine Medium moderators can raise a voting mechanism to terminate a user's account if the user is determined to be a repeated infringer of copyright. RefineMedium may remove such Content and or terminate a User's account due to a violation of their Terms & Conditions at any time, with prior notice. "Videos will not be downloadable due to risk of copyright infringements." If one wishes to download a particular content, they can do the same through the RefineMedium Platform with transactions to be paid in "XRM". The content uploaded by the user if found infringed, is subject to a notice in the form of an e-mail. The user can counter-query the warning by providing substantial evidence. Once the appeal is received, it will be forwarded to the party that initiated the take-down notice. The restoration of the content is at our sole discretion in which platform moderators will play a crucial role.

3. Equitable Power Disposition:

Refine Medium platform aspires to develop a world class infrastructure for content creators, by rectifying the challenges they have to come across in existing platforms and placing utmost power in their hands so that users get access to quality yet diversified content on the platform. The platform pledges to be the harbringer of monetary hikes, motivating infrastructure and recognition that the creators have been deprived of for the longest of times. The negotiation agreements and payment terms will be governed by smart contracts with no scope of manipulation. These are predefined codes that are stored on the blockchain and intend to digitally facilitate, verify or enforce the performance of a contract. As soon as a particular video is online after undergoing Refine protocols, the creator will be provided with a unique Refine ID which can be used to access the Refine dashboard. Refine dashboard will render the creator with comprehensive data analysis which will help them to understand how their creations are performing as well as assist them for sequels and future projects. Thus, presenting a world class infrastructure for creators to produce quality content and promoting hike in compensation and equitable distribution of power. Time has come for the creators to demand what is rightfully theirs with Refine Medium providing the platform necessary to do so.

4. Decentralised Content Moderation:

In the road to become a global decentralised solution, the platform aims to address content suitability, plagiarism and legality issues by deploying a group of participants, among its user base, to moderate the subject uploaded.

Who is Moderator?

Moderators are democratically elected super-representatives who will govern the internal mechanism of the social video platform. In order to sustain the dignity and integrity of the social video platform, the Refine team will be introducing moderators who will perform the following tasks:

- Reviewing of the content uploaded on the platform.
- Sharing a particular content and expanding its reach among the community members.
- Connecting users together in order to partner in content creation and generate revenue for themselves. Thus, making the platform even more decentralised.

Election of Moderators

A user-form will be rolled-out on our website for interested candidates who will start reviewing the contents as soon as our DApp enters into the alpha phase of testing. Initially, the criterion for selection of moderators at each stage of development of the platform will include:

- All the bounty participants will be eligible for the job of moderators out of which 10 best performers will be selected.
- All the private sale contributors will be eligible out of which 5 will be selected.
- People who enroll themselves in the whitelist will all be eligible and among them 20 will be selected for the job of moderators.
- Contributors pledging minimum 10 ether to the platform during ICO will be eligible and 5 or more among them may be selected.
- All ICO participants can enroll for the job but only 10 will be selected based on certain criterions.
- Participants of the Beta version testing may also be elected for the job of moderators.

As the platform gets bigger, consumers (mostly creators) will have the choice of become moderators, if they agree, they will have to sign up and accept the terms and conditions of the same which will be pre-decided by the platform. In the nascent stage of the platform, watch duration of the uploaded videos and the time spent on the platform will be set as the criteria for election of a moderator. The respective thresholds must be attained by the community member (mostly creator) in order to become a moderator. As the platform becomes sizeable, different mechanisms will be enforced for election of astute moderators such as delegate voting, creator rating etc. Also, the moderator when elected is bound to perform his task accurately and diligently as the community members will have the authority to bring them down from their positions. Those users who are willing to be moderators or the creators who will be eligible to become moderators will have to specify the minimum number of hours they will be able to devote for the task (which should lie in-between the minimum and maximum threshold decided by the Refine Medium platform). Thus, the moderators will not be burdened by excessive workload and will be assigned work in the time frame he/she chooses to for the specified duration.

Moderator: List of agendas

- A fixed number of moderators will be allotted for each and every video uploaded on the platform. Among the moderators, there will be voting which will decide whether or not the video should be allowed to be kept on the platform. If the particular video does not acquire the deadline vote (30% of votes), it will be removed from the platform. If a particular video is not successful in earning the threshold votes, the moderators voting against it will have to state appropriate reason for the choice made which will be visible to each and every member of the community.
- The idea behind Refme (Refer me) is to handpick supreme contents uploaded on the Refine Medium platform and help them expand their foothold across the platform by recommending it to other users through a dedicated tab for the same on our webpage. A mediator will be required for this job because :
 - (i.) A user will only share those video which he/she wishes to, based entirely upon their individual liking and judgement.
 - (ii.) And a creator will only tend to share his/her own content. In order to bring in a sense of uniformity and trust, Refine medium (rather community members) deploys moderators for this task which has to be performed by them at least once a week . This will enable a single social page where moderators will post and users of the platform can browse the recommendations of the moderators as per their area of specialization (genre). It will help resurface the cream layer of our platform. Each moderator will have to post the link of the particular video and state an appropriate reason for selection. The moderators will be paid by the creators for referring them and Refine token will be deducted from the creator's wallet once he/she reaches the threshold for redeeming it. Once the token is ready to be redeemed in the creator's wallet, the moderator receives his/her share of Refine token and will be deposited in his/her wallet address with a unique private key to it.
- There will be some community members who tend to have genuine raw ideas, but lack the confidence to create and publish it. This might be due to lack of knowledge in computer graphics and animation or just sheer shyness to come in front of camera. Refine Medium identifies such users and lends them a helping hand. The members have the freedom to contact the moderators and state them about their idea (upon which they want a video made). The moderator, after comprehensively reviewing the content, will connect the particular member to a content creator of the relevant field. If the creator agrees to partner, the moderator will introduce both the parties. In this scenario too, the content will be reviewed by moderator upon uploading(not necessarily the same moderator). Revenue generated will be distributed equally between the theorist and the creator.

One can now thin why cannot we approach the creators directly? The reason for this can be two-fold:

- (i.) Not all the ideas feeded to the creators will be worthy-enough for content creation, the moderators will refine such raw ideas and handpick them for the creators of the platform.
- (ii.)The users looking for partnerships can get a first-hand knowledge about which genre does their content belong to and which content creators will be ideal for approach. This service will be comprehensively provided by the moderator.

5.Curbing Exploitation of User Data:

User data and trust is of utmost priority for Refine Medium. The platform is built upon blockchain technology with control of data being distributed across various nodes all over the world. If one attempts to manipulate or exploit user data for business pursuits, they have to seek the permission of the user whose personal data is in question. Each and every manoeuvre is recorded on the blockchain which eliminates any data discrepancy by third parties. Refine Medium proactively manage cybersecurity and privacy risks in a way that goes beyond a compliance checklist approach and enables customers both to see the data held about them and to control how it's used. As trust is one of the most important pillars upon which Refine Medium platform is established, no stones will be left unturned to protect user personal information.

6. Precise Search Query, Content Discovery and Suggestion:

The ranking and accessibility of content videos on Refine Medium platform, as a result of the search query feed by the user, will be a sophisticated mechanism which will enable the user to fulfil their exacting demands. It will not be simply based on the view counts or watch time of a particular video. For example, let us consider that a user searched for plane crash, if we go by view counts then the oldest video will obviously have an upper hand than newly inducted videos. Hence, a group of factors will determine the outcome of a search query on the Refine Medium platform thus making it more equitable for the creators of quality content. The basic idea is to connect a particular individual/ group with a group of already existing group of individuals who have similar viewing & reviewing trends. This connection will further swell up as more and more users join the Refine Medium community. Thus, making available the right content to the right user at the right time across the globe. The Refine Medium algorithm is more of a real time feedback loop which follows both the content and the user, thus, tailoring the respective videos to users with varied interests. In doing so, the following checks will be performed by the code before a result pops up:

RANKING OF VIDEOS

- Number of views achieved
- Retention time of the video
- Two thresholds will be set- one for older contents and one for new contents. The two sections will be available under different tabs.
- In special cases, likes and dislikes on the video will also be taken into account.
- Number of times the video is rewatched

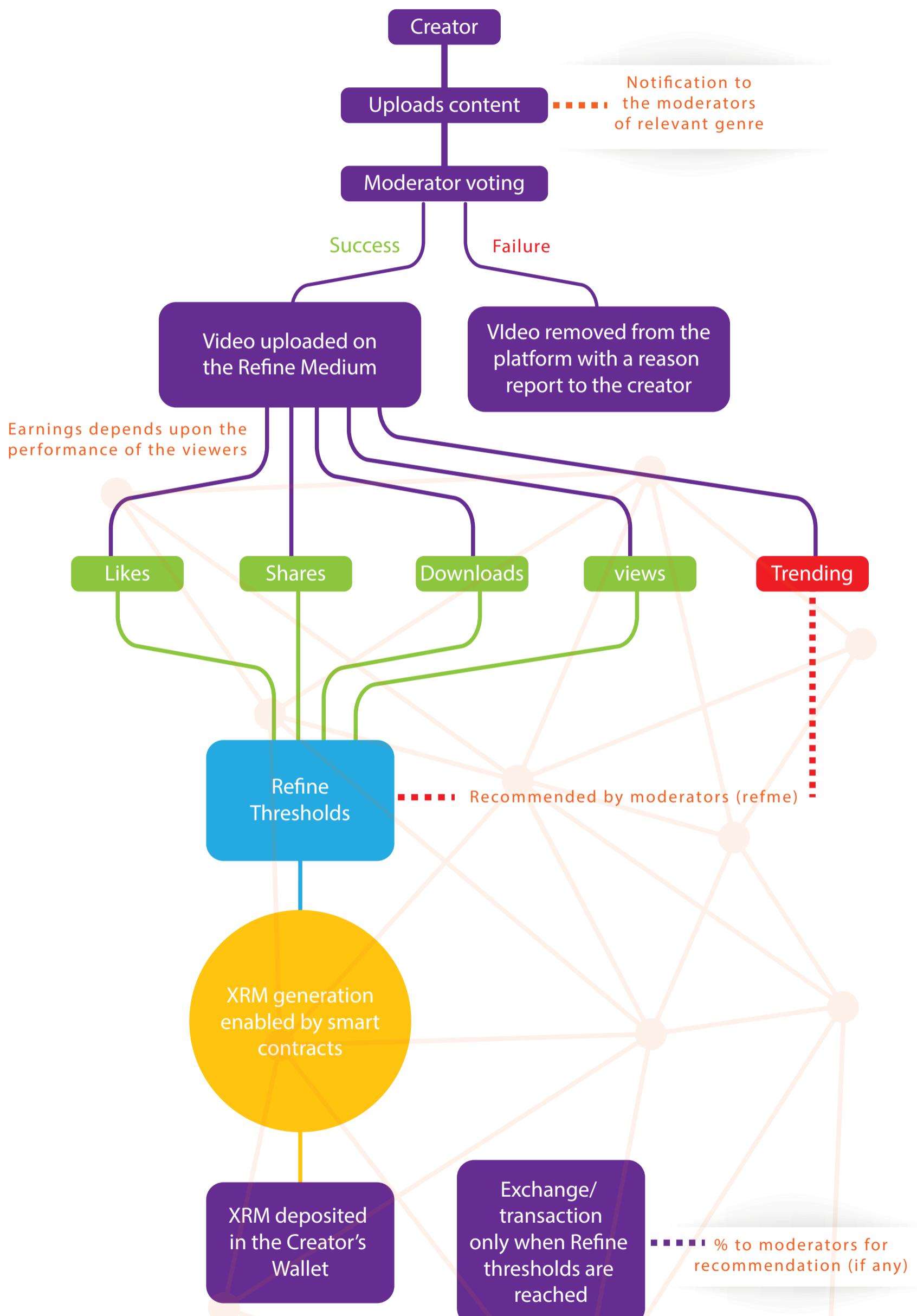
SEARCH QUERY , CONTENT DISCOVERY AND SUGGESTION

- Keyword provided by the user matches with the user feed
- Type of content the user is liking or disliking
- Type of content user is not watching at all
- Users rewatching a particular content
- Keywords similar to the one fed by user in suggested videos only; no irrelevant video will pop up when the user is searching for a particular content.
- History of searches and type of videos watched by the user will be taken into account for suggestions

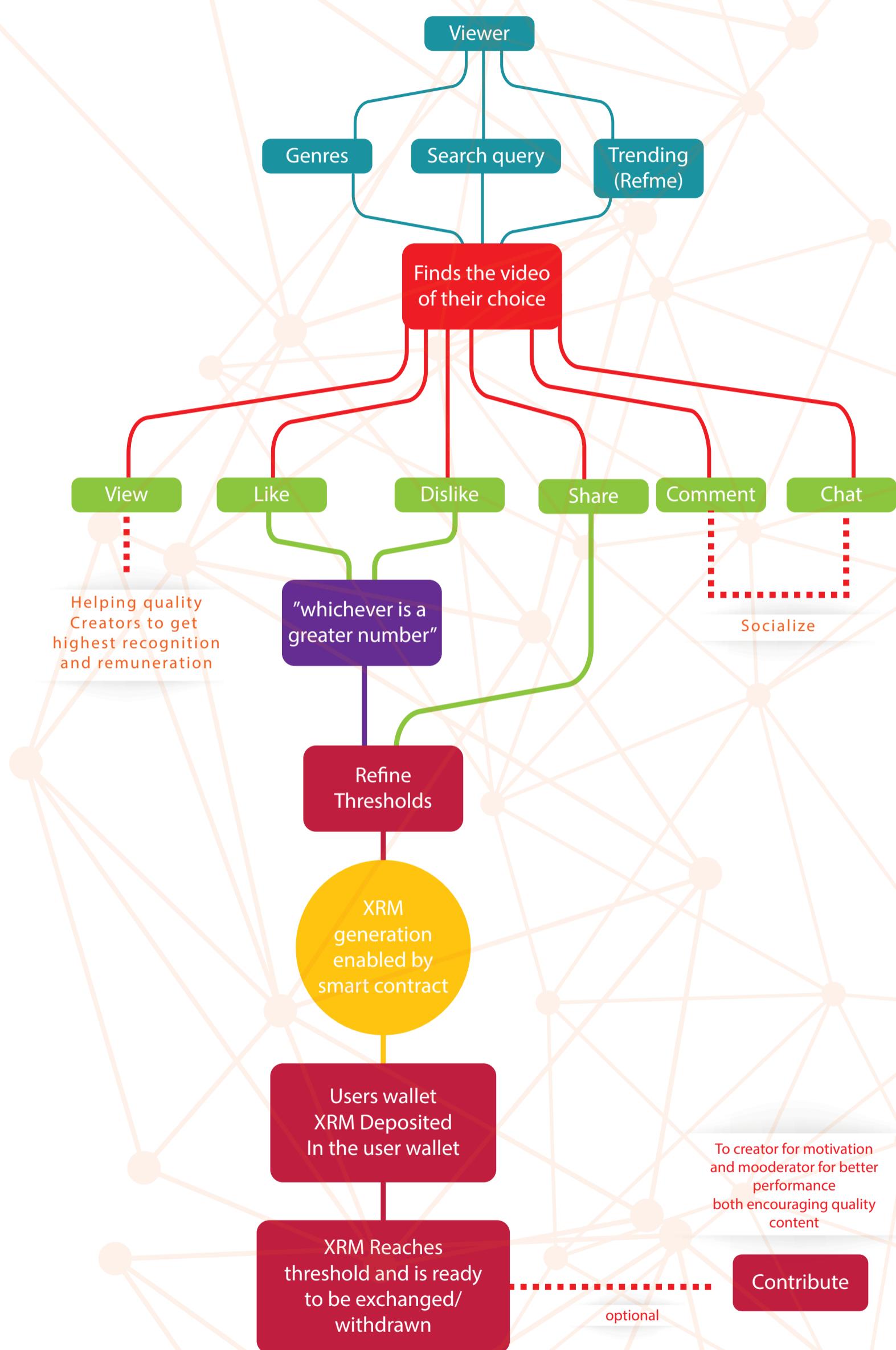
7. Unparalleled infrastructure for mass engagement of users:

Refine Medium video platform aims to charm the pioneers in the content creation world along with their huge fan base and provide them with world class infrastructure to embrace this one-of-its-kind decentralised video platform. An unprejudiced and unbolted platform that provides all the stakeholders in the Refine Medium ecosystem with equal opportunities to innovate, create, familiarize and earn with the power of imagination. In its nascent stage, the platform plans to develop an ideal infrastructure to target out of the box contents that will allure limited yet quality creators as well as consumers. Moreover, a ubiquitous, unrestricted and uncensored environment that aims to attract diverse contents across all dimensions. Refine Medium aims to dazzle and cultivate users of its platform so that they can easily interpret, trust and eventually avail the services offered. In order to create a comprehensive ecosystem for a decentralised video platform, advertisers, innovators, creators and viewers of the Refine Medium platform co-exist in an interconnected and tangible network. In order to triumph the vigorous and revealing battle of winning over the creators and viewers, Refine Medium will charitably incentivise the content creators for joining and viewers to consume the services offered by the platform. The platform believes that if the implementation of features is concrete and the rewarding mechanism is upright, customers are ought to get attracted to the quality of service provided.

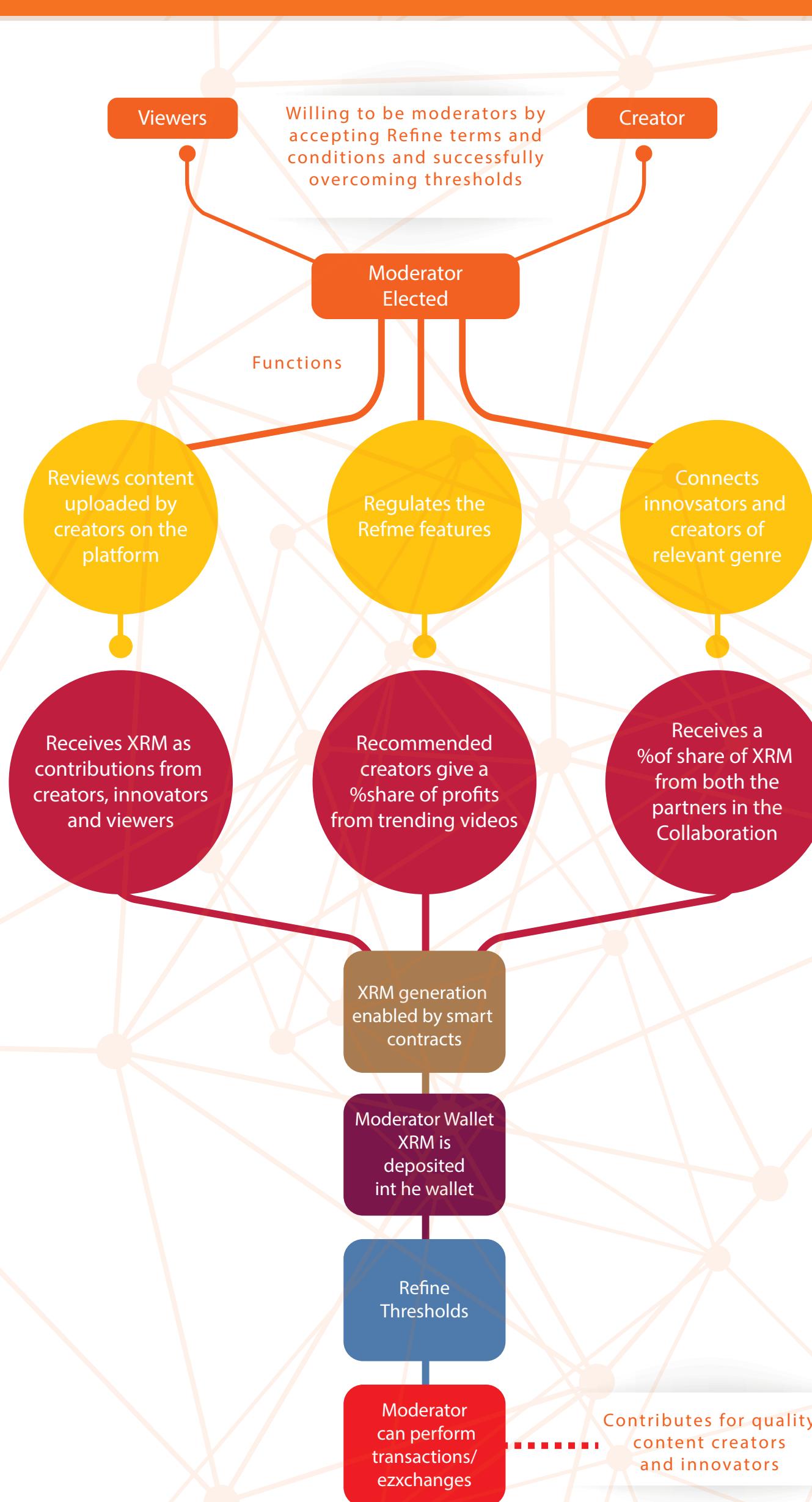
USE CASE - CREATOR



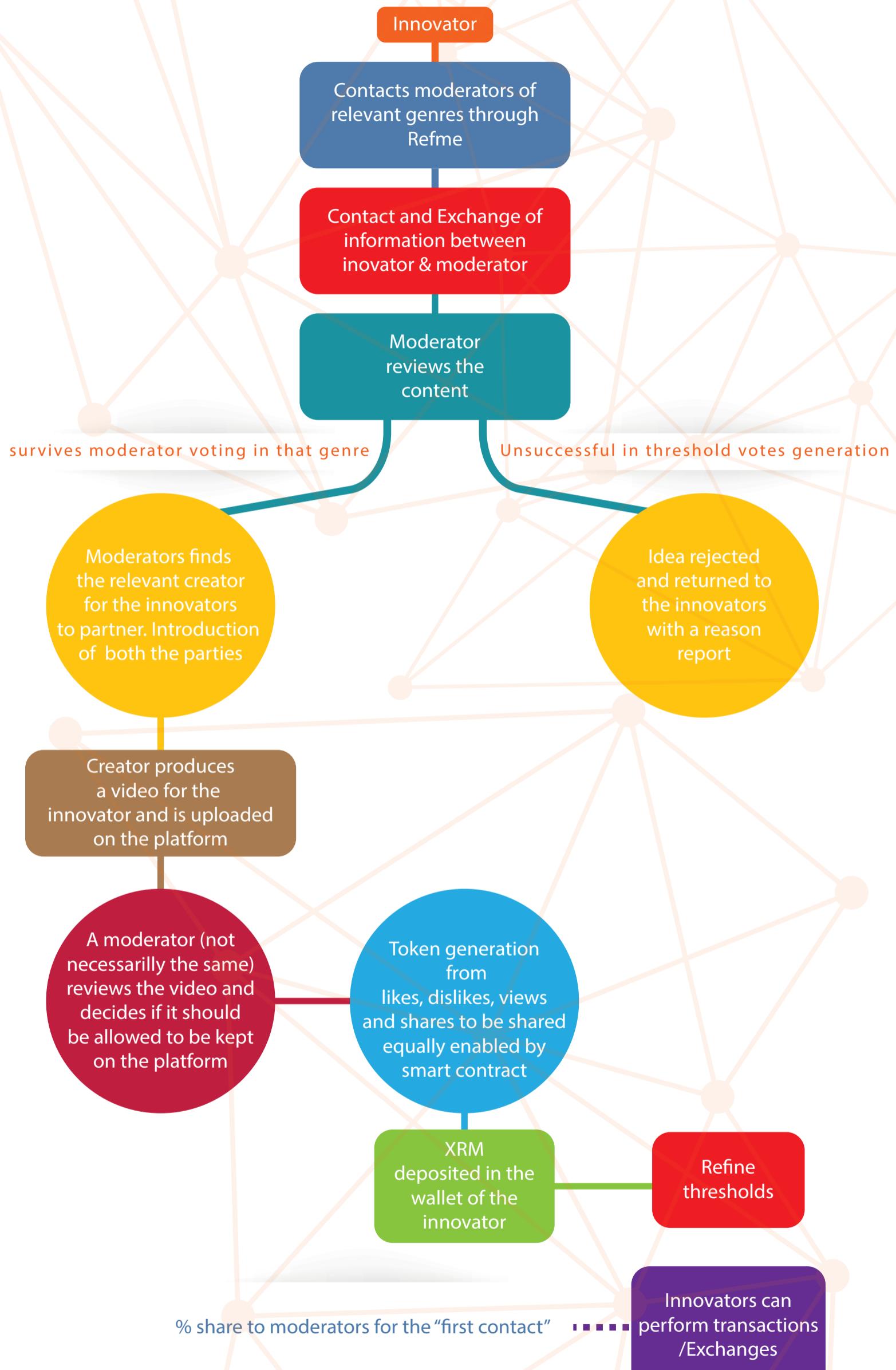
USE CASE - VIEWER



USE CASE - MODERATOR



USE CASE - INNOVATOR



REFINE MEDIUM DApp

The Refine Medium Dapp will provide user with an intuitive interface to stream, upload and review videos in a completely decentralised environment. The moderators will be responsible for moderating the platform by voting the videos. A video is only uploaded when its threshold value is reached. Both the users and the moderators will be incentivized by means of Refine token. Refine Medium will introduce a new token XRM under the ERC-20 tokens. Refine Medium Dapp will have the following salient features:

24/7 video streaming and uploading	Data Boost
Automatic rewarding through Smart	Refine Medium wallet
Space Boost	Transparent and Secure token transactions

Storage & Streaming

The videos uploaded on the Refine platform will use the IPFS protocol, which enable files to persist in a distributed network without a central server or control. IPFS is a peer-to-peer protocol where each node stores a collection of hashed files. A client who wants to retrieve any of those files can access an abstraction layer where it simply needs to call the hash of the file it wants. IPFS then iterates through the nodes and supplies the client with the file. The original content (the stream or video/audio file) is split up into small segments before being uploaded to the IPFS network. This allows us to distribute storage further and not load any particular node with all data of the file. The hashes of these files will be stored in a manifest file which will be uploaded to the Ethereum network. It can be retrieved securely while maintaining its integrity at a later stage when a video playback is requested. While streaming the video on the platform, the small manifest file will be downloaded initially. Hashes from this manifest will be used to download the required segments of the video (which the user chooses to play). These segments will be spliced together to create a continuous stream on the fly.

Data stored on IPFS cannot be modified. The hash will correspond to the same file forever. Even if a node serving our file goes down, other nodes will provide the same file if the same hash is provided. If a video uploaded to the platform is changed, it gets a new hash and thus, will be available as a new file. Two methods can be adopted concerning the old file:

- If the creator doesn't want the old file to be available, all instances of the hash to the old file will be removed so that it effectively becomes inaccessible.
- A versioning system can be enabled if the content creator wants so. In this case the old hash is also preserved making the older version accessible. Each viewer can then analyze the entire history of evolution.

Node(s) hosting files is unknown in IPFS. File access is strictly hash based. To prevent illegal data access or misuse by the IPFS hosting nodes themselves, data stored will be fully encrypted. Irrespective of whether the video is intended for public viewing or for selective users (available for a fee), encryption will be performed to restrict usage only to the Refine Platform.

Use of Computational Power

When a user is watching videos on his or her device, a very small amount of computing power will be used. This computing power will be used to mine Ethereum and incentivize the IPFS node owners for hosting the content for longer period of times. This model is self sustaining. As more and more people use the Refine Platform, more computing power will be available which can be used by the platform to incentivize more IPFS node owners to store more data.

Use of Browser Cache

Refine Platform will use the browser cache to store account information of the users to prevent them from relogging after every session. It will also store some other information like previously watched videos to improve the user experience. Due to the decentralized nature of this platform, this data will not be backed up anywhere else. Clearing the browser cache will result in permanent removal of such information.

REFINE MEDIUM TOKEN

Refine Medium is introducing an exclusively customised token “XRM” to promote all the transactions and economy on the Refine Medium platform. “XRM” is intended to serve as a native payment system for the network and reward all the relevant parties for producing, distributing and promoting quality video content..

A token sale is an innovative fundraising mechanism based on blockchain technology. Our token sale and the corresponding token creation process will be governed by Refine Medium. For maximum liquidity and participant safeguarding, the sale will be regulated by a Smart Contract employed on the Ethereum Blockchain. During the token sale, Refine Medium tokens will be exchanged for Ether (ETH) contributions, at a pre-fixed conversion rate. In order to procure Refine Medium tokens, contributors will have to remit Ether to the official Refine Medium token sale Smart Contract address. Refine Medium tokens will be spontaneously remitted to the contributors wallet address as soon as the transaction is confirmed. However, “XRM” will not be tradeable until the token sale has terminated and the tokens are active.

The Smart Contract

Refine Medium has a comprehensive smart contract for its Initial Token Offering and the Decentralised App. The smart contract for the token, ICO and Dapp are all inter-related and work in harmony.

Unlike any other ICO, Refine Medium has a very attractive referral system which rewards the investors a percentage of investment made by the investors they refer. The payout here is instantaneous which means as soon as the investor sends ether to our smart contract, the reward for referee is distributed in the same transaction and all of this will be visible in the respective blockchain explorers(etherscan.io) in order to maintain 100 % transparency. Not only this, the referral system is stretched upto two levels. Let us try to understand this with the help of an example, say user A refers user B and user B refers user C. In this case if user B invests 10 ether, user A will get 1 ether as a reward (10 %) and if user C invests 10 ether, user B and user A both will get 1 ether each as reward instantly. This provides an earning opportunity for investment pools and users with contacts in the crypto industry. Therefore, if any of our affiliates bring us a whale who invests a million USD in our project, the affiliate gets 100,000 USD as a reward in ETH.

In order to maintain the value over long term we have token burn functionality embedded in our contract. We will announce our token burn parties time to time and all the unused tokens will be burned making sure that the value of our token goes up and up in long term. The smart contract has been engineered in a way that it will be integrated in the DApp too. On liking, uploading and sharing the videos over our DApp, Refine Medium tokens will be rewarded to the user from the smart contract. In case the platform runs out of tokens in future, the smart contract will automatically generate new tokens (upto 300m in addition to the premined 300m tokens) and use these tokens to maintain the economy. During nascent stages of our ICO, we will not be transferring tokens to the users, in order to prevent dumping of tokens during the initial days of listing on exchanges. The tokens of team and seed investors will also be locked for a certain time duration for the same reason. This locking mechanism has been taken care of by the Refine Medium smart contract itself. Refine Medium smart contract has a dynamic pricing system in which the price changes every second linearly. We will have multiple rounds of ICO (presale, main sale, airdrop period) with different number of tokens allocated and different initial and final prices. In order to match with the fluctuating price of ethereum, we have parameterized price factor in the smart contract which helps us change the price of token during ICO on the fly.

Refine Token Utility

Refine Medium has the following strong utilities for the platform's "XRM" token:

- DATA BOOST

From this feature, the creator/innovator will find answers to the following questions:

- 1) What do the users tend to watch more?
- 2) What is the break-up for video consumption in different categories?
- 3) Which type of videos are accumulating more likes, shares and downloads?
- 4) Which type of videos are getting more dislikes?

Moreover, the creator/innovator gets a comprehensive analysis of the market trend and user behaviour from this feature. This will be helpful for creators/innovators to get an idea of what type of creation they want to start working on. To access this feature, the idea of "online bidding" will be introduced by Refine Medium. In this mechanism, a creator will have to make an offer to the platform (in XRM only) to get into the race for access to "Data boost". The creators who make the highest biddings will win the access to "data boost". Once the deadline is reached, the platform rolls out a list of top 10 bidders who get access to the "data boost" for a limited period of time. The rest of the bidders will receive the refund of tokens in their Refine wallet. The "online bidding" mechanism will again take place when the deadline for one lot of top 10 creators is reached. This deadline will be decided by the Refine Medium community.

- REFINE HANDPICKS

The Refme: The idea behind Refme (Refer me) is to handpick supreme contents uploaded on the Refine Medium platform and help them expand their foothold across the platform by recommending it to the premium users through a dedicated tab for the same on our application. Refine medium (rather community members) deploys moderators for this task which has to be performed by them at least once a week. This will enable a single application where moderators will post their handpicks for the week and users of the platform can browse the recommendations of the moderators as per their area of specialization (genre). It will help resurface the cream layer of the Refine Medium platform. Each moderator will have to post the link of the particular video and state an appropriate reason for selection. The moderators will be paid by the creators for referring them (in Refine tokens only) and Refine token will be deducted from the creator's wallet once the agreement is met. Once the token is ready to be redeemed in the creator's wallet, the moderator receives his/her share of Refine token and will be deposited in their wallet address. Online bidding can be introduced for viewers (this time) to get access to the Refme feature.

- SPACE BOOST

Each and every user on the Refine Medium platform will have a limited number of monthly uploads. In order to gain access to unlimited uploads feature, one has to buy a boost pack which will enable the user to upload unlimited uploads on a monthly basis. The transactions will take place only in Refine tokens.

Refine Medium Loyalty Programs

1. **Creator of the Month (CTM)**: This loyalty reward is exclusively designed by Refine Medium for the creators of the platform. Every month, a creator (an individual or entity working as a team) who has the highest positive change in the WTI_f score will be rewarded with highest earning video equivalent on the platform in that month.

Watch Time Index (WTI) = (Watch time of the sum total of the videos created till date) / (Total length of the videos uploaded till date)

$$WTI_f = WTI_{recent} / WTI_{last}$$

Once a creator has received the CTM, the particular creator will not be eligible for it until the next 6 months, thus, providing equal opportunities to all the creators of the platform. The CTM 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.

2. **Refiner of the Month (RTM)**: A member whose account is older than 3 months with a minimum of 60 hours spent on the platform, is eligible for RTM. The system selects a member at random from eligible members who spends the most amount of time on the platform. The winner of RTM receives highest earning video equivalent in that month. This is awarded one time for a member, once the member has won RTM, they are ineligible going forward. The development team, support team, and trustees are not eligible for this reward. This reward 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.

Token Distribution

Refine Medium Bounty tokens will be issued in order to fortify user adoption, thus, promoting the growth and development of the platform. Refine Medium Bounty tokens will be awarded for creating awareness about the platform till the end of our ICO through our Bounty Program. Refine Medium Bounty tokens will be swapped for 1:1 ratio for Refine Medium "XRM" utility tokens post our ICO.

Refine Medium intends to allocate a total supply of 300,000,000 XRM as follows:



- ICO - 50%
- Presale - 10%
- Private sale - 5%
- Team & Advisor - 5%
- Community development - 15%
- Airdrop & Bounties - 5%
- Retained - 5%
- Team Frozen - 5%

Allocation of funds

The initial tokensale effort is designed to introduce Refine Medium platform on a broad scale. The wider the initial distribution, the more rapidly XRM (Refine Medium Tokens) can achieve adoption by both the entertainment industry and private individuals interested in improving their entertainment experience. Refine Medium will allocate the funds raised in initial token sale as follows:



- Marketing & Business Development - 30%
- Project & Community Development - 25%
- Security - 5%
- Core activities reserve - 5%
- Operational expenses - 10%
- Legal contingency fund - 5%
- Misc and unexpected - 5%
- IT hardware and Production Overhead - 15%

ROADMAP

- Project planning
- Technical Scope Study
- Company & Domain Registration

- Announcement of ICO
- Media awareness
- Beta version launch**
- Private Sale**
- Pre sale**

- Listing in active exchanges**
- More Tradeable exchanges
- Diversify raised funds
- Airdrop

- Dapp Launch Phase -2**
- Launch Mobile Version of Dapp**
- Refine Medium dedicated wallet.**
- Diversify our Platform
- Creating our own blockchain

2018
Q3

2018
Q4

2019
Q1

2019
Q2

2019
Q3

2019
Q4

2020
Q1

2020
Q2

- Idea and concept formation
- Market Survey & Research
- Team formation

- Website launch & Newsletter**
- Whitepaper disclosed
- Tie up with technical experts and advisors
- Engaging multiple communities
- Airdrop & Bounty system management

- Pre Sale Continued
- ICO**
- Bug bounties
- Events & Partnerships

- DApp Launch Phase -1**
- Search engine optimization
- Expanding the usage of Refine Medium through different platforms
- Expanding the user base

TECHNICAL ROADMAP



RISK FACTORS

Risks associated with the purchase, ownership and use of XRM and the platform are as follows:

Vulnerable Private key: Loss of requisite private key(s) associated with your digital wallet will result in loss of such tokens. Moreover, any third party that gains access to such private key(s), including by gaining access to login credentials of a hosted wallet service you use, may be able to misappropriate your dashboard or personal data.

Uncertainty of Regulations and Law Enforcements: The regulatory status of the cryptocurrency and blockchain technology is unclear or unsettled in many jurisdictions. It is hard to predict how or whether regulatory agencies may apply existing regulation with respect to such technology and its applications, including the Refine Medium platform. It is likewise difficult to predict how or whether legislatures or regulatory agencies may introduce changes to law and regulation with respect to blockchain technology and its applications, including the platform.

Tax Perils: The tax characterization of crypto-tokens is uncertain. You must seek your own tax advice in connection with purchasing or using “XRM”, which may result in adverse tax consequences to you, including withholding taxes, income taxes and tax reporting requirements.

Risks with Development & Maintenance of the Platform: The Refine Medium platform are still under development and may undergo significant changes over time. Although Refine Medium intends the platform to function concurrently with the description in this Whitepaper, and intends to take commercially reasonable steps toward those ends, Refine Medium may have to make changes to the specifications of the Refine token and the platform for any number of reasons. Moreover, Refine Medium has limited control over how other participants will use the platform or how third-party products and services will utilize Refine token. Furthermore, despite Refine Medium’s diligent efforts to continuously develop the Refine Medium platform, it may experience malfunctions or otherwise fail to be adequately developed or maintained, which may negatively impact the platform and the potential utility of XRM.

Competing Platforms: It is possible that emulating platforms could be established that utilize the same open-source code and protocol underlying the Refine Medium platform and attempt to facilitate services that are materially similar to ours. The platform might have compete with these rivals, which could negatively impact the platform and XRM.

Dissolution of the platform: It is possible that, due to any number of reasons, including, but not limited to, the failure of commercial relationships or intellectual property ownership challenges, the Platforms may no longer be viable to operate or Refine Medium may dissolve.

Unexpected risks: Cryptographic tokens such as XRM are a new and untested technology. hence, there might be unanticipated risks associated with purchase, possession and use of XRM or the Video platform.

REFINE MEDIUM ICO DETAILS

ICO Phase 1

TYPE: PRIVATE- SALE

START

25th May 2019

END

15th June 2019

TOTAL TOKENS FOR SALE: 15 Million

TOKEN PRICE:

1 ETH = 1550 XRM, 1BTC = 45300XRM, 1BCH = 1550XRM, 1XRP= 3.6XRM

Whitelist

HARD CAP

Working Prototype

NO

10000 ETH

YES

Minimum Transaction Amount:
10ETH, 0.5 BTC, 10 BCH, 4500 XRP

ICO Phase 2

TYPE: PRE-SALE

START

25th June 2019

END

15th July 2019

TOTAL TOKENS FOR SALE: 30 Million

TOKEN PRICE:

1 ETH = 1165 XRM, 1BTC = 34000XRM, 1BCH = 165XRM, 1XRP = 2.7XRM

Whitelist

HARD CAP

Working Prototype

YES

25000 ETH

YES

Minimum Transaction Amount:
2ETH, .07 BTC, 2 BCH, 900 XRP

ICO Phase 3

TYPE: MAIN ICO

START

25th July 2019

END

30th September 2019

TOTAL TOKENS FOR SALE: 150 Million

TOKEN PRICE

1 ETH= 1000 TO 333 XRM, 1BTC= 29200 TO 9700 XRM, 1BCH= 1000 XRM TO 333, 1XRP=2.3 XRM TO 0.775 XRM

Whitelist

HARD CAP

Working Prototype

YES

135000 ETH

YES

Minimum Transaction Amount:
0.5 ETH, 0.02 BTC, .5 BCH, 250 XRP

Other ICO Details

TYPE: UTILITY TOKEN

OVERALL SOFTCAP
20000 ETH

OVERALL HARDCAP
170000 ETH

KYC: NO
CATEGORY: VIDEO PLATFORM
BOUNTY PROGRAM: YES
ESCROW AGENT: NO

PLATFORM: ETHEREUM
TOKEN TYPE: ERC20
DECIMAL: 18
LOCATION: HONG KONG

ACCEPTED CURRENCIES: ETH, BTC, BCH, XRP

RESTRICTED AREAS

US, Ethiopia, Iran, Iraq, Serbia, Sri Lanka ,
Syria, Trinidad and Tobago, Tunisia, Vanuatu,
Yemen & Democratic People's Republic of Korea (DPRK)



REFINE MEDIUM
People's own media

OUR TEAM

REFINE MEDIUM
People's own media



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REFINE MEDIUM
People's own media

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SOCIAL MEDIA PAGES

-  Facebook Page: <https://www.facebook.com/refinemedium>
-  Facebook Group: <https://www.facebook.com/groups/920842328117616/>
-  Instagram : <https://www.instagram.com/refine.medium>
-  LinkedIn: <https://www.linkedin.com/company/refinemedium/>
-  Reddit(Subreddit): <https://www.reddit.com/r/RefineMedium/>
-  Twitter: <https://twitter.com/RefineMedium>
-  Telegram (Group): https://t.me/Refine_Medium
-  Telegram(Channel): <https://t.me/refinemedium>
-  Youtube: <https://Youtube.com/c/refinemedium>
-  Slack: https://join.slack.com/t/refinemedium/shared_invite/enQtNDEwODQ4MDY4ODM0LTNIZml0MTRINTc4NmIzZGFIOWI3YWFlTY5ZViZmQ

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1. <https://www.pwc.com/gx/en/entertainment-media/outlook/perspectives-from-the-global-entertainment-and-media-outlook-2018-2022.pdf>
2. <https://www.digitalpulse.pwc.com.au/report-entertainment-media-outlook-2018-2022/>
3. <https://www.forbes.com/sites/quora/2018/01/19/how-do-you-know-when-an-industry-is-ripe-for-disruption/#219797043883>

BITCOINTALK

1. ANN: <https://bitcointalk.org/index.php?topic=5128882.new#new>
2. Bounty Thread : <https://bitcointalk.org/index.php?topic=5145674.new#new>
3. Bounty Thread (BountyHive.io) : <https://bitcointalk.org/index.php?topic=5128887.msg50489472#msg50489472>