



PROPS

PROPS:

A Decentralized Ecosystem of Video Applications

VERSION 1.1

November 2017

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ABSTRACT

In this whitepaper we present a decentralized model for a digital media network that uses blockchain technology to equitably reward its contributors: users, content creators, developers and others. We are introducing **PROPS**, a cryptocurrency that powers social participation in digital media and **Rize**, a new platform for interactive video that will be the PROPS token's first large-scale adopter and champion. Rize is an open video platform that connects groundbreaking many-to-many video technology with tokenized virtual gameplay and aligned economic incentives for its participants.

Launching in tandem with PROPS, and seeded with YouNow's community of millions, Rize will popularize the cryptocurrency. Rize will serve as the initial member of the **PROPS Ecosystem**, a group of applications and platforms powered by PROPS that fairly and transparently reward participants in proportion to their contributions to the network. Half of the PROPS supply will be governed by a non-profit foundation that will distribute them across the ecosystem, incentivizing third party application developers, content contributors and users to join the PROPS Ecosystem in order to build a user-focused alternative for today's highly centralized digital media landscape.

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DISCLAIMER

This whitepaper has been prepared solely for the purpose of informing potential contributors to the PROPS Ecosystem with respect to a proposed technical implementation of, and architecture for, the PROPS Ecosystem. This whitepaper is non-binding in all respects and does not create any legal obligation of any kind on any person (including YouNow). The ultimate implementation of the PROPS Ecosystem is dependent upon several factors and risks outside of the control of YouNow, including regulatory risks, contributor participation, the adoption of blockchain technology and the continued use and adoption of the Ethereum network. Nothing in this whitepaper or otherwise shall require YouNow to take any steps to develop or otherwise implement the PROPS Ecosystem. YouNow reserves the right to abandon the PROPS Ecosystem and/or to change the implementation of the PROPS Ecosystem contemplated by this whitepaper at any time and for any reason. Prospective users of the PROPS Ecosystem and other contributors to the PROPS Ecosystem are advised to contribute and/or participate at their own risk and without reliance on any statement contained in this whitepaper.

INTRODUCTION AND VISION

The expansive adoption of powerful smartphones and high-bandwidth Internet is driving continued and rapid growth of mobile video consumption.¹ Short form video, premium content, group video calls, video messaging and live streaming are all becoming regular and commoditized aspects of daily life. Billions rely on mobile video as a communication utility and tool for social networking and entertainment. Professional video content contributors are increasingly using mobile as a primary device for content distribution, while more people are participating in video activities every day.² Both phenomena result in content experiences that are pulling the public away from television³ and toward the consumption of video on their devices.

While more people create and consume content, today's digital media landscape is highly centralized. A small number of large companies effectively control digital media distribution and access. These companies have accumulated hundreds of billions of dollars in enterprise value, yet only a very small fraction of that flows back to the people that create value for these networks, namely the content creators, curators, publishers and developers building on top of them. The large companies monetize the attention and information of their users, while the vast majority of these users do not benefit from the financial gains of the network they constitute.

While some platforms reward large content contributors for their work, contributors enjoy only a fraction of the financial value they collectively create. The large companies end up controlling content distribution and contributor income and often end up cannibalizing their earnings with their own content and product offerings.⁴ Meanwhile, developers wishing to create new experiences and digital media distribution channels face an uphill battle against overwhelming network effects, economies of scale and restricted growth channels of large incumbents.⁵

Decentralized networks and cryptoeconomic business models offer opportunities to build new networks that align the incentives of participants, enabling fair value sharing and empowering community ownership and governance of platforms. The next crop of successful digital networks is likely to come from networks enabled through decentralized, economically progressive and open source methods.

The financial value created by the internet was largely captured at the application layer, whereas a prevailing thesis today asserts that the majority of the value in blockchain is captured at the protocol layer⁶ through cryptocurrencies. At the same time, tokens can also enable network contributors

¹ [Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016–2021 White Paper](#)

² [More Than Half of All Video Viewing Now on Mobile, Tablet Viewing Flat \(Report\)](#)

³ [The Cable Industry Faces The Perfect Storm: Apps, App Stores and Apple](#)

⁴ [Twitter cripples Meerkat by cutting off access to its social graph](#)

⁵ [The New Copycats: How Facebook Squashes Competition From Startups](#)

⁶ [Fat Protocols](#)

such as Uber drivers, Snapchat video creators, Instagram content curators (who are neither technologists building applications and protocols nor investors contributing capital) to programmatically receive an equitable, proportionate share of the value created by the network they comprise. Harnessing this potential is a key motivation behind PROPS, a digital media ecosystem that is better aligned with the interests of all contributors, including consumers, content creators and developers.

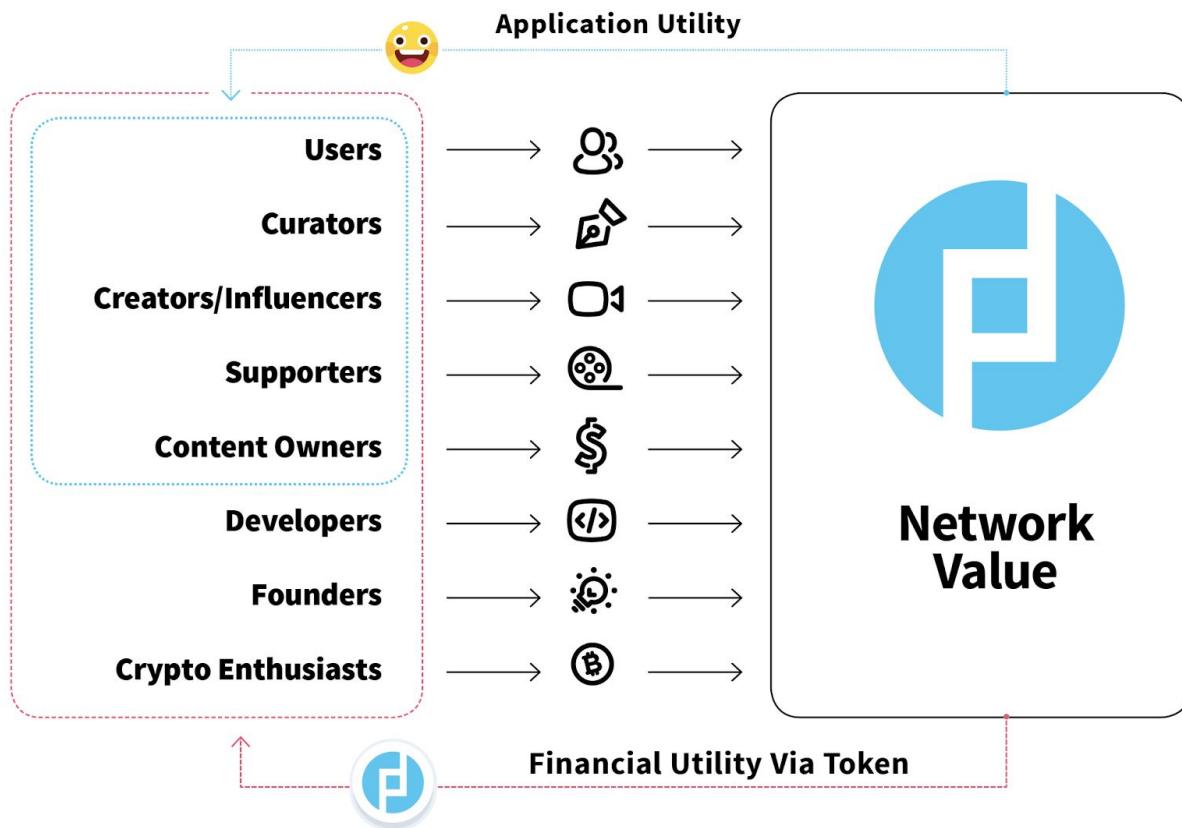


Figure 1.

Cryptocurrency serves as a vehicle to efficiently and equitably allocate financial utility created on digital media networks, to all network's participants.

Cryptoeconomic business models offer financial utility and network ownership for all network participants and create strong incentives for early adopters to participate even before a critical mass of users is achieved. This is a new, promising path to overcoming the “chicken and egg” problem where, in the old model, networks tend to provide value to participants only upon reaching a critical

mass of users. This is important in today's landscape, where a few monopolistic media networks exercise powerful network effects that serve as a barrier to healthy competition.

In order to compete, decentralized networks must still develop cohesive user experiences, viable economics and platform ubiquity that consumers have come to expect. If these challenges can be met, an opportunity will emerge to reshape the digital media landscape.

The YouNow team is uniquely positioned to take on this challenge. Since 2011, YouNow has been a pioneer in the live streaming video space and was the first company to popularize live mobile video in the U.S. In stark contrast to the monetization strategies of most social media companies, YouNow successfully invented a microtransaction-driven, two-sided economy within the context of video entertainment that allows YouNow to reward content creators.⁷ Over the last three years, YouNow has generated over \$50 million in virtual goods sales and shared the majority of its earnings with its content contributors.

In launching the PROPS Ecosystem, the YouNow team continues to pioneer video networks via an open video platform and an ecosystem with a decentralized economy. The PROPS Ecosystem will benefit from YouNow's millions-strong user base and creator community, a new many-to-many video technology and a 40 person team with notable video and virtual economy expertise. YouNow Inc. plans to transition from its current state as a C Corp to become a B Corp, with a PROPS centric mission: creating a more open and sustainable media ecosystem. Through the adoption of PROPS, all network participants, users, content creators, developers and others will be aligned around the long-term growth of the network. This combination of a community of users engaged in earning and spending PROPS through participation and consumption, with a large reward pool for third-party developers who enhance it with new use cases, provides a strong foundation for the development of the PROPS Ecosystem.

⁷ [Top YouNow Standout Brent Morgan Makes \\$10,000 Per Month](#)

GLOSSARY

PROPS Ecosystem

A decentralized ecosystem of digital media applications and platforms.

PROPS

An ERC-20 token used by PROPS apps to reward creators and other digital media contributors.

Digital Media Foundation

A non-profit organization that oversees the governance of PROPS and the allocation of the majority of tokens to support the ecosystem.

Rize

A many-to-many interactive video platform that is the first PROPS app. Rize is open for 3rd party development, and is therefore sometimes referred to as a platform.

YouNow

A pioneering live streaming company that is developing the initial PROPS infrastructure and the Rize platform.

Coins

The in-app currency (not a cryptocurrency) used by Rize for high volume micro-transactions, to drive demand for PROPS.

Rewards System

A system within a PROPS app that rewards creators and other contributors, based on their contribution to the network.

Partners

Apps or platforms that are part of the PROPS Ecosystem (e.g. Rize).

Partner Rewards

PROPS that the Digital Media Foundation distributes to PROPS apps and platforms to help boost their Rewards System, and increase the early financial utility to PROPS Ecosystem contributors.

PRACTICAL STRATEGY FOR DECENTRALIZING DIGITAL MEDIA

Mainstream digital media users are accustomed to using apps that are free, fast, available on their smartphones and have easy access to in-app purchases. Today, this requires a certain degree of central coordination. Decentralization of the digital media ecosystem components, particularly on mobile, is a long-term effort requiring interoperability amongst decentralized networks that will not be at scale for some years. Additionally, decentralized computing networks are not yet capable of handling the demands of video streaming, high volume microtransactions and low latency messaging at scale. Digital media today cannot be achieved through purely decentralized solutions and we propose a practical implementation path of decentralization over time.

Our motivation is to create a more balanced and equitable digital media ecosystem that is not controlled by a few key actors. We will achieve this through tokenization and decentralization of the digital media economy while exploiting the distribution efficiencies of tightly managed mobile apps that enable participation by mainstream users.

YouNow has designed Rize from the ground up over the past twelve months to realize this vision. Participants will join the PROPS Ecosystem either through Rize, or through other platforms and applications in the ecosystem. For their efforts, contributors will receive a proportional share in the network value and impact the governance of the ecosystem. A diversified network of economic actors will naturally contribute to the decentralization of the PROPS economy, while continuing to enjoy the advantages of prevailing mass market mobile distribution channels.

Establishing value for the PROPS Ecosystem involves a three part plan: grow a network of PROPS users in digital media, create a Partner Rewards program and demonstrate the opportunity for ecosystem participants. The Rize platform will furnish the initial user network, demonstrate the value of a contributor driven cryptoeconomic business model and act as a cornerstone for adoption by additional ecosystem partners. Platforms and apps in the PROPS Ecosystem (Partners), including Rize, will build the network of PROPS users and grow the use cases for PROPS and its value. In exchange, the Digital Media Foundation will seed Partners with an initial token supply to align incentives and allow them to earn from the Digital Media Foundation's Partner Rewards pool.

The Digital Media Foundation will also oversee the development of a shared layer that allows users to take their identity, relationships and wallet with them between platforms and apps, contributing to seamless interoperability within the ecosystem. New platforms and apps that enter the ecosystem will be able to quickly onboard users who already have accounts, and as they acquire new users, the network will continue to grow. Over time, the identity layer will transition into a blockchain-based social graph culminating in an ecosystem that supports both centralized and decentralized applications that strengthen the network.

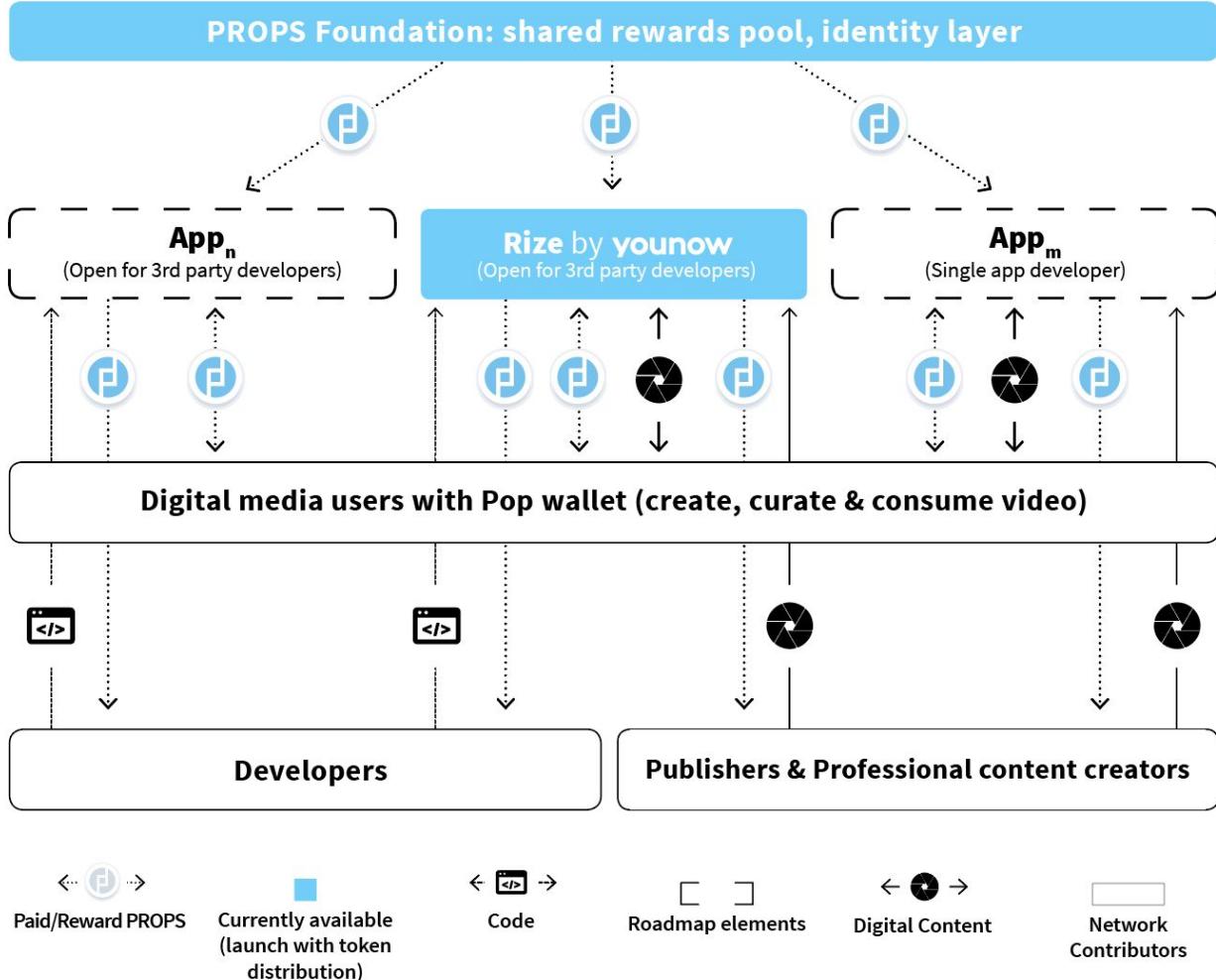


Figure 2.
Overview of the PROPS Ecosystem

TIMELINE

In Progress (To be announced following the Token Generation Event)	Complete (Public launch upon token distribution)	Q4 2017	Q1 2018	2018	2018
Create PROPS Foundation	Launch PROPS-powered Rize mobile app		YouNow becomes a B Corp.	Expand use cases	Add additional Partners to ecosystem
Non-profit foundation with the mission of growing the PROPS ecosystem. The foundation, as one of its key functions, administers the Partner Rewards program.	Demonstrates key use cases for many-to-many video and PROPS token; Rewards System distribution active. Establishes economy and community of PROPS users.	YouNow Inc. will transition from its current state as a C Corp to become a B Corp, Benefit Corporation, with a mission of increasing the value of the PROPS Ecosystem.	Facilitate additional use cases to demonstrate flexibility and usability of many-to-many video and PROPS in various contexts.	Foundation will support Partners that adopt PROPS as their primary currency, granting them reward tokens and governance privileges, subject to adherence to basic terms of service and relative to their contribution to the growth of the ecosystem.	Open Rize for any developer to add functionality and customize various use cases.

KEY CHARACTERISTICS OF THE PROPS ECOSYSTEM

Incentivized Economy Powered by PROPS

YouNow was the first mobile app to facilitate a two-sided virtual currency market in which users pay to buy virtual currency and creators earn revenue resulting from the engagement they generate. The YouNow creator program has shown that financially rewarding content contributors creates a flywheel effect that drives more content creation, consumer participation and network growth. With Rize, the YouNow team further fuels the flywheel where, beyond creators, all participants are fairly rewarded for their contribution.

This is achieved by first launching a cryptocurrency called PROPS. Contributors are rewarded with tokens that unlock functionality, value and status within the community (see more in *Use Cases for PROPS*). As a decentralized and transferable ERC-20 token with fixed supply, the PROPS Ecosystem is set to grow in proportion to PROPS' utilization by users.

Like Rize, additional platforms or apps integrating with the PROPS Ecosystem, and benefiting from the ecosystem's reward tokens, will use PROPS as their primary decentralized currency and ensure participants within their environments are rewarded.

Mainstream User Experience

In the context of mainstream usage, the ability to easily onboard users who don't have knowledge of, or experience with cryptocurrency is critical. Users do not need to own or understand cryptocurrency to enter or use applications in the PROPS Ecosystem.

Simple Wallet

For the majority of users, PROPS will be their first cryptocurrency experience. This presents both an exciting opportunity to introduce millions of users to cryptocurrency and a significant responsibility to design an experience that is simple and secure.

Instead of requiring a complicated wallet setup when users install the app, users will be gradually introduced to the concept by earning PROPS. User wallets are created automatically and synced between devices with an encrypted cloud backup. This matches the seamless experience users expect from mobile apps. Additionally, as users earn more and become familiar with cryptocurrency, they will have the option to take control of their wallet, off-device, for increased security.

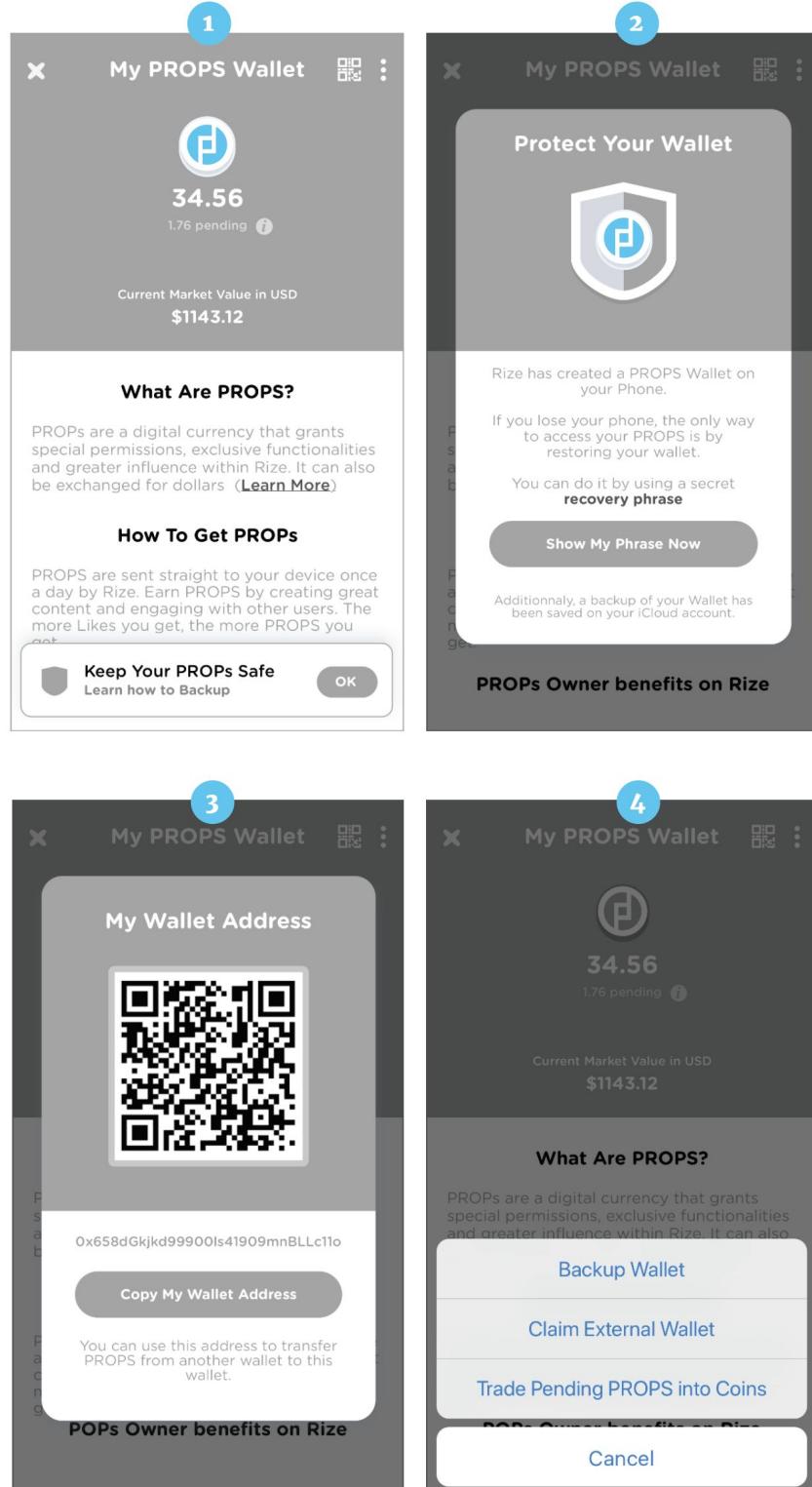


Figure 3.

PROPS Wallet, showing gradual onboarding, backup & restore options, and address sharing.

Governance by the Digital Media Foundation

The Digital Media Foundation will work aggressively towards achieving political decentralization.

⁸ Some elements of the platform, however, will remain centralized until decentralized options become feasible or desirable. The Digital Media Foundation will be responsible for allocating Partner Rewards to platforms or apps on the ecosystem, creating developer extensions that provide visibility into the use of the apps within the ecosystem (such as reporting on and visualization of activity⁹), evangelizing the PROPS Ecosystem to developers and content partners, bringing promising and diverse platforms and apps into the ecosystem and more, as described in the relevant section below. Over time, the Foundation will consider moving to a decentralized governance system such as those presented by Aragon¹⁰ or others.

User Activity Drives Demand for PROPS

Despite potentially being unaware of the underlying cryptoeconomics, mainstream users help fund the platform, which in turn drives the demand and adoption of the cryptocurrency. For example, in order to create an evergreen user reward pool, Rize uses revenue from in-app purchases to buy PROPS from the market. PROPS are then distributed as rewards throughout the Rize community. Another Partner may choose to create an ad-supported platform, where the revenue generated from user attention is used to reward content providers with PROPS. A third Partner may use a subscription model, where the subscription revenue is used to reward contributors with PROPS.

In order to support the development of such economies, the Digital Media Foundation will reward PROPS Ecosystem Partners with a regular distribution of tokens through its Partner Rewards Program. In turn, each Partner can incent contributors by distributing rewards to participants on its own app or platform. This will support the growth of the PROPS network by driving users to receive, buy, use and hold PROPS. Further, the Foundation will issue grants to help bootstrap the financial utility for early contributors.

⁸ [The Meaning of Decentralization - Vitalik Buterin](#)

⁹ Similar tools provide value to users of the Steemit platform ([Steemit](#))

¹⁰ [Aragon](#)

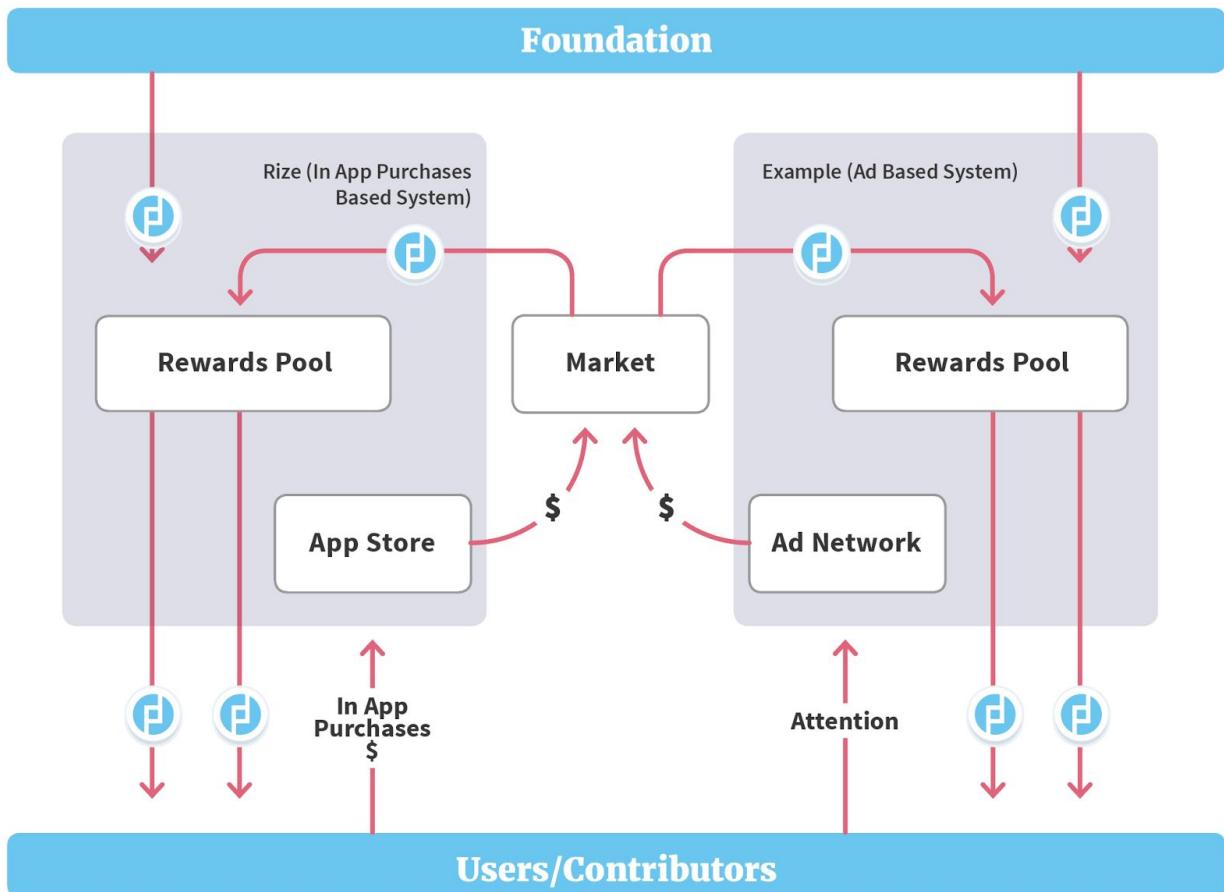


Figure 4.

Flow of Partner Rewards in the PROPS Ecosystem, using examples of platforms with different business models. Each platform distributes tokens to contributors via its own Rewards System, fitting its use case. Note: This diagram only includes high-level components for simplified demonstration purposes. More detailed descriptions of the ecosystem and an example of an Partner rewards engine are illustrated in *Figure 2* and *Figure 12*, respectively.

LEARNING FROM THE YOUNOW EXPERIENCE

For over six years, the YouNow team has worked extensively in the live streaming video space, designing real-time video experiences built on a sustainable model of content creator revenue sharing. Today, YouNow's social video application¹¹ boasts over 40 million registered users.

In YouNow's business model, users exchange fiat currency for digital assets in order to boost content, engage in virtual gifting, access unique features, gain status and reward other users. Qualifying YouNow creators, in turn, receive fiat payments for their work in engaging and retaining users.

YouNow Virtual Good Sales (+40.4% Year on Year)

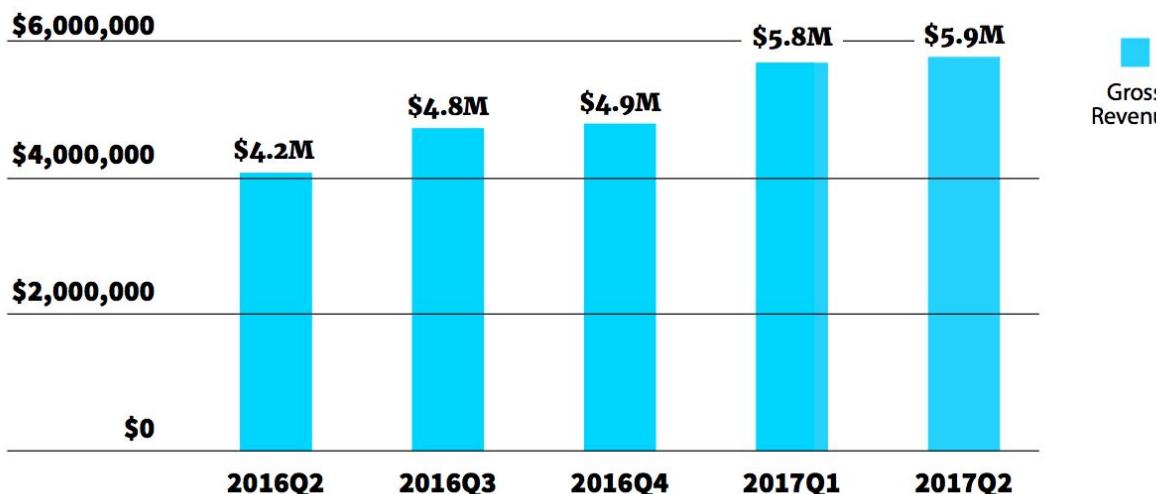


Figure 5.
Quarterly virtual goods sales on YouNow.

Currently, YouNow's ecosystem averages over 60,000 in-app currency transactions per day. As seen in Figure 5 above, YouNow virtual currency sales have grown by 40.4% over the last year.

Overall, virtual goods account for the vast majority of revenue of mobile app stores, predominantly through mobile gaming. In 2016, games generated 75% of iOS App Store revenue and 90% of Google Play Store revenue.¹² YouNow has designed a highly gamified

¹¹ YouNow.com

¹² [How Gaming Apps Drove App Revenue in 2016](#)

environment which includes user levels, trending lists, status badges, leaderboards, rewards. This intersection of live streaming, entertainment, and gaming is proven to be one where users have the highest propensity to pay (see figure 6 below). Within the world of media, live streaming and gaming are ideal candidates for the tokenization offered by the blockchain.

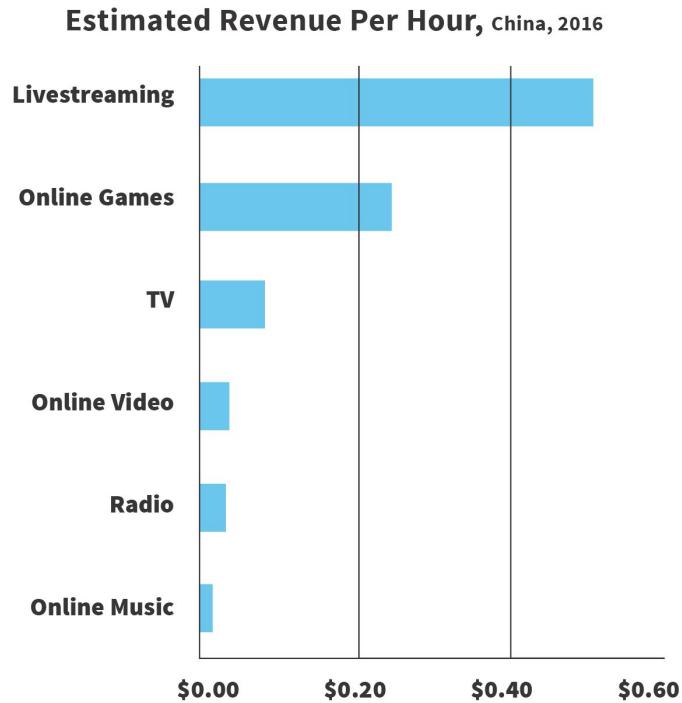


Figure 6.

Estimated revenue per hour in media consumption, China (2016).¹³

As a reference, US based YouNow drives \$0.50 per hour, correlating to the Chinese market benchmarks above.

Our data shows that regardless of any other factor, on-screen direct user interaction firmly correlates with increased engagement, revenue, and lengths of user sessions. Comparing data from millions of broadcasts, YouNow data, shown in Figure 7 below, suggests that the many-to-many interactive video format that powers the Rize platform is a strong driver of overall user engagement and transactions.

¹³ Source: KPCB's Mary Meeker Internet Trends Report 2017 / Hillhouse capital

Engagement In Multi-user Broadcasts (Index = 100)

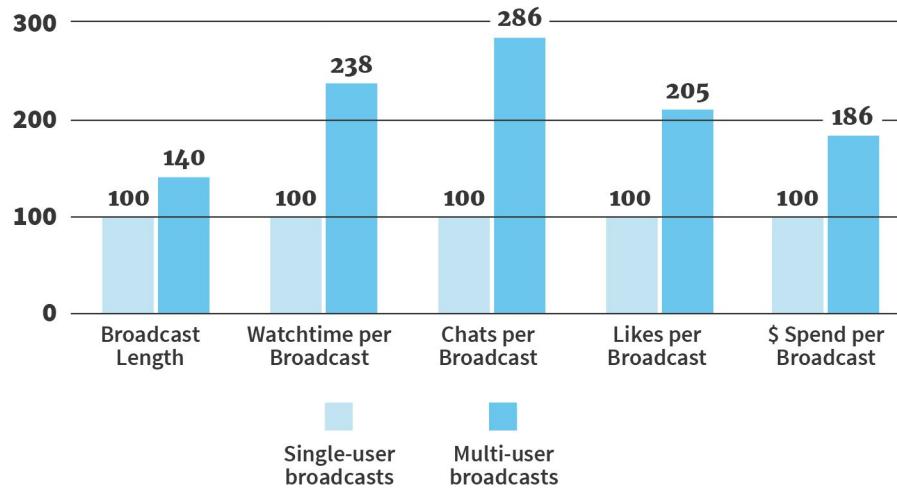


Figure 7.

Engagement given single user vs. multi-user broadcasts.

YouNow's team of experienced media professionals, engineers, virtual economy and social gaming experts popularized the live streaming business in the United States.¹⁴ The YouNow team is strongly positioned to continue its mission of delivering mass market social video experiences and empowering participatory media activities. By building PROPS and Rize, YouNow's team is further innovating, pioneering a next-generation extensible platform that leverages the combined power of cryptoeconomics and real-time participation.

¹⁴ Wired - Letter from the Editor 2017

RIZE: AN OPEN PLATFORM FOR INTERACTIVE MANY-TO-MANY VIDEO

Rize Overview

The 1/9/90 Rule¹⁵ — a heuristic which asserts that 1% of users create, 9% curate and 90% consume — is starting to unravel as people are empowered to become contributors themselves.

¹⁶ For instance, today, over 65% of Snapchat users produce content¹⁷. Additionally, 1.8 billion people play videogames¹⁸, in effect participating in real time media creation. The market is unmistakably trending towards a more immersive and participatory media.¹⁹

Interactive live video is a prominent manifestation of this trend. Instead of simply delivering content to consumers, users seek experiences that are engaging and inclusive, allowing them to take part in the action, to participate in the unfolding media experience, and to socialize. This interactive live video format has been popularized in the context of live streaming services and group video chat, while new applications of interactive video extend into an unlimited set of use cases, bringing people together to participate in any activity that can be logically structured. Key use case examples, which we will review later in this paper, span the domains of entertainment, communication, social gaming, reality television and game shows, commerce, education, and more.

Our team is introducing a new technology stack for video, similar to low latency multi-person group video, yet adapted to accommodate large virtual gatherings of any size. **Many-to-many video technology** aims to simulate the real world experience of groups of people interacting together. It enables people to actively participate in experiences with video feeds of their own, engage and exchange virtual goods directly with others and interact according to different use cases or logic. We refer to these experiences as Spaces. Rize is an extensible open platform with APIs that enable developers to build new Spaces, and be rewarded with tokens when users utilize them. Rize's underlying technology, user experience and framework for working with developers are described in detail below.

Current State of Interactive Live Video

Today, the live video space is divided into two main categories: “one-to-many” **live streaming** and “few-to-few” **group video conferencing**. Each category is supported by specialized video technology.

Live Streaming

¹⁵ [1% rule \(Internet culture\), Wikiwand](#)

¹⁶ [1% rule \(Internet culture\), Wikipedia](#)

¹⁷ [Snapchat by the Numbers: Stats, Demographics & Fun Facts](#)

¹⁸ [There are 1.8 billion gamers in the world, and PC gaming dominates the market](#)

¹⁹ [The Top 13 Facebook Live Statistics You Should Know](#)

Live streaming is designed to support the use case of a video stream broadcast to a large audience. Examples include YouNow, Twitch, Periscope, and Facebook Live. Historically this use case has been powered by technologies such as RTMP, HLS, and DASH, which involve server side video transcoding into multiple formats and sizes and delivery using CDNs.²⁰ This approach optimizes for scale, not latency, with delays of at least 2 seconds and often up to 10 seconds.²¹ It allows for limited interactivity (such as Facebook likes or hearts), but not real-time activities between all the participants gathered.

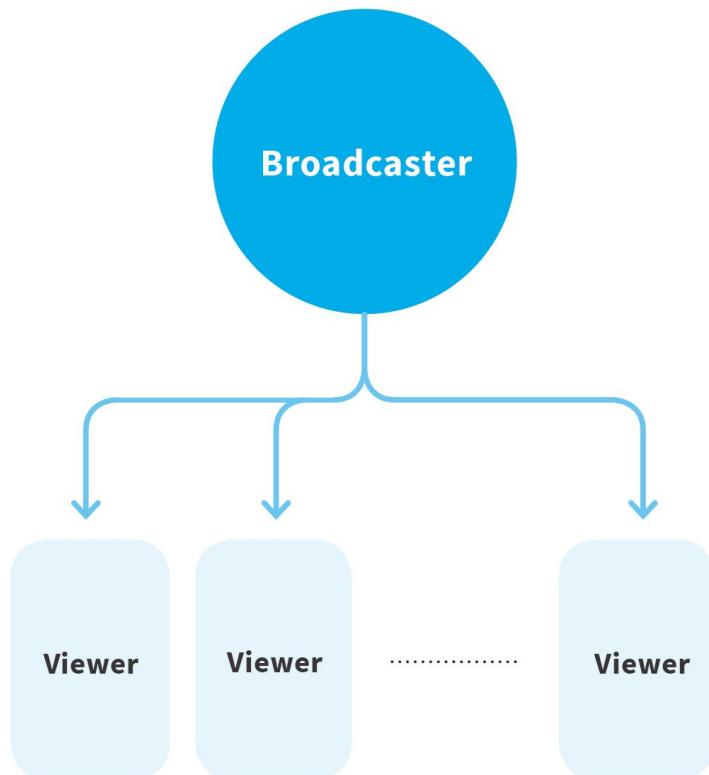


Figure 8.
Live streaming technology optimizes delivery of a single feed to a large number of viewers.

Group Video

Group video conferencing provides a low latency video link between a small number of users talking to each other. Maximum number of users supported is typically less than ten. Every user can see and hear everyone else. Examples include Skype, Google Hangouts, ooVoo, and Zoom. Previously, proprietary P2P technology was used to instrument this use case, but the

²⁰ [Wikipedia: Streaming Media](#)

²¹ [New Report from Wowza Evaluates Live Streaming Latency](#)

market is now standardizing around WebRTC.²² The technology is designed to achieve extremely low latency,²³ allowing real-time conversations and interaction.

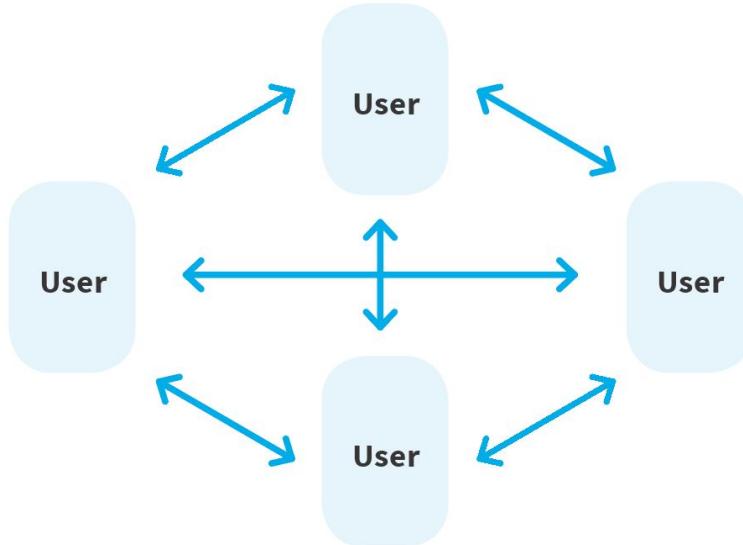


Figure 9.

Group conferencing optimizes delivering video feeds between members of a group but does not scale well.

Video applications have to choose between the tradeoffs presented by each approach: live streaming, with wide scale and low interactivity, or group video conferencing with possibilities for interactivity but limited scale.

Many-to-Many Technology

Architecture

Rize is based on a radically new approach to video transmission. Its architecture bypasses the tradeoffs inherent in choosing between live streaming and group video approaches. This is achieved by using a network of low latency group video style media servers that can relay streams to each other to create widely available many-to-many video feeds.

²² Skype - The journey we've been on

²³ Approximately 0.33 seconds.

The many-to-many setup supports the full spectrum of live video interactions, from a single stream being viewed by millions of users to a few users privately chatting, to stadium size scenarios where any user can interact with any other user, instantaneously, live and in full motion. We provide this technology to address interactive video use cases and provide a true many-to-many video network that can be easily harnessed by any interaction logic.

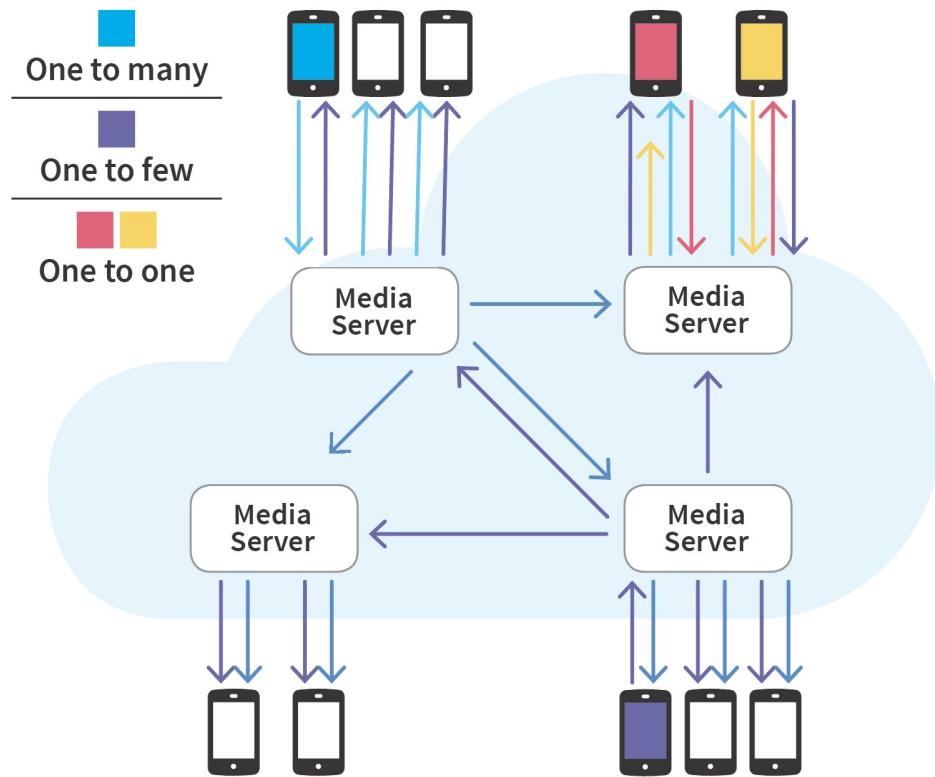


Figure 10.
A network of group video style media servers
enables low latency many-to-many video.

This architecture is well-suited for future decentralization. Because streams are merely being relayed by the media servers, and not transcoded, new nodes can more easily be added to the network. As mobile devices and bandwidth improve, consumers too will participate in relaying streams and get rewarded for it.

User Experience

The Rize Platform provides an extensible system for interactive video experiences, a closer simulation of the real world, where every user is live. Any participant is able to interact with any other participant, on video, and exchange media and virtual goods. An infinite set of real world social experience can be had, virtually recreated using interactive video. In order to achieve this, Rize uses a few simple constructs:

- **Spaces.** Shared virtual “rooms” where users congregate individually or in groups.
- **Stages.** Display areas, within a Space, for users who are audible and visible to the Public.
- **Public.** Users within the Space, who may mount Stages or talk privately amongst themselves, within Groups.
- **Groups.** Public users within Spaces, who interact privately or semi privately amongst themselves.

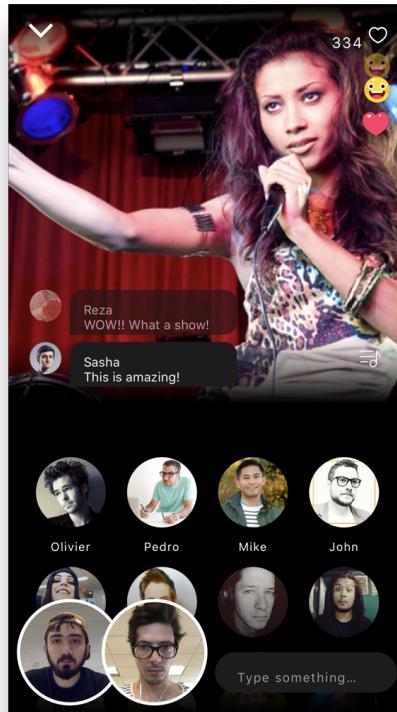


Figure 11.

The Rize Platform demonstrates participation video use cases. Any user can speak with, like, give virtual goods, and play with other users, publicly or privately.

This setup is designed to mimic real world scenarios. For example, at a concert a spectator can hear the performer on stage, see everyone in the audience while having a private conversation with a friend or two. At a karaoke bar, one can watch others sing or decide to hop on stage and participate.

In today's live streaming landscape (e.g. Facebook Live, Periscope, YouNow and Instagram Live), 8% to 10% of users are on camera, primed for engagement and eligible to receive a like or a virtual good. On a many-to-many platform 100% of users are on camera and eligible for social feedback and earning.

Rize Economy and Gameplay

The Rize platform is one of the world's first attempts to introduce a cryptocurrency economy to millions of mainstream mobile users. Since holding and handling cryptocurrencies is not something mainstream mobile users are accustomed to, Rize uses a two currency model: in addition to PROPS, a fiat based currency, Coins, is used to perform virtual goods transactions, facilitated via in-app purchases through Apple's iTunes' and Google's Play store. This removes barriers to entry for mainstream users who can participate without any knowledge of cryptocurrencies while simultaneously funding the distribution of the token to the network's contributors.

The Rize platform economics are designed to benefit from both fiat and PROPS gameplay activity. Most notably, Rize's in-app revenues are used to purchase PROPS which are then rewarded to content contributors, developers, curators, promoters and other users that generated value for the network. Best practices gained from our experience running YouNow's successful two-sided virtual economy are driving the design of the Rize's dual currency economics. This mechanism also results in PROPS being one of the first tokens backed by the fundamental value of a large mainstream user base currently transacting in a virtual economy.

Rize Rewards

The Rize Platform is designed to demonstrate the long term viability of the ecosystem by leveraging its economic framework of in-app purchases to generate rewards for content contributors. Rize will be able to pass through in-app purchase proceeds to the Rize Rewards System (which will programmatically reward platform contributors) while simultaneously creating demand for PROPS. YouNow's experience in using in-app purchases proceeds to compensate specific users (currently in fiat currency) is being leveraged in designing and implementing a cryptocurrency-based Rewards System in a many to many economy where every user may earn. Additionally, Rize will be eligible to earn Partner Rewards from the Digital Media Foundation as detailed in the section "Earning Partner Rewards" and can pass through additional value generated, benefitting from two streams of PROPS as inputs to its Rewards

System.

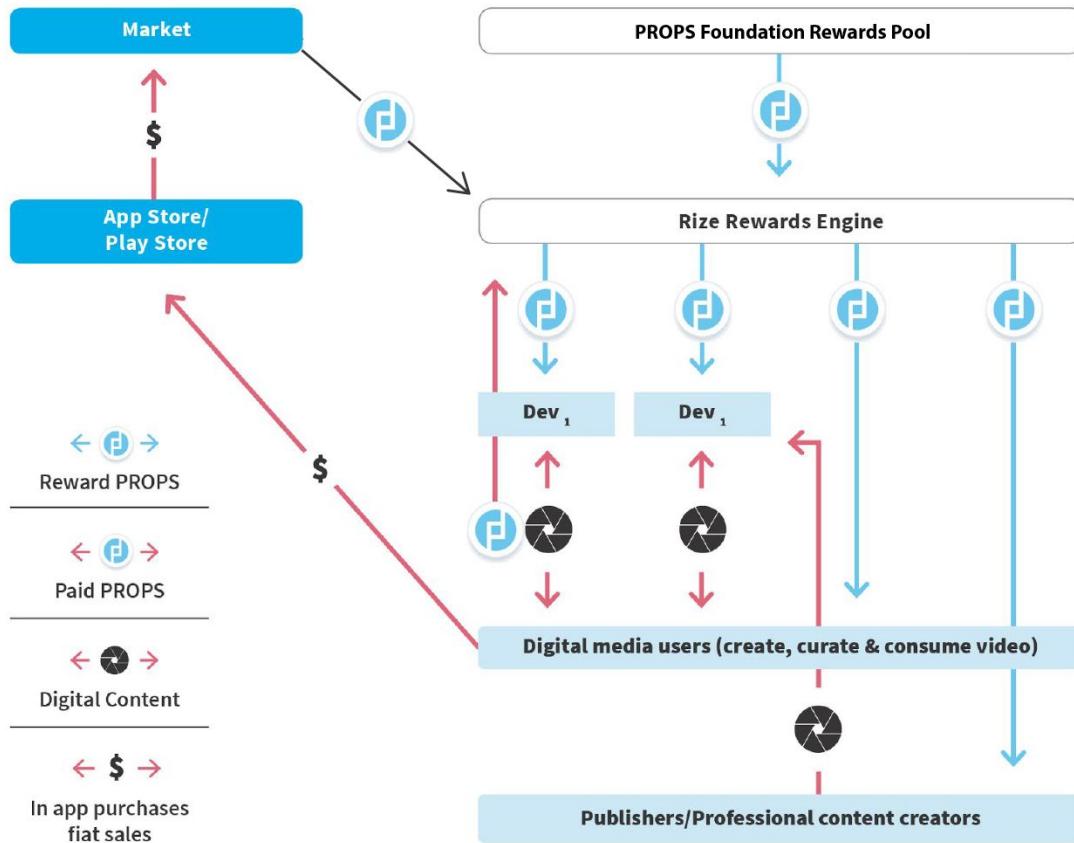


Figure 12.

The Rize Platform uses revenue from in-app purchases to purchase PROPS and distribute to its contributors in Reward PROPS

Use Cases for PROPS

PROPS are an Ethereum-based and ERC20-compliant²⁴ cryptographic token which are earned through contribution to the PROPS Ecosystem.

PROPS serve as a “status” token, indicating a user’s access to advanced functionality and permissions, driving users’ incentive to hold them. Further, PROPS have multiple other utilities (examples below) that drive demand for the currency.

²⁴ The ERC20 interface is the standard implementation interface for Ethereum-based digital tokens.

Some initial use cases for PROPS digital tokens within Rize are described below, while others will be tested and integrated into Rize and the PROPS Ecosystem over time. Many are proven use cases in current real-time gamified environments and provide a deep level of functionality for both value based transactions and interactivity.

- **Premium Experiences.** PROPS will unlock premium experiences or ‘gameplay’ advantages. Some features may be exclusive to token holders and require premium access using PROPS.
- **Status Signaling.** Indicates the elevated status of PROPS holders.
- **Influence and Curation.** Influence is a function of economic power. PROPS holders may promote use cases and content they like and vote on platform-wide rules and guidelines.
- **Compensation.** Tokens will be used to compensate platform contributors (e.g. content contributors, curators, developers etc.).
- **Content Promotion.** Users of all types can use PROPS to promote or elevate their own content.

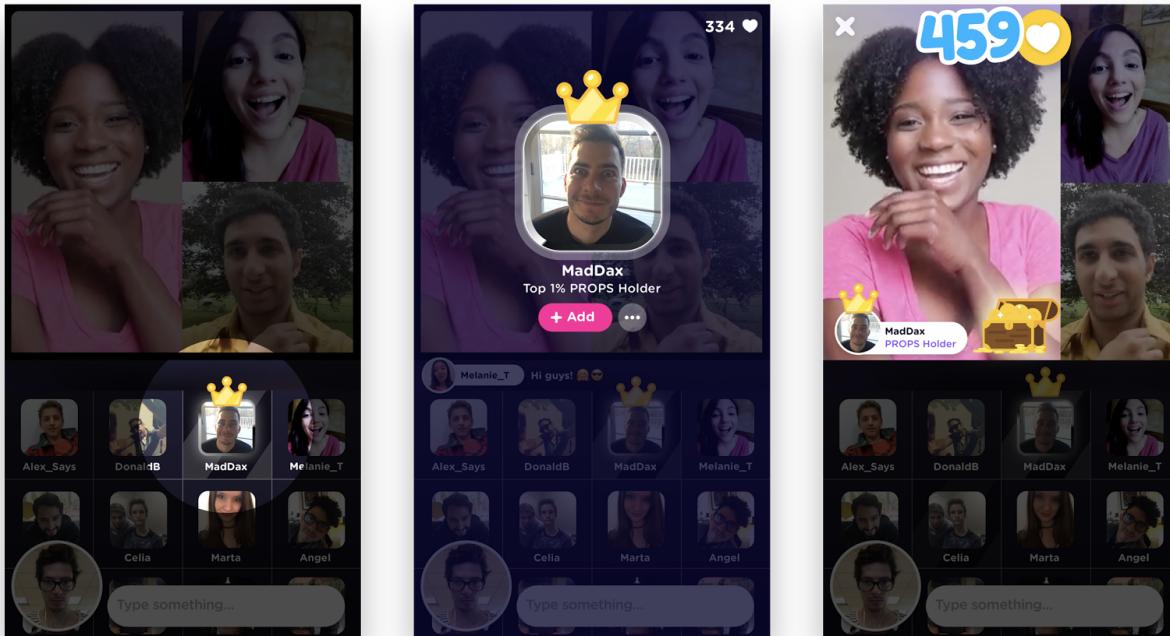


Figure 13.

Status signaling (left and center) and unlocked premium features (right) for PROPS holders within Rize

Earning PROPS in Rize

PROPS are distributed to Rize's contributors through a daily Reward System. The YouNow team has years of experience in calculating the daily value of each unique user's contribution, down to the penny per minute. We bring this expertise to the PROPS Ecosystem.

Rize's PROPS rewards formula looks at engagement factors such as garnered users' 'time spent' (Watchtime), and Likes earned via the receipt of Coin-denominated virtual goods sent in a contributor's Space, in order to fairly distribute PROPS to the most impactful and relevant platform contributors.

Coins (the non-crypto currency for purchasing digital goods and thus sending Likes) can be earned through active participation on the platform or purchased with fiat currency via mobile **in-app purchase (IAP)**. Coins facilitate mainstream users' contributions to the crypto economy without necessitating users buying crypto directly.

When users send digital goods in another user's Space, for example, the Space's 'owner' earns value alongside the user who received the digital good. This partially represents the Space's owner's contribution of value to the network (in this case attracting and engaging two other users to exchange value within their Space). The more valuable engagement a user generates, the more PROPS they will receive.

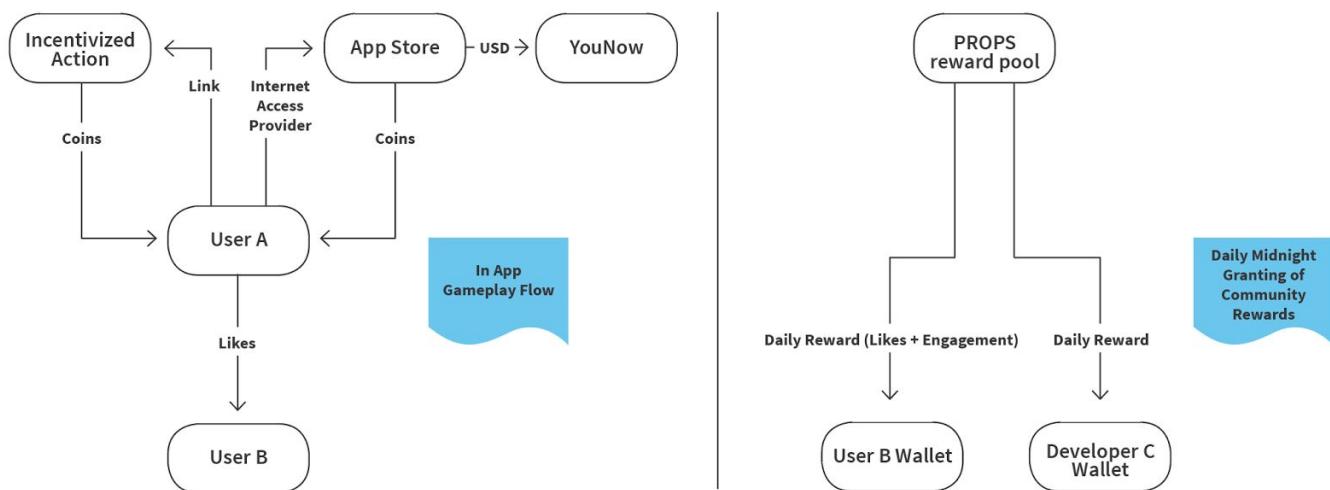


Figure 14.

Rize in-app gameplay: Earning of Coins, sending of Likes and granting PROPS rewards

Below, in Figure 15 and Figure 16, are examples of the user experience of the Rize in-app gameplay described above.

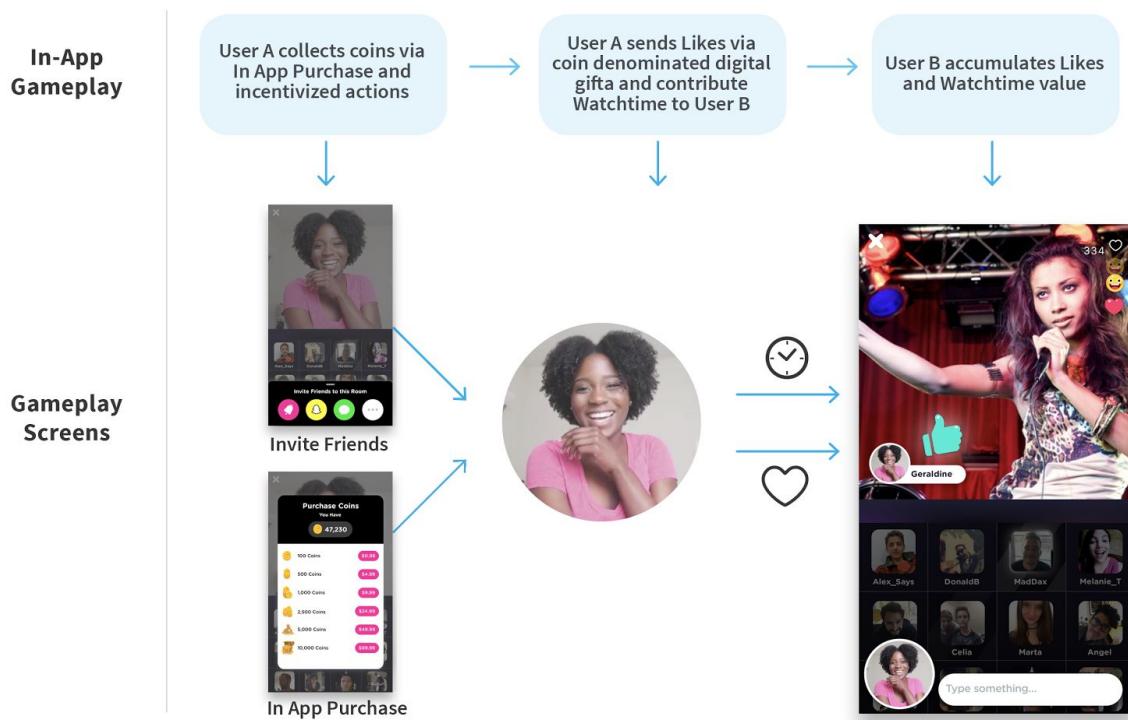


Figure 15.

Any user can earn Coins in-app, or purchase from the App Store, and spend them on digital goods and experiences, while contributors accumulate Likes and Watchtime value and are allocated rewards in PROPS.

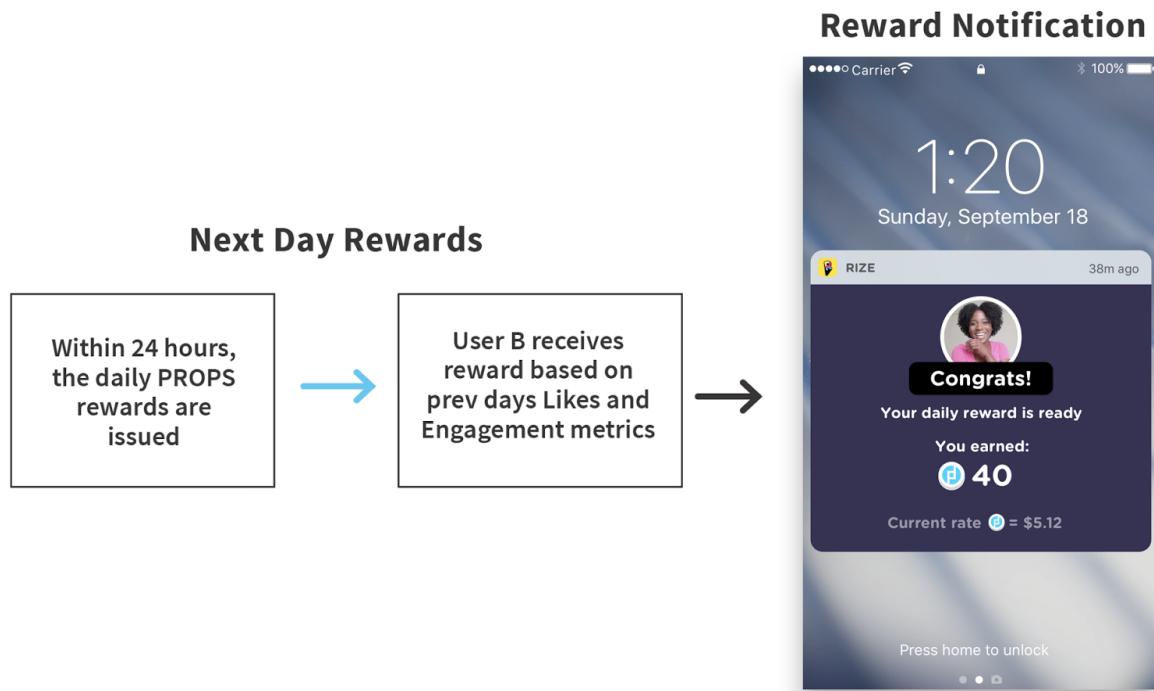


Figure 16.

In Rize, contributors are issued next day rewards based on the value of their contribution.

Calculating Rewards in Rize

Below is a description of the underlying logic of the Rize Rewards System, followed by a description of the parameters.

Quantity	Calculation
Total Daily PROPS Reward	$R_{total} := R_{fixed} + R_{IAP}$
User's Daily Reward Fraction	$R_{user} := \frac{f(L_{user}, W_{user})}{f(L_{total}, W_{total})}$
User's Daily PROPS Allocation	$r \cdot R_{total} \cdot R_{user}$
Developer's Daily Reward Fraction	$R_{dev} := \frac{f(L_{dev}, W_{dev})}{f(L_{total}, W_{total})}$
Developer's Daily PROPS Allocation	$r \cdot R_{total} \cdot R_{dev}$

Parameter	Symbol	Description
Daily Fixed Reward	R_{fixed}	A predefined daily PROPS reward.
IAP Daily Reward	R_{IAP}	A PROPS-denominated value of IAP purchases for the day.
Total Daily Likes	L_{total}	Total daily likes on the platform.
Total Daily Watch Time	W_{total}	Total daily watch time on the platform.
User's Daily Likes	L_{user}	Total daily likes for a particular user.
User's Daily Watch Time	W_{user}	Total daily watch time for a particular user.
Developer's Daily Likes	L_{dev}	Total daily likes accrued in a developer's Space.
Developer's Daily Watch Time	W_{dev}	Total daily watch time accrued in a developer's Space.
Engagement Function	$f(L, W)$	Quantitative function which aggregates likes and watch time.
Total User Rewards Allocation	r	Total percentage of daily rewards allocated to users (stated as a decimal).
Total Developer Rewards Allocation	$(1 - r)$	Total percentage of daily rewards allocated to developers (stated as a decimal).

Notes:

- (1) Developers can build dedicated Spaces and customize their associated gameplay.
- (2) The reward share between developers and users is variable that may change over time.
- (3) Rewards calculations may change. They may also be affected by additional factors such as successful new user referrals

Rize Developer Extensions

The ability to support a wide spectrum of use cases is a core value proposition of the PROPS Ecosystem and the Rize Platform. We set about building a robust framework that would allow developers to customize use cases both as Rize Spaces experiences (Developer Extensions) and new applications within the PROPS Ecosystem.

Out of the box, the platform will provide the many-to-many video technology, distribution to consumers, user base of token holders with built-in business model and token rewards. When users are in their Space they can select from a list of “extensions” that can change the Space’s experience in a variety of ways. When creating an Extension, developers will have control over factors such as:

1. **Stage and in Groups logic.** For example, in a card game, developers could allow 6 people on stage, 5 players and a dealer, while in a ‘dating game’, 3 people on stage, a host and 2 singles (in both cases, the Public present in the Space can be unlimited).
2. **Custom UI.** For example, in a ‘talent show’ use case, developers may offer voting buttons to the Public, to determine whether a contestant on Stage wins a prize. Or, in this same ‘talent show’ use case a developer may fashion a special slot for an announcer or a judge, that is differentiated from the slots contestants appear in, both in its logic/ permissions and visual treatment.
3. **Custom media.** For example, developers or content contributors could pull in linear content such as a sports game, which is shown to the Public, providing an opportunity for users in Groups, to converse while they ‘watch together’.
4. **Custom gameplay elements.** For example, developers create custom digital goods that may have unique value or functionality.
5. **Access and economics.** By default Spaces are open and free, however, developers may create experiences that are private, restricted to a specific size or user type (friends or token holders, for example) or governed by admission fee.
6. **Permissions.** Developers may assign different permissions to users depending on the logic of the specific Extension use case. For example, by default, the Space ‘owner’ (a user who attracts other users to her space) may block any other user from participating within their Space. Such permission within said Space, may be afforded to other users who generate value or achieve a goal, or based on status, etc.

These factors and other levers give developers significant flexibility to create and brand everything from social and party games, to “watching together” setups for premium content,

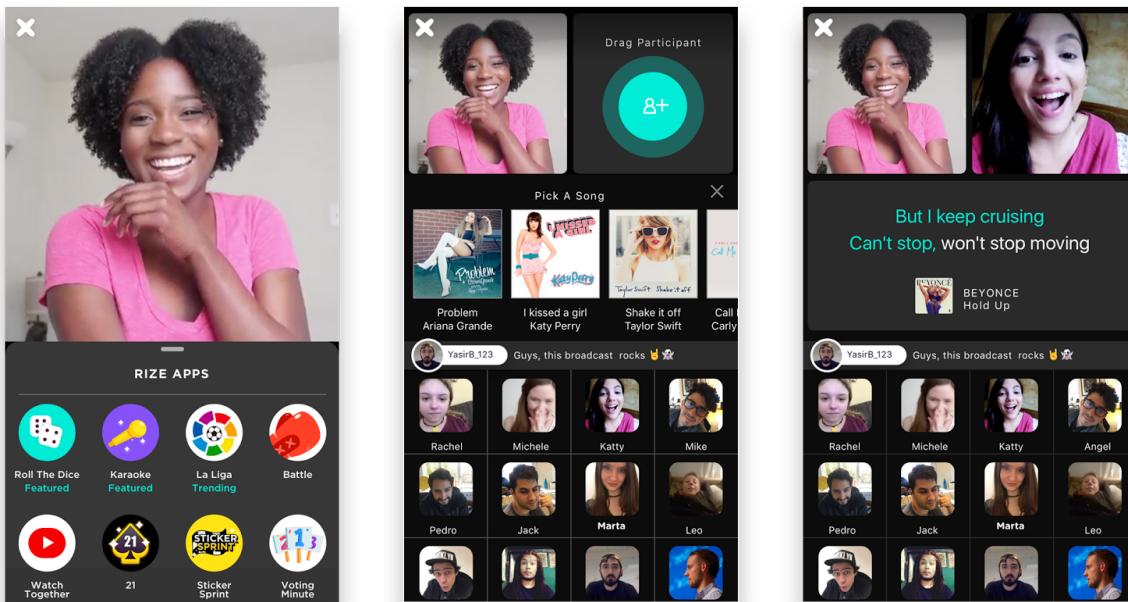
educational environments, participatory reality shows, virtual meetups, commercial outlets and branded experiences for advertisers, etc.

Developer Extensions provide a rapid deployment infrastructure, while minimizing development costs of bringing to the ecosystem an ever evolving set of experiences. It gives developers immediate access to a user base, with all the complexities of infrastructure, payments, token earnings (see *Earning PROPS in Rize* section) and community trust and safety management taken care of.

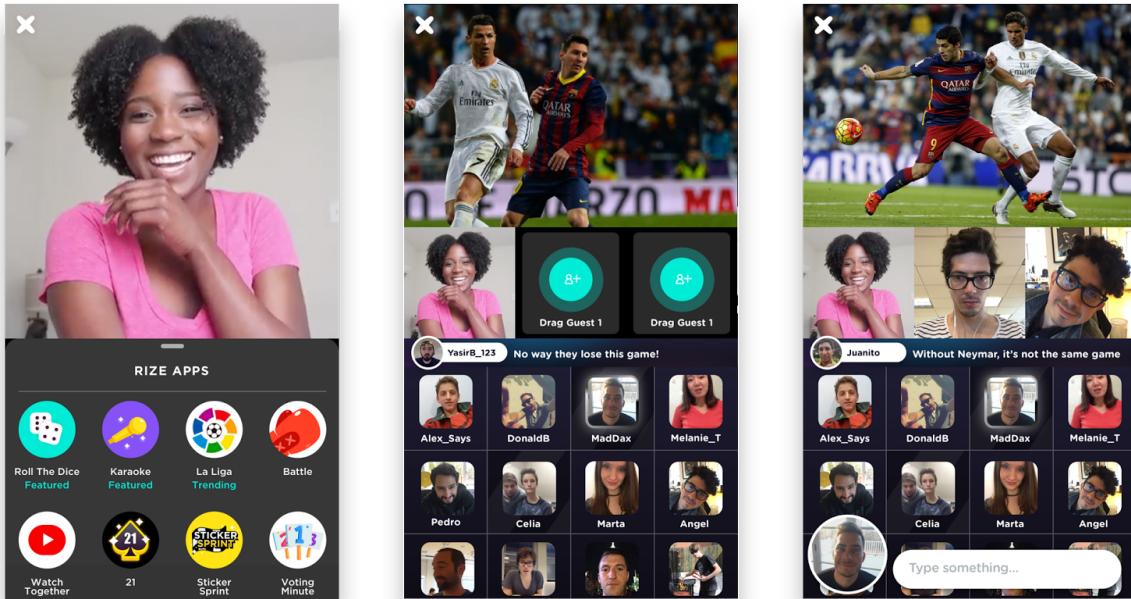
Rize Example Use Cases

In the following example use cases within Rize's many-to-many video platform, Spaces are customized for unique gameplay or experiences. Each experience has the ability to prompt economic outcomes such as premium access, special features, gifting or tipping, sponsored placement and other incentives.

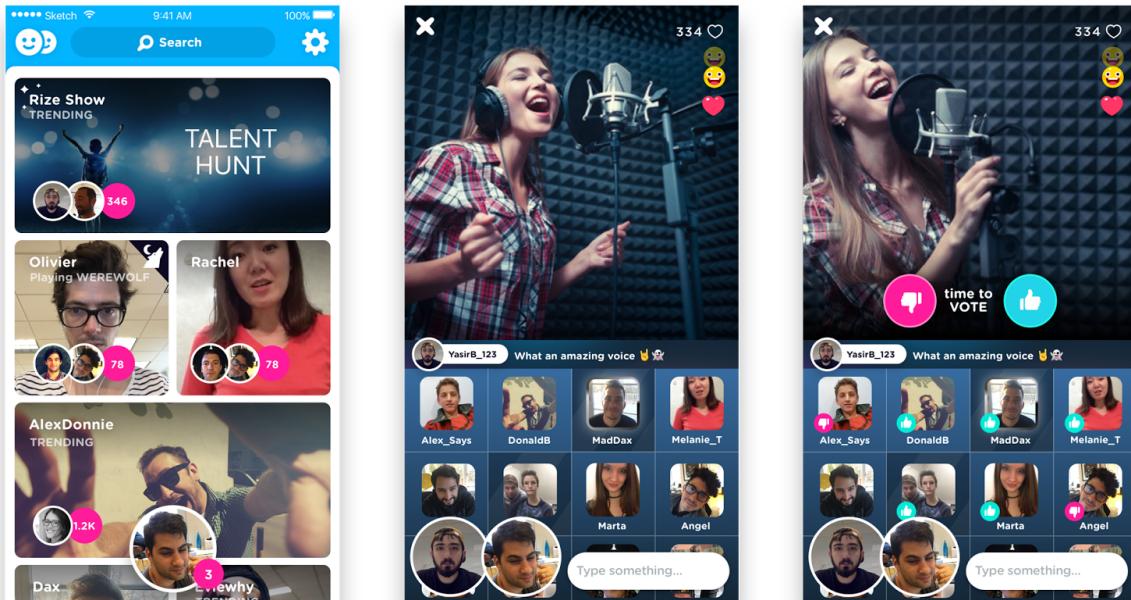
Example 1: Singing Karaoke to a live audience



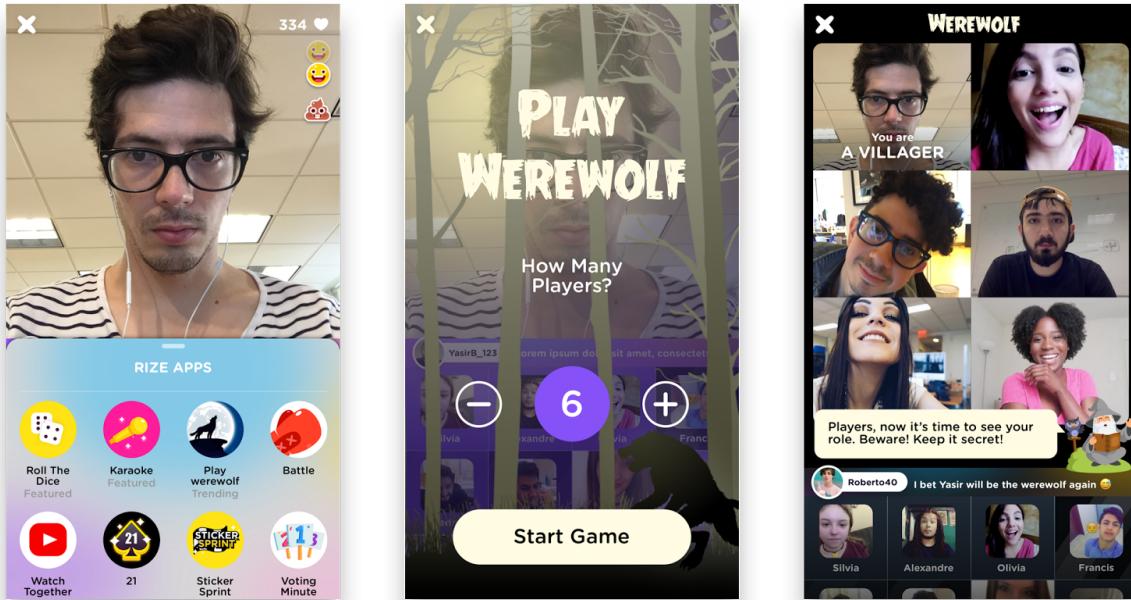
Example 2: Watching streaming media together in a virtual living room



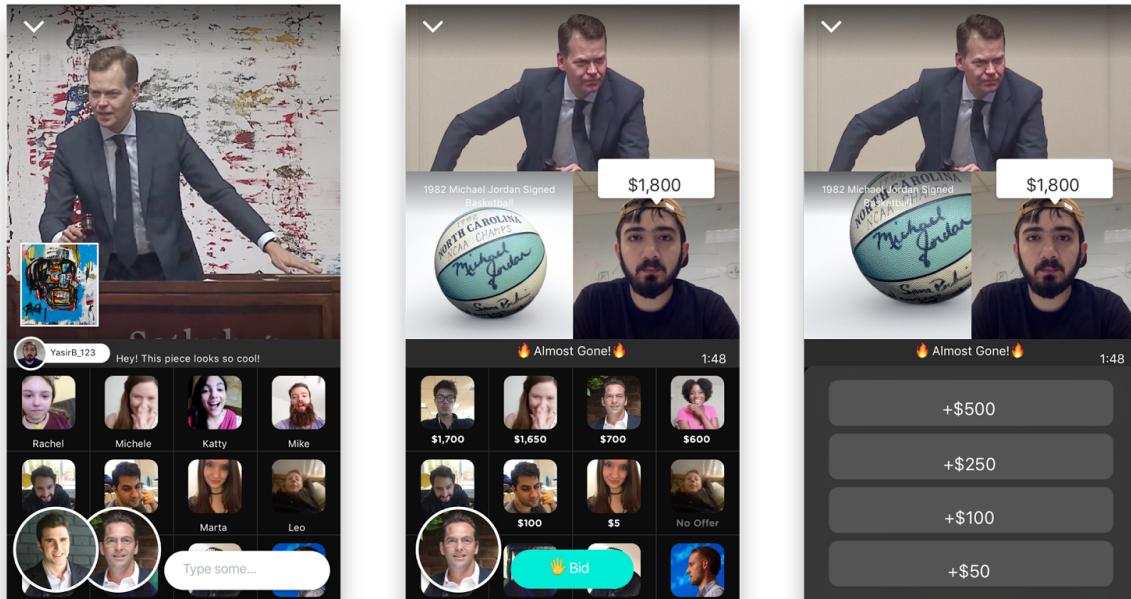
Example 3: Voting on a talent show



Example 4: Social game - Werewolf



Example 5: Auction



PROPS ECOSYSTEM GOVERNANCE

The Digital Media Foundation

In order to facilitate the growth of the PROPS Ecosystem, a nonprofit entity will be formed to oversee its adoption. The Digital Media Foundation will represent the interests of all participants, including users, developers and content contributors. Given the Foundation's fundamental role in the ecosystem, establishing independent governance is necessary. This will be accomplished by dedicating an increasing number of seats on the Foundation's board to Partners, independents and other key stakeholders over the course of two years, until YouNow's representation is no longer a majority.

YouNow, Inc.

The company and team are exclusively committed to the PROPS Ecosystem. As such, YouNow, Inc. plans to transition from its current state as a C Corp. to become a Public Benefit, B Corp., with a mission of creating a more open and sustainable media ecosystem. Adopting this B Corp. status will require YouNow to act not only in its shareholders' interests, but for the benefit of the PROPS Ecosystem and all of its participants. In furthering this mission, the company will leverage its existing application YouNow, with its community of millions, to seed the Rize Platform. Further, if found valuable, YouNow will integrate PROPS into the existing YouNow app, making it an additional Partner in the ecosystem.

Transitioning to a B Corp., YouNow is formally aligning itself with its token ecosystem.

Partner Rewards Program

A key function of the Digital Media Foundation is to administer the Partner Rewards program in order to incentivize ecosystem growth. To this end, the Foundation will receive 50% of the tokens, the majority of which will be distributed as rewards to Partners who contribute to the PROPS Ecosystem's growth.

In addition to ongoing rewards, the Foundation may grant Partners an initial token supply, to further boost the rewards passed through to contributors and to maximize the financial utility offered to early adopters. Interested parties can apply for Partner supply grants, reviewed by the Foundation in an inclusive and transparent manner to ensure fair opportunity.

Earning Partner Rewards

Partner Rewards are designed to drive token network effects²⁵ for PROPS, and to incentivize users to hold PROPS in order to earn value from their balances within applications across the ecosystem. Applications earn Partner Rewards from the Digital Media Foundation in proportion to the utility they contribute to the network. The rewards mechanism will use a token staking model to measure network contribution.²⁶ The Digital Media Foundation will determine application-level rewards based on the accumulated balances of each application's users. In effect, Partner Rewards compensate Partner applications or platforms like Rize that attract users by building engaging user experiences powered by PROPS.

PROPS Partner apps implement their own self-sustaining business model and choose methods of redistribution of rewards to their users. Each PROPS Partner, such as Rize, can enjoy two sources for earning PROPS that feed its Rewards System: Partner Rewards from the Foundation and PROPS acquired through its own business model (e.g. in-app purchases, subscription, advertising, pay per view etc.). Partner applications' own Rewards Systems will need to be transparent in the way they deliver value to end users to become part of the Partner Rewards program.

Each Partner application will need to stake a portion of the Partner Rewards it receives from the Foundation. Staking involves putting tokens at risk as a security deposit against malicious behavior, thus correctly aligning incentives for participants to act within the appropriate use of the system. This security margin will prevent Partners from attempting to manipulate the Partner Rewards program and strengthen the alignment of incentives between Partners and other PROPS holders.

Grants, Ecosystem Investments & Open-Source Infrastructure Development

As a decentralized token, PROPS will be available for developers to integrate with independently. Separately, the Digital Media Foundation, in addition to ensuring early fundamental utility, is responsible for overseeing the development of critical infrastructure used by the ecosystem, including wallets and other services for holding or spending PROPS. In addition, the Foundation will work toward a shared data protocol that allows users to port their identity, relationships ("social graph") and wallet between applications. While this shared data protocol will be managed by the Foundation initially, it will eventually be transitioned into a decentralized system, as relevant technology matures and trusted implementations (such as Blockstack or uPort) are production ready. Another example is the development of an open source wallet SDK that will enable an application to easily integrate a user-friendly and transparent mobile wallet.

²⁵ [Token Network Effects](#)

²⁶ Steemit pioneered this model by showing that users who signal their long-term support of the network by locking their Steem can enhance utility and the opportunity to earn.

The Digital Media Foundation will sponsor activities like hackathons, competitions and promotions to develop ecosystem infrastructure, build the PROPS developer community and grow awareness for PROPS. Bounties, publicly published by the Foundation, may be associated with specific projects. Administering the Foundation's discretionary grants and infrastructure development budget will be a diligent process to ensure investments in the ecosystem yield maximum value. Such investment decisions will be made by experienced individuals whose financial interests are aligned with the success of PROPS. It is also important to diversify decision making and the Foundation will direct a portion of its grants based on input from ecosystem participants and PROPS holders.

PROPS TOKEN DISTRIBUTION

In order to kickstart a vibrant community of passionate PROPS users, the distribution will be designed to offer as many people as possible the opportunity to participate. The allocations are outlined below and reserve 50% of the total supply for the Digital Media Foundation, which is tasked with distributing them over multiple years to network participants who contribute value to the ecosystem. As a result, the majority of tokens will be distributed over time to partners and the public.

Allocation

The PROPS token supply will be limited to 1 billion units and allocated according to the following schedule.

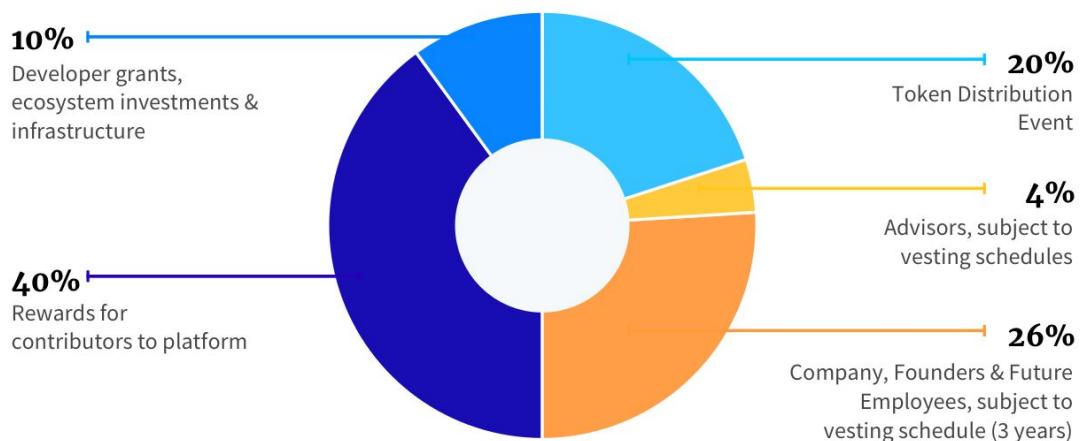


Figure 17.
Initial Token Allocation.

Allocation	Description	Percent
Token Distribution Event	Available for purchase during the token distribution event	20.00%
Company, Founders and Employees	A portion of the supply reserved for the company to reward management, employees and existing shareholders subject to a vesting schedule	26.00%
Advisors	Compensation allocation for project advisors, subject to a vesting schedule	4.00%
Digital Media Foundation	Allocation contributed to the foundation, distributed as follows:	50.00%
	- Partner Rewards Program	40.00%
	- Grants and Ecosystem Investments	7.00%
	- Future Infrastructure Development & Operations	3.00%

Supply Inflation Cap

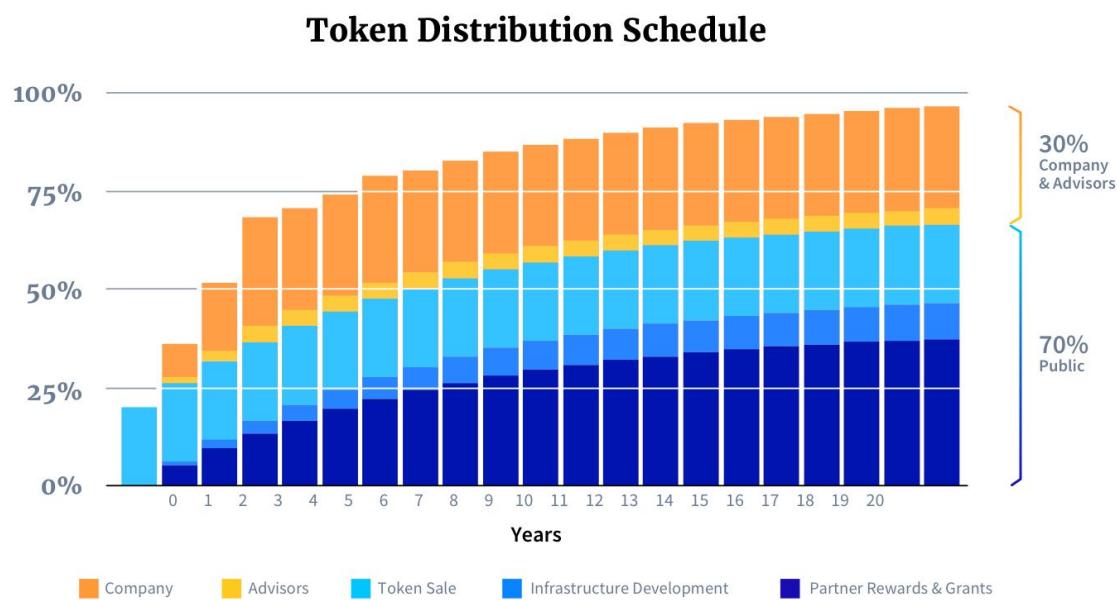


Figure 18.

Over time, the majority of PROPS will be held by the public, through purchasing them or being rewarded for contributing to the network.

The proposed emissions of the Partner Rewards and Grants supply will be capped at a maximum equivalent of 12.5% of the remainder per annum, indefinitely. In practice this implies that in the first year up to 5.9% of the total supply may become active and eligible for distribution from the Digital Media Foundation allocation, declining to 5.1% in year two and reducing further each year thereafter. If the Digital Media Foundation releases less than the proposed cap in any given year it will rollover to the subsequent periods. The Foundation may change the proposed cap in the future.

Release of Allocations

Sale

Participants in the token distribution event will have their tokens distributed shortly after the sale.

Team

We believe that projects should align team interests with those of their early adopters and users by restricting transferability of any team token grants according to a vesting schedule governed by the PROPS smart contract. Accordingly, all PROPS tokens allocated to the Company and lead advisors, will be vested and released periodically over a three year period.

TEAM

Core Team



Adi Sideman
Founder & CEO

Adi Sideman is a pioneer in participatory media, an entrepreneur with more than 20 years of experience creating apps and companies in the user-generated video space.

Adi founded YouNow in 2011 to provide a live social platform for people to connect, interact, and express themselves. YouNow grew to be a global social network with more than 40 Million users and over 120 million user sessions per month. YouNow was a finalist for TechCrunch's Fastest Rising Startup of 2015 Awards.²⁷

As a developer, Adi produced the first-ever animated ads on AOL and created more than 30 online games for major-studio franchises, including the Matrix Game for the famed Warner Brothers Movie. In 1999, he founded the interactive media technology firm Oddcast, which continues to develop interactive media apps such as "Elf Yourself." In 2005 Adi co-founded KSolo, the first online karaoke service (acquired by Fox Interactive/MySpace) and, in 2006, Adi co-founded audio ad network TargetSpot, a joint venture with CBS (acquired by Radionomy).

Adi is a member of the Real-Time Academy of Short Form Arts & Sciences and was named one of 2015's top 100 most influential and inspiring people in NYC tech by Business Insider. He holds an MPS degree from the Interactive Telecommunications Program at NYU's Tisch School of the Arts and an undergraduate degree from NYU Film School.

²⁷ [Meet The Startups Vying For The Crunchie For Fastest Rising Startup Of 2015](#)



Yonatan Sela
SVP Business Development & Product Strategy

Yonatan Sela is an entrepreneur and digital media executive. Sela leads business operations and product strategy at YouNow.

Yonatan joined the founding team of Tvinci, an online video / OTT platform, where he spent 5 years as VP Marketing and Product Strategy. He led Tvinci to 8 figures in revenue and an acquisition by Kaltura in 2014. Yonatan also co-founded Bookn'tell, an app that simplifies friend referrals for local service businesses.

Prior to YouNow, Yonatan was a VC at Venrock, a firm whose past investments include Apple, Intel, AppNexus and others. While at Venrock he focused on opportunities in the Digital Media, FinTech and Bitcoin/Blockchain verticals, and was part of the team who made the investment in YouNow. Having worked closely with the YouNow team for months following the investment, he joined the company's executive team.

Yonatan is an Air Force Captain and a Boston Consulting Group alumnus. He holds an MBA from Wharton and a BA in Economics and Eastern Philosophy. He is also a rock climber and writer.



Eran Kalmanson
Chief Technology Officer

Eran Kalmanson leads product and infrastructure engineering at YouNow. He's been with the company for 4 years.

Eran was previously an early employee at SundaySky, an industry leader in the mass generation of dynamic video. At SundaySky he was a Release Manager and an audio and video engineer. Eran served 6 years in the Israeli intelligence corps' elite technological unit, where he was a software development Team Lead. The main project his team developed won the prestigious Israel Defense Prize for innovation.

Eran is a military lieutenant, and holds a BA in Computer Science from The Open University and a BA in Gastronomic Science from l'università di Scienze Gastronomiche.

**Ben Perper****Director of Product and Business Intelligence**

Ben Perper drives the company's product ideation, roadmap execution and business analysis.

Ben's career spans 10+ years of consumer-tech product management. Before YouNow, Ben was a Senior PM at Zynga, launching new titles, and running game operations reaching hundreds of millions of users. In Zynga's intensely data-driven environment he honed his skills in analyzing user behavior, optimizing virtual economies, prioritizing product roadmaps and shipping updates in order to hit aggressive KPIs.

On Zynga Poker, Ben focused on growth and retention initiatives. Ben then served as Product Lead for Looney Tunes Dash! which was selected as Editor's Choice and reached #1 App Store ranking in 67 countries.

Ben's career started at TheLadders.com, a subscription based job service, before moving to NBC where he served as a Strategy Analyst for CNBC's mobile initiatives.

Ben holds an MBA from NYU Stern and an undergraduate degree from University of Virginia.

**Peter Watts****Platform Lead**

Peter Watts is the resident polymath at YouNow, in charge of research & development, blockchain integrations, and the platform ecosystem. Since joining in 2014, he's worn many hats, building the web app, running product on core features and starting the growth team.

Peter is a self-taught software engineer who cut his teeth in the music industry, building apps for bands and music venues. In 2011, he co-founded Swarm.fm, a music discovery company and early partner on the Spotify App Platform.

Peter likes to spend his weekends hacking on new ideas. After moving to New York from Sydney, he lived entirely off hackathon winnings for a year, while bootstrapping his first company.

The YouNow Team



Advisors

CoinFund



Jake Brukhman
Founder & Managing Partner



Aleksandr Bulkin
Co-Founder & Managing Partner



Alexander Felix
Partner



Oleg Golubov
Partner

Cooley LLP



Marco Santori
Lead Legal Advisor

Z Zeppelin



Manuel Araoz
Lead Technical Advisor
Founder



Doug Petkanics
Co-Founder, Livepeer



Nick Tomaino
Founder, 1confirmation
Principal, Runa Capital
Former Director of Business Development, Coinbase

YouNow Investors

Union Square Ventures

Venrock

Comcast Ventures

Oren Zeev

Chris Dixon