JESKEI:
BUILDING A BETTER ONLINE VIDEO EXPERIENCE

Abstract

The movie industry is going through a dramatic shift as consumers change their viewing habits in respect to how they consume content and the type of content they are watching. This shift started gradually with the launch of YouTube but has been accelerating over the past 5 years as more streaming services came online providing greater consumer choice along with better internet infrastructure that could support streaming of high-definition content to households around the world. The pandemic only accelerated this shift as people became homebound for months at a time, putting unprecedented strain on cinema outlets as well as traditional broadcast content.

Both cinema attendance and TV viewing numbers have been falling for some time, replaced by an increase in demand for online streaming services. People continue to watch professionally produced content but there's now also a rapid growth in amateur produced content. Ask parents what their children watch and you will often hear about how their kids watch YouTube stars such as "Ryan". For younger people today, YouTubers are household names alongside Hollywood actors. YouTube reports 2+ billion logged in users visits each month that watch over 1 billion hours of YouTube videos a day, more than Netflix and Facebook video combined. Among millennials, YouTube accounts for two-thirds of the premium online video watched across devices.

But this rapid shift hasn't been without its problems, it has compounded some older industry problems while introducing new problems that need to be addressed if this change is to be sustainable long term.

Jeskei is uniquely positioned to understand these issues and how to address them due to its founding roots in both the movie distribution industry and blockchain/technology industry. Jeskei's flagship product is called Jeskei Studio or Jeskei for short, the world's first and only video content delivery platform that pays content creators for what they create in line with what the industry is demanding while empowering viewers to access and interact with content in more social way. Rewards flow out to everyone involved in the creative process while viewers have access to a rich range of content from amateur content through to professional productions. Content creators complain of having very limited earning potential from platforms such as YouTube and many of the biggest names in YouTube are moving to other platforms in an attempt to earn more but even the competitors only offer limited earning potential form advertising. For anyone in the wider film industry this problem is all too familiar with actors and content producers locked out of revenue sharing which ensures value flows back to the film studio without fairly rewarding creative content producers. For the first time we are offering content producers ownership of their IP and fair revenue sharing. Advertisers are also rewarded with an entire new advertising model that enabled highly targeted advertising without compromising on the privacy of viewers. This is all in-line with what the market is demanding and hasn't been able to solve using todays cloud technologies.

This is all made possible by a mix of new technologies including blockchain for decentralised payment and identity management, distributed file systems for mass low cost film delivery, reducing cost of cloud and economies built around digital assets using NFT's and the Metaverse. Jeskei's founders have deep roots in these technologies as well as building massive scale movie distribution systems that have developed some of Hollywoods hottest movies such as Star Wars and James Bond.

This documents sets out the Jeskei platform including how it serves different target groups.

List of Acronyms

DCO	Dynamic Coin Offering
DCP	Digital Cinema Package
DFS	Distributed File System
DRM	Digital Rights Management
ERC-20	Fungible Token Standard
ERC-721	Non-Fungible Token Standard
ICO	Initial Coin Offering
IP	Intellectual Property
NFT	Non Fungible Token
PPC	Pay Per Click
SDK	Software Development Kit
XML	Extensible Markup Language

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1 Introduction

1.1 Background

As YouTube quietly launched back on February 14, 2005, little did people realise just how disruptive this new video platform would be. Pitching itself as a way for non-professionals to produce and publish video content, over the past 15 years the platform has grown to become the most popular video delivery platforms on the planet.

2+ billion logged in users visit the site each month and production quality has greatly improved with the number of channels earning six figures per year growing at more than 40% y/y.

500 hours of video are uploaded to YouTube every minute and we watch over 1 billion hours of YouTube videos each day, more than Netflix and Facebook video combined. Among millennials, YouTube accounts for two-thirds of the premium online video watched across devices.

But the story hasn't ended with YouTube. YouTube has never been popular for professional content creators due to its limited earning potential and little opportunity to build a brand. Meanwhile popular YouTubers are abandoning the platform to try to increase their earnings from other newer platforms which offer a larger share of ad fees. But the problem isn't the percentage of ad fees available but the very restrictive earning model itself with no capacity to charge per view, by subscription or from merchandise. The importance of brand and community building has never been embraced by YouTube, a shortcoming that has been pointed out by many who abandon the platform.

While YouTube has not seen success with producers of professional created content there hasn't been a shortage of streaming services competing over this market space. Services such as Netflix, Amazon Prime, Apple TV, Disney+ and Britbox are competing over this market through heavy spending on big budget professional content. As more streaming services compete for subscribers then it's expected that subscription prices will reduce. Falling subscriber numbers on each service combined with lower subscription rates will have an impact on the amount of new quality content put out by each service.

But the challenge with these services isn't just around increasing competition, there are also problems within the industry itself with how content creators are paid and incentivised for their work, an issue that stems from the wider film making industry. Almost all content creators are locked out of revenue sharing opportunities with the exception of a very few big-name Hollywood stars. The movie industry is run by a cartel of five Hollywood studios who provide the money to create new movies but retain all ownership of IP and all revenues. Cast members and all involved in the production of a movie are paid flat fees which ensures the majority of earnings are retained by the studio. This is being fought by many in the industry who want to provide access to revenue sharing to the whole cast and even out to those involved in a production such as model makers and set designers. This access to revenue sharing is important since it incentivises people to get involved in projects that they believe in and creates returns with long tails back to the cast and team.

Cinemas are another victim of studio's drawing as much revenue back to the studio as well as competition from online video streaming services. Cinemas are required to relinquish most of the earnings from ticket sales back to the studio leaving them to make money primarily from the sale of popcorn and drinks. Even this is now under threat as studio's have started to demand a portion of even food and drink takings for popular movies. To survive, cinemas are innovating around the types of content they show. Cinemas can draw larger numbers of people for sporting events, concerts, theatre productions and back catalogue movies with large fan bases. But getting access to new content is a challenge.

What is clear is that audiences are changing their habits and are looking for a more social way and convenient way to enjoy content ranging from amateur content to polished productions. Cinemas are looking to win a portion of this market by having better access to new content formatted as Digital Cinema Packages (DCP's). Content producers are looking for better ways to get their content available to people at home and to cinema's as well as being fairly compensated for their work.

The most recent trend adjacent to the film industry is in the new Metaverse, the concept of digital content with provable ownership and therefore value, accessed and traded online. While the metaverse is making early advances in the gaming industry it is certain to disrupt the film and music industry every bit as much.

1.2 Objectives of the platform

The objective of Jeskei is to provide an independent platform that better serves the needs of content producers and consumers in light of changes occurring in the film and media industry.

Producers

Jeskei sets out to empower content producers to better monetise what they produce whether they're a sole YouTuber or a team or professional film makers. The lack of revenue sharing in the film industry for all but a few of the top Hollywood actors continues to be a problem for the cast and crew of movies. There was an initiative formed by friends of Gene Roddenberry including some of the cast of Star Trek that championed the idea of blockchain for distributing content and introducing revenue sharing but sadly this initiative was very early in the blockchain timeline, before the days of NFT's, the metaverse of decentralised finance.

This project recognises that initiative and sets out to realise it using the latest technological developments in the blockchain industry as well as our founders experience in the movie distribution industry.

Amateur content producers such as YouTubers looking for better revenue generating opportunities are supported by Jeskei. Users create channels, upload videos and share them for free or for a fee or for a share of advertising revenue that is shared with the viewer.

Professional content producers can work together to share film assets as part of a single production, sharing revenue fairly between everyone involved in the production process. Actors, script writers, directors, artists, editors, extras, set designers, 3D modellers and more, fees are dispersed automatically according to the rules defined by the production creators.

Producers are free to develop communities around their channels, movies or themselves which in turn can be used for fund raising for new productions. Firefly wouldn't have been canned after one season if the fanbase was empowered to support season two.

Consumers

Consumers can access free or paid content from home or on the move. Unlike other platforms, consumers can follow and support the actors and creatives in the films and channels they love. Build communities, invest in productions for a share of their revenue, have a say on the future of new productions.

Consumers become part of the process and through this gain access to a wider variety of content than is supported by todays mainstream. The gap between producers and consumers collapses down to create a broader mix of content.

Advertising is a valid way for producers to make money but since ad matching occurs on the users device then they have more control over the advertising experience. Consumers can filter content to only receive ad-free content or they can opt in to receive advertising where ad revenue is split between the producer and viewer, creating an incentive for consumers to receive advertisements. This means a more targeted and attentive audience for advertisers and a less frustrated user base for producers.

Advertisers

Advertisers are not left out but do have a closer relationship with their target audience. Jeskei turns the whole ad delivery model on its head by moving ad matching and ad pulling form the central server out to the viewers device which protects the privacy of users, allows users to control whether they receive ads and gives advertisers a more targeted ad service. Importantly, ad revenues are shared with the viewer which directly incentivises viewers to opt-in to receive ads, improving sentiment from viewers which is good for the advertisers.

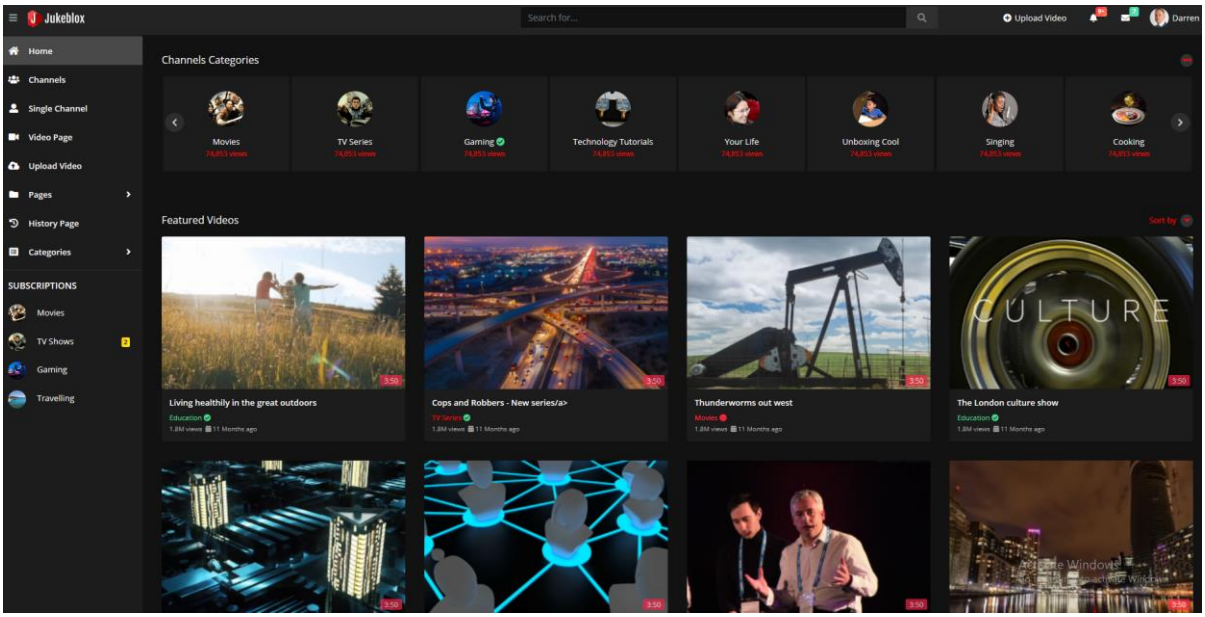


Figure 1: Jeskei channels

Cinemas

We believe that the ultimate viewing experience will always be at the cinema and we want to support cinemas in these challenging times.

Cinemas are being squeezed out of business by industry practices and shifting consumer habits that has made them poorly positioned to deal with extra challenges such as the effects of the pandemic.

Cinemas make very little, often no profit from movies with the majority of takings going back to the studio. Negotiation techniques are brutal, cinemas are often only allowed to play popular new releases if they agree to run unpopular movies that tie up screens and keep viewers away. Often, the only way cinemas can make money in this environment is through the sale of drinks and popcorn but studios are starting to even make demands around this for popular new releases. Cinemas are being squeezed tightly and if we're not careful we will see this industry collapse which will be a great loss to future film watchers. To fend off this threat, cinemas are expanding out to try to find new types of content that can draw audiences such as sporting events, live theatre broadcasts and other events.

Jeskei will allow films can be packaged as Digital Cinema Packages (DCP) that are used by the majority of the world cinemas through their DOLBY cinema servers. Cinema's will be able to access independently produced films on demand as well as new types of content created by users of Jeskei.

Digital Cinema Packages (DCP's) are collections of files with an XML file describing all the files in a package. DCP's are not physically contained within a package like a zip file but are logically packaged as individual files linked by an XML file which describes files and their relationships. This makes it an ideal format to extend into the decentralised world allowing monetary value to be placed on components within a DCP as part of revenue sharing.

Other user types

The long term vision is to develop the social side of Jeskei including in the area of merchandising to help generate more funding for projects. This will make Jeskei a platform of importance for merch creators looking to partner with popular productions and teams.

With users and producers on one platform with a built-in economics layer it also becomes a great place to raise capital for new productions and so we see Jeskei moving into the decentralised finance arena, supporting the trade of digital assets as well as fund raising.

1.3 Objectives of this document

This document provides a high-level design of the Jeskei platform including the core components to be built, payment system and the underlying technologies employed by the platform. Development of the platform will be carried out using an Agile SCRUM methodology which requires flexibility throughout the development and so this will be reflected within the design set out in this document.

It should be possible to use this document to guide the development of the components required to be developed in phase one of the Jeskei development process.

1.4 Structure of this document

This document is structured to set out each component of the Jeskei platform independently.

Section 2 provides an overview of the platform including the modules and users

Section 3 provides an overview of the new ad delivery model

Section 4 provides an overview of content creation

Section 5 provides an overview of how content is viewed

Section 6 provides an overview of the community elements of the platform

Section 7 provides an overview of the economics of the platform

Section 8 provides an overview of the underlying technologies of the platform

Section 9 looks ahead towards the future of the platform

2 The Overall Design

Section two looks at the Jeskei platform from a high-level including the key components, economics, users and how it all fits together to provide an overall solution. It should be possible to develop an appreciation of the core concepts from section 2 before drilling deeper into core areas in later sections.

2.1 Distribution Models

Below are three common movie/video distribution models that exist in industry today. Following on from this is the Jeskei model which encompasses the best of each model while addressing fundamental problems that exist in each model.

Traditional Film Studio Model

Producers are paid a flat fee by the movie studio with no revenue share opportunity. Since there are only 5 major movie studios in Hollywood there is little leverage to change the status quo. However there is discontent within the industry with many within the industry pushing for access to revenue shares and payment for IP produced.

It isn't just those working within the industry who are financially squeezed by the cartel of five studios. Cinemas are squeezed in many ways by studios to maximise revenue returns back to the studio. Cinema's keep little of the money made from ticket sales instead making most of their money from the sale of popcorn and drinks. Studios are starting to even encroach on this for popular movies demanding a portion of these takings. To compound the struggles of cinemas studios will employ tactics such as requiring a cinema to play unpopular movies as part of a combined deal if they want to have access to popular new movie releases.

The studios retain most of the revenue and control which hurts content creators, consumers and cinemas.

Movie streaming service

Producers are paid a flat fee by the streaming service in much the same way as they would be by a film studio with no access to revenue sharing. Producers have all the same restrictions placed on them as they would by major film studios.

Viewers pay for content either on a subscription model of per item watched but only a small portion of this makes it back to those involved in the production.

Cinemas are locked out of these services since they are seen as competitors.

YouTube

Producers are paid a portion of advertising fees but otherwise have no direct way to earn from their content. The only way around this is to require users to set up separate payments through services such as Patreon which leads to a disjointed experience without the experience of movie streaming services.

Advertisers pay to place adds with revenue split between YouTube and the producer running the channel. However, it's viewers who report the most dissatisfaction with this arrangement since they are forced to sit through adverts that interrupt their viewing experience.

A major difference to the other models above is that producers interact directly with viewers which allows for producers to develop a following. However there are minimal social capabilities within the platform and hardly any brand building tools which leads to minimal differentiation between channels.

Jeskei

Producers are free to configure how they charge for access to their content such as pay per view or subscriptions. Most of the earnings go to the producers, distributed automatically to all involved in the production according to the rules configured by the content owner. This allows for collaboration between many people involved in the production itself as well as others involved in funding the production and generating interest in the production. A producer is free to make content available for free which is very useful for teams building portfolios, brand and a following. Producers effectively own their IP which brings better earning potential long term and opens up the potential for trading digital assets such as film scores within the platform.

Viewers can watch free content or pay to watch pay to watch content such as movies, fan productions, TV content, training movies and more. Viewers can opt-in to receive ads in exchange for a share of the revenue generated from advertising, a direct incentive to receive ads leading to improved viewer sentiment. Viewers can also own a piece of the content they are watching through the crowdfunding capabilities set out later in this document.

Cinemas can also access content in a convenient Digital Cinema Package (DCP) format. Producers can configure a different set of payment rules for cinemas which gives producers the opportunity to target content for the big screen while helping cinemas to access a broader range of content.

2.2 Payment model

For producers seeking to earn from content supplied through YouTube, the most popular service is Patreon which pays 90% of income back to producers. 5% is retained by Patreon for supplying the service and 5% goes towards card payment fees.

Jeskei improves on this approach in a number of important ways.

- Payment is integrated into the Jeskei platform itself and so there's no need to leave the ecosystem to pay.
- Payments are handled using digital money which allows money to be dispersed across content creators in a very transparent and low fee way. For example, a viewer paying £3 to watch a movie makes a single payment with a single card fee but that £3 can be broken up into dozens of smaller payments to the cast, crew, supporters and investors without incurring extra fees, all autonomously and transparently.
- With a digital economy there comes more opportunities to share benefits including revenues within the economy. For example, ad fees can be more fairly split between the platform, producers and viewers while digital earnings can be reinvested in the platform towards new content or even merchandise.
- Payments work equally well anywhere in the world, there are no issues with cross border payments.

The above makes Jeskei a far more cost effective and convenient for both content producers and viewers while opening up benefits to all users of the platform including advertisers and manufacturers of merchandise.

Unlike Netflix or Prime, Jeskei doesn't choose what content is produced. Content producers can collaborate on the production of radically different forms of content, pitching for financial contributions from users of the network and ultimately charging users to view the resulting works. Studios and streaming services are notoriously risk averse when it comes to experimenting with new movie ideas.

When FOX cancelled Firefly, Gail Berman, former President of Entertainment at FOX said: *"It was a numbers things. It was a wonderful show and I loved it and I loved working with him on it but that was a big show, a very expensive show and it wasn't delivering the numbers."*

Firefly is a classic example of a popular TV show loved by its fans as well as its cast and crew but didn't fit the financial requirements of the studio. The producers campaigned to have production continue and fans campaigned to save the show but to no avail. Jeskei would have allowed viewers and producers to continue funding the production.

2.3 Competitor analyst

There are many centralised video delivery services springing up that generally follow similar models.

- Facebook Watch is a video publishing platform similar to YouTube. Facebook makes money from advertising within delivered content that has held back adoption of the platform while they also charge to promote content to your fans.
- YouTube is the most popular platform targeting amateur content producers. YouTube is continuing to lose popular YouTubers due to their lack revenue potential and limited branding capabilities.
- Netflix, Amazon Prime, Britbox, Disney+ are examples of video streaming services that compete in the professional production space. This space is seeing an increase in competing services which is reducing the number of subscribers on leading services which in turn is driving down subscription rates and the amount of funding available for expensive new content. There is no opportunity for content producers to revenue share or engage directly with viewers.

- Patreon is a very popular platform for paying content creators on a monthly basis. In 2018, 300m was paid out to 100,000 creators by 2 million supporters. Patreon does have high fees and doesn't fit naturally within viewing platforms such as YouTube or Netflix.
- Atomic Network is a small start-up project that is focused purely on science fiction movies distributed on the nem network. Atomic Network has had problems with fund raising and with creating a credible design due to the team's lack of experience in decentralised system design. Another major challenge is that Atomic Network's financial model is built around a high risk ICO with little protection for token holders.

Jeskei will provide a unified experience within a single dashboard where individuals own and manage their content while being able to protect and trade their IP. Content producers are paid fairly and transparently for the first time, as demanded by an increasing number of people within the industry. Working together within the platform, collaborators will effectively be their own film studio, controlling their earnings, what they produce and who they target.

Viewers will have access to the widest range of content and will be able to form social communities to support the content they love. Viewers will also be able to buy merchandise to support the projects they follow and will even be able to fund projects through a crowdfunding engine giving them an opportunity to be part of the film studio and production.

Cinemas also benefit from being catered for by the platform. The platform doesn't compete with cinemas but sets out to help with access to new content at fair and reasonable prices which is good for content creators, the cinema and viewers at the cinema.

2.4 User Types

In this section we identify the key user types for the Jeskei platform along with their capabilities and features within the overall system.

The types of user available are as follows.

- Unregistered viewers
- Registered viewers
- Content creators
- Influencers
- Advertisers
- Manufacturers / Retailers
- Developers

2.4.1 Unregistered viewers

Jeskei does not require registration to access free public content.

This ensures that content producers who want to target the widest number of viewers can post content that's free and public with minimal restrictions. Unregistered viewers that watch a video will be included in the count of total views of a video.

Since the platform is unable to verify unregistered viewers age or other demographics then there are limitations around the content available in this way. Age restricted content or content marked as available to certain regions will not be available to unregistered users.

To guard against bots or other malicious behaviour against posted video, unregistered users will not be able to interact with video beyond viewing. Unregistered users will not be able to review or rate videos, will not be able to comment on videos and will not be able to access content specifically marked as available for registered users only.

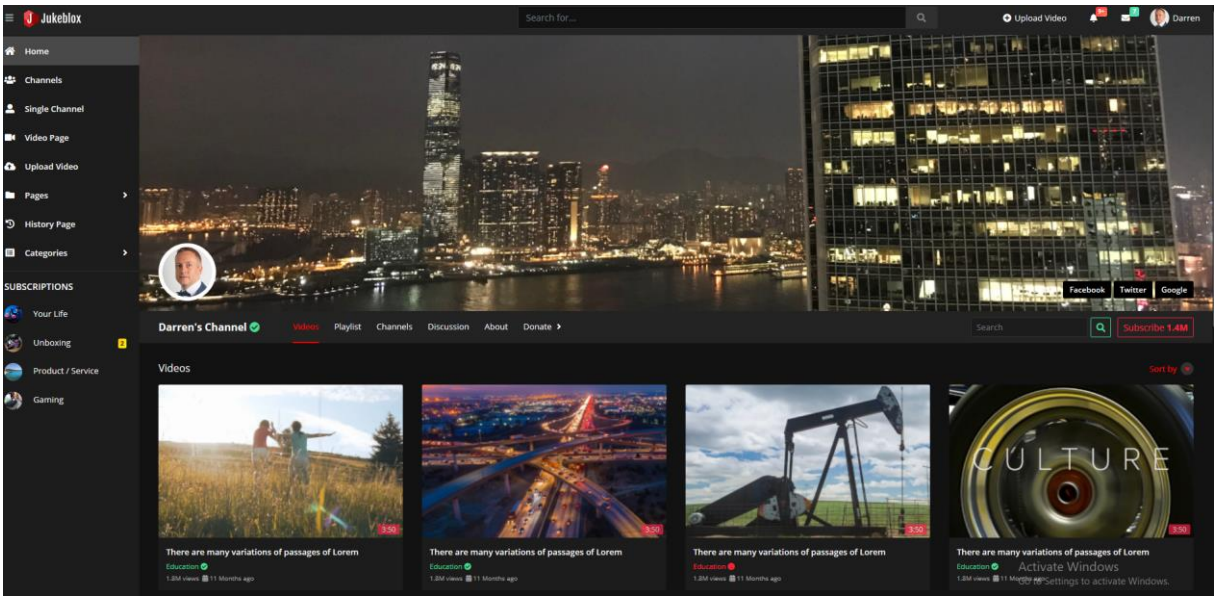


Figure 2: Registered user channel

Unregistered users will still get a rich and rewarding experience from the platform and be able to access free public channels. This ensures all the benefit of familiar services such as YouTube while providing a compelling reason for users to subscribe and access the full Jeskei experience.

2.4.2 Registered viewers

Users who register will be required to provide the following details.

- Their public key/address which is used to identify them as a unique member of the platform. This is a process that is managed within the platform simply to remove technical hurdles.
- Their date of birth used for age verification
- Their country of residence used for local age verification

Importantly, these details are encrypted before being stored on the platform but can be used to provide a zero-knowledge proof for verification purposes. This ensures that private data can't be read by anyone on the Jeskei platform including staff at Jeskei.

Registered users can also provide further details including tags representing interests such as games, movies, hobbies, places, people etc that is used for refining content presented and for social connection building with other members. Tags can be public or private. Public tags are displayed against the users public account while private tags are only used for content searches.

Registered users can also form public and private groups for purposes such as fan followings and for creating production houses and digital film studios. This feature is an important feature of the Jeskei platform since it encourages collaboration towards new content in ways not catered for in any other platform. But groups lead to mini communities within the platform that adds a whole new social dynamic unlike any other platform.

Registered users who are not directly involved in content creation can still be involved by marketing projects or even contribute funding towards projects through the platforms crowdfunding engine. This allows content producers to pitch ideas and win funding with some of the proceeds automatically paid out to investors. This not only provides registered users with earning potential but allows anyone to be part of the film process.

2.4.3 Content Creators

Content Creators are Registered Users who are engaged in the creation of new content.

Any registered user can become a content creator by simply creating a channel and uploading video to it. However, more serious content creators will want to work together with other creatives on jointly produced and distributed content. These partner creators may be friends, people studying at the same film production school or a mix of people at different stages of their career coming together to create new content.

An important feature of Jeskei is the ability to charge for content viewing with automatic distribution of fees to all the creatives involved in a production.

The group and production features allow users to identify content, users involved in the production and distribution of content and the percentage of revenues paid to that person. To keep the platform fees as low as possible while maintaining transparency with creatives involved in a production, digital money is used to transparently pay people on the network.

2.4.4 Influencers

Influences are Registered Users who are active in the ecosystem to help raise awareness of certain content on the platform. They may be famous performers or celebrities who may produce their own content such as reviews or may simply present posts and links on content they're interested or involved in.

For example, an actor in a popular series may produce content discussing the series or may use their influence within a community to raise awareness of other series available on the network. Influencers can earn their own income either by joining a production and being paid a portion of production earnings or from charging directly for their own review content.

Influencers can be paid by producers the same as other production contributors.

2.4.5 Manufacturers / Retailers

When George Lucas made Star Wars he made the unusual decision of turning down a large up-front payment and instead insisting on merchandising rights. This seemed like madness to many at the time but turned out to be an industry changing decision. George Lucas went on to make his fortune through the sale of merchandise which changed the film industry forever.

Since then it has become normal for the big movies to have merchandising deals which can bring in more revenue than the movie itself. But just as creatives are locked out of a revenue share from digital content itself, they are also locked out of a revenue share of the merchandise sold.

Since Jeskei has an economy for paying for content and advertising it makes natural sense for this to be extended to merchandise. Content creators can prove ownership of IP through the platform and so can insist on fees from the sale of merchandise relating to their content. Revenue made in this way can be split just the same as fees raised from digital content creating even more earning potential for content creators and new sale channels for manufacturers.

2.4.6 Advertisers

A major criticism of free online video delivery platforms such as YouTube is the barrage of advertising that viewers are forced to sit through. Jeskei avoids this by shifting the advertising delivery choices to the viewers, away from content creators and the platform itself.

Importantly, the adverts are highly targeted based on a viewer's demographic making it a high value advertisement delivery channel but importantly this is done using a new advertisement pull mechanism that doesn't expose any

private or identifiable information about a person. This is covered in a later section on the advertisement mechanism.

The benefit of this approach isn't just more targeted advertising and better privacy but also ad revenue sharing between the platform, the content producer and the viewer. Viewers who opt-in to receive adverts will be paid for what they watch which leads to the improved sentiment of the people viewing ads. That's good for the advertisers and viewers while still giving content creators access to some of the revenue. This reduces the overall ad revenue available to content creators but they are compensated by having more ways to generate revenues without causing problems for their viewers.

2.4.7 Developers

One additional goal of the Jeskei platform is to create an ecosystem for other businesses as long as those businesses respect the rules and spirit of the platform and all its users.

Developers can develop other types of content production software or integrate current production systems into the platform, can produce new types of viewer for smart devices, can produce professional management and accounting suites for content producers, influencers, advertisers and viewers. This all raises the value of the network as a whole without compromising on the benefits of the core platform maintained by Jeskei.

3 Advertisement engine

An important criticism against free video delivery services such as YouTube is that they force viewers to sit through constant interruptions by advertisers. These interruptions bring no perceived benefit to viewers and so only serve as an annoyance that drives viewers away from these platforms. With viewers leaving platforms it shrinks the viewer base for content creators.

Jeskei takes a disruptive approach to advertising that turns the entire model on its head.

3.1 Traditional advertisement delivery model

The traditional advertising delivery model for online services such as YouTube is as follows.

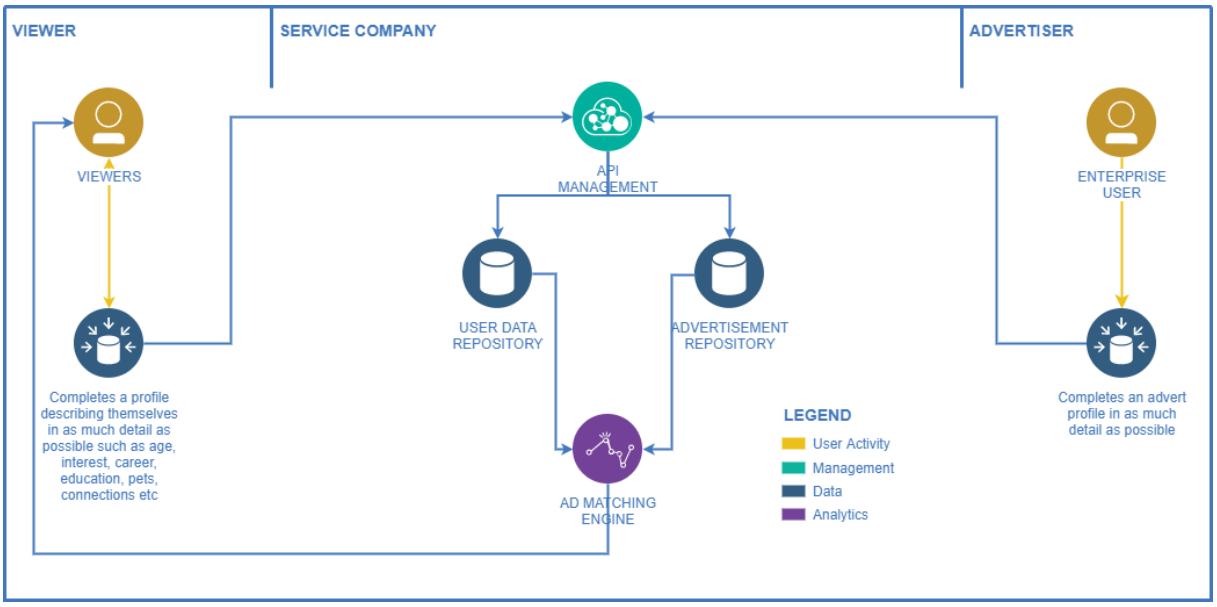


Figure 3: Traditional ad delivery model

Users create a detailed profile and upload it to the service.

Advertisers create detailed targeted adverts and upload them to the service.

A matching process runs at the service that matches adverts to profiles, pushing adverts out to viewers.

Since there's no direct connection between viewers and advertisers it means all the value of any potential connection is moved from the viewers and advertisers to the service company.

Equally important it requires viewers to expose their personal information to the service company to allow the advertising matching to run on the platform servers. There have been many high-profile breaches of personal data by video delivery companies and there have been many cases of personal data being misused by video delivery companies. This has created a pushback from viewers who don't want to expose their personal information just to allow them to watch video. This is made worse by the fact that revenue generated from watching adverts is split between the production company and the service giving no perceived benefit back to the viewer.

What research shows is that this leads to reduced sentiment by viewers which isn't good for the service, advertisers or content producers.

3.2 Jeskei advertisement delivery model

Jeskei takes a totally new and original approach to advertisement delivery that maintains all the benefit of the current ad delivery mechanisms but without exposing personal information or forcing adverts onto viewers. However, a financial incentive is provided to viewers who opt in to watch advertisements.

The design below sets out the Jeskei advertisement delivery architecture.

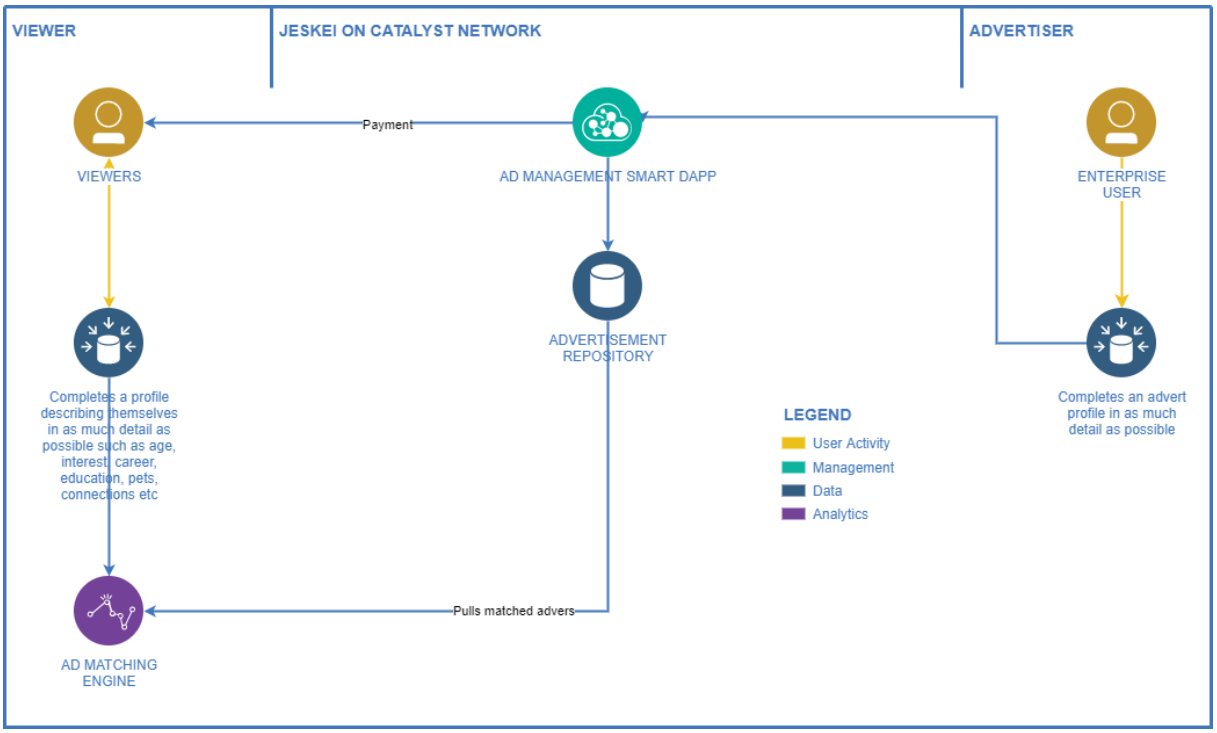


Figure 4: Jeskei ad delivery model

Advertisers still create targeted adverts which are stored on the Jeskei platform.

However, an ad matching engine runs on the client machine using the viewers profile along with tags and metadata for adverts.

For example:

User Profile

Name: George

Age: 22

Interests: Star Wars, reading, cooking, model making, computer games

Location: London, England

AdEnabled: True

On the Catalyst ledger there is a table of live adverts including an advert with the associated data.

AdId: 12345678

AdDeliveryType: EmbeddedVideo

AdLength: 10 seconds

AdSkip: 5 seconds

AdPrice: $0.05

AdType: Event

Location: Olympia, London, England

Tags: Star Wars, Comic Con

Ad Target Age Range: 18 to 35

In this case the user has enabled Ad delivery meaning that they are willing to receive adverts.

When the user watches a video the player on the user's device detects that advert delivery is enabled and looks at a table of running adverts, identifying the advert above. The retrieves the advert from Catalyst DFS and embeds it in the video. Jeskei is notified that the advert has played and a payment of $0.05 is split between the viewer, the producer and the platform. 20% goes to the platform and the remaining 80% is split between the viewer and the producer.

This is a classic Pay Per Click (PPC) mechanism but one that rewards the viewer.

YouTube is on track in 2020 to make $15.15 billion in advertisement revenues alone. A 20% stake of this would be $3 billion. Directly incentivising viewers to watch adverts should create improved viewer sentiment and more opportunities to deliver advertisement content and so even a small market share of the overall video market can create significant earnings for the Jeskei platform.

Importantly, since the matching happens on the viewers device then there is no personal data held or at risk of compromise within Jeskei and so users who require privacy receive it and the risk of bad press from compromised ad data is mitigated.

This mechanism also opens up many new opportunities around direct advertiser to viewer ad types. For example, advertisers could provide promotions direct to viewers or more interactive types of advertisement that simply isn't possible in today's simple PPC mechanisms.

4 Content Creation

This section looks at the tools and process for creating content on the Jeskei platform.

For convenience there will be an online portal and tools for iOS and Android mobile devices. There will also be an SDK and webservice API's to enable anybody to integrate with the platform or develop their own content creation tools.

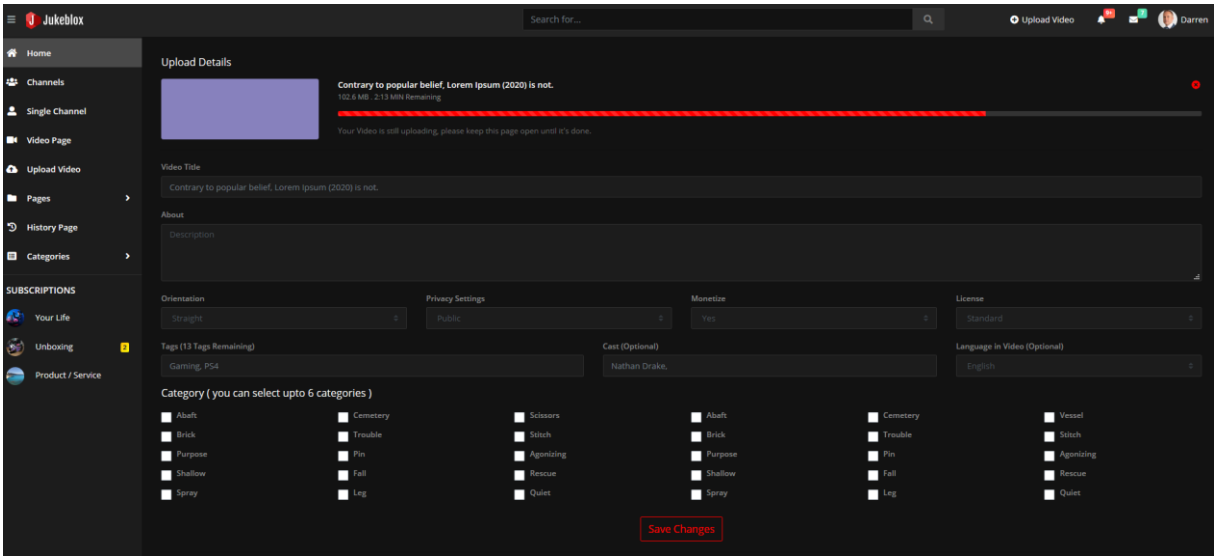


Figure 5: Content creation dashboard

4.1 Uploading video

Video can be uploaded to popular cloud platforms such as AWS and Azure or to the Catalyst Decentralised File System (DFS). Initially, DFS is well suited to content under 1GB while cloud storage is efficient for large video files or for situations when a producer already holds content in a private data store. Over time we will roll out more storage to the Catalyst DFS network so that it can gradually become the dominant media storage layer for Jeskei but this will take time and so it's anticipated that cloud storage will be the primary form of storage initially.

Along with the video content itself, a record is created on the Catalyst ledger identifying how to access content, licensing and ownership. This record can be created by broadcasting a transaction through any Catalyst node. Public web API's will allow vendors to interact without knowledge of smart contracts.

Content is loaded in one of three ways.

1. Through the Jeskei SPA app running on the web or desktop. This is the recommended approach for most users since it provides the most user friendly experience and creates all records at once.
2. A desktop app is being developed that can run in two modes.
   The first mode monitors a directory for DCP content that is uploaded to online storage. This is particularly useful for movie studios that need to upload content efficiently with little time between the end of the editing process and the premier.
   The second mode runs is for DOLBY servers in cinemas, automatically monitoring for DCP components as part of a DCP package, pulling down the latest version of content automatically.
   This is based on a design that has been demonstrated downloading hundreds of movies from Hollywood studios including Star Wars and James Bond.
3. Content can be manually uploaded to storage and the Jeskei records manually created. This is for advanced users that have their own processes or content already in cloud storage.

4.1.1 DFS, a short primer

Today's disk drives are classed as block storage devices which means that the disk is divided up into logical blocks (collections of sectors) which are addressed using their logical block address (LBA). A file is written to empty blocks on a disk with a record created identifying where each block is located and the order that they are related.

A distributed file system such as that on Catalyst works in a similar way but rather than blocks being located on a physical disk, they are spread across a computer network. Now computers come and go from networks so a DFS creates more than one copy of each block which ensures that there are always multiple copies of each block available.

This DFS approach brings a number of benefits when it comes to file systems. One major benefit is that there is no single point of failure that could result in private files being stolen or any type of file being corrupted and lost.

If an attacker wanted to steal a file such as a private movie then they would only need to steal the disk that the movie is stored on. In DFS, the file is cut into blocks and the blocks are spread across an entire network so an attacker would need to either steal every disk on the network or have a way to identify every block and retrieve them.

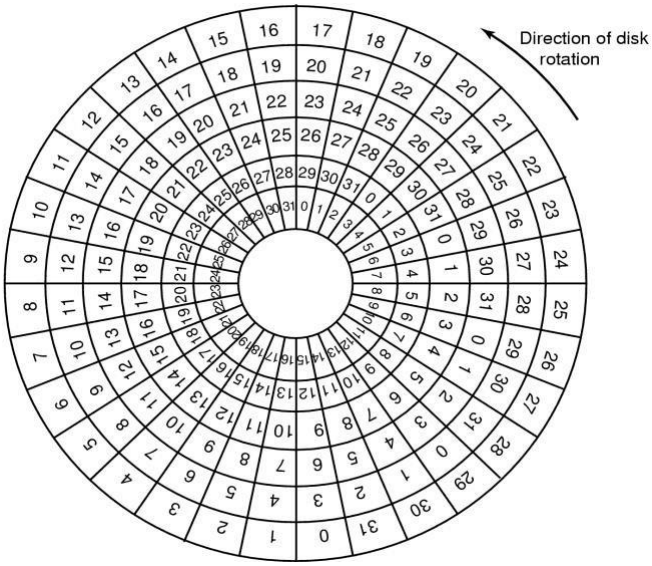


Figure 6: Disk sectors for storing parts of a file

An important point here is how the block record is protected in DFS. The block record is associated to a file hash and so knowing the file hash means knowing how to retrieve the file. So for a video the hash could be published to allow anyone in the world to access the file, can be made available to only certain people such as people who buy a license or kept entirely private so only the videos owner can access it.

This means that videos stored on DFS are less likely to be stolen since there's no single disk to steal, are less likely to be lost through corruption since there are multiple distribute copies and they can be globally accessed more efficiently due to the blocks being globally replicated.

4.1.2 Video upload tools

From a user perspective they do not need to be aware of how DFS works, they only need to install or access the online Jeskei Studio or use a simpler upload tool from their Apple or Android mobile device.

Jeskei studio presents users with a dashboard for administering all of their video content including working with other content producers on new content. This is the hub for users creating and working with content.

Content creators must first create an account if they don't have one already which simply means registering their public key, data of birth and country with the Jeskei platform. This registration process simply adds their public key and metadata to a public record maintained by Jeskei on Catalyst. No further personal information is required.

Content creators use whichever video editing tools they would normally use to create content before submitting it through Jeskei studio to the platform. The upload process collects details about the video and submits it to Jeskei as a video record stored on Catalyst while the video itself is uploaded to the Catalyst DFS network or cloud storage depending on the upload options set.

A video record consists of information for retrieving the video and for video search, ordering and filtering.

```
Video Id: <generated at upload / ERC-721 tokenId>
Link: Public hash of video or an encrypted hash if private
Title: Title of video
Description:
Age Rating: <optional>
Region restrictions: <optional>. i.e. only available in Britain
Tags: <optional> used for searching
Owner: CreatorId (can be a user or a group)
Creators: List of users involved in its creation
Price Per View: <optional> per view price
Price Per License: <optional> to own price
Fee Record: Id for a record that determines payment distribution
```

Figure 7: Video record

Behind the process, data is stored as a combination of a record on IPFS and an ERC721 token. ERC721 is important to allow film assets to be traded in the future on NFT trading platforms. Whoever owns the ERC721 component owns the associated asset and any revenue share that comes to it.

Videos are standalone but they are structured within channels managed by the video owner or owner group.

```
Channel Id: <generated at upload>
Owner: CreatorId (can be a user or a group)
Administrators: <optional>
Title: Title of video
Description:
Tags: <optional> used for searching
Subscription Price: <optional>
Logo: For branding
URL: For linking to external site

Note: Branding will be expanded to allow very distinct looking channels
```

Figure 8: Channel record

Videos can be associated to one or more channels using bridging tables.

```
Video Id / ERC-721 tokenId:
Channel Id:
```

Figure 9: Video and Channel association record

Note that the above schemas are subject to change but represent the schema approach to be pursued.

4.2 Intellectual Property (IP)

One of the biggest concerns for video creators is protecting the IP of digital content. This is as true for big box office movie creators as it is for single person amateur video creators. Within todays film studios and popular online streaming services that pay for the content the IP is owned by the studio or service. On Jeskei studios that use the platform to deliver their own content can continue to own IP in this way but people are free to publish and trade their own IP opening an entirely new market and set of opportunities for content creators.

The concerns of IP can be broken down into two challenges.

1. How to prove ownership of content.
2. How to mitigate theft of content.

4.2.1 Proving ownership of digital content

Every piece of media on the Jeskei platform is represented as a Non-Fungible Token (NFT) using the NFT standard ERC-721.

NFT's are digital assets that represent unique or limited supply digital assets. Popular NFT platforms such as OpenSea allow for the trade of pieces of art. NFT's can represent any asset, from a contract to a physical asset such as a property. To date, the most common use of NFT's has been for the trade and ownership of artwork.

Within Jeskei, NFT's represent any digital media asset, including soundtracks, 3D models, sub-title sets, video, scripts and more. This allows content creators to create, provide paid access to or sell content that they create. For a film production, this means that a single production can be made up of many individual NFT's, providing value back to the NFT owner.

But proving ownership isn't just useful when trading an asset, it's useful when it comes to proving that someone else is illegally using an asset without permission, protecting the users rights in court and ensuring people who create content are paid for it.

4.2.2 Mitigating theft of content

This is a much more difficult challenge which hasn't been met yet by any video system.

Mitigating theft of IP on Jeskei is handled in 3 ways.

1. By distributing content pieces across the network so there's no single point for theft.
2. By supporting DRM standards the same as other online video streaming services.
3. By allowing content owners to use a system that deletes and uploads pieces of content on a cycle with the header of the movie slightly altered to create a new file hash. This means that a file link that works today won't work next month unless I'm a license holder and so able to receive the new link. There would be a charge associated to this since it adds extra work to the network.
4. DFS unique identified content by the file hash so if someone else tries to upload the same content, perhaps to make it publicly accessible it will be rejected since the hash already exists in the system.

4.2.3 Dealing with illegal content

As with any service where people can upload content there is a risk that illegal content or content that breaches the service rules will be uploaded.

Jeskei deals with this in a number of ways.

1. Content uploaded is hashed and its hash is checked against a blacklist of hashes.
2. Microsoft PhotoDNA will be used to scan videos for known illegal content. We will in the future develop our own equivalent of PhotoDNA that runs on the Catalyst network to improve trust by not requiring a third-party service.
3. Automated filters will be used that detect the amount of skin on a page to flag content for review.
4. Users of the platform will be able to alert the service to illegal content or content that breaches the rules. These videos will be manually checked.

The intention is to provide safety in a very cost-effective way and so automated processes that use hash checking, tone scanning and AI will be employed as much as possible. By capturing content straight away it improves the image of the platform as a whole while removing the need for later manual checks. Anything that skips through these automated processes can be reported and manually checked but the target would be to capture 99% of content before it even makes it to the service.

5 Content Access

The other side of the platform is content access which is performed through a media player interface, either online or running on the users device.

Along with the media payer itself is an SDK to enable people to build their own media players for any device they choose creating a richer experience and more diversity for content viewers.

However, Jeskei will come with the following standard players

- Blazor WebAssembly application that runs in modern web browsers or on the desktop
- Cinema delivery system for Dolby servers

5.1 Online web application

The online player is a .NET Blazor WebAssembly SPA application that can run in modern web browsers or on the desktop.

This online service means that users can quickly and easily start to access content even without registering with the platform, something that was crucial for the rapid rise of YouTube's success.

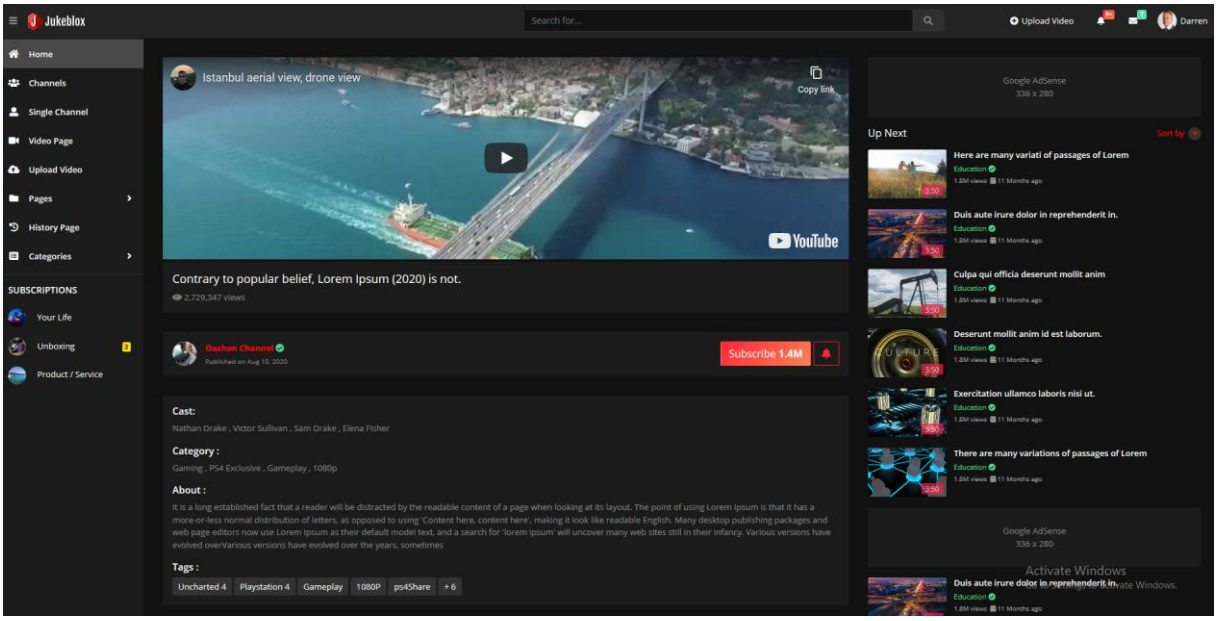


Figure 10: Online player

The Blazor app will be familiar to anyone who uses current video streaming services such as YouTube but will quickly open up the new social features and additional capabilities as soon as a user registers. Hints of the added functionality will be presented even to unregistered users to encourages users to register and unlock the wider platform benefits.

Users connect using MetaMask or WalletConnect. Once connected the user will be identified to Jeskei by their public address with content provided accordingly.

5.2 Cinema delivery system

Cinemas are being squeezed by the film studios who retain most of the proceeds made from watching movies in cinemas. Today, cinemas make most of their money through the sale of popcorn and drinks but studios are starting to even demand a portion of those takings for popular movies such as Star Wars.

This has left the whole cinema industry in a tight corner, struggling to find movies to draw people in numbers and for those few big box office movies that do they are required to give away the majority of their takings.

Studios have started to broaden the type of content they offer since some content still draw large audiences without the squeeze of file studios. Examples include sporting events on the big screen, theatre performances and reruns of old classics such as Indiana Jones. Reruns of old movies can actually create larger viewing figures than box office hits but the challenge is getting access to content to show.

80% of cinemas run Dolby servers and standard software for copying, packing and playing movies digitally once delivered. Jeskei fits neatly into this ecosystem giving cinemas access to a Jukebox of content to play, both original and classic.

Content producers will be able to upload or package content into Digital Cinema Packages (DCP's) through the platform which is compatible with cinema projection systems. When defining viewing rules for paid content, content creators will be able to charge a fair rate that is applied to cinemas. This gives cinemas access to a broad range of content at a fair price while providing an important additional sales channel to content producers.

6 Community

As has been pointed out throughout this document, Jeskei is about bringing content creators and viewers closer together to enable fairer earning models for those providing content and a more interactive experience for those watching content.

This chapter looks at three of those areas relating to community which are social media, crowdfunding and marketplace.

6.1 Social Media

An important dimension of Jeskei is its ability to bring people together for content creation and for supporting content being created on the network.

Registered users can view a list of public groups or create public or private groups. Once created the user becomes the administrator and owner of that group but can add other users to roles including co-administrator. Ownership can also be transferred but should only be done when the intended effect can't be achieved by creating roles and adding people to those roles.

Public groups appear in a list of public groups which can be filtered using tags associated to groups as well as by the group category or other characteristics such as if a group is regional. Within the group, users can discuss projects, shows, actors or anything else they choose in structured threads. Content can also be associated to groups by group members.

For content creators this becomes a powerful way to share and work on new content within a kind of virtual film studio. Some members can be working on scripts, others on film scores, others on filming and others on animation for example. Longer term it's intended to build in actual video and sound editing capabilities but to begin it will be just the ability to discuss and share content that's being worked on.

Non-content creators can also create groups to discuss subjects of interest. For example, fans of a show could discuss and share show links while fans of nature could discuss and share nature shows.

6.2 Crowdfunding

Film studios need funding if they're to create great content and so it's intended that a crowdfunding capability is to be created within the platform. Importantly, Members will be able to complete a pitch that they list for funding. The pitch will include details about the production, the people involved in the production and what financial backers receive for their funding.

This might be early access to the production, being named in the credits, merchandise and a receipt of a portion of the takings from the production. This gives people the opportunity to be involved in the movie creation process while earning from the success of that movie.

Users will develop a reputation based on the productions they've been involved in and investors will start to back those people with a good track record for producing quality and profitable content. This makes them important influencers for new productions and people to follow.

The intention is to enable creators of quality content to find and secure funding while rewarding backers in tangible ways through the platform.

Jeskei earns from a small fee form the funds raised but the majority of the funds raised go to the content creators where it's needed the most.

6.3 Marketplace

As movies such as Star Wars have shown us, merchandise can be as valuable as the production itself. Today this isn't limited to just big Hollywood productions, there are toys and merchandise for TV shows and for popular YouTubers. Toy shops sell small models and merchandise for YouTubers such as Ryan's Toy Review which are important sources of income for the production team.

The marketplace is intended to be a feature where channels and shows can link to merchandise for sale through the platform which allows people at the show itself to view and purchase merchandise of interest. If the Ryan's Toy Review YouTube channel sold merchandise at source it can be expected that many more people would buy those official merchandise rather than search eBay and Amazon for often unofficial merchandise.

Manufacturers who are users of the platform can work with channels to list merchandise which when bought have the payments automatically distributed accordingly. This means a payment to the manufacturer and potentially dozens of payments out to the shows cast and crew.

Payment for merch is in the digital currency of the platform but people can pay using credit and debit cards which results in tokens being purchased and distributed according to the sale rules. This ability to use cards is important since it's a process people are familiar with. Behind the scenes the process is simply purchasing tokens then continuing as if paying with tokens already held by the purchaser. This keeps the internal process simple including distribution of money.

7 Economics

At the heart of the Jeskei platform is the economics engine that distributes revenues fairly to content creators from viewers of content. The token economy is **designed to reward value creators** in the ecosystem. Jeskei achieves this using the governance token (ticker: JAK). As well as being the principle governance token, the JAK token allows revenues to be distributed without multiple card payment fees while providing transparently and automated payments.

7.1 JAK token

JAK tokens are used to participate in governance proposals, by voting through the Symmetric DAO (see governance). These proposals will shape the future of the DEX, its various functions (e.g., community or risk fund) and ecosystem.

JAK is an ERC20 token that is also used to transfer value from the payee to the content providers. JAK tokens are not pegged to any physical or digital asset and so can be traded or used beyond the scope of the Jeskei platform.

Content providers can set fees in JAK or USDC. If using USDC then an exchange rate is applied using a pricing oracle with the USDC swapped to JAK which is used as the underlying exchange token.

The founder of Jeskei is also the tech lead and founder of Symmetric, a decentralised exchange and automated market maker on the Gnosis and Celo blockchain networks and so we will look to integrate with Symmetric and other exchanges to automate this process.

USDC is supported since many consumers are more familiar with stable coins and so they must be catered for through a stable coin option. But whether they use JAK or USDC, payments are made through the users wallet and so they must have the available funds to cover any purchases.

Payments will be made using one or more of the following networks.

- Polygon
- Arbitrum
- Celo
- Gnosis
- Catalyst

Initially we will focus on Polygon support as the most popular low cost Ethereum Layer 2 protocol.

Longer term we will support Catalyst once it is available as a complete Layer 2 network. The advantage of Catalyst is that it integrated DFS and payments and so provides a tightly coupled and efficient means of payment and media exchange. But we will only support Catalyst when it is fully available as a layer 2 protocol.

After launch we will also work on integrating other networks to give the broadest possible support for consumers but this will depend on available bridges and market demand. For example, Celo is a popular network in poorer mobile first countries and so provides an excellent payment option for many large under-supported countries. Gnosis (formally xDai) meanwhile is a less popular network but very well tested and supported by a loyal community while now becoming an important part of the Ethereum beacon network plans.

Since JAK tokens are used for governance and for all economic activities on the Jeskei platform then JAK tokens have a high level of utility compared to other projects. Utility drives adoption of JAK token by giving it spending power and real practical use. JAK tokens are also the only way to get involved in governance and so similar to traditional shares, holding JAK tokens gives a stake in the project and influence on the long term future of the project.

7.2 Network fees

The table below sets out the fees that are applied to the network.

It's important to note that free channels and content are free to viewers and content creators. Fees only affect content producers who are earning from their content and only affect viewers from a stake in the advertisement revenues. This provides a fair fee and reward model that encourages both content creators and content consumers.

Feature	Cost
Standard Channel Creation	Free
Branded Channel Creation with Private Domain Name	$100
Viewing fees for paid content	5%
Advertisement fees	20%
Merchandise fees	5%
Crowdfunding fees	5%

Table 1: Network fees in dollars but will be charged in JAK tokens with the option for USDC and an exchange rate

This pricing structure encourages content creation while channelling most of the value back to content creators. Fair fees are applied to allow Jeskei to continue the development and maintenance of the network. All fees raised go back to the Jeskei multisig controlled by a trusted core team. How fees are used are determined by the community through the Jeskei DAO (see governance below). We intent to use the Gnosis Safe as the multisig requiring more than one signature for any expenditure above a certain level.

The above represents the core platform fees. Additional fees will come from value added services and tooling developed over time to better serve professional content creators and advertisers on the platform. For example, earlier in this document we discuss protecting IP with one value added tool being the ability to change content headers and reupload on a schedule to create completely new file hashes and links required to access content. Since this is an optional action that can add further protection to high value content then a fee would be applied. This approach ensures fees are kept low for viewers and content producers while creating significant opportunities to scale revenues over time.

Merchandising allow content creators to access some revenues from official merchandise sold through the platform. This allows for new partner opportunities between manufacturers and film producers while allowing the same benefit of revenue sharing across content creators. This is already becoming a thing for even amateur content with YouTubers such as Ryans Toy Review selling merchandise through high street stores.

Crowdfunding fees are fees applied to crowdfunding projects to cover the cost of creating new content. This mechanism will be added in phase 2 of the project but is envisioned to work similar to todays crowdfunding sites, allowing creator groups to pitch ideas and raise funds to produce them. Content producers will develop reputations from the content they create allowing larger budgets and productions to be created over time. Jukebox takes a small cut of all funds raised in this way.

The following examples shows a diagram of a group of content creators who have set a view price of $1 per view for users or $1,000 per month per movie theatre, with fees distributed to the content creators according to the split defined, including 5% back to the platform. Rules can be time limited allowing offers to change over time, such as charging more for viewings at a release date, less after a period of time while introducing new options such as paying for a lifelong license to own a video.

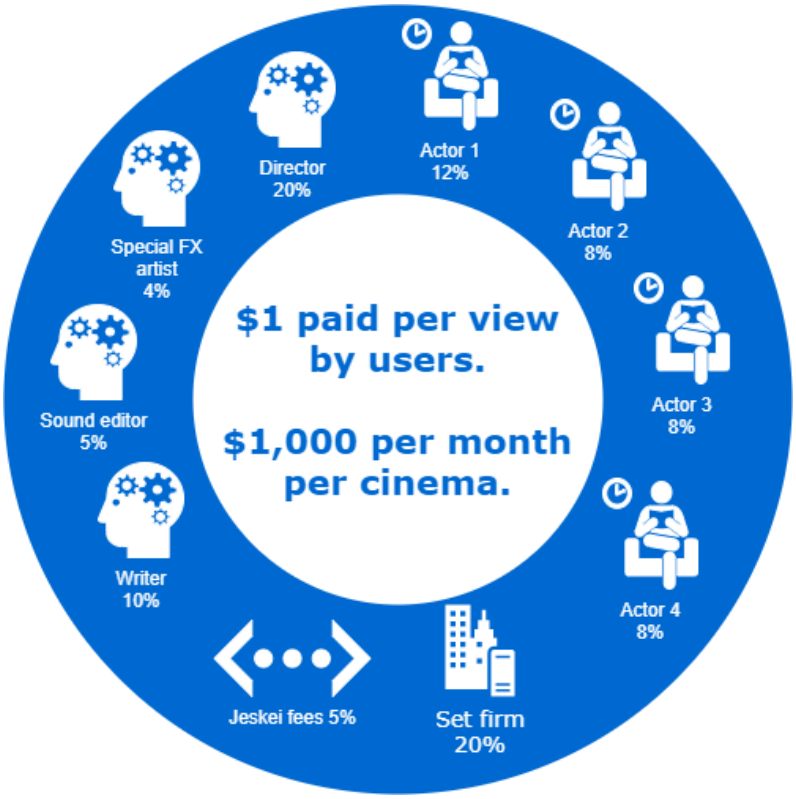


Figure 11: Example revenue split

As the above diagram shows there is transparency and fairness in the system for movie creators whether they're amateurs and one-man bands or professional content creators. Jeskei is at the heart of the entire ecosystem making revenue from the content viewing charges, advertising revenues and merchandising. Pulling all of these strands together within a community environment naturally creates stickiness to the platform from the social media aspects as well as the content itself.

7.3 Tokenomics and Initial Token Event

The tokenomics model of Jeskei is based on a two-year budget. Crypto and DeFi markets are notoriously difficult to model long term and yet we believe that there must be a budget set out to allow prudent financial planning for the Jeskei project, its investors and users. The two-year budget sets out the token minting rate and usage for two years after which a new two-year budget is agreed by the DAO and becomes the new budget. This ensures there's stability for the economy while giving stakeholders flexibility to learn and improve how funds are minted and distributed in the future.

The tokenomics for Jeskei is made up of an initial token allocation and an ongoing token mint and distribution.

The objective of the initial token allocation is to raise capital for the project and to create economic incentives that drive the project forward.

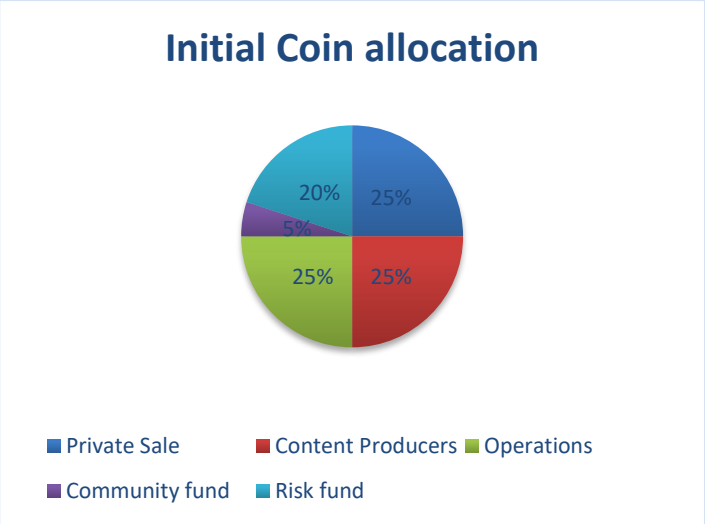
The objective of the ongoing token mint and distribution is to create an economic environment that supports a growing ecosystem and user base. To support this, the majority of new tokens go to content producers and community groups that ultimately drive growth and adoption of the platform. An ongoing allocation also goes to the operations and community teams that are also necessary to support and grow the project.

From the initial token allocation, tokens are awarded to the following groups and funds.

Allocation	Description
Private sale	An allocation of tokens sold to raise USDC capital for the project. This capital ensures there is adequate funding for hosting, development and support. The initial sale is quite small but will support the growth of the core team while creating a positive starting position for token price.
Content producers	A fund is allocated to fund new content. Academic groups, independent film makers, channel builders, influencers or anyone else with an idea for a new media production can apply for a grant to support that production and launch on Jeskei. This is the largest ongoing allocation in recognition of the importance of creatives within the industry.
Operations	Operations is a budget allocated to the founders in recognition for work carried out developing the project and for ongoing support of the project operationally. This includes coordinating the DAO, partnership building, core development and maintenance. This work is in conjunction with the community and DAO and so the community and DAO members will provide further development and support.
Community fund	The community fund is a fund that provides bounties and grants to community members actively supporting the project. This could be community managers, developers, partnership builders, testers and other groups. This is not for content producers but for anyone within the community who wishes to contribute time and ideas towards the Jeskei project in any way other than content production.
Risk fund	The risk fund is a fund held back and used to provide a further layer of protection to the project and its user base. In the event of problems with reward pay-outs, network incidents or other unforeseen situations then an application can be made to the reward fund for compensation. This can also be expanded to include content producers to help protect content producers in uncertain times. This pool of funds is unusual in that we will allow the DAO to decide during the two-year economic period just how large the risk fund should become. This fund provides a level of protection missing from most projects to lower risk to the project, its users and token buyers. However, the price of JAK plus growing confidence in the platform over time means that this fund could become very large and yet unlikely to be used and so the DAO may choose to cap this fund and divert its continued allocation to other categories such as content producers.

While the above sets out the groups and funds that receive tokens, the table and chart below show the initial two-year token supply and distribution.

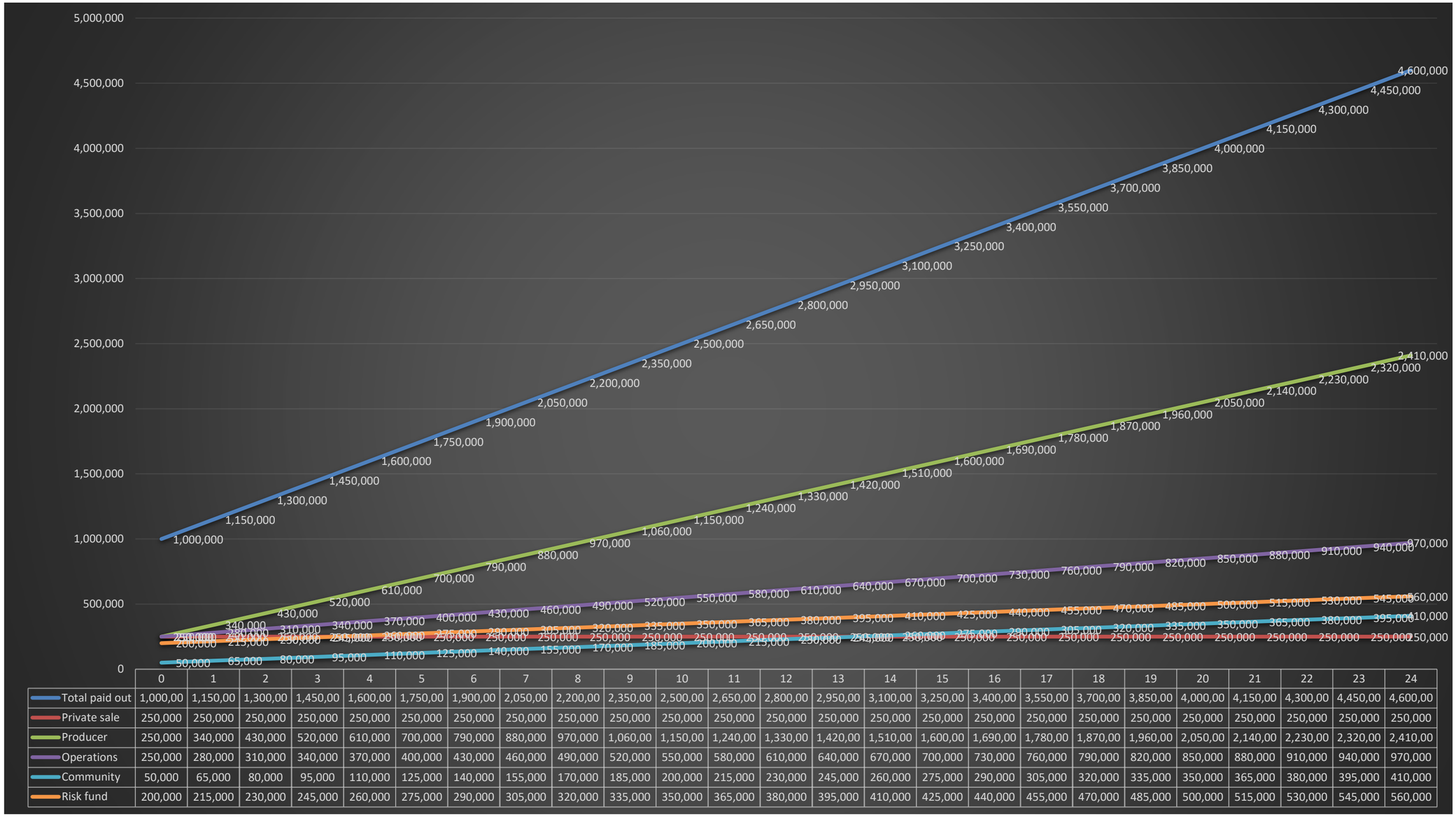
The largest ongoing allocation is to content producers but there is a healthy allocation to the other categories. The community fund is the smallest since we have found from other projects that for the first year at least it is usually the least used allocation. JAK price will have a big bearing on the monthly value of this pool but in the event that this pool is found to be too small then we will use the DAO to look at adjusting the allocation from the risk fund.



Token vesting schedule

Private sale participants have a vesting period that allow only 20% of coins to be sold on day one, with 20% maturing each month, thereafter. **The operations team and founders'** allocation of SYMM tokens for 'month 0', also vests at 20% per month. This should in theory, avoid a large sell-off all at once which is a risk to other projects.

Private Sale	Private Sale (Accum)	Content Producers (%)	Content Producers	Content Producers (Accum)	Operations (%)	Operations	Operations (Accum)	Community fund (%)	Community fund	Community fund (Accum)	Risk fund (%)	Risk fund	Risk fund (Accum)	Total (%)	Total mine
250,000	250,000	25%	250,000	250,000	25%	250,000	250,000	5%	50,000	50,000	20%	200,000	200,000	100%	1,000,000
0	250,000	60%	90,000	340,000	20.0%	30,000	280,000	10%	15,000	65,000	10%	15,000	215,000	100%	1,150,000
0	250,000	60%	90,000	430,000	20.0%	30,000	310,000	10%	15,000	80,000	10%	15,000	230,000	100%	1,300,000
0	250,000	60%	90,000	520,000	20.0%	30,000	340,000	10%	15,000	95,000	10%	15,000	245,000	100%	1,450,000
0	250,000	60%	90,000	610,000	20.0%	30,000	370,000	10%	15,000	110,000	10%	15,000	260,000	100%	1,600,000
0	250,000	60%	90,000	700,000	20.0%	30,000	400,000	10%	15,000	125,000	10%	15,000	275,000	100%	1,750,000
0	250,000	60%	90,000	790,000	20.0%	30,000	430,000	10%	15,000	140,000	10%	15,000	290,000	100%	1,900,000
0	250,000	60%	90,000	880,000	20.0%	30,000	460,000	10%	15,000	155,000	10%	15,000	305,000	100%	2,050,000
0	250,000	60%	90,000	970,000	20.0%	30,000	490,000	10%	15,000	170,000	10%	15,000	320,000	100%	2,200,000
0	250,000	60%	90,000	1,060,000	20.0%	30,000	520,000	10%	15,000	185,000	10%	15,000	335,000	100%	2,350,000
0	250,000	60%	90,000	1,150,000	20.0%	30,000	550,000	10%	15,000	200,000	10%	15,000	350,000	100%	2,500,000
0	250,000	60%	90,000	1,240,000	20.0%	30,000	580,000	10%	15,000	215,000	10%	15,000	365,000	100%	2,650,000
0	250,000	60%	90,000	1,330,000	20.0%	30,000	610,000	10%	15,000	230,000	10%	15,000	380,000	100%	2,800,000
0	250,000	60%	90,000	1,420,000	20.0%	30,000	640,000	10%	15,000	245,000	10%	15,000	395,000	100%	2,950,000
0	250,000	60%	90,000	1,510,000	20.0%	30,000	670,000	10%	15,000	260,000	10%	15,000	410,000	100%	3,100,000
0	250,000	60%	90,000	1,600,000	20.0%	30,000	700,000	10%	15,000	275,000	10%	15,000	425,000	100%	3,250,000
0	250,000	60%	90,000	1,690,000	20.0%	30,000	730,000	10%	15,000	290,000	10%	15,000	440,000	100%	3,400,000
0	250,000	60%	90,000	1,780,000	20.0%	30,000	760,000	10%	15,000	305,000	10%	15,000	455,000	100%	3,550,000
0	250,000	60%	90,000	1,870,000	20.0%	30,000	790,000	10%	15,000	320,000	10%	15,000	470,000	100%	3,700,000
0	250,000	60%	90,000	1,960,000	20.0%	30,000	820,000	10%	15,000	335,000	10%	15,000	485,000	100%	3,850,000
0	250,000	60%	90,000	2,050,000	20.0%	30,000	850,000	10%	15,000	350,000	10%	15,000	500,000	100%	4,000,000
0	250,000	60%	90,000	2,140,000	20.0%	30,000	880,000	10%	15,000	365,000	10%	15,000	515,000	100%	4,150,000
0	250,000	60%	90,000	2,230,000	20.0%	30,000	910,000	10%	15,000	380,000	10%	15,000	530,000	100%	4,300,000
0	250,000	60%	90,000	2,320,000	20.0%	30,000	940,000	10%	15,000	395,000	10%	15,000	545,000	100%	4,450,000
0	250,000	60%	90,000	2,410,000	20.0%	30,000	970,000	10%	15,000	410,000	10%	15,000	560,000	100%	4,600,000
	250,000	52%		2,410,000	21%		970,000	9%		410,000	12%		560,000		



	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Total paid out	1,000,00	1,150,00	1,300,00	1,450,00	1,600,00	1,750,00	1,900,00	2,050,00	2,200,00	2,350,00	2,500,00	2,650,00	2,800,00	2,950,00	3,100,00	3,250,00	3,400,00	3,550,00	3,700,00	3,850,00	4,000,00	4,150,00	4,300,00	4,450,00	4,600,00
Private sale	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Producer	250,000	340,000	430,000	520,000	610,000	700,000	790,000	880,000	970,000	1,060,00	1,150,00	1,240,00	1,330,00	1,420,00	1,510,00	1,600,00	1,690,00	1,780,00	1,870,00	1,960,00	2,050,00	2,140,00	2,230,00	2,320,00	2,410,00
Operations	250,000	280,000	310,000	340,000	370,000	400,000	430,000	460,000	490,000	520,000	550,000	580,000	610,000	640,000	670,000	700,000	730,000	760,000	790,000	820,000	850,000	880,000	910,000	940,000	970,000
Community	50,000	65,000	80,000	95,000	110,000	125,000	140,000	155,000	170,000	185,000	200,000	215,000	230,000	245,000	260,000	275,000	290,000	305,000	320,000	335,000	350,000	365,000	380,000	395,000	410,000
Risk fund	200,000	215,000	230,000	245,000	260,000	275,000	290,000	305,000	320,000	335,000	350,000	365,000	380,000	395,000	410,000	425,000	440,000	455,000	470,000	485,000	500,000	515,000	530,000	545,000	560,000

The above chart shows a growing economy with the content producer section being the fastest growing. We hope to attract original content producers to the platform and so this allocation is expected to be particularly active. After two years there should be a significant amount of content available and users of the platform which will likely require a market change to the tokenomics for the following two years.

8 Governance

Governance for Jeskei is to me managed at two levels, at the highest level through a DAO and for day-to-day operations through a core operations team.

8.1 DAO

Jeskei is ultimately governed through a DAO using the DAOhaus platform. DAO members are effectively shareholders of the project and can raise votes that if passed become instructions to the operations team.

To join the DAO a user should send JAK tokens to the DAO which will be exchanged at a rate of 1 JAK = 1 voting share. It requires just one voting share to sponsor proposals and vote on proposals raised through the DAO. We would encourage members to be sensible when buying voting shares since a healthy project should avoid concentrating voting power in too few hands long term.

A DAO ensures high level decision decisions are transparent and involve a broad range of people. The risk fund and community fund will both be controlled by the DAO giving the DAO direct spending power over these important funds.

Operations members will be expected to be members of the DAO and will initially be the largest shareholders in the project. This is necessary to ensure operations can focus on bringing Jeskei to market and all the initial launch and planning activities. Also, as a new project it's only normal and natural for the core team to have the most interest in the governance of the project.

However, DAO membership is open to anyone and so as the project grows in popularity the DAO membership will diversify until the founders make up a minority portion of DAO governance. The DAO should grow to incorporate many stake holders with an interest in the Jeskei platform and so an interest in the DAO.

Key actors — motivations & purpose

Content providers — motivated by supporting new content creation and grants

Production investors — want to profit by supporting to content

Studios — want to profit from their catalogue and reach new audiences

Seed Investors — private sale participants holding JAK tokens

Community — use Jeskei, are active and provide constructive feedback

DAO participants — govern the DEX and act as ambassadors for Jeskei

Operations — responsible for ongoing operations and further development

Risk Fund — held by Jeskei to provide an added layer of protection

*Other stakeholders; networks supported, cinemas, film studios, art academics and groups

8.1.1 Liquidity Providers (LPs)

The Jeskei platform is primarily about media content and so the content providers are encouraged to work with Jeskei and to get involved in governance by providing a large portion of the monthly JAK token supply to content providers. Content providers can use this for funding projects but also for having an influence on the future of Jeskei through the DAO.

8.1.2 Studios

Studios have much to gain from a decentralised platform with a broad user base and they can directly influence the direction of the project through the DAO and by holding JAK tokens. Studios can also earn JAK tokens through content from the monthly allocation to content creators.

8.1.3 Seed investors (Private sale)

A vesting schedule of 20% per month applies to the original private sale token holdings, held by seed investors. There are no additional rewards issued on unvested seed tokens.

8.1.4 Community fund

The purpose of the community fund is to ensure that members of the community adding value to the Jeskei ecosystem, are compensated.

The community fund will pay out in two ways:

First — Anyone will be able to list bounties (must be sponsored by a DAO member), which can be completed by community members for compensation. Typically, bounties would be for bugs and vulnerability reporting, or work outside the scope of operations (e.g., new features, new products or services the community wishes to develop for the ecosystem).

***Second —** Funding proposals can be submitted by anyone to the community function in the DAO for a vote and if approved will pay out to the proposing party. This allows anyone in the community to put forth ideas and seek funding. Proposals don't have to be technical in nature and can include community events, training days or new types of pools for the DEX.

8.1.5 Symmetric DAO members

In order to join the DAO, users will need to be in possession of SYMM coins. There is **no allocation of rewards** for solely participating in governance proposals. However, DAO members are not restricted from earning rewards by providing liquidity directly to the DEX.

8.1.6 Operations

Reward tokens include a 24-month budget for running operations through the DAO, for both founders and new members alike. This replaces a traditional founding team allocation. Unlike a founders-fund, the operations fund is not pre-mined and pays out over time as the operations

team further develops Jeskei and grows the ecosystem. The initial ‘month 0’ allocation for operations will vest at 20% per month starting at day 30, after launch.

The operations team will support daily activities and implement/respond to proposals raised by the Jeskei DAO. Members of operations who part ways (for any reason), will no longer earn from this allocation — but may earn rewards in the same way as other liquidity providers. The composition of the team is expected to change over time, as new individuals with varying skill sets are added to scale operations.

8.1.7 Risk fund

The risk fund exists to provide an additional layer of protection from malicious attacks, losses incurred due to vulnerabilities in Jeskei and losses to content sponsored by Jeskei. The risk fund will be managed transparently through the risk function in the DAO.

The DAO will evaluate the nature of any incidents before approving the magnitude and timing of any pay-outs. It may also use this fund to reduce risk through other means and find more capital-efficient protection with time.

The risk fund will initially be capped at value at risk in pools, with any excess funds going to other categories (excluding operations). The cap ensures the risk fund does not become redundant and stays capital efficient.

8.2 DAOhaus

The DAO is hosted on the DAOhaus platform. DAOhaus was chosen because in tests it was found to be the most reliable DOA while being available on Gnosis, a low-cost network. Cost is important since the DAO must be available and affordable to as many users as possible.

The general process for engaging with the Jeskei DAO through DAOhaus is as follows.

- Anyone can raise a proposal
- Once a proposal is raised, the proposal needs a sponsor with voting rights in the DAO to support it (each sponsor pays 10 WXDAI into the DAO’s bank). This ensures that proposals meet a level of quality and due diligence before going to DAO members to vote on. While it is possible for a DAO member with voting rights to raise a proposal and sponsor it — we endorse a separation of approval authority from proposal creation.
- Once sponsored, the proposal enters a queue to ensure a pipeline of proposals and avoid being left unattended.
- The proposal then has a limited time window for DAO members with voting rights to vote on. Each DAO function will define a suitable length of time which will then be applied to all proposals, within that category.
- Once voting is completed, there is a 3-day grace period where DAO members who voted against the proposal can choose to sell some or all of their voting shares to the DAO. This protects DAO members who are strongly opposed to a proposal and wish to liquidate, before the proposal is actioned.
- The outcome is then written to the blockchain and the proposal is actioned.

This process is orderly and fair and provides time frames to ensure everyone within the DAO with voting rights has time to vote.

In DAOhaus, each DAO has a bank, which holds digital assets for that DAO. Voting shares correspond to ownership of the bank's assets. So if a person holds 10% of voting shares in a DAO then that person can at any time return up to 10% of their voting shares in exchange for up to 10% of the assets held in DAO bank.

A common use of DAOs for example, is for groups of people to come together and pool assets to make investments. They send their crypto to the DAO bank for in exchange for voting shares and are also able to leave the DAO and reclaim their share of the assets. A successful fund might grow significantly and any redemptions would proportionally reflect that.

How this feature of voting shares and the bank works with Jeskei depends on the specific DAO function, but it's important to understand how DAOhaus treats voting shares and the bank, to understand how the DAO operates.

DAOhaus breaks down proposal types into the following categories.

- *Membership — A proposal to be awarded a number of voting shares. Membership proposals can also include a tribute which is a payment in some supported digital asset to be exchanged for voting shares.*
- *Funding — Tributing Spoils or Requesting funds from the DAO to work on internal projects and improvements*
- *Token — Request to add support for a new ERC20 token to the bank*
- *Trade — Request the DAO to swap one asset for another within the War Chest (War chest refers to the resources at the DAOs disposal)*
- *GuildKick — Request to forcibly remove a malicious member through a vote*
- *Minion — A contract that allows execution of arbitrary calls (i.e. swapping assets in the DAO bank)*

Source: https://daohaus.club/docs/proposals

8.3 Operations

While a DAO ensures fair governance across all stakeholders, a DAO can be slow to debate and vote on actions. Day to day operations require fast decision making, as do many development activities such as correction any reported security vulnerabilities.

The operations team is therefore responsible for day-to-day operations and for carrying out the actions coming from the DAO. The operations team can be thought of as the equivalent to a C-Suite in a traditional corporation.

The operations team works under the DAO but has autonomy to carry out day to day operational activities on behalf of the DAO to support the ongoing running of the Jeskei ecosystem.

9 Jeskei network

The long-term vision is to run Jeskei on a private industry wide instance of the Catalyst network.

Any cinema, studio, producer or movie buff will be encouraged to run a node on the network to creates the widest dispersal of content globally as possible. Jeskei will also run many nodes to ensure there is always a stable and wider network in place.

The reason for choosing a private industry wide network is to allow an incentive scheme to be created that allows for free movie hosting.

Public blockchain networks work by having large numbers of users run nodes in exchange for earning fees form the network. If this approach was adopted for the Jeskei network then all content including free content would have a cost. One objective of Jeskei is to provide free access for users and so nodes will be incentivised in the following ways.

Operators running nodes on the network will earn credits that can be used for discounts on the network as well as being exchanged for JAK tokens. We will work with channel creators and content producers to find the best and fairest way to apply tokens since all network users benefit from a fast and broad delivery network. We will look at taking a portion of the fees from paid content and using that to pay node operators through the voucher scheme. The details are still to be worked out since they must be agreeable to early content creators.

Initially, the Jeskei network will not be used for payments but will be used as part of the overall media storage and distribution network alongside cloud storage. This allows the development and testing of the media distribution element of the Jeskei network while financial transactions are conducted on trusted public networks.

10 Future

This document sets out the core features of the Jeskei platform which already represents a significant development effort and advancement of the industry itself.

It should be clear that there is significant potential to expand the platform in many ways over time including around the social media aspects of the platform, crowdfunding, merchandising, content management and delivery. The SDK and API's allow many other people and businesses to expand the platform as well without threatening the core service and revenues earned from the core service. Indeed, the more people who people extensions then the more useful the platform as a whole becomes, the more people switch to the platform and the higher the earnings back to Jeskei becomes.

Jeskei is genuinely about community and intends to reinvest as much as is reasonably possible into the continued development of the platform as well as the creation of original content. While the platform represents a significant step change to the industry it remains the content that inspires and drives people and it's the content that remains the key partner to the platform.

11 Founder of Jeskei

Jeskei is the idea and creation of Darren Oliveiro-Priestnall, aka TheNewAutonomy.

Darren is a software engineer and ethical hacker with over 20 years industry experience working for many organisations as a developer and consultant, delivering enterprise systems for companies ranging from Microsoft to BAE AI as well as UK government agencies. Darren is a Certified Network Defence Architect, Certified Ethical Hacker, Professional Chartered Member of the British Computer Society and Certified Blockchain Professional (C|BP).

Darren was one of the lead developers of the FLIX movie distribution platform, a cloud-based encryption and movie distribution platform used by film studios such as Disney to secure and deliver high value movie content from the film studio to cinemas around the world including film premieres for movies such as Star Wars and James Bond. While working on that project, Darren became a believer that a better system could be developed around a distributed file system with blockchain and was inspired to go on to form a blockchain research company.
Darren went on to found Atlas City Global, a London based blockchain R&D company with around $5 million of oil and gas investment to conduct research and development into the use of blockchain and distributed file systems to secure industrial scale oil and gas networks. This R&D company developed various research papers and technologies including the Catalyst blockchain technology stack which is to be part of the foundation of Jeskei. This means Jeskei will be inheriting around $5 million of prior technology.

Darren when on to be one of the founders of Cent Finance and its spinout DAO organisation, Symmetric.

As founder of Cent Finance, Darren took on the role of Chief Technology Officer and one of the lead developers of the Cent wallet, a DeFi wallet for Ethereum, Gnosis and Celo.

A spinout DAO based project was Symmetric, a decentralised exchange (DEX) and automated market maker (AMM) for Gnosis and Celo with plans to roll out on more networks.

Darren has always been a passionate believer in the potential for blockchain and distributed file systems to revolutionise the movie distribution industry, both at the professional studio level and amateur home video channel level. Jeskei is culmination of everything learned from past ventures to create the first fully decentralised movie platform that tackles industry problems while providing a new viewing experience for film fans.

While Darren is the original founder of the Jeskei project, Darren has been testing these ideas out on industry insiders while preparing a team to form the core operations team and help coordinate the content production activities. The operations team will be made up experts within the blockchain and film space and ensure a strong delivery of Jeskei to the market.

12 References

[1] Catalyst Website

https://catalystnet.org

[2] Catalyst Github repository

https://github.com/catalyst-network