A SLAP for Advertising:

Black Paper on Blinds,

a social-cum-local advertising platform

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Abstract

The world wide advertising revenue for media owners is expected to jump 10.2% to a record $651 billion in 2021. This sum is shared among all the players / components of the advertising ecosystem, mostly to top players, except the audience. If we look at the complete picture from a hawkeye point of view, a brand pays advertisers to pay agencies or media owners to broadcast its information to its audience, where the audience pays with its attention(money) to the information in order to pay to extract some value from the given brand's offerings with an established risk of may be not getting any real value from them at all. In addition, the internet has inter-connected everything,but there is still a gap between the audience, and the DOOH advertising asset which makes it seem in-effective although DOOH advertising can be one of the most economically targeted forms of advertising. Digital and mobile advertising are on the rise. As a result, technologies like mobile advertising marketing software/applications are in demand. However, just putting ads up is not enough. Audiences appreciate engaging ads and are averse to interruptions. Therefore, advertisers need to partner up with publishers with content that are relatable to their brands and target audience. This could mean placements in podcasts and other influencers. Advertisers are choosing to target relatable nano-influencers or those with just thousands of followers for paid social media advertising. This is a form of niche advertising. As a result, messages reach their intended audiences with higher accuracy. Inbetween, out-of-advertising still remains one of the most chosen ways for local advertising due to cost efficiency and abundant availability of infrastructure. With recent advancement in embedded systems engineering and IOT technologies, the traditional outdoor industry is gradually shifting toward its digital counterparts as pDOOH advertising. But still lack of flexibility in use and infrastructure is dragging its pace slowly. We believe there is a strong opportunity to combine these niche audiences of the social media influencers and the local DOOH advertising audiences together and serve them at the same time, with the same value and information.

Introduction

Blinds is a social-cum-local advertising platform that harnesses the power of DOOH advertising assets along with the power of the Internet, to provide value for all the elements of the advertising industry, (even for the audiences). We have designed Blinds in such a way that it provides value to its users for their attention towards any task within the application while at the same time the users can also use it for doing industry specific advertising tasks. Blinds categorises its user base into 5 main categories. Each category defines a specific set of users doing specific tasks within the application. These categories are:

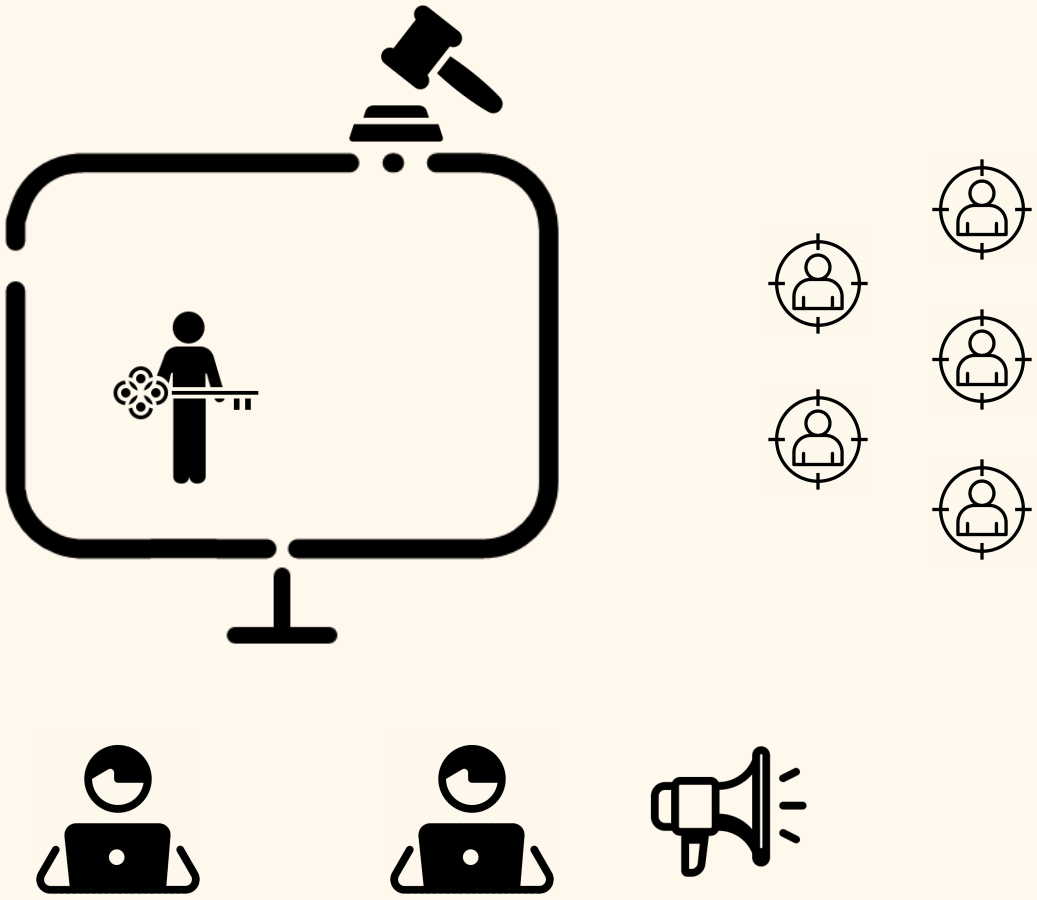
- **Master :** Advertising Asset Owners.
- **Ally :** Advertising Campaign Creators.
- **Brand :** Advertising Capital Investors.
- **Audience :** Advertising Value Providers.
- **Commissioner :** Advertising Policy Regulators.

All these categories are defined later on. A Brand provides an ally with the intent, capital and information to be advertised to its potential audience. Ally creates a campaign with content based on the information provided by the brand and deploys the campaign on its allied screen with permission from the master. Master receives its share of payment from the ally for providing access to the campaign on its advertising asset which is a DOOH LED screen. Now the audiences are exposed to this campaign in the real world as well as in Blinds. Audiences wanting to interact with any campaign seen in the real world, can do it directly using their mobile phones through Blinds.

Now as the audiences receives incentives for their attention towards these campaigns, on Blinds, this will create a human need of interacting with more campaigns that are currently being played on different advertising assets in the real world, but with our Blind mobile platform, all these campaigns are available right on their fingertips with each campaign providing an incentive for their attention. Now incentives only provide motive for the audiences to interact with more campaigns, but for brands, real value is when the audiences provide valuable, real feedback for their offerings. This can only happen, if the content within the campaign compels the audiences to move beyond just viewing the content and actually interacting with it through any “Call To Action”. This will force the allies to provide content that creatively engages with the audience and compels them to interact with the brands attentively. In addition, advertising regulators can monitor advertising content and take action against any community-deemed objectionable content rather than only a few people deciding if the content is objectionable or not.

This whole circuit above, boosts the positive aspects of consumerism and advertising without using any user personal data, without their permission, forcing everyone to give the best of their offerings and for being accountable. We believe it can create an ecosystem of

products and services that are more consumer-oriented with a more loyal and happy consumer base. In addition the use of hardware in our ecosystem gives us an advantage that will act as one of our defenses and entry barriers against any kind of competitive threat, as it enhances the utility and value for the users of our system.



Master **Ally** **Brand** **Audience** **Commissioner** **Asset**

Problem Statement

Worldwide advertising industry has become consolidated with a few big players having almost the entire control over the entire ecosystem. Advertising has always meant to be for the public, in the public and by the public. But with the Web 2.0 industry, advertising has become much more of a business tool that is controlled by a few big conglomerates, which leverages the consumer personal data for providing value to consumers by extracting more values from them by accessing more of their personal data and by manipulating their behaviour through a number of tools which are also designed by using all the consumer personal data they have. When this is done in context of enhance any product's/service's offerings, it's always welcome, but when this same thing is used to manipulate consumer behaviour to suit a certain product's/service's offerings, it promotes monopoly in the industry and kills competition and innovations which in the long run ultimately affects the consumers. This is true not only in business context, but also in political, educational, scientific, ideological and logical context. With the rise of centralised advertising entities, especially from the web 2.0 industry, there has been a rise in a monopolistic industries, authoritarian democratic regimes/governments, outdated educational systems, irrational ideological extremists and illogical fools who have used advertising in such a brilliant way, that it makes it difficult for others to penetrate the layers of information provided to their audiences. This helps in keeping a certain view aside from the general masses and feeding them with only the information that makes it easier to control and predict their behaviour.

In addition, from a business point of view, brands are spending tons of resources for getting relevant consumer data for enhancing their offerings, most of the time their resources are wasted on false/fake data. According to TrafficGuard/Juniper, online ad-fraud is predicted to be around $ 87 Billion USD, by 2022 that too mostly in the asian-pacific region. According to Adobe, 28% of web traffic comes from non-human actors. In advertising data it's hard to distinguish humans from non-human actors, which ultimately results in lower ROI and more loss of money. The real issue is advertising agencies, advertisers and brands subjecting the audiences to ads(content/information), that they really are not willing to give their attention to. So technically, all this money is wasted but still the top players get most of the benefits from this loss too. Can't there be a much better way to use this money and return real value from them?

If we look at the state of the content creators, the digital content creators are seen as a "trained person" using "specific tools" to create content. And the value of content and the content creators are determined mostly by the factor of how efficiently they can use those tools to create content. What this does is creation of unnecessary data/contents without any actual creative and logical reasoning behind the content. This restricts the content creators from getting desired value for the time they are investing in creation of such content. And even if the content is creatively unique, most of the time these contents are paid for only once and used over and over again by everyone without any real incentive for the original content

creator. What if there is a much better way where these content creators can be found with their contents and the content creators can get value for each use of their content?

In the outdoor advertising industry, there is a shift towards digitisation, of course due the benefits it offers over the traditional outdoor advertising media. But lack of infrastructure and open tools to use with the DOOH advertising assets restricts this pace of adoption. This makes the DOOH advertising media highly inaccessible for the MSMEs using traditional outdoor advertising media. In addition, the tools that are present today fail to provide any real insight about the audience interaction or conversion rate which decreases trust among the MSMEs about its effectiveness as most of them are not aware of the scientific and technical effects of DOOH advertising on its audiences. This creates lesser value for the advertising assets owners which in turns decreases the pace of digitisation of the outdoor advertising space. Can't it be much better if somehow we can increase this pace and help in digitisation of smaller non-metro cities and businesses?

In recent years, regulatory bodies have taken an authoritarian approach in censoring advertising content. This limits the creative reasoning of the content creators. Moreover, these censorship is done for the sake of the audience and the community as a whole, without them having any actual say in that. What if the regulatory bodies can frame policies and censor content based on the input received from the community?

To summarize all, the present advertising industry is a centralised

Background

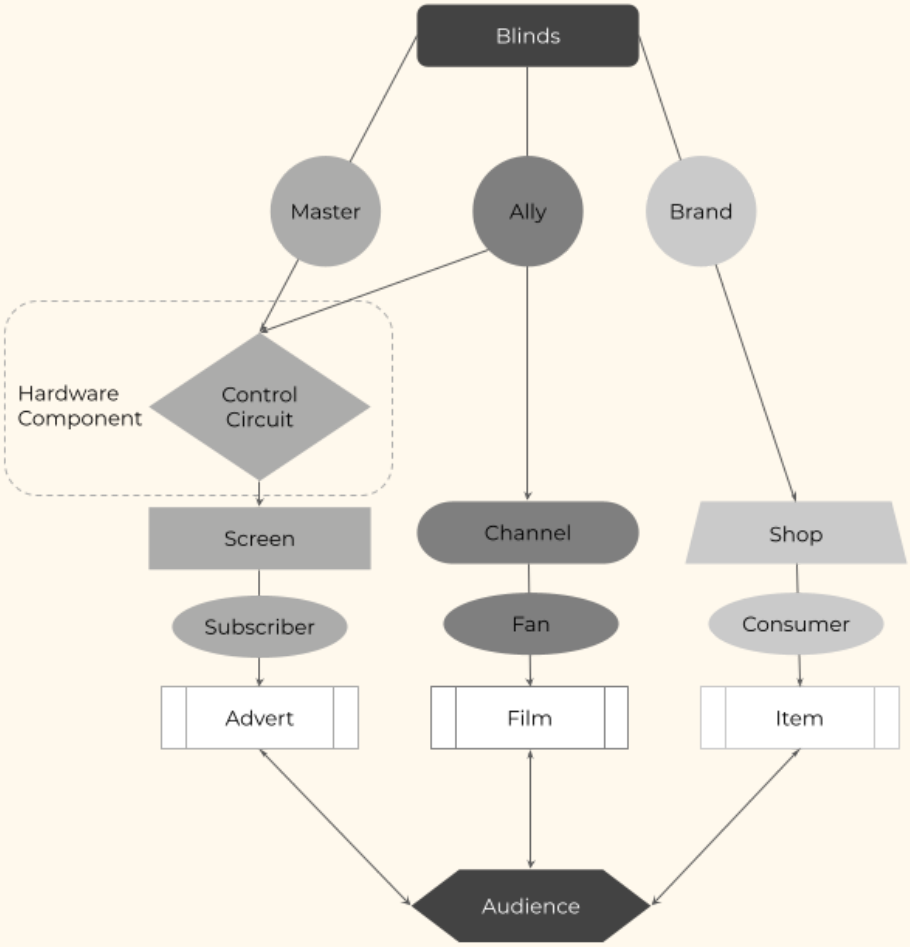
When we started as a DOOH advertising agency, we set out to identify the technical and innovation gaps in the advertising industry. During our work and on-field market research, we identified the key factors that were responsible in determining the key parameters and aspects of the advertising industry, specifically outdoor and digital media. In our theory, although the internet has connected everything, DOOH advertising has not yet fully utilised its true potential. Our research suggested a deep need for efficient integration of social media, internet and outdoor advertising assets. We chose digital out of home advertising as our first target because it's a growing space and we can really help in blending it in a way that positive aspects of consumerism are promoted rather than bombing audiences with unnecessary irrelevant ads at private space and time. We identified 5 key players in any advertising ecosystem. These players are:

- **Master:** These are the people who own physical advertising assets. These assets can include DOOH LED Screen, digital billboards, digital signage board or even a physical space for installation of any such advertising asset.
- **Ally:** These are the people who create advertising campaigns. These are the one responsible for providing content/media which is to be deployed on advertising assets. Each ally chooses its desired advertising assets and pays their masters for accessing those assets. Masters have the control for providing access to their assets, which creates an extra layer of safety, for non-objectionable content, through mutual trust between the ally and master.
- **Brand:** These are the people who own a business or are related to any business. These are the ones who provide objective, capital and information for the campaign, to the ally. Brands can have a physical presence in the real world around any master's asset. This includes both small and medium businesses and brands to big multinational businesses.
- **Audience:** These are the people for whom the advertising is intended for. These people interact with the advertising campaign and provide information for testing the hypothesis in the content. These people validate the information provided in campaigns and provide insights for the brand to improve their offerings.
- **Commissioner:** These are the advertising policy regulatory bodies that monitor advertising to maintain social harmony in the community. These may be a government owned body or a group of private individuals who decide and frame the advertising policies, taxes and all other legal stuff related with advertising.

Blinds Architecture

Now our study showed us that outdoor advertising depends mostly upon the size and cost of the display and deployment of content on these displays, demographic map of the

region, and content of the campaign. What it fails to provide is a trusted “call to action” for driving its audience directly to the related content and information, and actual real rate of conversion through outdoor advertising. This basic limitation of the outdoor advertising industry, the deployment and the demographic targeting of the potential audiences and content creation for deployment, were eliminated by the web2.0 industry (to some extent). But it is still using only a fraction of what the internet is really capable of. In addition, it also came with a huge capital loss in hope of extracting more value. When we started looking for a work around and creation of a business model around all of this, we stumbled upon blockchain and Web3.0 industries. Web3.0 infrastructure suits most of the requirements that we needed to implement in our ecosystem and we started working around it.



Our first step was creating a complete prototype of a portable LED screen that can be remotely accessed using the internet from anywhere. We used IOT technologies, embedded systems engineering and came up with a control circuit design and a flexible LED panel design along with the firmware to control the display on the LED panel using our control circuit. Once the architecture was complete, we tested our prototype LED screen with our user application interface prototype and successfully concluded the test. Still, creating an

ecosystem is one part, the other part is to compel people to use our ecosystem. For this we are trying to introduce a new term as " Incentivised Content Based Advertisement". We are using this term as the advertising which is based on content, so that the audience doesn't actually watch an advert, but regular content incorporated with advertising content and information, and incentivising audiences with some incentives (tokens in our case) for providing their time and attention. What it will do is, liberate the creative capabilities of the content creators, provide brands with actual insights of what content works and what not depending upon the numerous advertising factors, for the advertising assets owner, more creative content means more footfall around its assets which returns as profit and for the audience, for the first time, will get the opportunity to enhance their lifestyle without unnecessary data and money spending, with a return for the attention that they provide. This will encourage audiences to interact more with the content within our ecosystem as money or in our case tokenized incentives can be one of the most powerful forms of motivation. That's where we added Blockchain within our architecture, which gave us much more than a way to incentivise our application users.

Blockchain(Arweave) In Blinds

We are using blockchain(Arweave) in our architecture primarily for two reasons, first being permanent storage of contents/data so that even if a content is removed from any advertising asset, users can still access that content and information. This will promote brands for refraining themselves from making false and unrealistic claims. Second reason being for the generation of tokens(RAT) in our ecosystem. These tokens will be used for interaction within our ecosystem. We are also planning to use our control circuit as a node for storing data in the Arweave network so that we can provide more value to the Arweave ecosystem and our users. The tokens will also be used as a Profit Sharing Token for our Profit Sharing Community. These tokens will also be used to govern advertising policies and changes in our ecosystem.

Mechanism/Game Design In Blinds

Blinds uses RAT as tokens for interactions within our ecosystem for advertising. RAT stands for "Real Attention Token" and as the name suggests, these tokens are generated and used only for "real" audience attention. Token's main unit is RAT with subunit MICE and 1 RAT (1000 MICEs) equals 1 AR (Arweave Token) for efficient protocol integration. 500 Billion RATs are destined to be mined over time from our ecosystem for advertising. 300 Billion (60%) of these RATs will be mined at the time of genesis and remaining 200 Billion will be mined over time, with each new user getting 100 RAT at the time of registration. At the end, 500 Billion RATs will be in circulation, until the community owns the platform completely and decides if they want more tokens in circulation or not.

We have designed some mechanisms/games for using tokens within our ecosystem making them valuable to store and use them only when the user needs to interact within our application. For understanding the token economics of the ecosystem, let's look at the game/mechanism design of Blinds. There are three basic components of Blinds which constitutes the whole application. These components are Screen, Channel and Shop. Masters own the screen and ally can access the screens. Ally owns the channel and the content created for the platform. And Brands are the owners of the shops having their offerings for potential advertising.

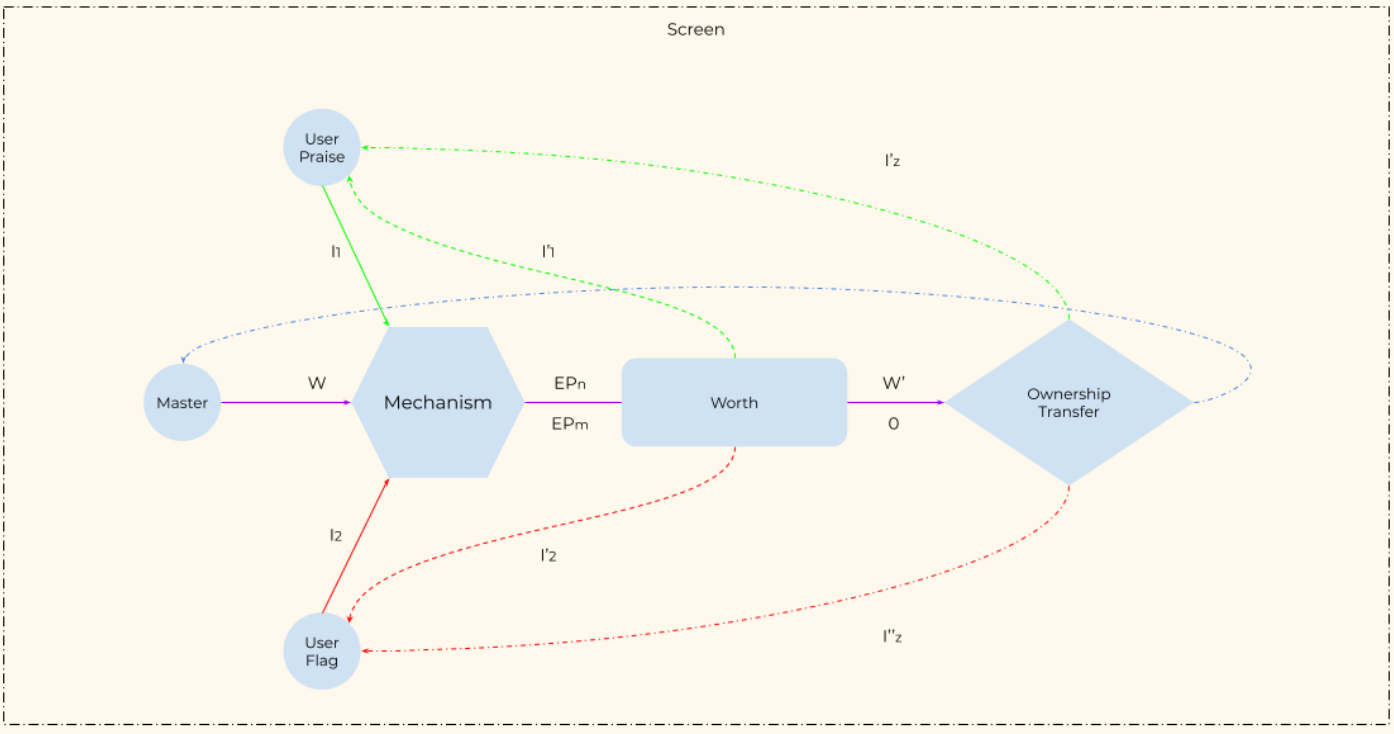
1. Screen Mechanism/Game Design:

1.1 Screen Worth Game:

Screen worth game decides the value of the screen. Each Screen within the Blinds is saved as an NFT on the Arweave Network with a certain value fixed by the master at the time of creation of screen. This value fluctuates on the basis of the number of praises and flags by the users on Blinds application. At any point of time the Master can transfer the ownership of the screen to any other master, by getting the value as payment from the new owner of the screen. The payment received by the

Players : User(Master), User(Audience)

Action : Screen Creation, User(Audience) Interaction {Praise(+)/Flag(-)}, Screen Transfer



Incentive Mechanism : Master sets the original worth (W) of the screen which increases or decreases depending upon number of Praises (N) and (M) Flags by the audiences. Audiences Praise/Flag the screen by investing a small RAT amount in two separate pools(EP_n & EP_m) and get returns :

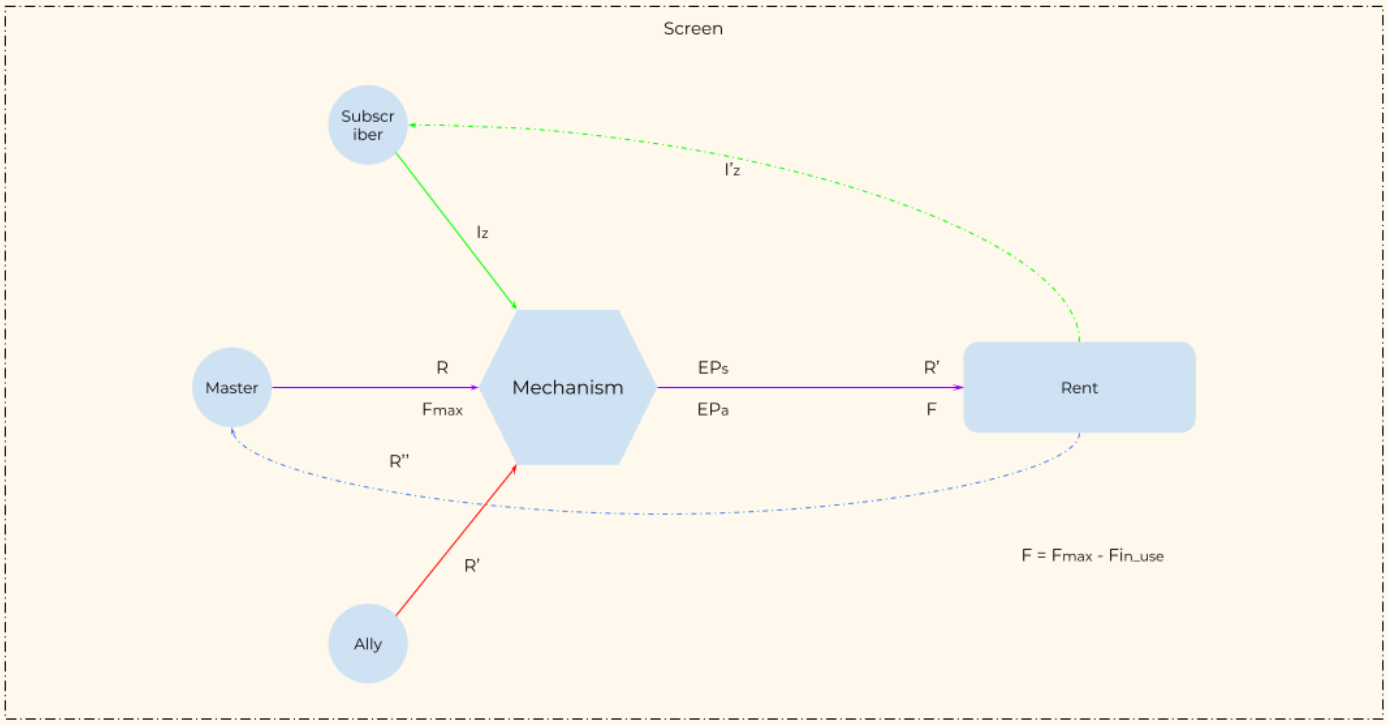
a. I'_z to Praising Audience and W' to Master if the ownership of the screen is transferred to a new master,
b. I''_z to Flagging Audience and W '= 0, i.e, screen worth becomes zero and screen RESETS with option to reset the worth.

1.2 Screen Rent Game:

Screen rent game decides the value of rent for any ally to access the screen to upload a campaign. Rent is paid every time an ally uploads a campaign, and rent depends upon the number of subscribers on that screen, number of allies on that screen, frequency remaining on that screen and maximum frequency of that screen.

Players : User(Masters), User(Subscribers) & User(Allies)

Action : Screen Update, User(Subscribers) Interaction {subscription}, User(Ally) interaction {campaign upload}



Incentive Mechanism : Master sets the original rent (R) per frequency which increases or decreases depending upon number of Frequencies (F) left, number of Subscribers (S), number of allied Allies (A), maximum frequency (F_{max}), i.e, maximum slots a day of the

screen. Subscribers on subscribing the screen, gets other benefits of subscribers, as well as, invests a small RAT amount in pool EP_S. When an Ally uploads a campaign on a screen, it pays R' amount which is added in the EP_a pool.

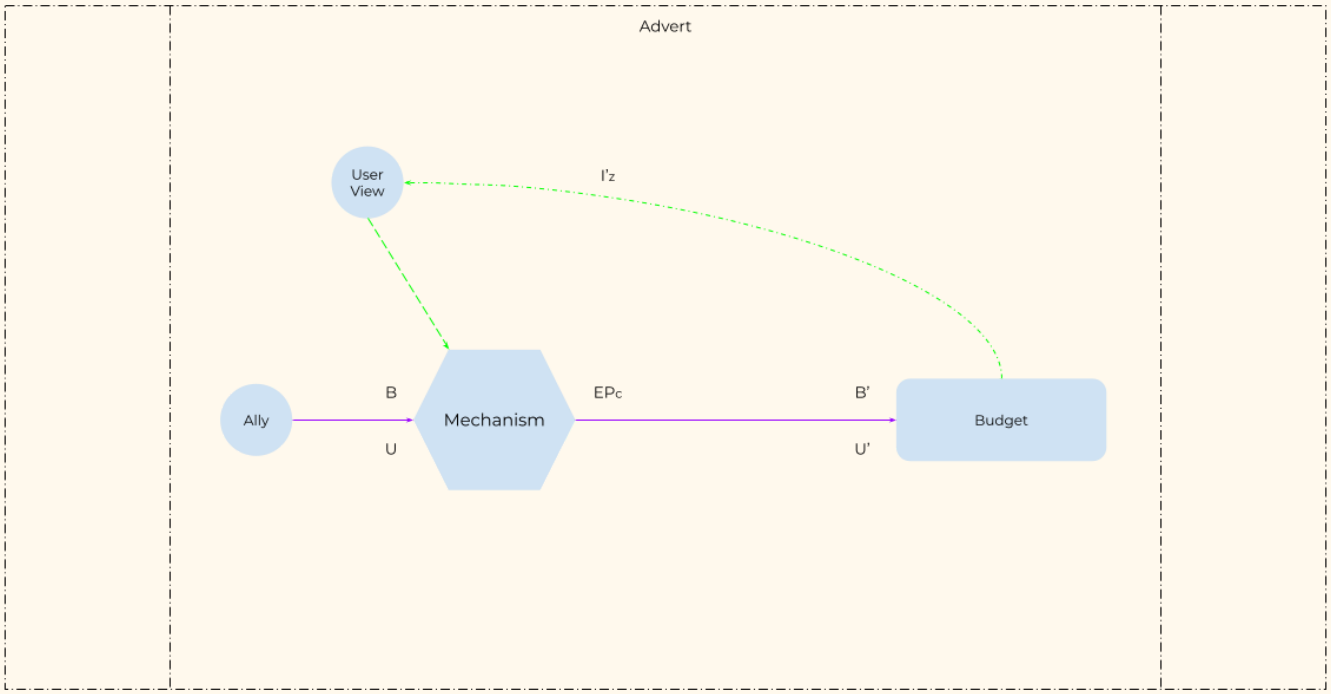
a. Master gets (R'') directly from most of the rent (R') paid by ally, a fraction of that is just added in the pool EP_a.
b. Subscribers can take out money at any time by unsubscribing from the screen for a return of I'_z RAT.

1.3 Campaign (Advert) Budget Game:

Campaign (advert) budget game decides the amount of RATs to be distributed among the audience interacting with any campaign. It just depends on the remaining budget and number of audience the budget is intended for. We designed the game algorithm in such a way that it keeps on distributing incentives to any n number of audiences interacting with it even after the desired number of audience per campaign is achieved. This will help in keeping newer audiences engaged in any campaign, like forever.

Players : User(Allies), User(Audiences)

Action : User(Ally) Interaction {campaign upload}, User(Audience) interaction {View(=)}



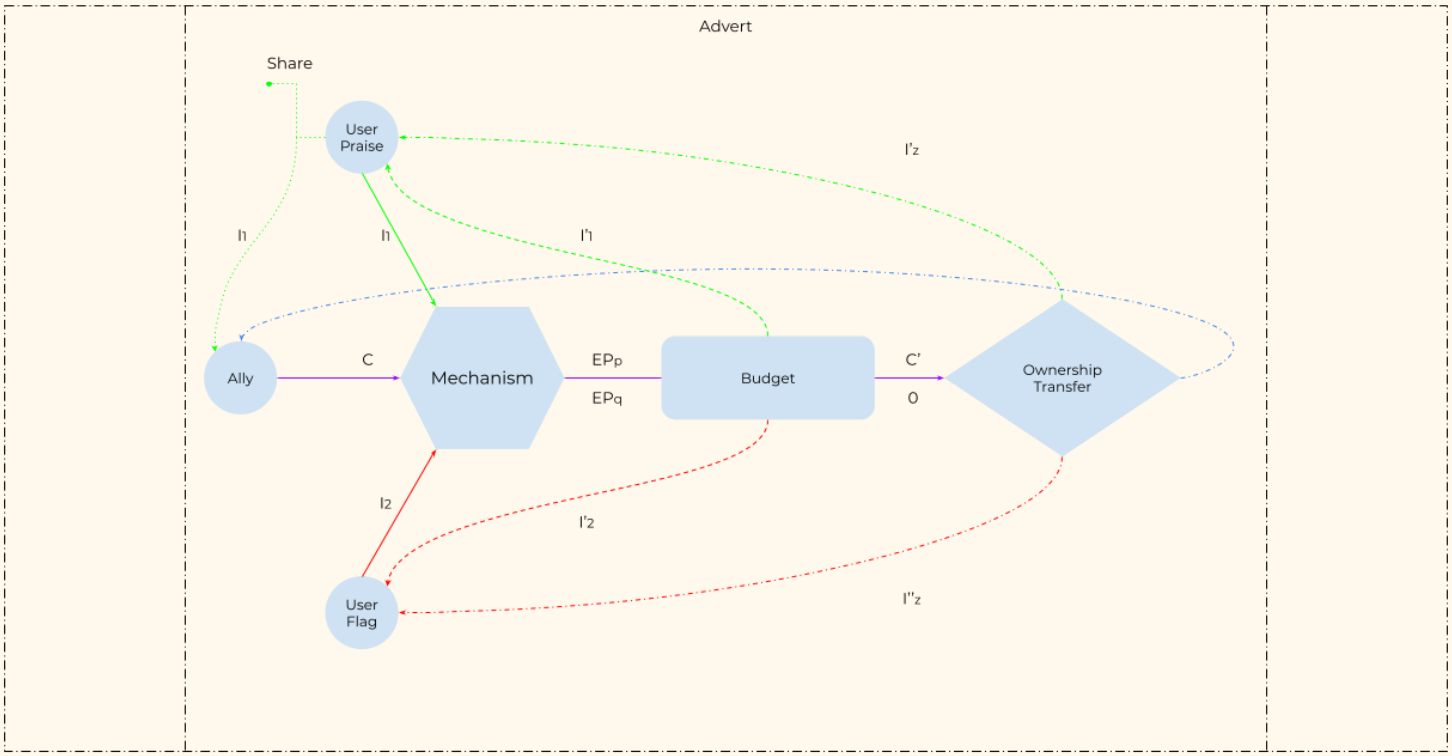
Incentive Mechanism : When an ally uploads a campaign, it sets a budget (B) of certain amounts of RATs which is to be distributed to a minimum U number of viewers.

1.4 Advert Worth Game:

Advert worth game decides the value of the advert/media uploaded, along with the campaign, on the screen and saved as an NFT on the arweave network. Ally sets the initial value of the media(advert) and it fluctuates on the basis of the number of praises and flags on that media(advert) on our platform. At any point of time, an ally can transfer the ownership of the media(advert) to another ally at a value corresponding to that point of time.

Players : User(Allies), User(Audiences)

Action : Advert Creation, User(Audience) Interaction {Praise(+)/Flag(-)}, Advert Transfer



Incentive Mechanism : Ally sets the original worth (C) of the advert which increases or decreases depending upon number of Praises (N) and (M) Flags by the audiences. Audiences Praise/Flag the advert by investing a small RAT amount in two separate pools(EP_n & EP_m) and get returns :

a. I'_z to Praising Audience and C' to Ally if the ownership of the screen is transferred to a new master,
b. I''_z to Flagging Audience and W '= 0, i.e, advert worth becomes zero and advert RESETS with option to reset the worth.
c. If a user (Audience) wants to share/use the advert, it must be a Praising user. And for each share/use, it pays an amount directly to the ally.

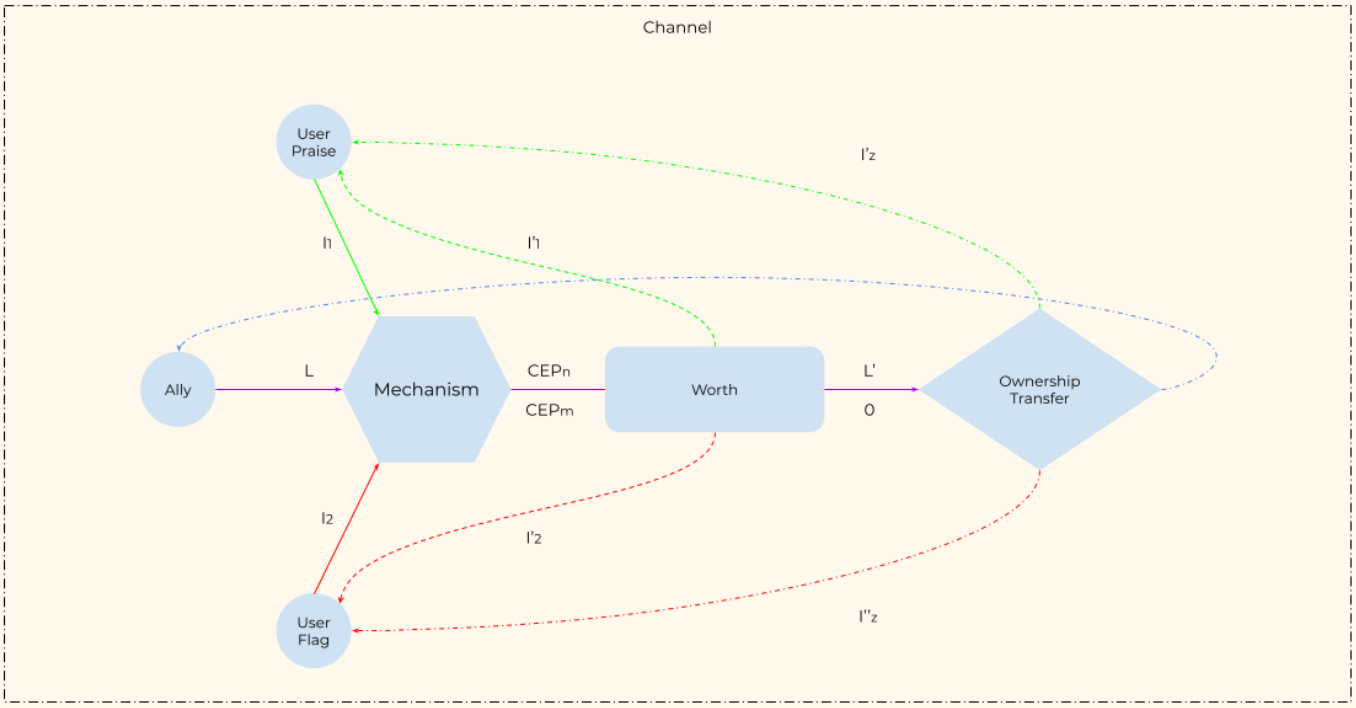
2. Channel Mechanism/Game Design:

2.1 Channel Worth Game:

Channel worth game decides the value of the channel. Each Channel within the Blinds is saved as an NFT on the Arweave Network with a certain value fixed by the ally at the time of creation of the channel. This value fluctuates on the basis of the number of praises and flags by the users on Blinds application. The channel acts as a wall for showcasing content (film/media) created by the ally. This also helps in setting a value of any ally for its work. At any point of time the ally can transfer the ownership of the channel to any other ally, by getting the current value as payment from the new owner of the channel. The payment received by the

Players : User(Ally), User(Audiences)

Action : Channel Creation, User(Audience) Interaction {Praise(+)/Flag(-)}, Channel Transfer



Incentive Mechanism : Ally sets the original worth (L) of the channel which increases or decreases depending upon number of Praises (N) and (M) Flags by the audiences. Audiences Praise/Flag the channel by investing a small RAT amount in two separate pools(CEP_n & CEP_m) and get returns :

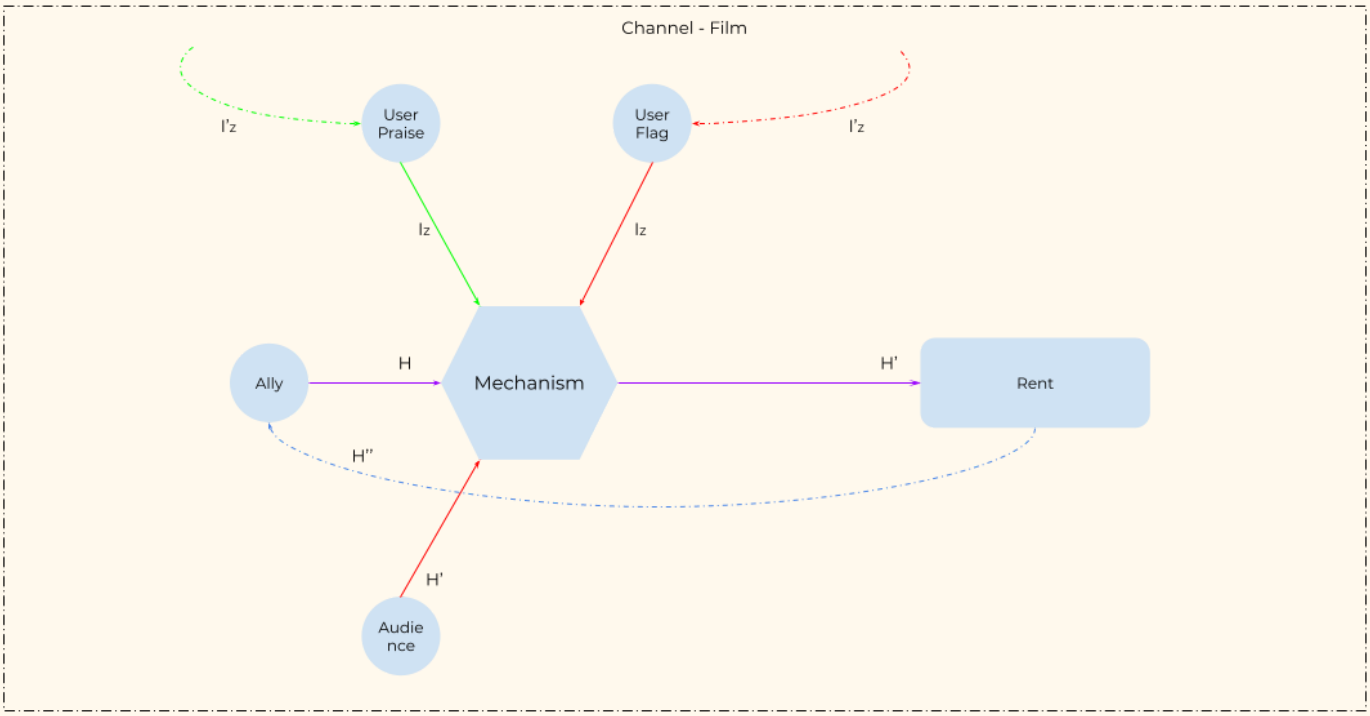
a. I'_z to Praising Audience and L' to ally if the ownership of the channel is transferred to a new ally,
b. I''_z to Flagging Audience and L '= 0, i.e, channel worth becomes zero and channel RESETS with option to reset the worth.

2.2 Channel Film Rent Game:

Channel film rent game decides the value of the film/media for any audience to view the film/media if the ally sets any rent at the time of uploading of film. Any audience needs to pay this rent to access the film/media to the ally, the owner of the channel/content. The rent of film/media depends upon the number of audiences who have viewed the film/content, and on the basis of the number of praises and flags on that media(film) on our platform.

Players : User(Allies), User(Subscribers/Fans)

Action : Channel Update, User(Audience) Interaction {Praise(+)/Flag(-)/View(=)}



Incentive Mechanism : Ally sets the original rent (H) of a film/media on its channel which increases or decreases depending upon the number of praises, flags and views on our platform. Any audience seeking access to the film/media must pay H RAT to the ally.

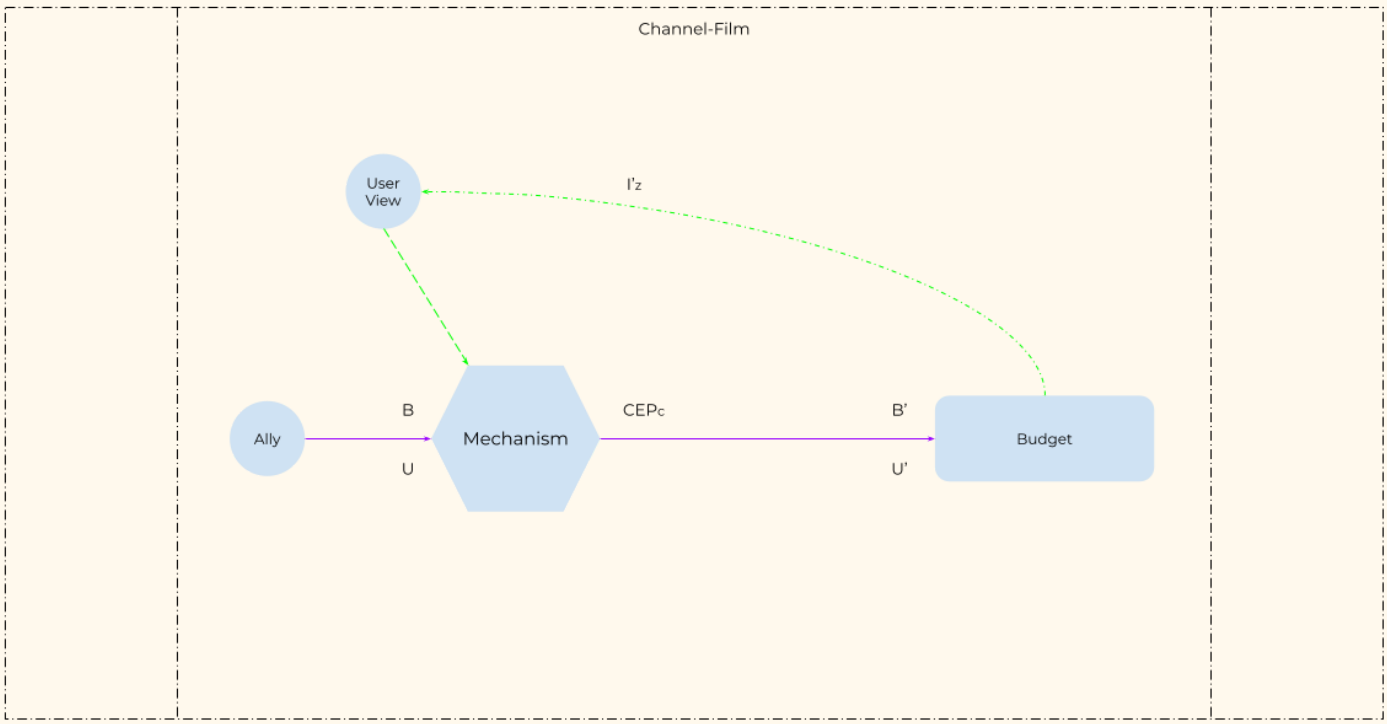
2.3 Campaign (Film) Budget Game:

Campaign (film) budget game decides the amount of RATs to be distributed among the audience interacting with any film campaign. It just depends on the remaining budget and

number of audience the budget is intended for. It works exactly like the campaign(advert) budget game of the screens.

Players : User(Allies), User(Audiences)

Action : User(Ally) Interaction {campaign upload}, User(Audience) interaction {View(=)}



Incentive Mechanism : When an ally uploads a campaign, it sets a budget (B) of certain amounts of RATs which is to be distributed to a minimum U number of viewers, same as campaign(advert) budget mechanism/game..

2.4 Film Worth Game:

Film worth game decides the value of the film/media uploaded on the channel and saved as an NFT on the arweave network. Ally sets the initial value of the media(film) and it fluctuates on the basis of the number of praises and flags on that media(advert) on our platform. At any point of time, an ally can transfer the ownership of the media(film) to another ally at a value corresponding to that point of time.

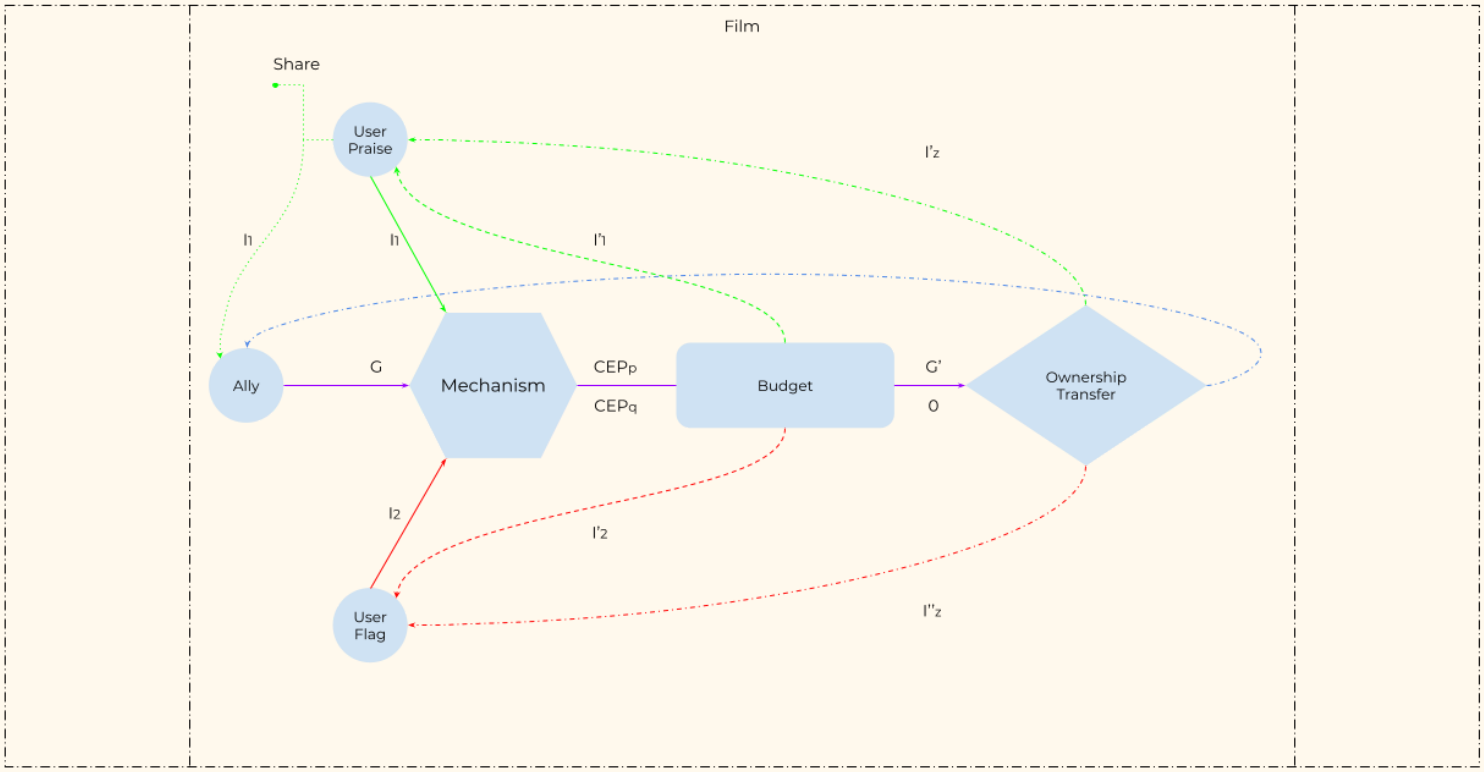
Players : User(Allies), User(Audiences)

Action : Film/Media Creation, User(Audience) Interaction {Praise(+)/Flag(-)}, Film/Media Ownership Transfer

Incentive Mechanism : Ally sets the original worth (C) of the screen which increases or decreases depending upon number of Praises (N) and (M) Flags by the audiences. Audiences

Praise/Flag the screen by investing a small VOI amount in two separate pools(EP_n & EP_m) and get returns :

a. I'_z to Praising Audience and C' to Ally if the ownership of the screen is transferred to a new master,
b. I''_z to Flagging Audience and W '= 0, i.e, media worth becomes zero and media RESETS with option to reset the worth.
c. If a user (Audience) wants to share/use the media, it must be a Praising user. And for each share/use, it pays an amount directly to the ally.



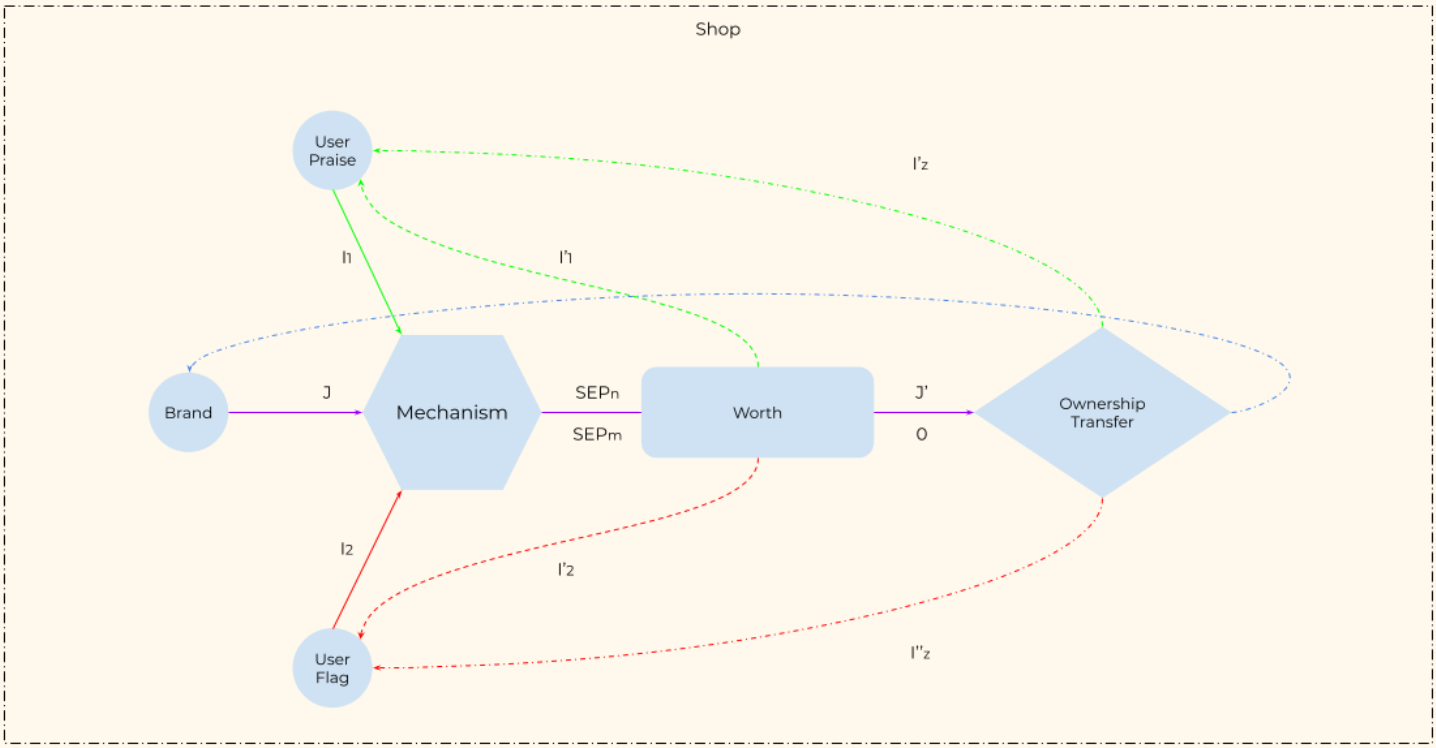
3. Shop Mechanism/Game Design:

3.1 Shop Worth Game:

Shop worth game decides the value of the shop created by any brand on our platform. Each Shop within the Blinds is saved as an NFT on the Arweave Network with a certain value fixed by the brand at the time of creation of the shop. This value fluctuates on the basis of the number of praises and flags by the users/consumers on Blinds application. The shop acts as a store for showcasing brand's offerings, in the form of Items/Services (item/media), created by the brand. At any point of time the brand can transfer the ownership of the shop to any other brand, by getting the current value as payment from the new owner of the shop. The payment received by the

Players : User(Brands), User(Audiences/Consumers)

Action : Shop Creation, User(Audience/Consumers) Interaction {Praise(+)/Flag(-)}, Shop Transfer



Incentive Mechanism : Brand sets the original worth (J) of the shop which increases or decreases depending upon number of Praises (N) and (M) Flags by the audiences. Audiences Praise/Flag the shop by investing a small RAT amount in two separate pools(SEP_n & SEP_m) and get returns :

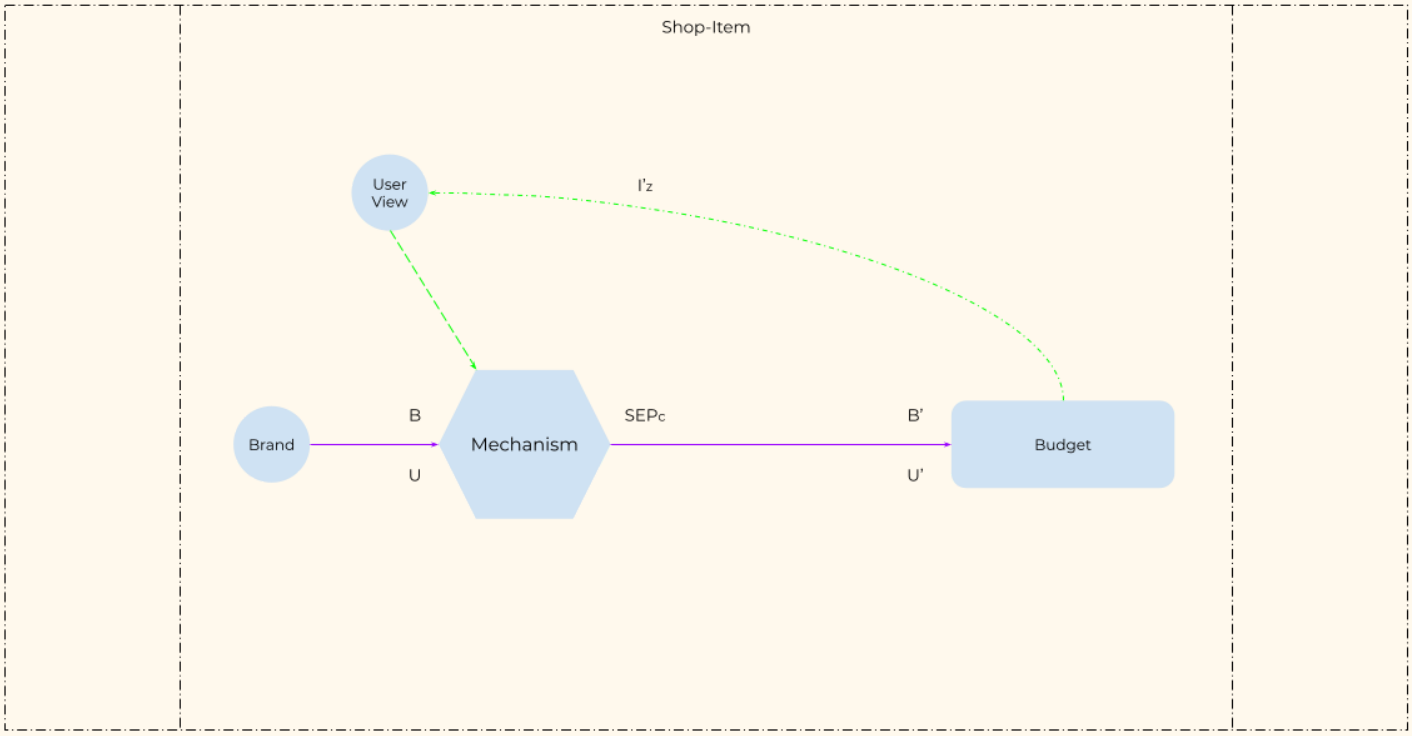
a. I'_z to Praising Audience/Consumers and J' to Brand if the ownership of the shop is transferred to a new brand,
b. I''_z to Flagging Audience and J '= 0, i.e, shop worth becomes zero and shop RESETS with option to reset the worth.

3.2 Campaign (Item) Budget Game:

Players : User(Brands), User(Audiences/Consumers)

Action : User(Brands) Interaction {Item upload}, User(Audience/Consumer) interaction {Review(=)}

Incentive Mechanism : When a brand uploads its offerings in the form of service or item, it uploads some details and review form for product review from its consumer. It sets a budget (B) of certain amounts of RATs which is to be distributed to a minimum U number of reviewers, who receive incentives for their valuable reviews that can help brands in enhancing their offerings..



Solutions

As most of the advertising is centralised, it's extremely difficult to take the audience's concern and issues as its main priority because most of the advertising platforms offer free services to its audience and in turn bombard them with advertising and compromise their privacy for data points for making up profit for providing free services. Now we studied a few internet users and did some research and came to a conclusion that a significant portion of audiences(users) don't want to use free services at the expense of their personal data, while others either don't care about it or don't know about it. But what restricts people to use these free services is its easy accessibility, ease of use and a whole ecosystem around such services, among other factors. Plus, for subscribing to any premium services, users/audiences need to provide their banking details, which makes it difficult for them to trust any new internet service provider. So to avoid all this, either people just keep using the same services or try finding other free alternatives, which sometimes may be even more dangerous, and also prevent the content creators from getting the real value for their content and brands have to spend more to get the attention of these scavenging audiences.

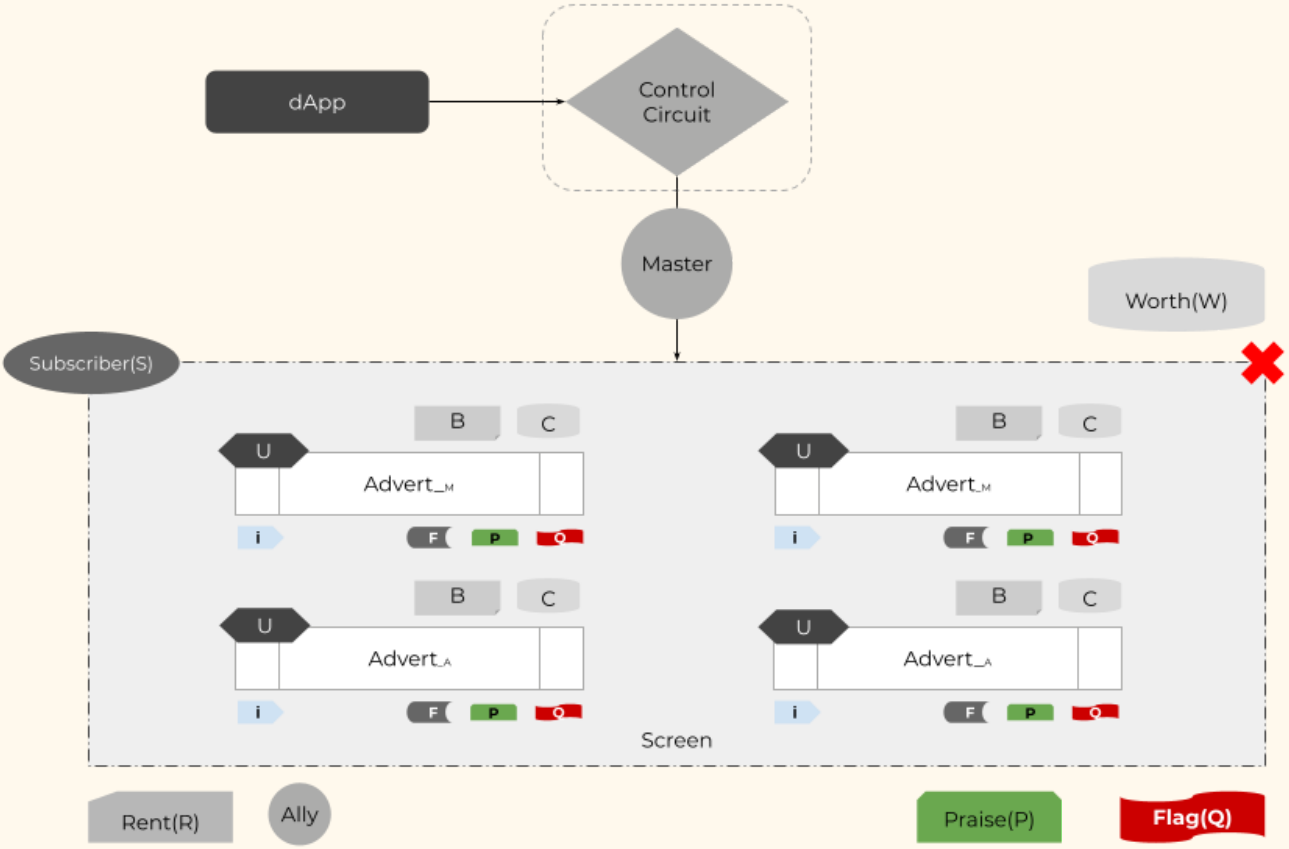
To find a solution for this, we drew an analogy from the real world. Suppose we (users/audiences) are in a market. If we (users/audiences) see something, in any shop or any physical advertising in the real world, that we (users/audiences) want to possess or have some experience of, we (users/audiences) look for capital to purchase that thing. If we (users/audiences) have loose cash with us, it's a human tendency that we (users/audiences) will surely go for the purchase. But if we (users/audiences) have to withdraw money from an ATM, we (users/audiences) might get a second thought if we (users/audiences) really want to possess it or not? We see the same kind of human behaviour when people are online. For example, when we (users/audiences) browse the internet for free stuff, we (users/audiences) usually avoid sites that need us to register/login and provide some details. First because it's an extra step which still doesn't guarantee that the next page is going to redirect where we (users/audiences) mean it to be and second, because we (users/audiences) just don't want to provide our (users/audiences) details to any site as there is no incentive for us (users/audiences) apart from getting the access of any content, which we (users/audiences) can access from some other sources without providing any of our (users/audiences) details. This results in inconvenience for us (users/audiences) as we (users/audiences) lose time in unnecessary searches and follow-on steps, the content creators never actually get the real value of the content and the brands have to spend more to track us (users/audiences) and get our (users/audiences) attention.

What we are proposing as a solution is pretty simple, incentivised audiences for their attention so that they can incentivise the content creators for their content, brands for their offerings and media buying/advertising agencies for their information. We propose a "give & take" circuit approach for providing real value to everyone. With our solution Blinds, businesses, professionals and artists can work as usual as they were working but with the liberty to explore their creativity and reasoning capabilities at the same time, the audiences can use the whole ecosystem to enhance their lifestyle without compromising their personal data, integrity, resources and fun by just providing attention to the right content, at the right time and at the right place. We have a broader vision of true democratization of advertising by creating a fleet of technologies that are going to pay for themselves and by giving the control back to the community. Our hardware technologies, compatible with our advertising ecosystem, gives us an extra edge in being a step ahead in the market.

Token Economics

Let's now take a closer look at the mechanism/game design through a more economical perspective. As stated earlier, the main token unit of our ecosystem is RAT. We will be discussing the token economics of all the three major components of our ecosystem, Sceen, Channel and Shop.

1. Sceen Circuit



Above is a schematic representation of a screen circuit. A screen has some initial properties like constant properties like shape, size, location which doesn't change with time and some variable properties like worth, rent, maximum frequency (max. playable slots a day) both of which are set at the time of creation of screen by the master. A master can change the rent and maximum frequency of its screen, but it will reset all the variable values including, number of praises, flags and subscribers.

TERMINOLOGY:

- **Screen :** Physical advertising asset in the real world integrated with the created screen in Blinds.
- **Control Circuit :** Hardware component to access physical advertising assets in the real world through Blinds.
- **Master :** Owner of the physical advertising asset in both real world and Blinds.
- **Worth :** Worth refers to the value of any asset in RATs at any point of time. A master sets an initial worth of its screen(W) at the time of screen creation which is saved as an

NFT and an ally sets the initial worth of the advert(media)(C), which is also saved as NFT, at the time of campaign upload.

- **Ally :** Content creators seeking access on the screen for deploying campaigns created by them for better reach.
- **Rent :** Rent (R) is the amount of RAT an ally needs to pay to master in order to upload its campaign.
- **Frequency :** Frequency (F) is the number of slots per day for any screen.
- **Advert :** Advert refers to the media uploaded along with the campaign, by the ally, which is saved as an NFT.
- **Budget :** Budget (B) is the amount of RATs assigned, by the ally, for getting a minimum number of views on any advert.
- **View :** When an audience/user interacts/engages with any campaign, in a manner decided by the ally, it is deemed as a view (U).
- **Subscriber :** A user/audience who subscribes (S) any screen.
- **Praise :** When a user/audience who likes (P) a screen or an advert/media.
- **Flag :** When a user/audience who dislikes/reports (Q) a screen or an advert/media.
- **Share(i) :** If a user/audience wants to share or embed any content to different platforms.

1A. SCREEN WORTH (W') :

Goal:

Master sets an initial worth of its asset(screen), which increases/decreases as per the inputs from the community. This will help in keeping positive content on the screens so that the worth of the asset increases over time and user interaction.

Let the "Worth" of a screen at the time of creation be

$$(W) \text{ RAT} \qquad \text{---(1)}$$

When a unique user "Praises" the screen, (1/W) RAT is transferred into the "Screen Stake Endowment Pool" from that unique user's wallet. **---(2a)**

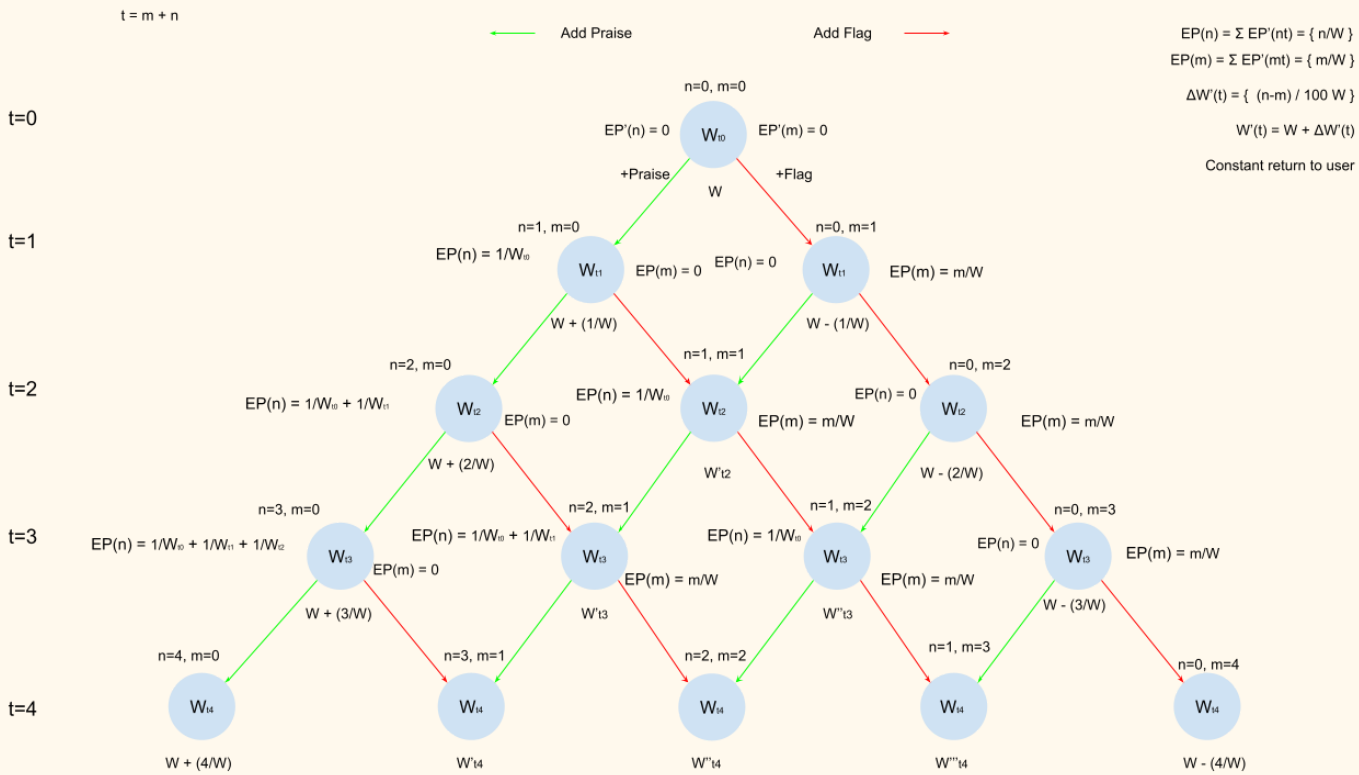
Similarly, when a unique user "Flags" the screen, (1/W) RAT is transferred into "Screen Swap Endowment Pool" from that unique user's wallet. **---(2b)**

1A1. Screen Stake Endowment (EPn):

When the first unique user Praises the screen, (1/W) RAT is added to the pool. Subsequently with each unique user (1/W) RAT is added in the pool.

Therefore, at any time with "N" Praises, the value of screen stake endowment pool will be

$$\mathbf{EP_n} = \frac{(N)}{(W)}\ \mathbf{RAT} \qquad \text{---(3a)}$$



1A2. Screen Swap Endowment (EPm):

When the first unique user Flags the screen, (1/W) RAT is added to the pool. Subsequently with each unique user (1/W) RAT is added in the pool.

Therefore, at any time with “M” Flags, the value of screen swap endowment pool will be

$$\mathbf{EP_m} = \frac{(M)}{(W)}\ \mathbf{RAT} \qquad \text{---(3b)}$$

1A3. Screen Worth (W’) at any instance of time:

Hence, at any instance of time, with ‘N’ number of Praises and ‘M’ number of Flags, the new worth of the screen will be

$$\mathbf{W'} = \left\{ W + \frac{(N-M)}{100W} \right\}\ \mathbf{RAT} \qquad \text{---(4a)}$$

Case A: W’ = 0 , i.e, worth of screen becomes Zero

$$\mathbf{M} = (100W^2 + N) \qquad \text{---(4b)}$$

Case B: W' = W , i.e, worth of screen remains same

$$\mathbf{M = N} \qquad \textbf{---(4c)}$$

1A4. Screen Ownership Transfer:

When a master transfers the ownership of the screen, the other master will have to pay the W' amount of RAT at any instance of time.

Original/Old Master gets W' RAT from the New Master **---(5a)**

Then, Value of screen stake endowment pool becomes

$$\mathbf{EP'_n} = \left\{\frac{(N+M)}{W}\right\} \mathbf{RAT} \qquad \textbf{---(5b)}$$

Each user of the screen stake endowment pool gets

$$\mathbf{EP'_n\ return\ per\ user} = \left\{ \left(\frac{M}{NW}\right) + \frac{(1)}{(W)} \right\} \mathbf{RAT} \qquad \textbf{---(5c)}$$

And, Value of screen swap endowment pool becomes

$$\mathbf{EP'_m} = 0\mathbf{RAT} \qquad \textbf{---(5d)}$$

Hence, each user of the screen swap endowment pool gets 0 RAT.

Case A: If screen has Zero Flag, i.e. M = 0 RAT & EPm' = 0 RAT and screen ownership is transferred, then

$$\mathbf{W'} = 3\{W + (\frac{N}{100W})\}\mathbf{RAT} \qquad \textbf{---(6a)}$$

Original/Old Master gets

$$\mathbf{W''} = 2\{W + (\frac{N}{100W})\}\mathbf{RAT}$$

---(6b)

From the new master

Then, Value of screen stake endowment pool becomes

$$\mathbf{EP'_n} = \left[\frac{\{100W^2 + N(100+W)\}}{100W}\right]\mathbf{RAT} \qquad \textbf{---(6c)}$$

Each user of the screen stake endowment pool gets

EP'n return per user = $\left[\frac{\{100W^2 + N(100 + W)\}}{100WN}\right]$**RAT** **---(6d)**

Case B: If screen has Zero Praise, i.e. N = 0 RAT & EPn' = 0 RAT and screen ownership is transferred, then

W' = $\left\{W - \left(\frac{M}{100W}\right)\right\}$**RAT** **---(7a)**

W''= $\left\{W - \left(\frac{(2M)}{100W}\right)\right\}$**RAT** **---(7b)**

Then, Value of screen swap endowment pool becomes

EP'm = $\left\{\frac{(M)}{W} + \frac{(0.01M)}{W}\right\}$**RAT** **---(7c)**

Each user of the screen stake endowment pool gets

EP'm return per user = $\left\{\frac{(1.01)}{W}\right\}$**RAT** **---(7d)**

And after transfer is complete, both EPn and EPm Value equals Zero RAT. **---(7e)**

New Worth of the Screen = W' RAT **---(7f)**

1A5. Worthless Screen:

When

M >= $(100W^2 + N)$ **---(8a)**

(Only Condition when it's possible at any time)

Hence, W' = 0, screen becomes virtually worthless, in that case,

Worth of screen W' = 0 VOI

Then, Value of screen stake endowment pool becomes

EP'n = 0 VOI **---(8b)**

Each user of the screen stake endowment pool gets 0 VOI

And, Value of screen swap endowment pool becomes

$$\mathbf{EP'_m}=\left\{\frac{(M+N)}{W}\right\}\mathbf{RAT} \qquad \textbf{---(8c)}$$

Each user of the screen swap endowment pool gets

$$\mathbf{EP'_m\ return\ per\ user}=\left\{\frac{(M+N)}{MW}\right\}\mathbf{RAT} \qquad \textbf{---(8d)}$$

And after, screen becomes worthless, both EP_n and EP_m Value equals Zero RAT ---(9a)

New Worth of the Screen = W' = 0 RAT ---(9b)

Then a RED CROSS (X) will be added in the screen Profile, and master will have to edit the screen details and access. ---(9c)

1B. SCREEN RENT (R'):

Goal:

Master sets a Rent and maximum number of slots in a day(frequency) at any point of time. This value of rent is the minimum value that the master should get which may increase as per interaction from the users. A user has to pay the initial value of rent(R) to the master to become an "Ally" of the screen. An ally can then upload campaigns on its allied screen.

Rent (R) (rent/frequency) of a screen depends on remaining frequency [$F_{(rem)}$] (no.of slots / day) of advert and number of subscribers [S] and number of allies [A].

Let R be the rent of the screen set by master at time of screen creation.

Original Rent of the Screen = R RAT ---(1)

Now, F is the frequency of the screen which is defined as the total number of slots per day. When the master sets the screen rent, he also sets the time period of one slot for the screen.

If time period of 1 Slot = 20 Sec, $F_{(max)}$ = 4320, i.e, max. 4320 slots a day (24 hrs).

If time period of 1 Slot = 30 Sec, $F_{(max)}$ = 2880, i.e, max 2880 slots a day (24 hrs).

Therefore,

$$\mathbf{F_{(rem)} = F_{(max)} - \Sigma\ F_{(asked)}} \qquad \textbf{---(2)}$$

Where, $\Sigma\ F_{(asked)}$ = Total Frequency already used

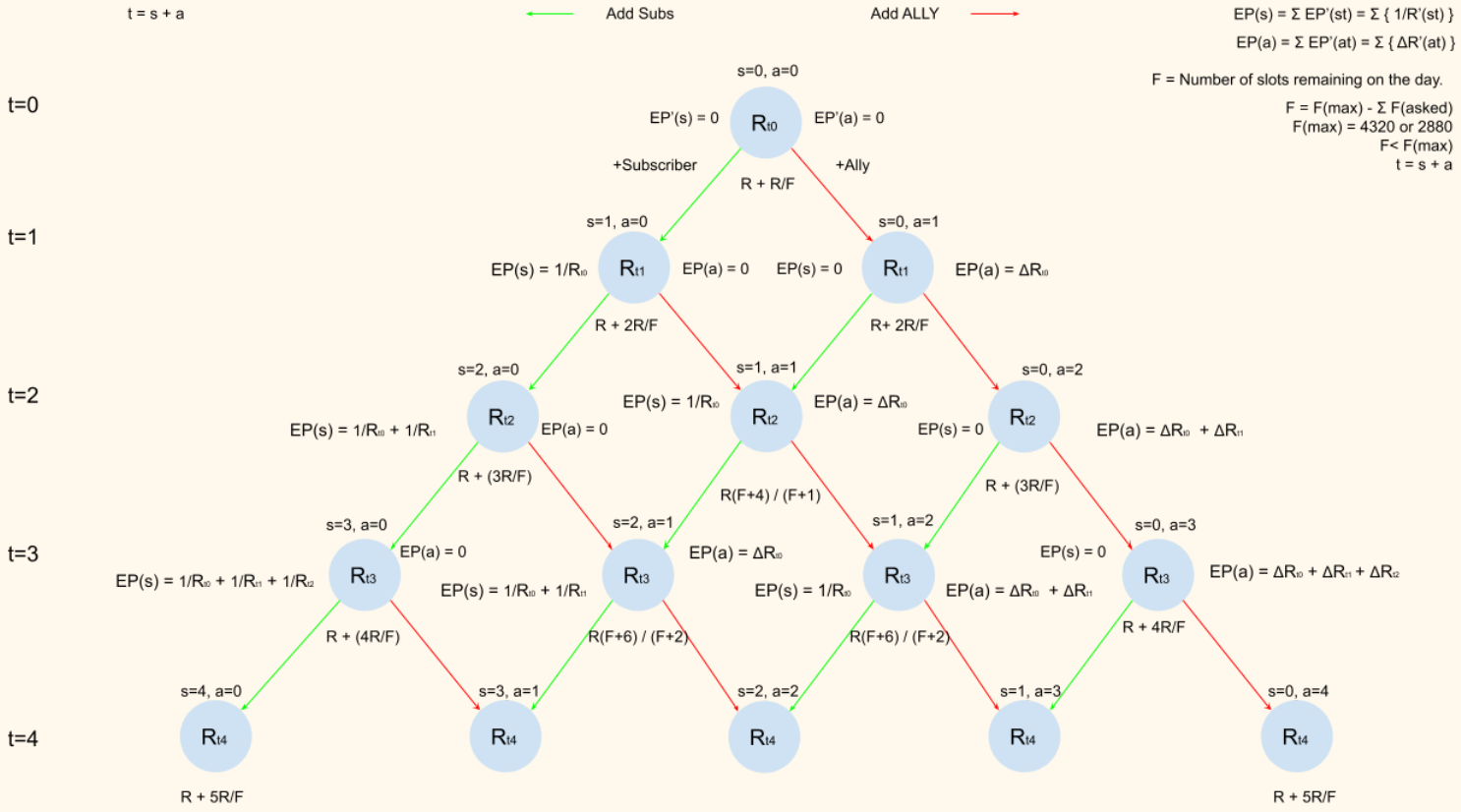
1B1. Screen Subscriber Endowment (EPs):

When a unique user Subscribes the screen, (1/R') RAT is added to the pool. Subsequently with each unique user (1/R') RAT is added in the pool.

Therefore, at any time t with “S” Subscribers and A Allies, the value of screen subscriber endowment pool will be

EPs = $\Sigma\, EP'(st)$ **RAT** **---(3a)**

&, **EP’(st) =** $1/R'(st)$ **RAT** **--(3b)**



1B2. Screen Rent Endowment (EPa):

When an ally uploads a campaign, it pays a rent (R’) to the master of the screen, and from R’, ΔR’ VOI is added to the pool. Subsequently with each unique user ΔR’ VOI is added in the screen rent endowment pool.

Therefore, at any time t with “A” Allies, the value of screen rent endowment pool will be

EPa = $\Sigma\, EP'(at)$ **RAT** **---(4a)**

&, **EP’(at) =** $\Delta\, R'(at)$ **RAT** **---(4b)**

1B3. Screen Rent (R') at any time t :

Let t be the point of instance of any interaction either by subscribers or allies, after the screen is created and Original Rent (R) of the screen has been set by the master.

At t = t, number of subscribers = S, & number of allies = A

So, $\mathbf{R'_{(t)} = R + \Delta R'_{(t)}}$ **VOI** **---(5a)**

&, $\mathbf{t = S + A}$ **---(5b)**

&, $\mathbf{\Delta R'(t) = \left[\frac{\{(S+A+1)R\}}{\{S.A + F'(rem)\}}\right] RAT}$ **---(5c)**

Hence, $\mathbf{R'(t) = \left[\frac{\{F'(rem)+(S+1)(A+1)\}R}{\{S.A + F'(rem)\}}\right] RAT}$ **---(5d)**

When an ally pay this rent for uploading a campaign on the screen,

Master of the screen gets = [R'(t) - ΔR'(t)] RAT **---(5e)**

&, $\mathbf{\Delta R'_{(t)}}$ is added into the Screen Rent Endowment Pool **---(5f)**

Case A : At t = 0, S = 0 and A = 0

For the first user (subscriber action or ally action) interaction with screen after master has created the screen, set the original rent and maximum frequency value of the screen,

$\mathbf{EP'_{(st0)} = 0}$ & $\mathbf{EP'_{(at0)} = 0}$ **---(6a)**

Hence, $\mathbf{EP_{(s)} = 0}$ & $\mathbf{EP_{(a)} = 0}$ **---(6b)**

&, $\mathbf{\Delta R'(t0) = \left[\frac{\{R\}}{\{F'(rem)\}}\right] RAT}$ **---(6c)**

Therefore $\mathbf{R'(t0) = \left[\frac{\{(F'(rem)+1)R\}}{\{F'(rem)\}}\right] RAT}$ **---(6d)**

Case B : If [S = 0 & A = m != 0]

For the ath Ally when the screen is not subscribed by any user, then

EP(sta) = 0 **---(7a)**

EPa = Σ EP'(ata) = Σ ΔR'(ata)

EP'a = $\Delta R'(at0) \ + \ \Delta R'(at1) \ + \Delta R'(at3) \ --- \ + \ \Delta R'(ata)$ **---(7b)**

Now, **ΔR'(ta) =** $\left[\left\{\frac{(a+1)R}{F'(rem)}\right\}\right]$**RAT** **---(7c)**

Therefore, **R'(ta) =** $\left[\left\{\frac{(F'(rem)+a+1)R}{F'(rem)}\right\}\right]$**RAT** **---(7d)**

Case C : If [A = 0 & S = n != 0]

For the sth subscriber when the screen is not allied by any ally, then

EP(ats) = 0 **---(8a)**

EPs = Σ EP'(sts) = Σ{1/R'(sts)}

EPs = $1/R'(st0) \ + \ 1/R'(st1) \ + 1/R'(st3) \ --- \ + \ 1/R'(sts)$ **---(8b)**

Now, **ΔR'(ts) =** $\left[\left\{\frac{(s+1)R}{F'(rem)}\right\}\right]$**RAT** **---(8c)**

Therefore, **R'(ts) =** $\left[\left\{\frac{(F'(rem)+s+1)R}{F'(rem)}\right\}\right]$**RAT** **---(8d)**

1B4. Screen Subscriber (at t_x) Incentive at any time t :

When a user subscribe the screen,

Let, the instance of time be t_x when xth subscriber is added,

Number of subscribed users be S

Number of of Allied useds be A,

Rent of the screen $R'(t_x)$

Value of screen subscriber endowment pool after xth subscriber be $EP_{(sx)}$

Value of screen rent endowment pool after xth subscriber be $EP_{(ax)}$

Therefore,

for x = (S+1)th subscriber will add $\frac{1}{\{R'(tx)\}}$ **to EP(sx)** **---(8a)**

$$\mathbf{EP'_{(stx)}} = \frac{1}{\{R'(tx)\}}\mathbf{RAT} \quad \textbf{---(8b)}$$

Now after xth subscriber,

$$\mathbf{EP_{(sx)} = EP_s + EP'_{(stx)}} \quad \textbf{---(8c)}$$

Then at time t, after nth subscriber and mth allies,

Value of screen rent endowment pool at time t be $EP_{(at)}$,

if xth subscriber unsubscribes from the screen, then

xth subscriber will get back its

$$\textbf{EP's return per subscriber} = \left[EP'(stx) + \left\{\frac{EP'(stx).EP(at)}{EP(sx)}\right\}\right]\mathbf{RAT} \quad \textbf{---(8d)}$$

1B5. Screen Rent RESET :

If any instance of time, master resets the screen rent, then each subscriber will get back

$$\left[EP'(stx) + \left\{\frac{EP'(stx).EP(at)}{EP(sx)}\right\}\right]\mathbf{RAT} \quad \textbf{---(8e)}$$

Where,

$EP'_{(stx)}$ is the amount each subscriber added to the subscriber endowment pool at the time of subscribing.

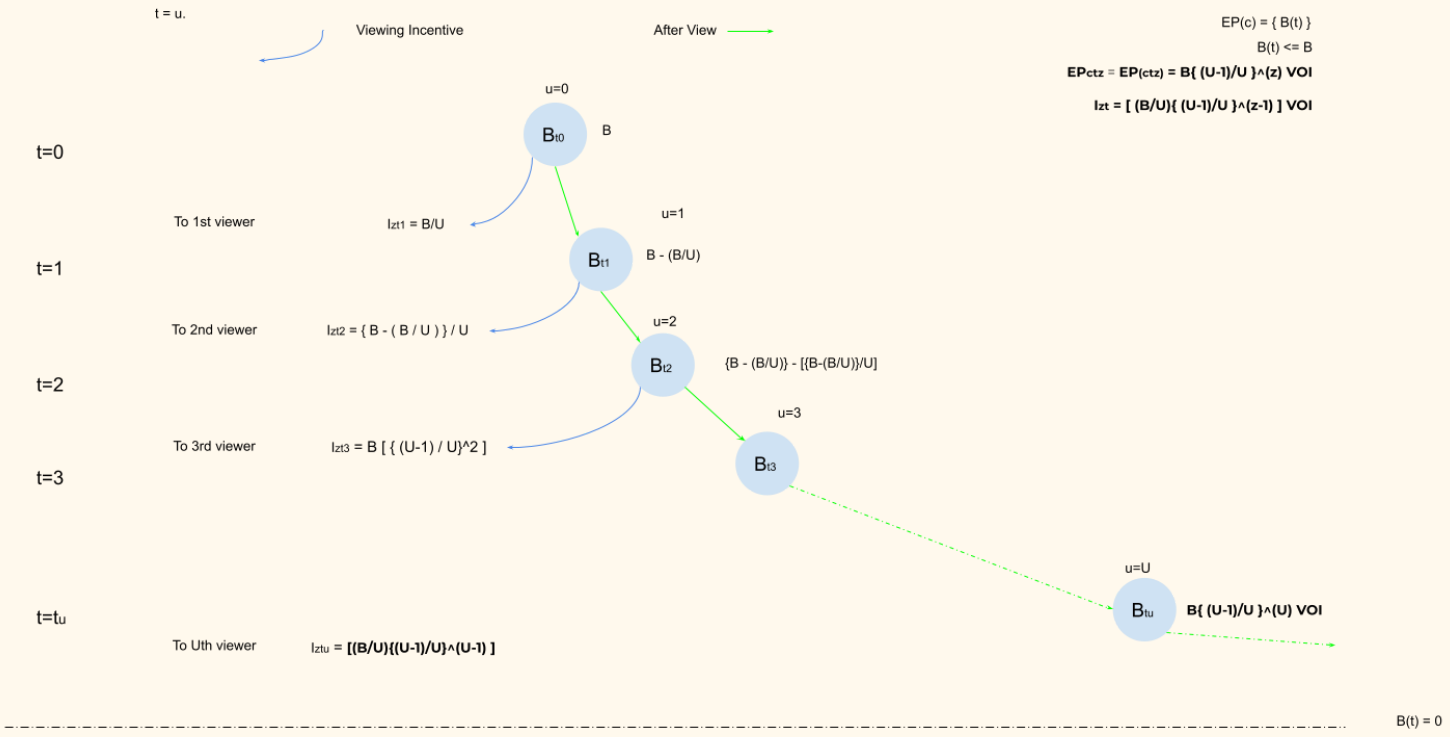
$EP_{(sx)}$ is the total value of the screen subscriber endowment pool after the xth subscriber subscribed the screen.

$EP_{(at)}$ is the total value of the screen rent endowment pool at present, i.e the time when the subscriber is unsubscribing.

1C. ADVERT BUDGET (B') :

Goal :

An ally uploads an advert(media) on the screen with a budget which should be used optimally to incentivise initial interactions.



1C1. Campaign(Advert) Budget Endowment Pool :

The budget B RAT alloted by the ally for U viewers is saved in Campaign Endowment Pool. Each campaign on each screen will have a unique Campaign Endowment Pool. After a viewer interacts with the campaign, it receives a I RAT as incentive from B RAT saved in the pool. The remaining (B-I) RAT is kept in the pool for remaining (U-1) viewers. Gradually, the amount is distributed in such a way that, the one viewer will always receives more incentive ($I_1 > I_2$) that its successor in a positive radioactive decay manner, i.e, the value of Campaign Endowment Pool never equals to zero and incentives are distributed even to viewers after the Uth viewer.

$$\mathbf{EP_c = Bt\ VOI} \qquad \textbf{---(1)}$$

At t=0, $EP_{ct0} = B_0 = B$ RAT

1C2. Campaign (Advert) Budget Incentive Distribution:

Let the ally allocated a budget of B RAT for U views.

then, $\mathbf{EP_c = Bt}$ **---(2a)**

Where, B_t is the remaining budget in the pool and

$$\mathbf{B_t <= B} \qquad \textbf{---(2b)}$$

Now, Total Expected Views = U

Total views at any time = U_t

Amount received by zth viewer after interaction with campaign = I_z

For zth viewer, campaign endowment pool value will be

$$\mathbf{EP_c} = \mathbf{EP_{(cz)}} = \left[B\left\{\frac{(U-1)}{U}\right\}^{(z-1)}\right]\mathbf{RAT} \qquad \textbf{---(3a)}$$

Then for zth viewer, incentive received will be

$$\mathbf{I_z} = \left[\frac{B}{U}\left\{\frac{(U-1)}{U}\right\}^{(z-1)}\right]\mathbf{RAT} \qquad \textbf{---(3b)}$$

Case A : If B = 0, U = 0 (vice-versa).

Only if the master or ally doesn't want to give any incentive to their audience for their attention.

Case B : If B != 0, U = 0.

NOT ALLOWED.

1D. ADVERT WORTH (C') :

Goal:

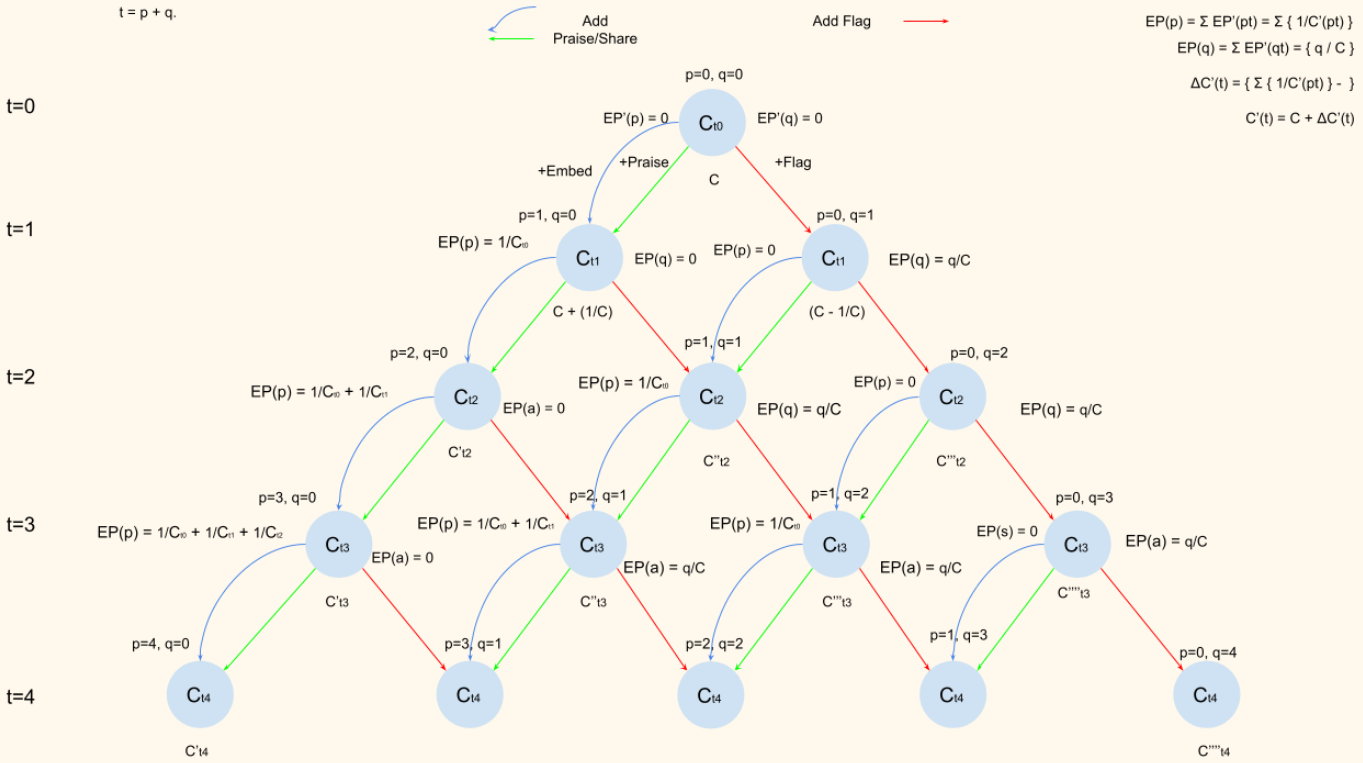
When an ally uploads an advert, it sets an initial worth of the advert which increases/decreases as per users interactions.

Let the "Worth" of an advert at the time of upload be

$$(C)\ \text{RAT} \qquad \textbf{---(1)}$$

When a unique user "Praises" the advert, (1/C') RAT is transferred into the "Advert Stake Endowment Pool" from that unique user's wallet. **---(2a)**

Similarly, when a unique user "Flags" the advert, (1/C) RAT is transferred into "Advert Swap Endowment Pool" from that unique user's wallet. **---(2b)**



1D1. Advert Stake Endowment (EPp):

When the first unique user Praises or shares/embed the advert, (1/$C'(tp)$) RAT is added to the pool. Subsequently with each unique user (1/$C'(tp)$) RAT is added in the pool.

Therefore, at any time with "P" Praises, the value of advert stake endowment pool will be

$$\mathbf{EPp = \Sigma\ EP'_{(tp)}} \qquad \textbf{---(3a)}$$

$$\mathbf{EP'_{(tp)} = \left\{\frac{1}{C'(tp)}\right\}\ RAT} \qquad \textbf{---(3b)}$$

Where $C'_{(tp)}$ is the worth of advert after P praises

1D2. Advert Swap Endowment (EPq):

When the first unique user Flags the advert, (1/C) RAT is added to the pool. Subsequently with each unique user (1/C) RAT is added in the pool.

Therefore, at any time with "Q" Flags, the value of advert swap endowment pool will be

$$\mathbf{EPq = \left(\frac{Q}{C}\right)\ RAT} \qquad \textbf{---(3c)}$$

1D3. Advert (Media) Worth (C') at any instance of time:

Hence, at any instance of time, with 'P' number of Praises and 'Q' number of Flags, the new worth of the advert will be

$$C'_{(t)} = C + \Delta C'_{(t)} \text{ RAT} \quad \text{---(4a)}$$

$$\Delta C'_{(t)} = \left\{ \frac{C\{EP(p) - EP(q)\}}{100\{EP(p) + EP(q)\}} \right\} \text{ RAT} \quad \text{---(4a)}$$

$$t = P + Q$$

Case A : let at time t, C' = 0 , i.e, worth of advert becomes Zero

$$Q = \left[C\left\{ \Sigma\left(\frac{1}{C'(tp)} \right) + C \right\} \right] \quad \text{---(4a)}$$

Case B : let at time t, C' = C , i.e, worth of advert remains same

$$Q = \left[C\left\{ \Sigma\left(\frac{1}{C'(tp)} \right) \right\} \right] \quad \text{---(4a)}$$

1D4. Advert(Media) Ownership Transfer:

When a user (seller) transfers the ownership of the advert, the other user (buyer) will have to pay the (C') amount of RAT at any instance of time.

Original/Old User(Seller) gets C' RAT from the New User(Buyer)

Then, Value of advert stake endowment pool becomes

$$EP'_p = \left\{ \Sigma\left(\frac{1}{C'(tp)} \right) + \frac{Q}{C} \right\} \text{ RAT} \quad \text{---(5a)}$$

Each user of the advert stake endowment pool gets

$$EP'_p \text{ return per user} = \left\{ \left(\frac{\frac{1}{C'(tp)}}{EPp} \right) EP'p \right\} \text{ RAT} \quad \text{---(5a)}$$

Where $C'(tp)$ is the amount Pth user invested in the pool as a Praise

And, Value of advert swap endowment pool becomes

$$EP'_q = 0 \text{RAT} \quad \text{---(5c)}$$

Hence, each user of the advert swap endowment pool gets 0 RAT.

Case A: If advert has Zero Flag, i.e. Q = 0 RAT & EPq' = 0 RAT and advert ownership is transferred, then

New worth at any time C' = $\left[3\left\{C + \Sigma\left(\frac{1}{C'(tp)}\right)\right\}\right]$ **RAT** **---(6a)**

Original/Old Owner gets

C'' = $\left[2\left\{C + \Sigma\left(\frac{1}{C'(tp)}\right)\right\}\right]$ **RAT** **---(6b)**

from the New Owner

Then, Value of advert stake endowment pool becomes

EP'p = $\left\{C + 2\Sigma\left(\frac{1}{C'(tp)}\right)\right\}$ **RAT** **---(6c)**

Case B: If advert has Zero Praise, i.e. P = 0 VOI & EPq' = 0 VOI and advert ownership is transferred, then

New worth at any time

C' = $\left\{C - \left(\frac{C}{100}\right)\right\}$ **RAT** **---(7a)**

Original/Old Owner get

C'' = $\left\{C - \left(\frac{2C}{100}\right)\right\}$ **RAT** **---(7b)**

from the New Owner

Then, Value of advert swap endowment pool becomes

EP'q = $\left\{\frac{(Q)}{(C)} + \frac{(C)}{100}\right\}$ **RAT** **---(7c)**

Each user of the advert stake endowment pool gets

EP'q return per user = $\left[\frac{\left\{\frac{(Q)}{(C)} + \frac{(C)}{100}\right\}}{Q}\right]$**RAT** **---(7c)**

And after transfer is complete, both EPp and EPq Value equals Zero RAT. **---(7e)**

New Worth of the Screen = C' RAT **---(7f)**

1D5. Worthless Advert

$$\textbf{When Q} = \left[C\left\{ \Sigma\left(\frac{1}{C'(tp)} \right) + C \right\} \right] \textbf{RAT} \qquad \textbf{---(7c)}$$

(Only Condition when it's possible at any time)

Hence, C' = 0, advert becomes virtually worthless, in that case,

Worth of advert C' = 0 RAT

Then, Value of advert stake endowment pool becomes

EP'p = 0 RAT **---(8b)**

Each user of the advert stake endowment pool gets 0 VOI

And, Value of advert swap endowment pool becomes

$$\textbf{EP'q} = \left\{ \left(\frac{Q}{C} \right) + EPp \right\} \textbf{RAT} \qquad \textbf{---(8c)}$$

Each user of the advert stake endowment pool gets 0 VOI

$$\textbf{EP'q return per user} = \left[\frac{\left\{ \left(\frac{Q}{C} \right) + EPp \right\}}{Q} \right] \textbf{RAT} \qquad \textbf{---(8d)}$$

And after, advert becomes worthless, both EPp and EPq Value equals Zero RAT **---(9a)**

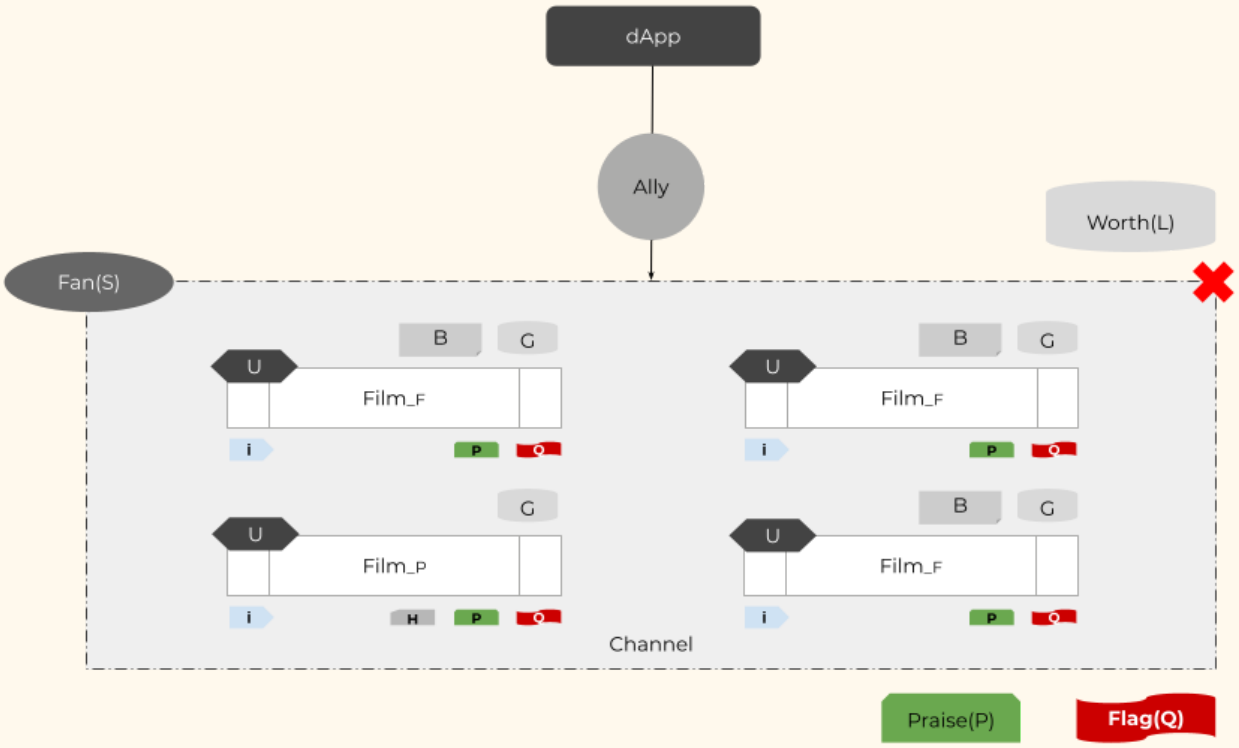
New Worth of the Advert = C' = 0 RAT **---(9b)**

Then a RED CROSS (X) will be added in the advert Profile, and ally will have to edit the advert details and access. **---(9c)**

1E. ADVERT SHARE/EMBED (i) :

If a user wants to share, use or embedded any advert content to a different platform, then that user must be a "Praising User" and will have to pay $(1/C'(t))$ RAT from it's wallet for each time which will be given directly to the owner(ally) of the advert

2. Channel Circuit



Above is a schematic representation of a channel circuit. Channels, unlike screens, don't have any initial constant properties but have some variable properties like worth, which are set at the time of creation of the channel by the ally. An ally can change the properties of its channel at any point of time, but it will reset all the variable values including, number of praises, flags and subscribers on the channel.

TERMINOLOGY:

- **Channel :** Wall for showcasing content creators' content in Blinds.
- **Ally :** Owner of the channel (content creator) in Blinds.
- **Worth :** Worth refers to the value of any channel and its film in RATs at any point of time. An ally sets an initial worth of its channel(L) at the time of channel creation which is saved as an NFT and an ally also sets the initial worth of the film(media)(G), which is also saved as NFT, at the time of upload.

- **Film :** Film refers to the media uploaded on the channel, by the ally, which is saved as an NFT.
- **Rent :** Rent (H) is the amount of RAT an audience/user needs to pay to ally in order to access any Film(media).
- **Budget :** Budget (B) is the amount of RATs assigned, by the ally, for getting a minimum number of views on any Film(media).
- **View :** When an audience/user interacts/engages with any film(media), in a manner decided by the ally, it is deemed as a view (U).
- **Fan :** Any audience/user who subscribes (S) any channel.
- **Praise :** When an audience/ user likes (P) a channel or a film/media.
- **Flag :** When an audience/user who dislikes/reports (Q) a channel or a film/media.
- **Share(i) :** If a user/audience wants to share or embed film/media to a different platform.

2A. CHANNEL WORTH (L') :

Goal:

Ally sets an initial worth of its asset(channel), which increases/decreases as per the inputs from the community. This will help in keeping positive content on the channels so that the worth of the asset increases over time and user interaction.

Let the "Worth" of a channel at the time of creation be

$$(L) \text{ RAT} \qquad \text{---(1)}$$

When a unique user "Praises" the channel, (1/L) RAT is transferred into the "Channel Stake Endowment Pool" from that unique user's wallet. **---(2a)**

Similarly, when a unique user "Flags" the channel, (1/L) RAT is transferred into "Channel Swap Endowment Pool" from that unique user's wallet. **---(2b)**

2A1. Channel Stake Endowment (CEPn):

When the first unique user Praises the channel, (1/L) RAT is added to the pool. Subsequently with each unique user (1/L) RAT is added in the pool.

Therefore, at any time with "N" Praises, the value of channel stake endowment pool will be

$$\text{CEP}_n = \frac{(N)}{(L)} \text{ RAT} \qquad \text{---(3a)}$$

2A2. Channel Swap Endowment (CEPm):

When the first unique user Flags the channel, (1/L) RAT is added to the pool. Subsequently with each unique user (1/L) RAT is added in the pool.

Therefore, at any time with “M” Flags, the value of channel swap endowment pool will be

$$\textbf{CEP}_{\textbf{m}} = \frac{(M)}{(L)}\ \textbf{RAT} \qquad \textbf{---(3b)}$$

2A3. Channel Worth (L’) at any instance of time:

Hence, at any instance of time, with ‘N’ number of Praises and ‘M’ number of Flags, the new worth of the channel will be

$$\textbf{L'} = \left\{L + \frac{(N-M)}{100L}\right\}\ \textbf{RAT} \qquad \textbf{---(4a)}$$

Case A: L’ = 0 , i.e, worth of channel becomes Zero

$$M = (100L^2 + N) \qquad \textbf{---(4b)}$$

Case B: L’ = L , i.e, worth of channel remains same

$$M = N \qquad \textbf{---(4c)}$$

2A4. Channel Ownership Transfer:

When a master transfers the ownership of the channel, the other ally will have to pay the L’ amount of RAT at any instance of time.

Original/Old Ally gets L’ RAT from the New Ally

Then, Value of channel stake endowment pool becomes

$$\textbf{CEP'}_{\textbf{n}} = \left\{\frac{(N+M)}{L}\right\}\textbf{RAT} \qquad \textbf{---(5a)}$$

Each user of the channel stake endowment pool gets

$$\textbf{CEP'}_{\textbf{n}}\ \textbf{return per user} = \left\{\frac{(M)}{(NL)} + \frac{(1)}{(L)}\right\}\textbf{RAT} \qquad \textbf{---(5b)}$$

And, Value of channel swap endowment pool becomes

$$\textbf{CEP'}_{\textbf{m}} = 0\textbf{RAT} \qquad \textbf{---(5c)}$$

Hence, each user of the channel swap endowment pool gets 0 RAT.

Case A: If channel has Zero Flag, i.e. M = 0 RAT & CEPm’ = 0 RAT and channel ownership is transferred, then

New worth at any time $\textbf{L'} = 3\left\{L + \frac{(N)}{100(L)}\right\}\textbf{RAT} = \textbf{L''} + \textbf{CEP'}_{\textbf{n}} - \textbf{L}$ **---(6a)**

Original/Old Ally gets L'' = $2\left\{L + \frac{(0.01)N}{(L)}\right\}$ **RAT from the New Ally** **---(6b)**

Then, Value of channel stake endowment pool becomes

CEP'n = $\left[\frac{\{100L^2 + N(100 + L)\}}{100L}\right]$**RAT** **---(6c)**

Each user of the channel stake endowment pool gets

CEPn' return per user = $\left[\frac{\{100L^2 + N(100 + L)\}}{100LN}\right]$**RAT** **---(6d)**

Case B: If channel has Zero Praise, i.e. N = 0 RAT & EPn' = 0 RAT and channel ownership is transferred, then

New worth at any time L' = $\left\{L - \frac{0.01(M)}{(L)}\right\}$ **RAT = L'' = L - CEP'm** **---(7a)**

Original/Old Ally gets L'' = $\left\{L - \frac{0.02(M)}{(L)}\right\}$ **RAT from the New Ally** **---(7b)**

Then, Value of channel swap endowment pool becomes

CEP'm = $\left\{\frac{(M)}{L} + \frac{0.01(M)}{(L)}\right\}$**RAT** **---(7c)**

Each user of the channel stake endowment pool gets

CEP'm return per user = $\left\{\frac{(1.01)}{(L)}\right\}$**RAT** **---(7d)**

And after transfer is complete, both CEPn and CEPm Value equals Zero RAT. **---(7e)**

New Worth of the Channel = L' RAT **---(7f)**

2A5. Worthless Channel:

$$M = (100L^2 + N)$$ **---(8a)**

(Only Condition when it's possible at any time)

Hence, L' = 0, channel becomes virtually worthless, in that case,

Worth of channel L' = 0 RAT

Then, Value of channel stake endowment pool becomes

CEPn' = 0 RAT **---(8b)**

Each user of the channel stake endowment pool gets 0 VOI

And, Value of channel swap endowment pool becomes

$$\textbf{CEP}_{m}\textbf{'} = \left\{\frac{(M+N)}{(L)}\right\}\textbf{RAT} \qquad \textbf{---(8c)}$$

Each user of the channel stake endowment pool gets 0 VOI

$$\textbf{CEPm' return per user} = \left\{\frac{(N)}{(ML)} + \frac{(1)}{(L)}\right\}\textbf{RAT} \qquad \textbf{---(8d)}$$

& after, channel becomes worthless, both CEP_n and CEP_m Value equals Zero RAT ---(9a)

New Worth of the Channel = L' = 0 RAT ---(9b)

Then a RED CROSS (X) will be added in the channel Profile, and ally will have to edit the channel details and access. ---(9c)

2B. CHANNEL FILM RENT (H'):

Goal:

Ally sets a Rent (H) at the time of uploading a media(Film) at any point of time. This value of rent is the minimum value that should be paid to access/view any media(Film) on the channel which may increase as per interaction from the users.

Rent (H) (rent/media) of a channel depends on the number of fans, number of views [U], number of Praises [P], and number of Flags [Q].

Let H be the rent of the media(film) set by ally at time of upload.

Original Rent of the Film = H RAT ---(1)

2B1. Channel Film Rent (H') at any time t :

Let t be the point of instance of any interaction after the media(film) has been uploaded and Original Rent (H) of the film has been set by the ally.

At t = t, number of views = U, number of flags = Q & number of praises = P

So, $\textbf{H'}_{(t)} = \textbf{H} + \Delta\textbf{H'}_{(t)}\ \textbf{RAT}$ **---(2a)**

&, $\Delta\textbf{H'}_{(t)} = \left\{\frac{(P+1)(Q+1)(S+1)U}{(PQS+1)(U+1)}\right\}H\ \textbf{RAT}$ **---(2b)**

When a user(audience) pay this rent media(film) access is shared with them,

&, ally gets **H''(t) RAT** into its wallet.

Where, $$\mathbf{H''_{(t)}} = \left\{H + \frac{\Delta H'(t)}{2}\right\}\mathbf{RAT} \quad \textbf{---(3a)}$$

And remaining [{ $\Delta H'_{(t)}$ } / 2] RAT is added into the Film Rent Endowment pool to incentivise the subscribers.

$$\mathbf{EP_{(f)}} = \left\{\Sigma\, EP'(f) + \Sigma\left(\frac{\Delta H'(t)}{2}\right)\right\}\mathbf{RAT} \quad \textbf{---(3b)}$$

Case A : At t = 0, U = 0, S=0, Q = 0 and P = 0

For the first user (fan action or view action) interaction with screen after ally has uploaded the film,

$$\mathbf{P = 0, Q = 0} \ \& \ \mathbf{U = 0} \quad \textbf{---(4a)}$$

Hence, $$\mathbf{\Delta H'_{(t0)} = 0} \quad \textbf{---(4b)}$$

Case B : If [P = 0 & Q = S = U != 0]

If there is no praise for the film,

$$\mathbf{\Delta H'_{(t)}} = \left\{\frac{(Q+1)(S+1)U}{(U+1)}\right\}H \quad \mathbf{RAT} \quad \textbf{---(4c)}$$

(Highly disliked film)

Case C : If [Q = 0 & P = S = U != 0]

If there is no Flag, ,

$$\mathbf{\Delta H'_{(t)}} = \left\{\frac{(P+1)(S+1)U}{(U+1)}\right\}H \quad \mathbf{RAT} \quad \textbf{---(4d)}$$

(High Premium Content)

Case D : If [S = 0 & P = Q = U != 0]

If there is no fan, ,

$$\mathbf{\Delta H'_{(t)}} = \left\{\frac{(Q+1)(P+1)U}{(U+1)}\right\}H \quad \mathbf{RAT} \quad \textbf{---(4e)}$$

(New Channel Inflation)

When a user subscribes to a channel, he becomes a Fan of the channel and (1/H') RAT is invested into the Film Rent Endowment Pool (EP_f).

$$\mathbf{EP_{(f)}} = \left\{\Sigma\, EP'(f) + \Sigma\left(\frac{\Delta H'(t)}{2}\right)\right\}\mathbf{RAT} \quad \textbf{---from (3b)}$$

$$\mathbf{EP'_{(f)} = 1/H'_{(t)}} \quad \textbf{---(5a)}$$

$$\Delta H'_{(f)} = \Delta H'_{(tf)} \quad \text{---(5b)}$$

At any time t, let the value of Film Rent Endowment Pool be **$EP_{(tf)}$**

$$EP_{(tf)} = \left\{ \Sigma\, EP'(tf) \; + \; \Sigma\left(\frac{\Delta H'(tf)}{2} \right) \right\} RAT \quad \text{---(5c)}$$

Where, $EP'_{(tf)}$ is the amount added by the last subscriber

2B2. Film Rent RESET :

If any instance of time, ally reset the film rent, then value of each parameter is reset

If FILM RESET, $U = P = Q = 0$ **---(8e)**

And the film is treated as a fresh upload.

2C. CAMPAIGN(FILM) BUDGET (B') :

Goal :

An ally uploads a film(media) on the Channel with a budget B which should be used optimally to incentivise initial interactions.

2C1. Campaign (Film) Budget Endowment Pool :

The budget B RAT alloted by the ally for U viewers is saved in Film Budget Endowment Pool. Each Film on each Channel will have a unique Film Budget Endowment Pool. After a viewer interacts with the budgeted film, it receives a I RAT as incentive from B RAT saved in the pool. The remaining (B-I) RAT is kept in the pool for remaining (U-1) viewers. Gradually, the amount is distributed in such a way that, the one viewer will always receives more incentive ($I_1 > I_2$) that its successor in a positive radioactive decay manner, i.e, the value of Film Budget Endowment Pool never equals to zero and incentives are distributed even to viewers after the Uth viewer.

$$CEP_c = B_t \; RAT \quad \text{---(1)}$$

At t=0, $EP_{ft0} = B_0 = B$ RAT

2C2. Film (Advert) Budget Incentive Distribution:

Let the ally allocated a budget of B RAT for U views.

then, $CEP_c = B_t$ **---(2a)**

Where, B_t is the remaining budget in the pool and

$$B_t <= B \quad \text{---(2b)}$$

Now, Total Expected Views = U

Total views at any time = U_t

Amount received by zth viewer after interaction with film = I_z

For zth viewer, budget endowment pool value will be

$$\textbf{CEP}_c = \textbf{CEP}_{(cz)} = \left[B\left\{\frac{(U-1)}{U}\right\}^{(z-1)}\right]\textbf{RAT} \quad \textbf{---(3a)}$$

Then for zth viewer, incentive received will be

$$\textbf{I}_z = \left[\frac{B}{U}\left\{\frac{(U-1)}{U}\right\}^{(z-1)}\right]\textbf{RAT} \quad \textbf{---(3b)}$$

& , Campaign Endowment Pool Value after zth view

2D. FILM WORTH (G') :

Goal:

When an ally uploads a film, it sets an initial worth of the film which increases/decreases as per users interactions.

Let the "Worth" of a film at the time of upload be

(G) RAT **---(1)**

When a unique user "Praises" the advert, (1/G') RAT is transferred into the "Film Stake Endowment Pool" from that unique user's wallet. **---(2a)**

Similarly, when a unique user "Flags" the advert, (1/G) RAT is transferred into "Film Swap Endowment Pool" from that unique user's wallet. **---(2b)**

2D1. Film Stake Endowment (CEP_p):

When the first unique user Praises or shares/embed the film, $(1/G'(tp))$ RAT is added to the pool. Subsequently with each unique user $(1/G'(tp))$ RAT is added in the pool.

Therefore, at any time with "P" Praises, the value of film stake endowment pool will be

$$\textbf{CEPp} = \Sigma\ \textbf{CEP'}_{(tp)} \quad \textbf{---(3a)}$$

$$\textbf{CEP'}_{(tp)} = \left\{\frac{(1)}{G'(tp)}\right\}\textbf{RAT} \quad \textbf{---(3b)}$$

Where $G'_{(tp)}$ is the worth of film after P praises

2D2. Film Swap Endowment (CEP_q):

When the first unique user Flags the film, (1/G) RAT is added to the pool. Subsequently with each unique user (1/G) RAT is added in the pool.

Therefore, at any time with "Q" Flags, the value of film swap endowment pool will be

$$\textbf{CEPq=}\ (Q/G)\ \textbf{RAT} \qquad \textbf{---(3c)}$$

2D3. Film(Media) Worth (G') at any instance of time:

Hence, at any instance of time, with 'P' number of Praises and 'Q' number of Flags, the new worth of the film will be

$$\textbf{G'(t)} = \textbf{C} + \Delta\textbf{G'(t)}\ \textbf{RAT} \qquad \textbf{---(4a)}$$

$$\Delta\textbf{G'(t)} = \left\{\frac{CEP(p) - CEP(q)}{100\{CEP(p) + CEP(q)\}}\right\} G\ \textbf{RAT} \qquad \textbf{---(4a)}$$

$$\textbf{t = P + Q}$$

Case A : let at time t, G' = 0 , i.e, worth of film becomes Zero

$$\textbf{Q} = \left[G\left\{\Sigma\left(\frac{(1)}{G'(tp)}\right) + G\right\}\right] \qquad \textbf{---(4b)}$$

Case B : let at time t, G' = G , i.e, worth of screen remains same

$$\textbf{Q} = \left[G\left\{\Sigma\left(\frac{(1)}{G'(tp)}\right)\right\}\right] \qquad \textbf{---(4c)}$$

2D4. Film(Media) Ownership Transfer:

When a user (seller) transfers the ownership of the advert, the other user (buyer) will have to pay the (G') amount of RAT at any instance of time.

Original/Old User(Seller) gets G' RAT from the New User(Buyer)

Then, Value of film stake endowment pool becomes

$$\textbf{CEP'p} = \left\{\Sigma\left(\frac{(1)}{G'(tp)}\right) + \frac{(Q)}{(G)}\right\}\textbf{RAT} \qquad \textbf{---(5a)}$$

Each user of the film stake endowment pool gets

$$\textbf{CEP'p return per user} = \left\{CEP'p\left(\frac{\frac{(1)}{G'(tp)}}{CEPp}\right)\right\}\textbf{RAT} \qquad \textbf{---(5b)}$$

Where $G'(tp)$ is the amount Pth user invested in the pool as a Praise

And, Value of film swap endowment pool becomes

CEP'q = 0**RAT** **---(5c)**

Hence, each user of the film swap endowment pool gets 0 VOI.

Case A: If film has Zero Flag, i.e. Q = 0 VOI & CEP'q = 0 VOI and film ownership is transferred, then

New worth at any time G' = $3\left\{\Sigma\left(\frac{(1)}{G'(tp)}\right) + G\right\}$ **RAT = G'' + CEP'p - G** **---(6a)**

Original/Old Owner gets

G'' = $2\left\{\Sigma\left(\frac{(1)}{G'(tp)}\right) + G\right\}$**RAT** **---(6b)**

Then, Value of film stake endowment pool becomes

CEP'p = $\left\{2\Sigma\left(\frac{(1)}{G'(tp)}\right) + G\right\}$**RAT** **---(6c)**

Each user of the film stake endowment pool gets

CEP'p return per user = $\left\{CEP'p\left(\frac{\frac{(1)}{G'(tp)}}{CEPp}\right)\right\}$**RAT** **---(6d)**

Case B: If film has Zero Praise, i.e. P = 0 RAT & CEP'p = 0 RAT and film ownership is transferred, then

New worth at any time G' = $\left\{G - \left(\frac{(G)}{100}\right)\right\}$ **RAT** **---(7a)**

Original/Old Owner gets

G'' = $\left\{G - \left(\frac{(2G)}{100}\right)\right\}$ **RAT** from the New Owner **---(7b)**

Then, Value of film swap endowment pool becomes

CEP'q = $\left\{\frac{(Q)}{(G)} + \left(\frac{(G)}{100}\right)\right\}$**RAT** **---(7c)**

Each user of the film stake endowment pool gets

CEP'q return per user = $\left[\frac{\left\{\frac{(Q)}{(G)} + \left(\frac{(G)}{100}\right)\right\}}{(Q)}\right]$**RAT** **---(7d)**

And after transfer is complete, both CEPp and CEPq Value equals Zero RAT. **---(7e)**

New Worth of the Film = G' RAT **---(7f)**

2D5. Worthless Film

When

$$\mathbf{Q} = \left[G\left\{ \Sigma\left(\frac{(1)}{G'(tp)} \right) + G \right\} \right] \quad \textbf{---(8a)}$$

(Only Condition when it's possible at any time)

Hence, G' = 0, advert becomes virtually worthless, in that case,

Worth of advert G' = 0 RAT

Then, Value of advert stake endowment pool becomes

$$\mathbf{CEP'_p = 0\ RAT} \quad \textbf{---(8b)}$$

Each user of the advert stake endowment pool gets 0 RAT

And, Value of advert swap endowment pool becomes

$$\mathbf{CEP'_q} = \left\{ \left(\frac{(Q)}{(G)} \right) + CEPp \right\} \mathbf{RAT} \quad \textbf{---(8c)}$$

Each user of the film stake endowment pool gets 0 RAT

$$\mathbf{CEP'q\ return\ per\ user} = \left[\frac{\left\{ \left(\frac{(Q)}{(G)} \right) + CEPp \right\}}{(Q)} \right] \mathbf{RAT} \quad \textbf{---(8d)}$$

And after, film becomes worthless, both CEPp and CEPq Value equals Zero RAT **---(9a)**

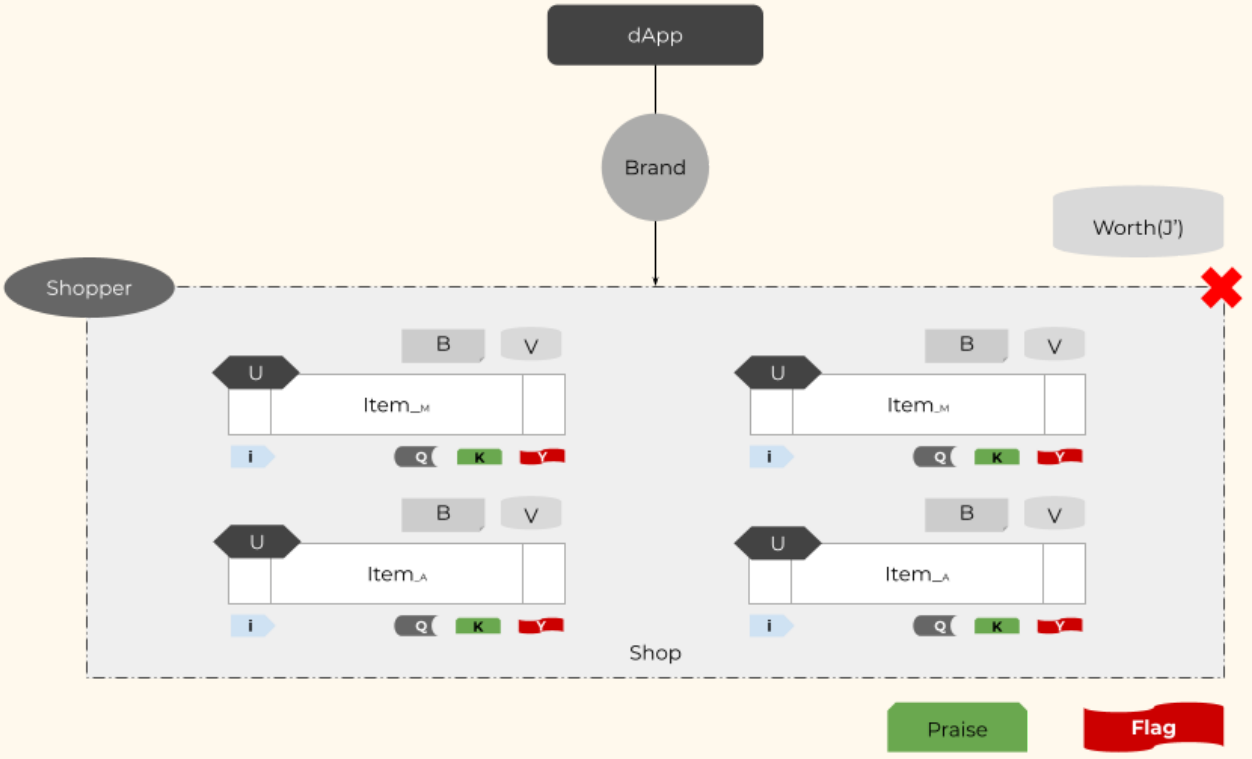
New Worth of the Film = G' = 0 RAT **---(9b)**

Then a RED CROSS (X) will be added in the advert Profile, and ally will have to edit the advert details and access. **---(9c)**

2E. FILM SHARE/EMBED (i) :

If a user wants to share, use or embedded any advert content to a different platform, then that user must be a "Praising User" and will have to pay $(1/G'(t))$ RAT from it's wallet for each time which will be given directly to the owner(ally) of the advert

3. Shop Circuit



Above is a schematic representation of a channel circuit. Channels, unlike screens, don't have any initial constant properties but have some variable properties like worth, which are set at the time of creation of the channel by the ally. An ally can change the properties of its channel at any point of time, but it will reset all the variable values including, number of praises, flags and subscribers on the channel.

TERMINOLOGY:

- **Shop :** Virtual shop/company profile for showcasing items in Blinds.
- **Brand :** Owner of the shop in Blinds.
- **Worth :** Worth refers to the value of any shop and its items in RATs at any point of time. A brand sets an initial worth of its shop(J) at the time of shop creation which is saved as an NFT and a brand also sets the value/cost of the item(V), and its quantity(Q) available which is also saved as NFT, at the time of upload.
- **Item :** Item refers to the brand's offering uploaded as a media on the shop, by the brand, which is saved as an NFT.
- **Quantity/Stock :** Quantity (Q) determines the status of availability of the item in the shop.
- **Budget :** Budget (B) is the amount of RATs assigned, by the brand, for getting a minimum number of reviews(U) on any item.

- **Review :** When an audience/user interacts/engages with any item(media), in a manner decided by the brand, it is deemed as a review (U).
- **Consumer :** Any audience/user who subscribes (S) any channel.
- **Praise :** When an audience/ user likes (P) a shop or an item.
- **Flag :** When an audience/user who dislikes/reports (Q) a shop or an item.
- **Share(i) :** If a user/audience wants to share or embed any item to a different platform.

3A. SHOP WORTH (J') :

Goal:

Brand sets an initial worth of its asset(shop), which increases/decreases as per the inputs from the community. This will help in keeping consumer driven items in the shops which will help in making brand loyal consumers and brands to target more targeted consumers.

Let the "Worth" of a Shop at the time of creation be

$$(J) \text{ RAT} \qquad \text{---(1)}$$

When a unique user "Praises" the Shop, (1/J) RAT is transferred into the "Shop Stake Endowment Pool" from that unique user's wallet. **---(2a)**

Similarly, when a unique user "Flags" the Shop, (1/J) RAT is transferred into "Shop Swap Endowment Pool" from that unique user's wallet. **---(2b)**

3A1. Shop Stake Endowment (SEP_n):

When the first unique user Praises the shop, (1/J) RAT is added to the pool. Subsequently with each unique user (1/J) RAT is added in the pool.

Therefore, at any time with "N" Praises, the value of shop stake endowment pool will be

$$SEP_n = \frac{(N)}{(J)} \text{ RAT} \qquad \text{---(3a)}$$

3A2. Shop Swap Endowment (SEP_m):

When the first unique user Flags the shop, (1/J) RAT is added to the pool. Subsequently with each unique user (1/J) RAT is added in the pool.

Therefore, at any time with "M" Flags, the value of shop swap endowment pool will be

$$SEP_m = \frac{(M)}{(J)} \text{ RAT} \qquad \text{---(3b)}$$

3A3. Shop Worth (J') at any instance of time:

Hence, at any instance of time, with 'N' number of Praises and 'M' number of Flags, the new worth of the shop will be

$$\textbf{J'=} \left\{ J + \frac{(N-M)}{100J} \right\} \textbf{RAT} \qquad \textbf{---(4a)}$$

Case A: J = 0 , i.e, worth of Shop becomes Zero

$$M = (100J^2 + N) \qquad \textbf{---(4b)}$$

Case B: J' = J , i.e, worth of Shop remains same

$$M = N \qquad \textbf{---(4c)}$$

3A4. Shop Ownership Transfer:

When a brand transfers the ownership of the shop, the other brand will have to pay J' amount of VOI at any instance of time.

Original/Old Brand gets J' RAT from the New Brand

Then, Value of shop stake endowment pool becomes

$$\textbf{SEP'}_\textbf{n} \textbf{ =} \left\{ \frac{(N+M)}{J} \right\} \textbf{RAT} \qquad \textbf{---(5a)}$$

Each user of the shop stake endowment pool gets

$$\textbf{SEP'}_\textbf{n} \textbf{ return per user =} \left\{ \frac{(M)}{JN} + \frac{(1)}{(J)} \right\} \textbf{RAT} \qquad \textbf{---(5b)}$$

And, Value of shop swap endowment pool becomes

$$\textbf{SEP'}_\textbf{m} \textbf{ =} 0\textbf{RAT} \qquad \textbf{---(5c)}$$

Hence, each user of the shop swap endowment pool gets 0 RAT.

Case A: If shop has Zero Flag, i.e. M = 0 RAT & CEPm' = 0 RAT and shop ownership is transferred, then

New worth at any time $\textbf{J' =} 3\left\{ J + \frac{(N)}{100(J)} \right\} \textbf{RAT = J'' + SEP'}_\textbf{n} \textbf{ - J} \qquad \textbf{---(6a)}$

Original/Old Brand gets

$$\textbf{J'' =} 2\left\{ J + \frac{(N)}{100(J)} \right\} \textbf{RAT} \qquad \textbf{---(6b)}$$

Then, Value of shop stake endowment pool becomes

$$\textbf{SEP'}_\textbf{n} \textbf{ =} \left[\frac{\{100J^2 + N(100+J)\}}{100J} \right] \textbf{RAT} \qquad \textbf{---(6c)}$$

Each user of the shop stake endowment pool gets

SEPn' return per user = $\left[\frac{\{100L^2 + N(100 + L)\}}{100LN}\right]$**RAT** **---(6d)**

Case B: If shop has Zero Praise, i.e. N = 0 RAT & SEPn' = 0 RAT and shop ownership is transferred, then

New worth at any time **J' =** $\left\{J - \frac{0.01(M)}{(J)}\right\}$ **RAT = J'' = J-SEP'm** **---(7a)**

Original/Old Brand gets

J'' = $\left\{J - \frac{0.02(M)}{(J)}\right\}$ **RAT** from the New Brand **---(7b)**

Then, Value of shop swap endowment pool becomes

SEP'm = $\left\{\frac{(M)}{(J)} + \frac{0.01(M)}{(J)}\right\}$**RAT** **---(7c)**

Each user of the shop stake endowment pool gets

SEP'm return per user = $\left\{\frac{(1.01)}{(J)}\right\}$**RAT** **---(7d)**

And after transfer is complete, both SEPn and SEPm Value equals Zero RAT. **---(7e)**

New Worth of the Shop = J' RAT **---(7f)**

3A5. Worthless Shop:

When $M = (100J^2 + N)$ **---(8a)**

(Only Condition when it's possible at any time)

Hence, J' = 0, shop becomes virtually worthless, in that case,

Worth of shop J' = 0 RAT

Then, Value of shop stake endowment pool becomes

SEP'n = 0 RAT **---(8b)**

Each user of the shop stake endowment pool gets 0 RAT

And, Value of shop swap endowment pool becomes

$$\textbf{SEP'}_m = \left\{\frac{(N+M)}{(J)}\right\}\textbf{RAT} \qquad \textbf{---(8c)}$$

Each user of the shop stake endowment pool gets 0 RAT

$$\textbf{SEP'}_m \textbf{ return per user} = \left\{\frac{(N)}{(MJ)} + \frac{(1)}{(J)}\right\}\textbf{RAT} \qquad \textbf{---(8d)}$$

And after, shop becomes worthless, both SEP_n and SEP_m Value equals Zero RAT ---(9a)

New Worth of the Shop = J' = 0 RAT ---(9b)

Then a RED CROSS (X) will be added in the shop Profile, and the brand will have to edit the shop details and access. ---(9c)

3B. ITEM WORTH (O) :

When a brand uploads an item(offerings in the form of media), it sets a value 'O' RAT for it. Any consumer/user looking to avail the item(offerings) needs to pay 'O' RAT to the brand. This is valid for walk-in coupons/offers/discounts/combos/gift-pack which can be owned by the user and then availed physically at the shop.

3C. CAMPAIGN (ITEM) BUDGET (B') :

Goal :

A brand uploads an item(media) on the shop with a budget which should be used optimally to incentivise initial interactions

3C1. Item(Media) Budget Endowment Pool :

The budget B VOI alloted by the brand for U reviewers is saved in Item Endowment Pool. Each Item in each shop will have a unique Item Endowment Pool. After a reviewer interacts with the item, it receives a I VOI as incentive from B VOI saved in the pool. The remaining (B-I) VOI is kept in the pool for remaining (U-1) reviewers. Gradually, the amount is distributed in such a way that, the one reviewer will always receives more incentive ($I_1 > I_2$) that its successor in a positive radioactive decay manner, i.e, the value of Item Endowment Pool never equals to zero and incentives are distributed even to reviewers after the Uth viewer.

$$\textbf{SEP}_c = \textbf{B}_t \textbf{ VOI} \qquad \textbf{---(1)}$$

At t=0, $SEP_{ct0} = B_0 = B$ VOI

3C2. Item(Media) Budget Incentive Distribution:

Let the brand allocate a budget of B VOI for U reviews.

then, $\textbf{SEP}_c = \textbf{B}_t$ **---(2a)**

Where, B_t is the remaining budget in the pool and

$$\mathbf{B_t <= B} \qquad \textbf{---(2b)}$$

Now, Total Expected Reiews = U

Total reviews at any time = U_t

Amount received by zth reviewer after interaction with item = I_z

For zth reviewer, item endowment pool value will be

$$\mathbf{SEP_c = SEP_{(cz)} =} B\{ (U - 1)/U \}^{(z-1)}\mathbf{VOI} \qquad \textbf{---(3a)}$$

Then for zth reviewer, incentive received will be

$$\mathbf{I_z =} [(B/U)\{ (U - 1)/U \}^{(z-1)}]\mathbf{VOI} \qquad \textbf{---(3b)}$$

& , Item Endowment Pool Value after zth view

$$\mathbf{SEP_c = SEP_{(cz+1)} =} B\{ (U - 1)/U \}^{(z)}\mathbf{VOI} \qquad \textbf{---(3c)}$$

3D. ITEM SHARE/EMBED (i) :

If a user wants to share, use or embed any Item (Media) content to a different platform, then that user must be a “Reviewed User” and will get the dividend from the Item Budget Pool. Once reviewed, user can share the content any number of times.

Conclusion

At Vinciis, we are on a mission to create an Ecosystem for Advertising, that consists of technologies that can pay for themselves, thus creating a more democratic, audience oriented advertising ecosystem. Blinds is the first of our efforts in this direction. With Blinds, we can now create real values from advertising for all the parties involved in any advertising circuit. Blinds is not only solving the long lost integration and data management among outdoor advertising assets and the internet, but is also providing liberty to all the players of the advertising industry to carry out their roles transparently. In addition, for the first time, audiences' attention is going to bring incentive for them, which will help in the developing a better lifestyle through our ecosystem. Below we have discussed a little details about the benefits that Blinds has to offer to its user base.

IN-dAPP USER BASE	REAL WORLD USER BASE	ROLE	BENEFITS
Master	Advertising agencies, Media Buying Agencies, Advertising Assets Owners, Anyone interested in owning an advertising asset as an additional source of income.	Provide Advertising Space, Manage and Monitor Advertising Content on the Advertising Assets, Manage Advertising Data and Provide Stats	**Real-Time Content Management & Monitoring, In-app Revenue Management, 3rd Party Access, Self Content Moderation Policy, Complete Autonomy**
Ally	Content tCreators, Freelance Artist, Social Media Influencers, Celebrities, Amateur Advertiser, Digital Marketing & Advertising Companies	Provide Content for a Campaign, Execution of a Campaign, After Campaign Analysis, Audience Interaction/Engagement	**Real-Time Content Management & Monitoring, Channel For Showing Work To Attract More Clients, Get Incentive For Each Content's use, Direct Interaction With The Audiences**
Brand	Any MSMEs or MNCs or any scale company offering any Product/Service in the real world.	Offers Products/Services For Its Consumers, Get Reviews About Their Offerings From Their Consumers	**Advertise To Stray Audiences (Consumers) & Directly Engage/Interact With Them, Promote Its Consumers To**

			Enhance Their Lifestyle, Using Our Ecosystem, Without Straining Their Bank Balance
Audience	Any People In The Real World With A Working Internet, Having An Idea About Blinds & A Consumer's Intent.	Consumption Of Any Product/Service	**Information About Any Product/Service Specifically In Hyper-Local Form, LifeStyle Enhancement Through Promotion Of Consumption Using Our Ecosystem, Without Straining Their Bank Balance.**
Commissioner	Advertising Policy Regulatory Bodies	Implementation Of Advertising Policies, Advertising Tax Collection	**Real-Time Analysis Of Advertising Related Revenue, Content Moderation Policy For Better Implementation of Advertising Regulation**

As evident, Blinds is designed to be a multi-sided platform, serving multiple user bases for multiple functionalities, through the same actions, without any significant change in their habits. Web 2.0 users today are addicted to scrolling content and are consuming content at an unprecedented rate. In Web 3.0, through Blinds, this addiction can be used in a positive way to create value for the user itself.

References