D.tube

TURNING THE TABLES IN THE SOCIAL MEDIA INDUSTRY

A NEW MODEL WHERE USERS VOTE ON VIDEOS TO REWARD ALL CONTRIBUTORS:

CREATORS | CURATORS | INFLUENCERS | VIEWERS

TABLE OF CONTENTS

> **Every decade or two when new computing platforms come along, (...) the new platform at a time is generally worse in most ways than the old platform but it has some new capability.**
>
> *So, if you go back to the smartphone, (...) people were like "how am I gonna put my big old spreadsheet on that little computer?". But smartphones also had a camera and a GPS built-in and so now you could not just use spreadsheet, you could build Instagram, you could build Lyft, you could build new kinds of things.*
>
> **And with crypto, it's very similar in that it's worse in most ways than the old computing platforms, it's slow, it's complex, it's lacking a lot of features but it has one feature that has never existed and that is trust.**
>
> *And trust is super powerful when it comes to the mathematical and game theory properties of the platform and that means that you don't have to trust the government or Twitter and Facebook or the other people even on the network, you just have to trust maths and that opens a very interesting world for developers because you can build new applications like money.*
>
> *Nobody has ever been able to program money but now you can.* 99

Ben Horowitz ("a16z" founder - one of the top VCs in Silicon Valley)

@ TechCrunch Disrupt SF 2018

Most blockchain projects have brilliant ideas ... but no product.

DTube is live: have a try now with your dedicated account:

d.tube/login/dtube

Username: **investor**

Private posting key: **HywUtc79hsT44B5oSY8mQE9KkRSotjb13bkxE1PnRM65**

Find all information about IEO :

https://token.d.tube/

ABSTRACT

Following privacy scandals, the difficulty to moderate fake news or inappropriate content without censoring and increasing ad pressure, we realized social media needed a new model.

Being experts in decentralized web technologies and cryptography, we designed a new framework leveraging community interactions to solve these issues.

WHY AND HOW

The lack of transparency creates distrust: social medias show no transparency of their algorithmic content distribution, revenue sharing or use of personal data.

Automated moderation is inefficient: social medias proved inefficient in blocking inappropriate content (thus tackling brand association risks for advertisers) and letting creative work thrive (without censorship or "demonetization"). Manual moderation by employees doesn't show better results (**click for more**).
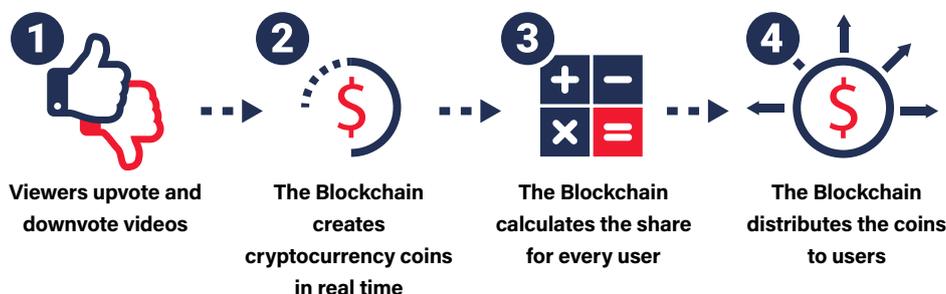
Revenue sharing declines: some social media share revenues with content creators but most of them don't and monetization thresholds are increasingly hard to reach. Regular users are not compensated for being marketing targets.

We created DTube, a new type of video sharing platform designed to offer a solution to these issues:

- **Re-create trust** with a censorship-free decentralized hosting infrastructure, fully transparent and open source code and no collection of personal data.

- **Community-powered moderation:** Content's popularity, moderation and classification is determined by user's upvotes, downvotes and tags without algorithmic alteration.

- **A token model to reward all users:** A "social blockchain" mechanism distributes cryptocurrency token rewards to all users (creators, influencers, viewers) for their social contributions (post, vote, tag).

PRINCIPLE: POST AND CURATE CONTENT TO EARN TOKEN REWARDS

Users post their own videos, can share a link from the web and vote or tag videos to earn tokens created every day to reward the most popular actions:

① Viewers upvote and downvote videos

② The Blockchain creates cryptocurrency coins in real time

③ The Blockchain calculates the share for every user

④ The Blockchain distributes the coins to users

GAMEPLAY

1- Accumulate Voting Power (VP)

"DTube Coin" (DTC) is a utility token that distributes "Voting Power" (VP) every hour (+1 VP per DTC owned). Users need to purchase the first DTCs to start playing and VP accumulates in every user account every hour.

2- Spend Voting Power

Users can then spend their VP to post, vote, tag and comment on videos.

3- Earn DTube Coins (DTC)

In real time, the blockchain algorithm generates and distributes new DTC to users to reward them according to their vote popularity.

The more users follow one's vote, the higher the reward in DTC.

ECONOMIC MODEL

Use DTC to promote videos: DTC is a cryptocurrency token offering its holder the power to influence content exposure on DTube platform (the more VP a video receives, the higher it ranks).

DTC total circulating supply and market exchange price are the two elements that will determine the **overall market capitalization** of the ecosystem.

DTC circulating supply is impacted by 2 triggers:

- **Token creation** (set by user growth): the blockchain distributes DTC every day to reward user's interactions. The rewards pool is determined every 24h by the number of active users.

- **Token burning** (set by "promote" feature): users burn (i.e. destroy) their tokens using the "promote" feature when posting content to boost its exposure

DTC market price is impacted by market take-up and sell orders:

- **Buy orders** are placed by users willing to increase their VP generation rate, hence their impact on content ranking

- **Sell orders** are placed by users willing to cash-out their DTC earnings. There is a counter-incentive to sell tokens as it reduces VP generation rate.

IT ALREADY WORKS!

In August, 2017, we launched a first Proof-of-Concept running on a third-party social blockchain named "Steem", using the Steem token. DTube experienced rapid market validation, in 18 months:

- **1.85 Million** Monthly Unique Visitors and 17 session/user/month (on avg.)

- **189,000** accounts created and **284,000** videos published

- More than **$1.08 Million** distributed to DTubers (in Steem tokens)

- Very efficient community moderation

DTC TOKEN SALE IN Q3, 2019

In Q3, 2019, we will launch an improved version of DTube and **launch the DTC economy** based on our 2nd generation social blockchain: Avalon. Before launch, we will offer investors to purchase DTC tokens through an **Initial Exchange Offering** (IEO). Funds will be used to boost mass market adoption and catalogue quality (For all details, please visit **https://token.d.tube**)

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SOCIAL BLOCKCHAIN:
THE CONCEPT

A. OUR VISION & VALUES

The need to re-create trust in social medias

Since the inception of Facebook 15 years ago, social networks completely remodeled the way people socially interact by sharing opinions, information or emotions with friends or celebrities.

However, following recent scandals, users and creators realized that major actors don't fight for their interests anymore and have lost trust in their platforms:

- Privacy breaches and massive uncontrolled collection of personal data

- Inability to moderate content and fake news without censorship

- No transparency over revenue sharing or monetization algorithms, no control over suggested videos

A few platforms became so powerful in this field, nations even think about ways to limit their influence or increase their transparency.

Limits of the advertising model

Thanks to their massive audiences, social media platforms designed highly performant ad services by offering advertisers a cheaper, more impactful and more customizable advertising solution than traditional TV and offline medias.

However, the recent trends are showing a limit to this model: less revenue sharing with content creators, increasing ad pressure for viewers and concerns on the collection of personal data are creating user discontent. Meanwhile, automated moderation of user-generated content creates brand association risks for advertisers.

Platforms responded to these issues by tightening moderation which led to inaccurate censorship and unfair demonetization of users' content but without significantly improving protection of advertiser's brand image.

This situation creates the need for a new model that respects user privacy, can self-moderate content in an effective way without censorship which creates trust for all stakeholders

> ❓ *For a deeper analysis, see Appendix A. Social Media and their limits*

Building on new values: our DTube manifest

Our team is driven by strong and empowering values on which we decided to base our new model:

Fig 1. Our DTube manifest

User respect
We respect user privacy by not collecting any personal data and we do not alter user experience with suggestions, intrusive ads or censorship.

Human empowerment
We provide our community the tools to control content distribution and protect their freedom of speech.

Transparency
Our code, community rules and reward mechanisms are fully transparent.

Fairness
We distribute 90% of all platform revenues to its users.

Through the development of our technologies, we take special care in impacting the environment as little as possible. Our blockchain is designed to operate with a much lower footprint on energy consumption than Proof-of-Work consensus blockchains.

In the future, we will offer users to be able to spend their voting power upon social projects, turning passive viewers into positive social contributors.

Our objective is to give social media users a tool to get back the control over the value and the content they create.

B. A NEW MODEL : AVALON SOCIAL BLOCKCHAIN

We designed Avalon social blockchain, a new socio-economic model for social medias based on our manifest.

We built this new model on 2 principles:

- Re-create trust with users by leveraging the power of maturing decentralized technologies

- Reward users for their contributions in a fair way with cryptocurrency tokens

Decentralized tech and open-source to re-create trust

Blockchain, decentralized infrastructures and open source software can re-create trust by offering data immutability (this defends against censorship), transparency (against corruption) and privacy (no need to collect personal data).

Blockchain technology is:

- A ledger distributed (i.e. hosted) among many peers connected to the same network.

- Incorruptible – A consensus algorithm that can validate new entries on the ledger by asking the approval of all peers. A corrupted peer trying to abuse the system will be identified by the others and expelled from the consensus.

- Transparent – All data entries (holdings, transfers, etc.) are public

- Protecting privacy – No need to collect user's personal identification, only a public key is necessary

Decentralized infrastructures are:

- Uncensorable – decentralized protocols such as IPFS (InterPlanetary File System), WebTorrent or DAT offer file hosting capabilities distributed among all peers of a network. If one peer node fails, the flow is redirected to the next.

Fig 2. IPFS decentralized infrastructure
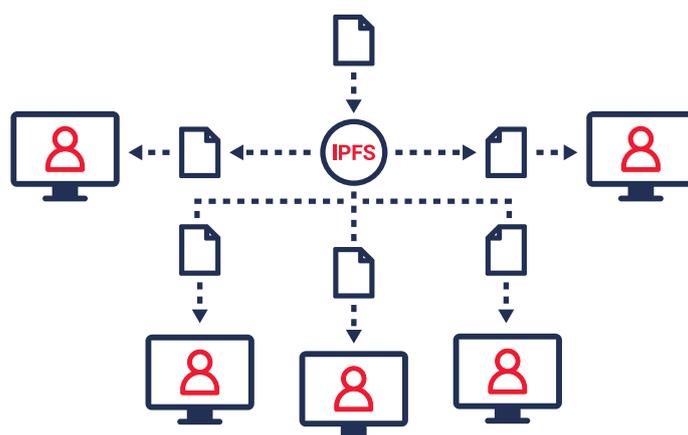
Open source is:

- Transparent – All the code repositories of a program are made public.

- Collaborative – Anyone can contribute to the existing project by proposing an update or can just copy the code to launch a new application.

Reward community contributions

Collaborative models appealing to the community proved very successful over time by leveraging the power of user's contributions (sharing goods or services, car-sharing, community reviews, open source code contributions, etc.).

In the social media space, platforms thrived by offering a direct relationship between users and curators (Reddit), video creators (Youtube), friends (Facebook), celebrities (Instagram), experts (Wikipedia), developers (Github), etc.

On DTube, users post, vote, comment and tag content. For each contribution, they may earn a reward in cryptocurrency tokens. Tokens can then be used either to promote content on the platform or exchanged against value (currencies, goods, services).

Avalon's social blockchain introduces a new concept where contributors are rewarded for their social contributions.

C. BLOCKCHAIN BASICS

Avalon blockchain was designed and built from scratch by our team. Avalon blockchain is open-source and could be used by other projects with similar social concepts as DTube but with different types of media.

It uses a Delegated Proof-of-Stake (DPoS) consensus algorithm similar to other popular blockchains such as BitShares, Steem, Ark or EOS.

Principle

The base of this mechanism is an algorithm that creates and distributes cryptocurrency tokens to reward each participant for their contributions (posts, votes and tags). Each of these tokens bear a utilitarian value by generating voting power (VP) and bandwidth to its holder with time; The more tokens held, the faster the resource generates.

This mechanism protects Avalon from Sybil attacks (e.g.: creating multi-accounts to cheat the numbers of votes), which classic social medias are victims of.

1 - Bandwidth is used to write transactions on the blockchain. Each byte from the transaction is deducted from the bandwidth balance and a user is unable to transact if he doesn't have enough bytes available.

2 - Voting power is used to influence 2 things:

- **Content exposure** – Content is ranked by total voting power spent by users

- **Rewards** – Voting power impacts the number of tokens generated by the vote

On this model, influence (over content exposure and rewards) is materialized in a token and distributed to users for their most relevant votes. The more users follow one's vote, the more tokens one earns.

With Avalon, social media evolves from 1 vote per person to 1 vote per token.

This principle offers more accuracy over the classic "1 person = 1 vote" mechanism because users credited by the community earn tokens. This gives more voting power to the most knowledgeable users.

Example (with DTube)

DTube is a video sharing platform built on top of Avalon (all details on Part 2.). On DTube, users can post, vote and tag videos.

- DTube Coin (DTC) is a fully liquid and freely tradable crypto asset (expected Q3, 2019). It represents the value users can trade with each other

- Voting Power (VP) is the voting token used to play the curation game. The curation game means users will spend their VP (i.e. influence) to post, vote and tag content in order to earn DTCs and influence content's ranking on the platform. VP is not a tradable asset and has no value outside the DTube platform

1- Accumulate Voting Power (VP)

DTube Coin (DTC) is a utility token that distributes Voting Power (VP) every hour (+1 VP per DTC owned). VP accumulates in the user's account every hour. Users need to purchase the first DTCs to start playing.
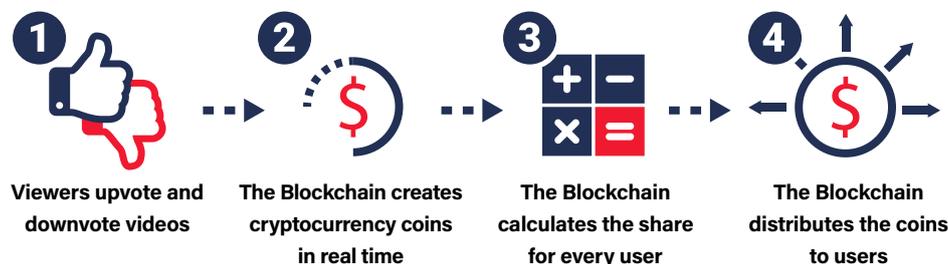

User Wallet   DTube Blockchain   User VP account

1 DTC   →   **+1 VP** per hour   →   **VP STOCK**
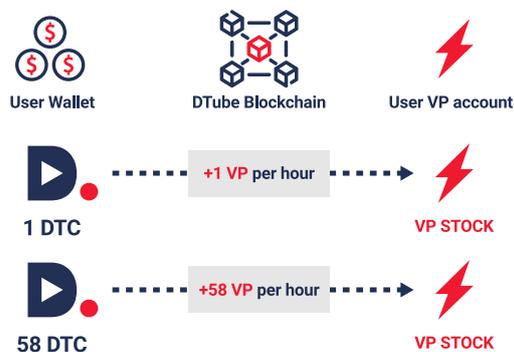
2- Spend your Voting Power (VP)

Users can then spend their VP to post, vote, tag and comment on videos.

58 DTC   →   **+58 VP** per hour   →   **VP STOCK**

3- Earn DTube Coins (DTC)

In real time, the blockchain algorithm generates and distributes new DTCs to users to reward them according to their vote popularity (the more users follow one's vote, the higher the reward in DTC).

Fig 3. Avalon token reward distribution mechanism

1 Viewers upvote and downvote videos

2 The Blockchain creates cryptocurrency coins in real time

3 The Blockchain calculates the share for every user

4 The Blockchain distributes the coins to users

Full detail on how the algorithm works, see Appendix B. DTC distribution algorithm

Community self-moderation

In a world of disinformation and algorithmic moderation, community ranking proved the most accurate mechanism to rate and organize any kind of information on the web (restaurants, real estate, movies, etc.)

With Avalon, content is ranked exclusively by user's upvotes, downvotes and tags. A popular piece of content (i.e. with lots of upvotes) goes up in its category to gain more exposure and a submission with a negative score is automatically hidden. Adult content is tagged "NSFW" and hidden by default (an account is required to view this content);

All platform moderation guidelines come from a community consensus.

NB: As for DTube, our curation team overlooks uploaded content and complies in cases of a written and rightful take-down notice. We only had to take 20 actions in 2 years' time out of 1 video uploaded every 3 minutes.

Community leaders

Avalon is designed as a decentralized organization, run by elected leaders who decide to implement, or not, propositions from the development team to update any aspects of the blockchain.

On Avalon, blockchain validators (miners) are called leaders and are elected by the community in real time. Any registered user can vote (or unvote) for up to 5 "leaders" at any time; The top 21 users who receive the most votes are automatically elected.

Their role is to host, run the blockchain, debate about and validate with a 2/3+ majority the implementation of update proposals (forks).

Platform reward

A platform reward (commission) can be set on Avalon blockchain for the purpose of covering costs of the teams developing the platform (development, marketing, corporate, legal, partnerships and social projects). This reward comes on top of the classic distribution of tokens to users.

On the DTube Chain, 10% of total DTCs distributed to users are created and sent to the @DTube beneficiary account (the first account of the blockchain – created on block #0).

Fig 4. DTube beneficiary reward mechanism

High scalability

Avalon is designed to build social media platforms with mass audiences and can handle up to 10,000 transactions / second on enterprise-grade hardware. Scalability is similar to other DPoS (Delegated Proof of Stake) blockchain like TRON, STEEM or EOS.

Difference with classic social medias

Avalon differentiates from current social media platforms as a trustworthy framework that empowers all users and is 100% powered by the community:

	Classic Social medias	Avalon Social medias D.tube
Trust	***Trust a private company*** *No transparency of algorithmic content distribution, revenue sharing and use of personal data*	***Trust Cryptography and Maths*** *Censorship free, open source, fully transparent code and reward mechanism, no collection of personal data* *+* *Democratic governance with elected leaders*
Moderation	***Automated*** *Creates demonetization and censorship issues* *+* *Inability to moderate inappropriate content*	***Community powered*** *Content's popularity (upvotes), moderation (downvotes) and classification (tags) is determined by user's votes, without algorithmic alteration*
Revenue sharing	***Less than 50% to selected creators*** *Only creators who hit a viewership threshold receive a share of ad revenues*	***90% to all users*** *All users earn "influence tokens" rewards for contributions: creators, influencers, users*

? *For all technical details and code reviews, please visit* https://github.com/skzap/avalon

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DTUBE: SOCIAL BLOCKCHAIN ON A VIDEO SHARING PLATFORM

DTube is a Proof-of-Concept (PoC) applying the social blockchain mechanism to an online video sharing platform.

DTube was originally launched in August 2017 on top of Steem (the first generation social blockchain) and experienced an immediate success, validating the market fit of the product.

Over the past 12 months, we developed Avalon blockchain as a 2nd generation social blockchain, in order to improve the social blockchain mechanism.

In Q2, 2019, DTube will be the first DApp testing new settings by implementing Avalon. In addition, we will launch its dedicated token: the DTube Coin (DTC) in Q3, 2019.

Fig 5. DTube: from PoC to 2nd generation social blockchain

Historical video platform and current limits

Steem : 1st generation social blockchain

Q3 2017 - Q1 2019 : Proof Of Concept on top of Steem

Avalon: 2nd generation social blockchain

Q2-2019 : Native blockchain (Avalon) and product ready for mass adoption

? *Live product : https://d.tube*

? *Full open source code: https://github.com/dtube*

A. WHY TESTING THE ONLINE VIDEO MARKET

Opportunity #1: A massive and dynamic market

Video is the most engaging type of content on the web today: it accounted for 75% of all internet traffic in 2017, expected to rise up to 82% by 2022[1].

Online video represents a huge and soaring market with more than 8.5 Billion hours watched online every day and $33 billion in video ad spent worldwide in 2018 (+ 20% YoY). Overall market is expected to grow at a rate of +15% per year over the next 5 years[2].

Fig 6. Online video: a massive and soaring market

$33 Billion +20%/year

Online video Ad spent worldwide 2018 Estimate

8.5 Billion hours / day +15%/year

Video watched online worldwide, on all types of platforms, all types of content 2018 Estimate

Sport 15%
News 17%
Movies + TV Shows 43%
User generated Content + Gaming 25%

2.2B hours/day serviceable market Share of content viewed on online platforms 2018 Estimate

DTube's total serviceable market represents 2.2 Billion hours (25% of total) of user-generated content watched online every day.

? *For more on market competition and DTube's competitive advantages: Appendix D. Competition*

Opportunity #2: Reward curators to create a new edge

Social blockchain offers a new edge on classic social medias by rewarding the curator.

Curators are users who like to share their knowledge on a specific topic by chasing the best content and sharing it to the community (e.g.: a hip-hop DJ curates songs for his fans).

On DTube, curators use their skills to seek content to either:

- *Share from the web* – by posting a link of a third-party video website to DTube

- *Interact on DTube* – by voting and tagging the most relevant video posts

By playing this curation game, curators try to grow their influence power by earning DTC tokens through their posts, votes and tags. This mechanism rewards influencers in a new way that hasn't existed before.

Through the action of curators who post, rank and tag content on the platform, DTube will attract viewers by broadcasting the most appealing catalogue of videos of the web.

ⓘ *NB: DTube positions itself as a video platform where users are free to share content from any other video platforms such as Facebook or Reddit. Such content is embedded on DTube but is broadcasted in the source player (e.g.: Youtube, Twitch, Dailymotion, etc.) which means ads and view counts still benefit the original creator.*

Opportunity #3: Attract creators by protecting their creativity

User-generated video content needs to be moderated to avoid copyright infringement or inappropriate content broadcasting. However social media's automated moderation proved increasingly unsuccessful in blocking inappropriate content and letting creativity thrive.

Creators suffer from this as they risk either demonetization (disallowing their ability to earn revenue) or censorship if their content infringes platform rules (which are constantly updated to meet the requirements of brands that need a safe place to advertise).

On DTube, creators post their original creations to a censorship-resistant decentralized infrastructure and moderation is operated by millions of users who block inappropriate content and obvious copyright infringement.

Since inception, moderation has proved very successful with the DTube curation team (in charge of monitoring content) only having to take only 2 actions in almost 2 years on millions of video uploads.

ⓘ *NB: DTube is implementing a verification process to label original content creators. 99.9% of all copyright issues are dealt by community moderation.*

❓ ***For the detail on creators and curators roles, see: Appendix C. Detailed gameplay for curators and creators***

B. 1ST GENERATION ON STEEM (AUG, 2017)

We launched DTube (**https://d.tube**) in August 2017 as a Proof-of-Concept (PoC) for a video sharing platform using the Steem social blockchain and IPFS decentralized hosting technologies.

PoC on Steem and IPFS

DTube was the very first DApp applying an innovative model to the online video industry by offering a complete open-source decentralized video platform technology stack using STEEM and IPFS:

- STEEM (**https://steem.com**) is the first generation social blockchain, invented in early 2016 by Dan Larimer (also creator of BitShares decentralized exchange and EOS, one of the top 5 cryptocurrencies by market capitalization).

- IPFS (**https://ipfs.io**) is a protocol and network offering decentralized hosting capabilities, with the particular feature to allow direct peer-to-peer video streaming.

  ❓ *For more on DTube's IPFS decentralized infrastructure: Appendix E. IPFS decentralized infrastructure*

  ❓ *Video platform product presentation: Appendix F. Product presentation*
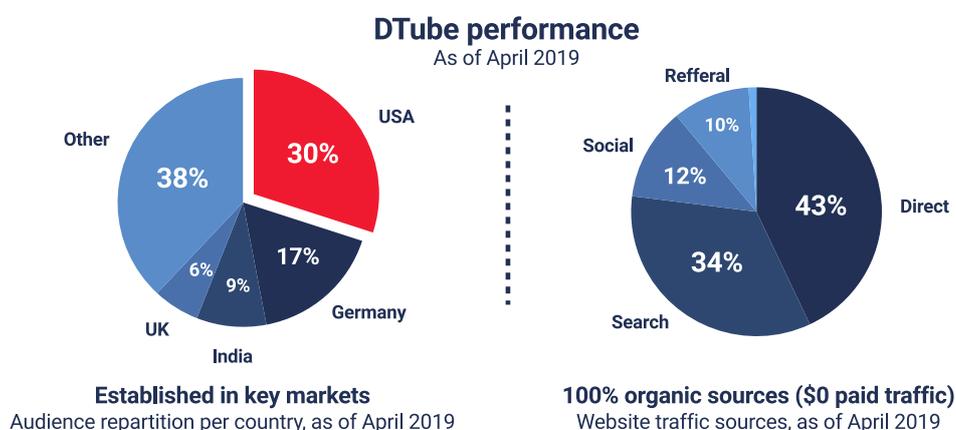
Market validation: instant success

DTube experienced an instant success and soaring traction: 4 million Monthly Unique Visitors only 4 months after launch[3].

It has now established as world's #1 DApp for video with more than:

- **189,000** accounts created

- **400,000** unique visitors every day on average in 18 months

- **World's #2** social media DApp (after **https://steemit.com**)

Over the last two years, 100% of the traffic came from organic sources with $0 paid traffic, and drove users from all around the world.

Fig 7. DTube market validation

DTube performance
As of April 2019

Other 38% | USA 30% | Germany 17% | India 9% | UK 6%

Refferal 10% | Social 12% | Direct 43% | Search 34%

Established in key markets
Audience repartition per country, as of April 2019

100% organic sources ($0 paid traffic)
Website traffic sources, as of April 2019

DTube validated the social blockchain model by distributing more than $1.08 Million[4] in

Steem tokens to its ecosystem of creators and curators without running any advertising program.

? *This viral start was boosted by organic press coverage: see Appendix G.* *Press coverage*

Market feedback & identifying limits

Though a great success, Steem proved unsuccessful in mainstreaming the concept of social blockchain out of the blockchain community.

Over nearly 2 years, we observed user behaviors and trends on the platform and initiated Steemit and Discord communication channels to collect thousands of responses:

- **https://steemit.com/@dtube** – 85,000 followers

- **https://discord.gg/dtube** - 5,000 channel contributors

During this process we identified the limits of the current setup:

- *Limit #1: Complicated user experience*

On Steem, users need to manage many different types of private keys (active key, posting key, transfer keys, etc.), 3 different tokens (steem, steem power, steem dollar). Plus, the onboarding process is either long or expensive.

- *Limit #2: Moderate catalogue quality and diversity*

DTube posts are exclusively original content from non-professional vloggers and video makers. They are mostly focused on the Steem and blockchain communities. Not sufficient to aim at mass market.

- *Limit #3: Unsuitable economic features*

The Steem setup is not suitable to deliver mass adoption for the model: reward distribution (creator/curator reward split is 75%/25%), big early user advantage leading to bad distribution, short monetization window (a content can only be monetized over 7 days), token illiquidity (tokens need to be staked 13 weeks before use), voting limits (voting power caps after 2-5 days of user inactivity, need to vote 10 times a day at least).

- *Limit #4: Scalability*

While more than 400 DApps and 1.2 Million accounts currently use the Steem blockchain, scalability is a big issue as the token inflation is fixed, bandwidth generation is limited and the economic setup is not customizable for improvements.

Without enough catalogue quality, a complex user experience and inadapted economic features, Steem isn't suitable for mass market adoption.

In order to solve those issues, our team dedicated the past 12 months to design, develop and test Avalon, our own 2nd generation social blockchain.

C. 2ND GENERATION ON AVALON (JUNE, 2019)

By the end of Q2, 2019 we will launch a totally new version of DTube running on both Steem and the new DTube Chain (built on Avalon), with crucial new features aimed at mainstreaming adoption, increasing catalogue depth and quality, scaling technical systems and updating the token model.

DTube Chain: a specific setup for video content

Our approach with Avalon was to build an open source, customizable and fully scalable blockchain for social distribution. Avalon is media agnostic which means any web or mobile app developer could use Avalon to build his own social blockchain setup following our principles.

Based on Avalon we are launching DTube Chain, a specific blockchain for video content.

In order to solve all issues encountered on Steem and mainstream DTube, we will integrate DTube Chain with DTube to update many aspects of the token model, add new features on the video platform and launch a new coin: the DTube Coin (DTC).

Go mainstream!

The current understanding of DTube and the concept of social blockchain is not optimal because the user experience, inherited from Steem, has too much complexity for the end user.

To dramatically increase user adoption and leverage the network effect we will update the platform by simplifying user experience, easing adoption, increasing retention and giving a high incentive to join the network:

- ***Simplify User Experience***

Users on the DTube Chain will now earn 1 single liquid cryptocurrency token: the DTC (instead of 3 on Steem). Spending Voting Power (VP) is simplified and all rewards are collected in real time

- ***Ease adoption***

Creating an account on DTube Chain will be instant and as easy as 2 clicks (versus a few weeks on Steem)

- ***Increase retention***

On DTube Chain, VP stacks up indefinitely to incentive returning visitors (on Steem, voting power caps after a few days of user inactivity).

- ***Foster long term user growth with a dynamic inflation***

On DTube Chain, the incentive to join the network remains constant even while the user base grows as the daily DTC rewards distributed are correlated with the number of active users (the more active users, the more tokens distributed). This is in contrast with classic maximum supply token models leveraging the "early user advantage" (where the incentive decreases over time).

Increase catalogue depth and quality

The success of an online video platform lies essentially on the quality and quantity of its available catalogue. To compete with major players, we will launch a decisive new sharing feature and use DTube Chain to add a new layer of crypto monetization:

- ***New "share from a link" feature***

Curators can now not only curate videos on DTube but also share a link from any video publisher (e.g.: YouTube, Vimeo, Dailymotion, Liveleak, etc.), as it works on sharing platforms such as Facebook, Reddit or Pinterest. Creators will be able to import the best videos of their catalogue more easily.

- ***100% curation rewards***

On Steem, the daily token reward pool is split between "creator rewards" (rewarding posts) and "curator rewards" (rewarding votes). To make it more rewarding for the core userbase (99% of users are voters), DTube Chain will allocate 100%[5] of the reward pool to votes (and tags).

Note: Creators will still earn from their post as DTube automatically assigns them the first vote, hence the first mover advantage in case the content goes viral.

- ***Unlimited monetization window***

DTube Chain will bear no time restrictions on content monetization (while set to 7 days on Steem). This is more adapted to video content (e.g.: a successful documentary can be monetized for years).

- ***Sponsorship program***

DTube will sponsor a "DTube Originals" section for all verified original content creations with a dedicated DTC sponsorship pool (issued at token launch).

Scalability for large audiences

It is critical for a decentralized social media platform to support high user growth and effective governance while handling large amount of transactions.

> ## *DTube Chain is a "one chain-one app" model where each App uses its own blockchain database in opposition to the classic model where all users and programs share -and pay a transaction fee to -the same Chain.*

Benefits of the DTube Chain:

- ***More efficient governance***

DTube Chain is a decentralized organization governed by leaders (See Part 1. C- Blockchain Basics). It is much easier to obtain a consensus and implement changes for the DTube community where all stakeholders interests are aligned rather than on Steem where more than 400 Apps share the same chain and economy, yet gave different interests and visions.

- ***Higher scalability***

DTube Chain, which is exclusively dedicated to the DTube app, can handle thousands of transactions per second (i.e. tens of millions of daily active users). On Steem, DApps need to share bandwidth generation which limits the overall capacity of each app.

> **②** ***For more details, see Appendix H.*** *Differences between Steem and Avalon*

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[5] 90% after the platform reward

3 TOKEN & BUSINESS MODEL

A. PRINCIPLE

DTube Coin is a cryptocurrency utility token that will hold value in 2 ways:

- On the DTube platform – DTC gives its holder the ability to post, curate and promote online videos

- Outside the DTube platform – DTC will be freely tradable for other currencies on online exchange markets

The economic principle is to attract users with DTC rewards (for posts, votes, tags) and offer them to "top-up" more DTC (on online exchange markets) to increase their Voting Power. This aims at creating a sustainable demand for the DTC on markets, hence increase its overall market capitalization.

A few definitions:

- **DTC circulating supply (or monetary mass):** total volume of DTC tokens emitted at present date

- **DTC exchange price:** price at which the DTC is traded to other currencies on online exchange markets. It is determined by market take-ups and sells and is commonly presented in USD and BTC (full list of cryptocurrencies market prices: https://coinmarketcap.com)

- **DTC market capitalization:** total market value of DTC circulating supply (circulating supply * exchange price)

- **Online exchange markets:** online platform offering currencies trading services (crypto-crypto and crypto-fiat). Thousands of these markets exists which can offer various "trading pairs" , commissions and exchange prices for the pair (e.g: BTC◀▶DTC or $◀▶DTC).

B. TOKEN MODEL

A utility token to influence content exposure

DTC is a utility token used to post, vote, tag and promote videos on the DTube platform. DTC token holders can influence content exposure in 2 ways:

- **Hold DTC to generate VP**

As seen before, each unit of DTC produces for its holder +1 unit of VP per hour. VP can be spent to post, vote or tag content.

VP is a critical determiner of content exposure as ranking is determined by the amount of VP received, its tags and freshness (publish date).

The more VP spent on each of these actions, the more impact on the content exposure

- **Burn DTC to promote video posts**

DTCs can also be used to promote content with more VP thanks to the burning mechanism by using the "promote video" feature while posting content.

Promoting content requires an amount of DTC to be burnt. Burning tokens means the token will be withdrawn from the circulating supply (i.e. deleted) by the blockchain and an additional amount of VPs will be added to boost the post.

Promoting content will provide more exposure to the post and more rewards to its author - if it is proved to be a successful piece of content.

With this mechanism, DTC tokenizes content exposure by materializing (with a digital asset) a unit of power to influence content ranking on the DTube platform.

A freely tradable asset to exchange value

DTC, as a cryptocurrency freely tradable asset, can carry another type of value outside the DTube ecosystem: an exchange value.

Like most other cryptocurrencies, DTC can be exchanged between its holders in a very simple and secure way (at 0 cost) either through the DTube platform (by using the "send DTC" feature on a user's channel) or via an online exchange market that decided to list a DTC trading pair (e.g.: DTC◀▶$).

By exchanging DTC (through various trading pairs on various exchanges), holders set its average market exchange price, which determines its real time market capitalization (the market value of the whole monetary mass).

Unlike most other tradable cryptocurrencies, DTube has designed the levers for creating a sustainable market demand for the DTC in order to steadily increase its market capitalization: a free-to-play business model.

C. A BUSINESS MODEL TO CREATE A SUSTAINABLE MARKET DEMAND

Due to its utilitarian value, market demand for the DTC will be led by 2 types of investors: users and advertisers. In the mid-term, we will leverage the tradable nature of DTC as a mean of acquiring consumer goods and services.

(i) *NB: DTC transfers are 0-fee and take 3 seconds maximum to become fully validated*

Investor type # 1: Creators and curators

DTC is primarily designed for online content creators and influencers seeking an audience. They will represent the main source of investment in the DTC.

To address this segment, we developed a business model inspired by the recent pivot in the online gaming industry from a paying to a free to play with add-on purchases model:

- *Free to play* – Give players an incentive by playing the game for free

- *Add-on purchases* – Offer players to buy in-game digital goods or services; For example upgrade a character outfit (League of Legend, Fortnite), play the next level (Candy Crush), subscribe to a channel (Twitch).

On DTube, users are offered to play the curation game by posting and curating videos to earn rewards in DTC. By starting earning rewards, they are incentivized to increase their power in the game by purchasing more DTCs (to increase their VP generation rate).

In the future, we will expand token utility by offering more paying services in DTC (e.g.: change username, unlock new features)

Investor type #2: Advertisers

As seen, advertisers, brands and promoters are offered to promote content by burning tokens. They will be able to buy tokens on exchanges to promote specific content giving it more exposure.

Investor type #3: Consumers (mid-term)

In the mid-term, following the growth of DTube user base (hence DTC token holders), we will create partnerships with consumer brands, e-commerce platforms, brick & mortar shops or any other type of services to accept price discounts in DTC.

D. FULL ECONOMIC CYCLE DIAGRAM

To summarize, here is an overview of the global economic cycle led by the 2 principal dynamics:

- *The evolution of the monetary mass*

- *Market capitalization*

Fig 8. DTC economic cycle
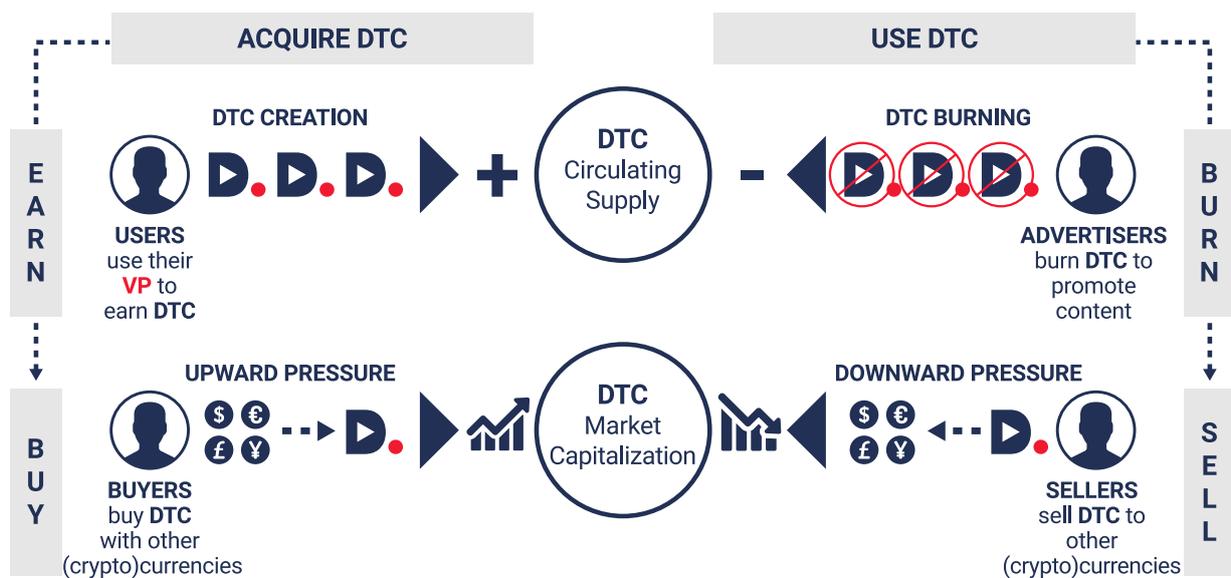
4 DTC TOKEN GENERATION EVENT

A. WHY AND HOW

The past few years saw the rise of Initial Coin Offerings (ICOs) as a new fundraising instrument for startups willing to "tokenize" business models ($6.5 Billion raised in 2017[6] and $21 Billion in 2018[7]); However most of them proved unprofessional or misleading.

This is why the DTube team focused on building a long term and sustainable project before appealing to markets. After 2 years iterating the project, we are now ready to release DTube platform and its token economy in full launch (out of beta and testing version).

Through the process of releasing the DTube Coin on markets, DTube will conduct a token sale to fund its development under the form of an "IEO" and an "Airdrop" to launch the token:

- **Token sale** – Event organized to offer early investors the opportunity to buy crypto-assets (DTC) vs. monetary investment

- **Token launch** – At launch of the DTC token economy, the DTube Chain will start at block #1 and distribute the initial monetary mass to all stakeholders (investors, community, team, etc.)

How to invest

All token event details will be displayed on a specific investor page and will be advertised on our official social media accounts:

Investor page:

 https://token.d.tube

Official social media:

 https://steemit.com/@dtube   **https://linkedin.com/company/dtube**

 https://discord.gg/dtube   **https://www.reddit.com/r/dtube/**

 https://twitter.com/DTube_Official   **https://bitcointalk.org**

 https://t.me/dtube_official

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[6] https://www.coinschedule.com/stats.html?year=2017
[7] https://www.coinschedule.com/stats.html?year=2018

Token sale: IEO

An Initial Exchange Offering (IEO), is a partnership between a blockchain startup with a token business model and a professional cryptocurrency exchange with all the resources to operate a legally compliant token sale on markets.

Partnering exchanges offer:

- *Legal compliance* - Handle all the legal structuring, Know Your Customer (KYC) investor identification, compliance with Anti Money Laundering (AML) legislations

- *Marketing* - Advertise the project to their customer base

- *Listing trading pair* - In return, partnering exchanges will list the token and take a fee on every transaction. If the project gets viral, it will increase trading for the currency, hence the exchange commission.

IEOs are a good fit for reliable blockchain projects. Following recent successes with IEOs events inside the Steem ecosystem (ex: **https://token.hunt.town/**), we believe it is the right time for DTube.

DTube IEO is expected to occur in Q3, 2019.

Token launch: Airdrop

After conducting the IEO as well as a test period of the economics, DTube will emit an initial set of tokens to be distributed to investors and users who have already participated in the development of DTube;

This is called an Airdrop event where all registered accounts will be able to claim their amount of DTC tokens;

Below, the different stakeholders taken into account in the token launch:

- *DTube community* – All users who interacted on DTube since inception either through voting or posting content (on Steem) and who created a DTube Chain account during the testing period

- *Investors* – Investors who purchased DTCs through the IEO

- *DTube corporation* – DTube will operate specific accounts to support the onboarding referral and DTube Originals and influencer partnership programs

- *Team* – The founding team working on the project

- *Contributors* – Curation team, Crowdin translators, Github contributors, etc.

B. TOKEN GENERATION EVENT ROADMAP

DTube token launch will happen in 4 phases:

1. **DTube Chain Testnet** (exp. June 2019)
   First we will distribute "test tokens" to our current users to test the blockchain and the platform's new economic model. Test tokens will not bear real value and won't be tradable.

2. **Token sale: IEO** (exp. Q3, 2019)
   DTube will conduct an Initial Exchange Offering (IEO) for the DTC utility token in partnership with an online currency exchange that will structure and operate all corporate and legal requirements (token classification, KYC, AML, country zone specifics).

3. **Token launch: Airdrop** (exp. Q3, 2019)
   After IEO and when the blockchain is battle-tested, we will reset the Chain and distribute the initial DTC assets via an Airdrop event to investors, existing users and DTube entity and team.

4. **Open trading** (exp. End of Q3/Q4, 2019)
   Shortly after the Airdrop, the coin will be released for open trading on DTube platform and on partnering exchanges, users will be able to sell and buy tokens freely.

1. DTube Chain Testnet (June, 2019)

Release of the new DTube interface running on DTube Chain (in addition to Steem). "Test tokens" will be exclusively for testing purposes with no real value and no possibility to exchange tokens between users.

- *Testing period* - Stabilize the chain with real users, identify Leaders, run a longer transaction history and launch a bounty to detect exploits and code issues

- *No value* - Non fungible and non-transferable test token

- *Free account creation for Steem users* – Steem users who interacted on DTube can claim their DTube Chain account for free with the same username

- *Steem + DTube Chain:* DTube UI will combine both Steem and DTube Chain

2. Token Sale: IEO (exp. Q3, 2019)

While running the live test on DTube and Avalon, we will conduct an IEO to offer early investors the possibility to purchase DTC tokens at a pre-determined fixed price in pre-sale.

Our partnering exchanges will offer the legal structuring and tools to facilitate investors onboarding.

- *Invest crypto & Fiat for DTC* – Investors will be able to invest with main crypto and fiat currencies.

- *Utility token* – DTC as a utility token asset class

- *Investor and onboarding page* – Initial distribution, dates and all details will be displayed on a dedicated investor page: **https://token.d.tube**

3. Token Launch: Airdrop (exp. Q3, 2019)

When the test for the blockchain is stable enough, we "reset" the chain to start over to block #1 and Airdrop (i.e distribute) the initial supply of DTC following the distribution scheme as presented during the IEO.

- *Initial distribution* – Airdrop of the official DTC to IEO investors, test account holders and DTube entity, team and referral/sponsorship programs

- *DTube economy full launch* – DTube users can play the full-feature curation game on the platform and earn DTC incentives

4. Open trading (exp. end of Q3/Q4, 2019)

By Q4 of 2019, DTC will become freely tradable on partnering exchanges and directly on the DTube platform

5

COMPANY

A. HISTORY & FUNDING

Founding members

Adrien: A highly experienced full stack engineer who worked for the e-commerce industry in the past. Passionate about games, game theory and cryptography. Architect of the project, he designed, advertised, and turned DTube from an idea into a concrete project seen by millions - **https://github.com/skzap**

Daniel: 5 years as a SysAdmin and 3 years as a security engineer. In charge of operations, he builds and maintains the DTube cluster with distributed storage and encoding power - **https://uk.linkedin.com/in/daniel-abbott-b78551112** - **https://github.com/nannal/**

Gregoire: MSc in Finance from La Sorbonne University Paris, he founded and successfully sold a business in data security and was 1st employee of Stephane Plaza Immobilier, the fastest growing real estate network in France. He is in charge of strategy & business development - **https://linkedin.com/in/gregoiredavout**

History

Adrien and Grégoire met back in 2012 and began sharing thoughts and experience and collaborated on a freelance project. Daniel met Adrien by being one of the early operator of an IPFS node (that was then integrated to DTube).

We researched for technologies to tackle social medias issues and to address the fast growing and massive online market segment. When we discovered Steem in July 2016, a few months after its public release, we were immediately convinced by the concept of Proof-of-Brain (the core feature of the social blockchain) designed by Steemit, Inc.

We launched DTube in August 2017 as the first fully decentralized video platform with a tokenized business model.

Milestones

August, 2017	*DTube launch on the Steem blockchain*
Q1, 2018	*1 upload/minute & 4 Million MUV* *#1 topic on "Hacker News"* *Received 2 Million Steem funding from Steem co-founder*
Q2, 2018	*Release of Livestream & Chat features*
Q3-Q4, 2018	*Research & Development Avalon Blockchain*
Q1, 2019	*Avalon testnet release on DTube clone*
Q2, 2019	***Launch live Avalon testnet on DTube***

❓ *For the full history & future roadmap, please go to Appendix I. Project roadmap*

Funding

DTube received the support of Steem, Inc co-founder Ned Scott, through the delegation of 2 Million Steem tokens.

The DTube platform has generated more than 235,000 Steem Coins in revenue since the release of a working beta. Half of this comes from our curation rewards managed by the DTube curation team and the other half comes from DTube beneficiary rewards (i.e DTube commission).

B. TEAM

Our team is composed of highly skilled founders supported by a strong community of contributors from all around the world: Dapp developers, designers, curators, translators, evangelists, influencers.
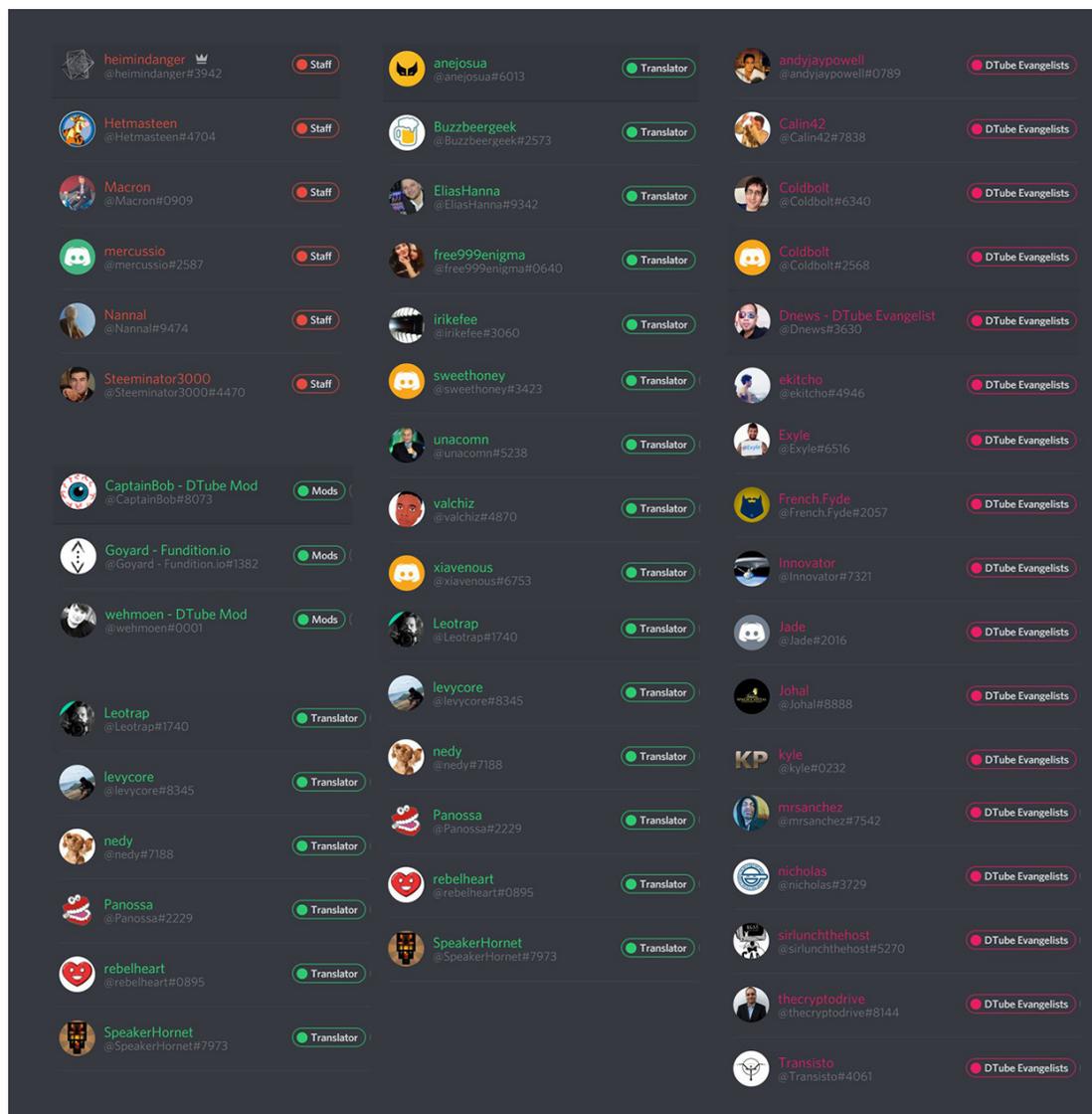
Staff

Tech & Product

- **Jeremy:** 11 years as a senior expert and full stack engineer, he developed DTube video encoding stack - **https://www.linkedin.com/in/jérémy-lair-45883b47/**

- **André:** experienced mobile app developer, notably developed Aramis Auto onboarding app, the largest online used car retailer in Europe. He is currently developing DTube iOS mobile App.

- **Elie:** UX designer for Dailymotion, BWin, he is in charge of the new DTube redesign - **https://www.linkedin.com/in/eliemajorel/**

Project

- **Philippe:** C-level position in fast-growing start-ups and ex-strategy consultant, he is in charge of user growth and partnerships. Worked for Google and La Ruche Qui Dit Oui!, European leader for decentralized food distribution **https://www.linkedin.com/in/philippedupayrat/**

Marketing & Communication

- **Berk:** active member of the community, he is the chief of community relations and manages curators and the way @dtube spends its voting power - Discord: @Steeminator3000#4470

- **Alban:** 7 years as Art Director in renowned creative agencies, he is our designer in chief - **https://www.linkedin.com/in/alban-laurent-71b27286/**

- **Céline:** head of communications and marketing, she has a strong experience as head of digital and communications in agencies like HAVAS - **https://www.linkedin.com/in/celinefraisse/**

Contributors

Hundreds of skilled supporters are helping with translation, moderation, curation, coding and design. Connect with DTube community on Discord: **https://discord.gg/dtube** or contribute on **https://github. com/dtube/**

CONTACTS

Investors: **investor@d.tube**

Press: **press@d.tube**

General enquiries: **contact@d.tube**

WEBSITES

DTube : **https://d.tube/**

About & FAQ: **https://about.d.tube**

DTube is live: have a try now with your dedicated account:

d.tube/login/dtube

Username: **investor**

Private posting key: **HywUtc79hsT44B5oSY8mQE9KkRSotjb13bkxE1PnRM65**

INVESTOR PAGE:

https://token.d.tube/

OFFICIAL SOCIAL MEDIA:

https://steemit.com/@dtube

https://discord.gg/dtube

https://twitter.com/DTube_Official

https://t.me/dtube_official

https://www.reddit.com/r/dtube/

https://linkedin.com/company/dtube

https://bitcointalk.org/

APPENDICES

A. SOCIAL MEDIA AND THEIR LIMITS

Historical success of online targeted advertising

Over the past 15 years, social networks steadily expanded to completely remodel the way people socially interact all around the world by sharing opinions, information or emotions with friends and celebrities.

Mobile adoption added to this trend of user-generated content sharing.

Nowadays, social networks became social medias and overtook classic media outlets in revenues thanks to one of the most successful business models ever: targeted online advertising.

Success of such a model lied on its capacity of offering advertisers a less costly, more impactful and more customizable advertising solution than traditional TV and offline medias.

Platforms therefore started to attract massive audiences through user-friendly social interactions to users (Facebook) or quality content creators by sharing their ad revenues (Youtube)

A model that has reached its limit

Over the past two years however, new issues arose with the targeted advertisement model on user-generated content:

1. platforms share less and less less revenues,

2. users are concerned with massive collection of personal data

3. automated moderation showed its limits

These issues are fueling a drop in creator's revenues, a rising distrust from users and brand association risks for advertisers.

The current model now faces a dilemma[8] :

While platforms need to grow their revenues to cover exponential data infrastructure costs, they increase their ad catalogue and maximize reach efficiency (through algorithmic content distribution). On the other hand, the other stakeholders, i.e. creators and users, have opposite interests:

- Creators want more revenue sharing and more connexion with fans

- Users want less intrusion in their personal life which means less or more transparent personal data collection and content distribution and less ad pressure

- Advertisers want a safer environment to broadcast their ads

Platform		Other stakeholders
Objective: *cover cost & maximize revenues*		***Users objective:*** *less add pressure and privacy protection* ***Creator objective:*** *more revenue sharing & connection with fans* ***Advertisers:*** *safer environment for broadcasting*

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[8] https://www.cnet.com/news/youtube-shooters-ire-spotlights-youtube-advertising-dilemma/

- **_Critical problem #1:_** Creators revenues and engagement with fans decrease. Through growing audience on platforms, CPM is going down thanks to economies of scale, lowering revenue share for creators.

Another reason is a suspected steady decrease of the portion of revenue shared by platforms with creators.

In addition, following recent "adpocalypse" scandals[9][10], platforms have been tightening automated moderation algorithms which resulted in a lot of unwanted content demonetization or take-downs[11].

A new set of rules in the European Union (EU Copyright Directive - notably Article 13[12]) have forced platforms to apply new highly coercitive rules on copyright infringement, leading to more revenues away from creators.

Another issue for creators is the increasing skewing of their direct relationship with fans as platforms increase content distribution control to increase reach performance for advertisers[13][14].

In response, top Youtube creators are publicly trying alternatives[15].

- **_Critical problem #2:_** Users lose trust in platforms

Following recent scandals on massive personal data leaks[16][17], social media users suddenly realized that collection and monetization of personal data is currently shady and uncontrolled[18].

Even if regulation is regularly tightening[19], users are reacting by massively adjusting their privacy settings[20].

While online advertising becomes increasingly intrusive, users fight back with ad blockers[21][22].

Content distribution algorithms can eventually be dangerous for kids[23][24], limits freedom of speech[25][26][27] and create information silos[28].

- **_Critical problem #3:_** Advertisers fear brand association risks

Content moderation is key in user-generated content platforms as they safeguard the targeted advertisement model.

If unsafe content is not banned from the ad exchange, advertisers fear for their brand image and brand association.

However, automated content moderation has recently proved inefficient in numerous occasion, which was widely covered by the press around the world[29][30].

- **_Insufficient response from major platforms_**

In order to deal with this specific dilemma, social media platforms made the choice to favor advertisers and platform revenues at the expense of creators and users.

To achieve this goal, they first applied more control on content by tightening automated moderation. Unfortunately, the new setting created fan reach decrease, unwanted content demonetization and less social interactions while favoring more algorithmic recommended content.

To increase monetizable content quality, thresholds have been increased[31].

Secondly, social media platforms launched premium content features (Youtube Premium, Youtube Music) to increase revenues paid by users for a fully controlled catalogue[32]. This represents a starting shift from user-generated content to catalogue strategy.

Finally, to increase advertisers safety, they hire human moderators to help fill algorithmic moderation bias[33][34].

No solution for creators and users

Actions taken by social media platforms are tackling in an effective way issues encountered by the platform and advertisers:

Platforms increase their revenues by:

- Increasing ad pressure

- Decreasing revenue sharing with creators

- Developing premium paying services

Advertisers have their brands increasingly protected by:

- The increase of monetizable content quality with higher monetization thresholds

- The increase of moderation efficiency by tightened automated moderation and hiring human moderators

However, these updates to protect the revenue model benefits platforms and advertisers vested interests, while users and content creators see their interests decrease over time.

Ignoring interests of the key actors of a social media platform is a huge risk for current players and present an opportunity for a new model that empower all end-users and creates long term revenues scalable revenues for the platform.

9 https://www.thedrum.com/news/2018/07/04/sky-hasn-t-resumed-youtube-ad-spend-ceo-says-there-s-still-not-adequate-level-brand

10 https://www.digitalmusicnews.com/2017/11/27/youtube-adpocalypse-sexualizing-kids/

11 https://www.polygon.com/2018/5/10/17268102/youtube-demonetization-pewdiepie-logan-paul-casey-neistat-philip-defranco

12 https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52016PC0593

13 https://digiday.com/media/advertisers-may-have-returned-to-youtube-but-creators-are-still-losing-out-on-revenue/

14 https://digiday.com/media/creators-making-longer-videos-cater-youtube-algorithm/

15 https://www.theverge.com/2018/5/9/17335534/philip-defranco-now-youtube-app

16 https://www.theguardian.com/news/series/cambridge-analytica-files

17 https://www.wired.com/2010/01/operation-aurora/

18 https://www.eff.org/deeplinks/2018/09/you-gave-facebook-your-number-security-they-used-it-ads

19 https://www.axios.com/facebook-mark-zuckerburg-left-coalition-regulation-c79debfa-5ccd-4af8-a59f-71cb23aa6918.html

20 http://www.pewresearch.org/fact-tank/2018/09/05/americans-are-changing-their-relationship-with-facebook/

21 https://www.ccn.com/crypto-funded-web-browser-brave-sees-phenomenal-growth-as-google-shreds-privacy-policy/

22 https://venturebeat.com/2016/05/09/adblock-plus-passes-500-million-downloads/

23 https://www.youtube.com/watch?v=v9EKV2nSU8w

24 https://www.youtube.com/watch?v=fD2Dw1V4jvA

25 http://www.wired.co.uk/article/chemical-weapons-in-syria-youtube-algorithm-delete-video

26 https://www.wired.com/story/youtube-debuts-plan-to-promote-fund-authoritative-news/

27 http://fortune.com/video/2018/07/26/youtube-took-down-videos-from-alex-jones-infowars-page/

28 https://observer.com/2017/05/facebook-social-media-silo-effect-social-discourse/

29 https://digiday.com/media/creators-making-longer-videos-cater-youtube-algorithm/

30 https://digiday.com/media/advertisers-may-have-returned-to-youtube-but-creators-are-still-losing-out-on-revenue/

31 https://arstechnica.com/gadgets/2018/01/youtube-raises-subscriber-view-threshold-for-partner-program-monetization/

32 https://www.polygon.com/2018/5/7/17319966/youtube-creators-demonetization-advertising-philip-defranco-logan-paul-pewdiepie-casey-neistat

33 https://youtube.googleblog.com/2017/12/expanding-our-work-against-abuse-of-our.html

34 http://social.techcrunch.com/2017/12/05/youtube-promises-to-increase-content-moderation-staff-to-over-10k-in-2018/

B. DTC DISTRIBUTION ALGORITHM

DTube Coin (DTC) and Voting Power (VP)

DTube Coin (DTC) is a freely tradable and fully liquid crypto asset. It represents the value users can trade with each other.

Voting Power (VP) is the voting token used to play the curation game. The unique role of VP is to post and vote on content in order to earn DTCs and influence content's ranking on the platform. VP is not a tradable asset and has no value outside the DTube platform.

1/ DTC generates VP

Each DTC generates +1 VP every hour. This VP will stack indefinitely in a user account. The more DTC a user hold, the more VP he gets every hour

DTC - - - - - | **+1 VP / DTC / hour** | - - - ➤ **VP**

2/ Chase popular videos and vote with VP

Browse videos on the platform and try to determine if it has rising popularity potential. Look for content freshness, trends, who shared it, who already supports it, etc.
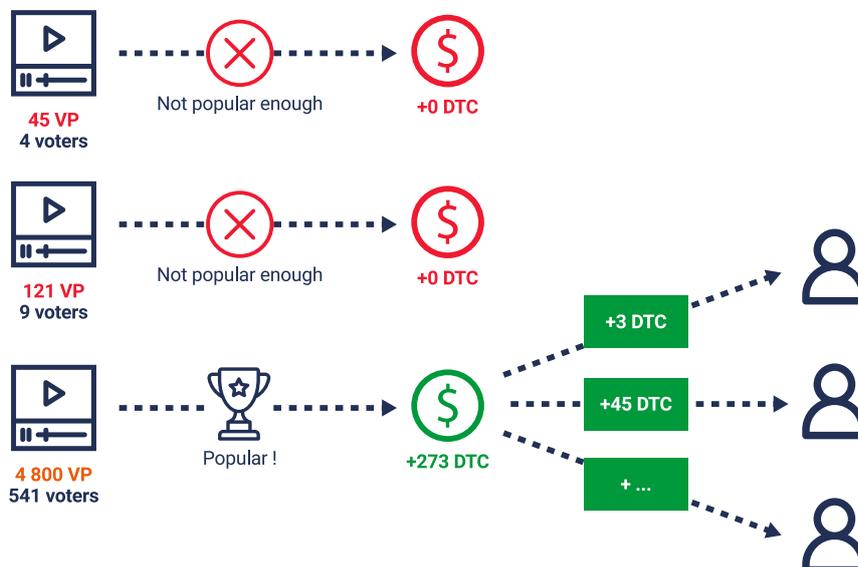
When you find a winning pick, vote on the content and choose how many VP to spend.

3 VP
45 VP
8 VP
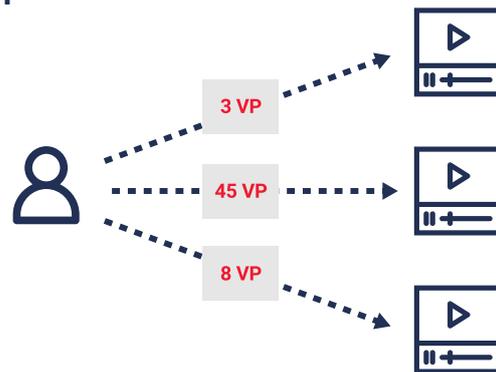
3/ Earn DTube Coins if content gets popular

If enough curators follow your vote and bet more DPower, content's popularity rises and all voters earn DTCs.

The amount of DTCs received depend on how much DPower you've spent on the video. The more DPower, the higher the reward in DTCs

45 VP
4 voters
Not popular enough
+0 DTC

121 VP
9 voters
Not popular enough
+0 DTC

4 800 VP
541 voters
Popular !
+273 DTC

+3 DTC
+45 DTC
+ ...

C. DETAILED GAMEPLAY FOR CURATORS AND CREATORS

Gameplay for curators

- **Step #1:** Acquire DTube Coins (DTC) to start playing

When creating an account, new users can top-up the first coins to start playing either through the referral program, provide an email address or purchase coins on cryptocurrency exchange markets with $, €, bitcoin, etc.

- **Step #2:** DTCs creates Voting Power (VP)

Each of the coins you hold gives you a unit of voting power. The more coins held, the more voting power generation rate. Voting power generation can be increased by purchasing more DTCs on exchange markets.

- **Step #3:** Look for content with great potential virality

Browse content on the platform and assess its potential to become popular such as # votes, when was it posted, who voted on it already, etc.

- **Step #4:** Vote and earn!

Vote on a content with VPs. The distribution algorithm will calculate your share and distribute you DTCs.

One earn DTCs if the popularity of the content rises after one's vote (i.e if more people vote after). If it doesn't, VP has been spent for 0 outcome.

The amount of coins earned depend on the amount of VP spent through a vote. The more VP spent, the higher the reward in DTC.

Gameplay for creators

- **Step #1:** acquire cryptocurrency Coins to start playing

Like for curators, new users can top-up the first coins to or use the referral program

- **Step #2:** Post a content

Upload a content on the platform, tag it accordingly and choose the initial amount of VPs to promote the post

- **Step #3:** Earn Coins for every vote from fans

Each time a user votes on the content, the creator earns DTCs. The more VP a vote has, the higher the rewards it is for the creator.

D. COMPETITION

A dynamic new sector emerging

More than 16 projects on alternative video platforms emerged so far, with DTube already ahead with the first live product and #1 web based platform (many are desktop apps):

Fig 9. Alternative video platforms and their positionning towards users
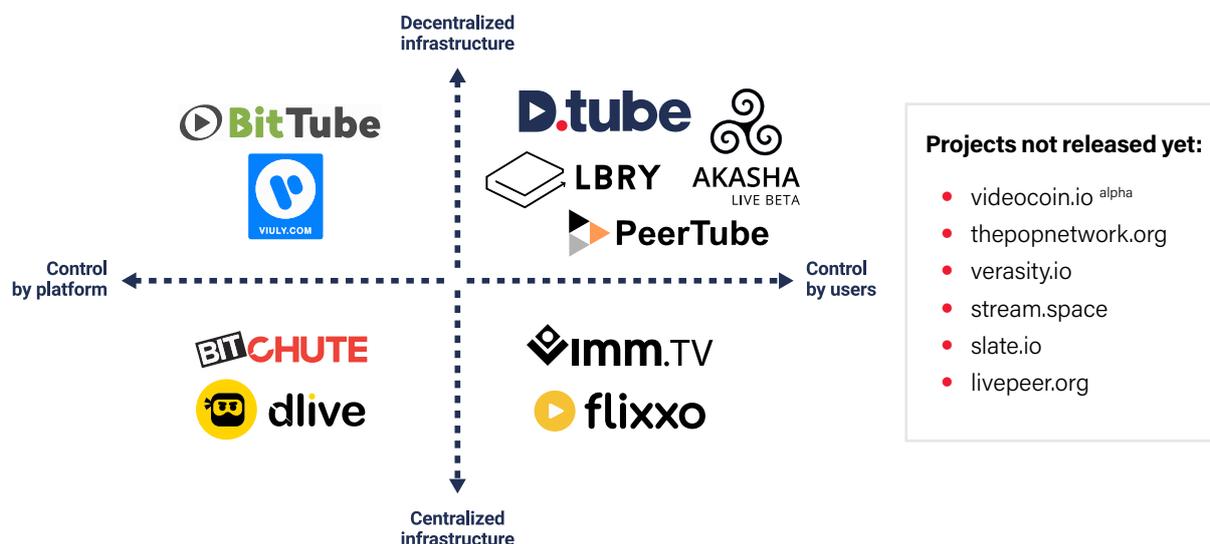
E. IPFS DECENTRALIZED INFRASTRUCTURE

A Decentralized video infrastructure that protects freedom of speech

DTube implemented a peer-to-peer video hosting and delivery infrastructure using the IPFS protocol and network.

Each video uploaded on the platform is then distributed to all the devices connected to the network.

This infrastructure is a very important feature that protects creators who post content to the platform because it is not censorable. If a file is lost or taken down on one node, the network can redirect the stream to another source.

This technology gives DTube a strong competitive advantage vs. centralized infrastructures:

- More robust – If a node fails, the stream is instantly redirected to another source

- No censorship abuse – Content cannot be controlled by a central authority

- Drastic reduction of bandwidth consumption – Up to 99% vs. centralized infrastructure
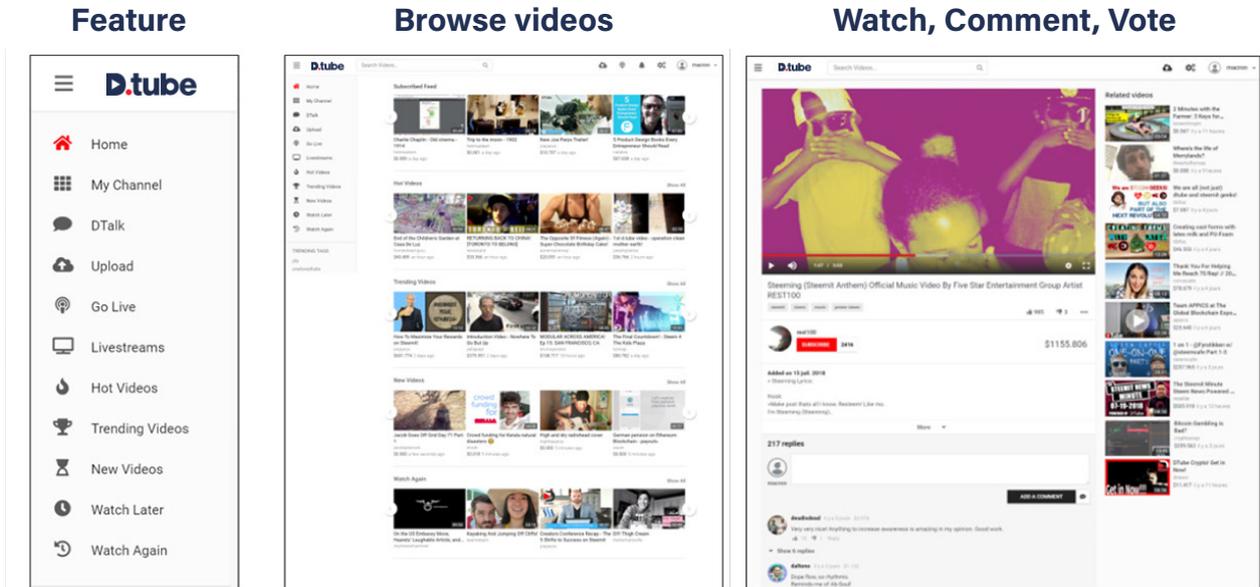
- Almost no operation cost for DTube

Ultimately DTube won't need to run any hosting infrastructure at all
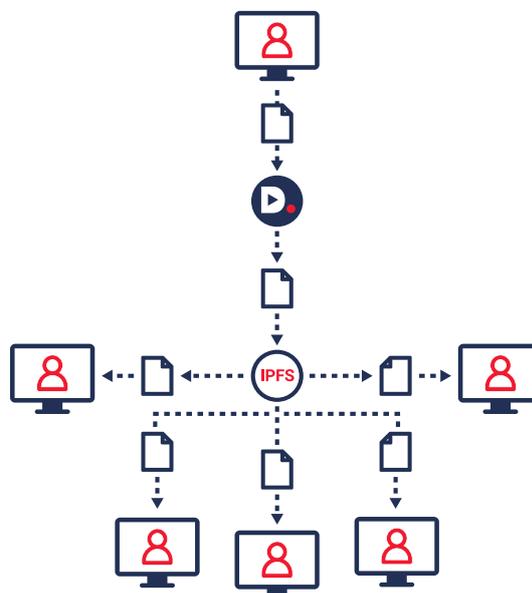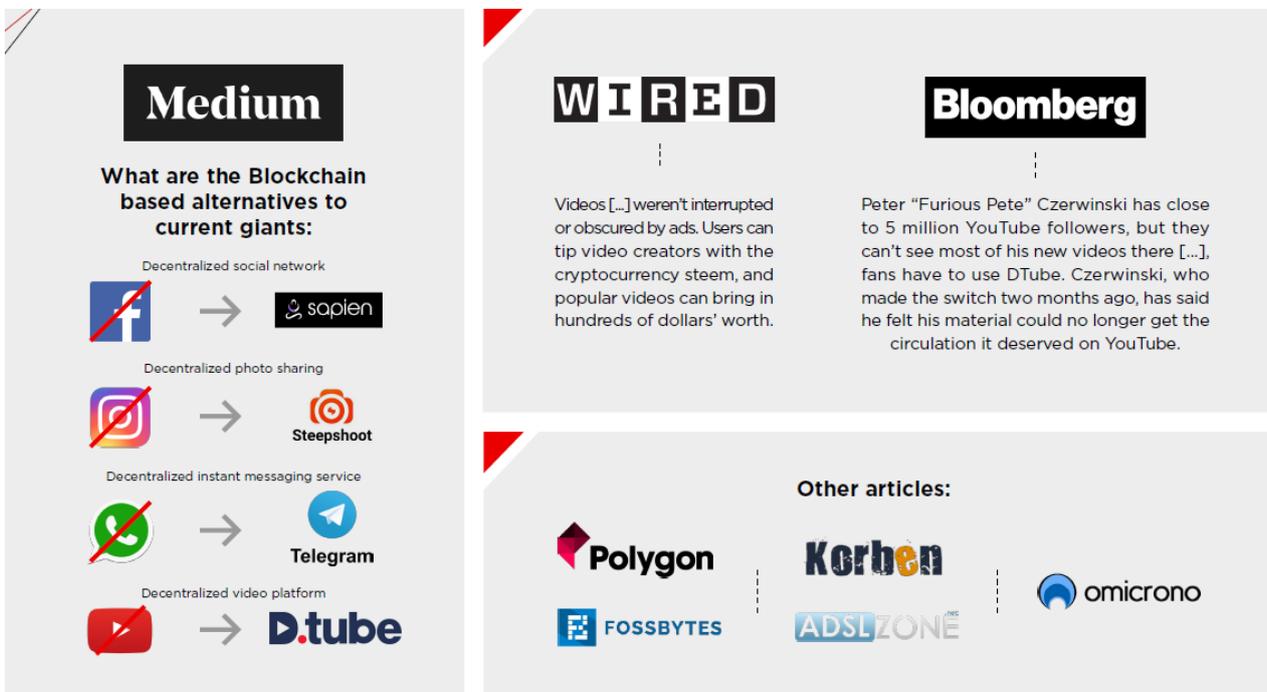
F. PRODUCT PRESENTATION

- Live product: **https://d.tube**

DTube is a video sharing platform for creators and curators. Users can browse and search for videos, and socially interact: watch, vote, comment, share and tag.

Feature	Browse videos	Watch, Comment, Vote

G. PRESS COVERAGE

Click on press logos to open article in web page

H. DIFFERENCES BETWEEN STEEM AND AVALON

Updated Proof-of-Brain distribution mechanism

Tokens are created and distributed in real time. The number of tokens created every day depend on how many active accounts exists on the network ("active" means at least holding 1 unit of token).

Votes (Voting Power -VP in our case) is an account-binded asset that is produced every hour at a rate of +1 VP per token you hold per hour. Users can then spend their votes on contents they can rate (upvote/downvote), which influences the distribution and who earns what. Bandwidth works similarly to VPs in the way it generates off the liquid token (DTube Coin).

Easy account creation

Free and instant account creation for an account without a username (the public key can be the displayed username) while customizable username registration has a cost depending on the number of characters of the pseudoname.

After account creation, the user will still need a little bit of liquid stake to be able to generate bandwidth and VP, hence the account creation is not really free, but at least users aren't held hostages like in social blockchains using staking, they are free to leave at any point and recover their initial investment.

Improved features

STEEM BLOCKCHAIN	AVALON BLOCKCHAIN
3 currencies: 1. Steem Power: a stake asset that releases in 1/13th for 13 weeks. 2. Steem Dollar: a token pegged on US Dollar, but which actually isn't really pegged 3. Steem: a normal token you can actually sell on the markets, but it gives you no power on the network to hold it	A single liquid token
A content can be monetized 7 days only	Infinite monetization of contents through time
Your voting power caps after 2-5 days of inactivity.	No cap to voting power, it keeps stacking up.
You can only spend max 2% of your actual VP in 1 vote	You can spend 100% of your VP in 1 vote
Fixed pre-determined inflation, not scaling with userbase	Dynamic inflation scaling based on active userbase
Takes weeks for a free account paid by SteemIt Inc. Forced to burn STEEM otherwise.	Instant account creation. Free if no username. Burn tokens to reserve usernames.
Need to stake your assets 13 weeks to play the game	No staking, bandwidth and voting power is generated off the single liquid token
Wait 7 days to collect rewards	Instant rewards
Multiple apps having different end goals creates a hard to govern chain	A unified app and business model can create an easy to govern chain

Scalability

Avalon is designed to scale beyond Steem current levels and was successfully tested to more than 3,000 transactions/block[35], only limited to our testing hardware (i7 3.6 GHz).

This allows the infrastructure to handle enough transactions up to 17 Million daily active users.

Avalon long term vision: one chain ◀▶ One App

Current main blockchain models are not designed to scale. Scalability is not possible when dozens of DApps with millions of users share the same database (and codebase). Financial freedom for a Dapp is also important, developers don't want their users to pay or hold a secondary token (like with ETH ERC-20 for example).

Avalon is open source and designed to be easily customizable to meet the vision of developers who wishes to build an App using a social blockchain mechanism.

To create a new Avalon blockchain, we will provide a service for developers to adjust the parameters of the chain to one's project, possibly disallow or add new transaction types.

Then we'll assist in deploying a first witness node on the network, and make sure connectivity and peering is fine so that more of the DApp users can join to serve the network as witnesses.

In addition to being deployed on DTube, Avalon has also received numerous strong interests from App developers and ventures both inside and outside the Steem ecosystem.

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I. PROJECT ROADMAP

	PRODUCT	BUSINESS	DETAILS
2017			
LAUNCH **v0.1 (August, 11)** Full launch of a first MVP: a decentralized video platform running on the Steem blockchain with an IPFS uploader and a custom video player			**Announcement #1**
Q3	**IPFS** **v0.2 (August 28)** - Local IPFS hosting and uploads issues - UX updates	**+2 NEW STAFF** UI designer + SysAdmin	**Announcement #2**
	CHANNELS **v0.3 (September 19)** - Channel subscription and feed - Multi-language	**+2 NEW STAFF** Developer + Curation manager	**Announcement #3**
Q4	**MOBILE & RECOMMENDATIONS** **v0.4 (October, 24)** About page, webtorrent support, mobile responsive version, recommended videos feature, video player debug	**.TUBE DOMAIN NAME** Acquisition of the domain name **https://d.tube**	**Announcement #4**
	UPLOADER & ENCODING **v0.5 (November, 20)** - Improved uploader with queuing, 480p encoding, tagging, video editing. - New player with quality switch, duration display, and UI/UX improvements		**Announcement #5**
2018			
Q1	**CUSTOM PLAYER** **v0.6 (January, 5)** - New player: custom design, hotkeys, preview, thumbnails - Distribution features, watch later, channel redesign, night mode, - Steem Connect implementation	**2M STEEM FUNDING** - Received funding of 2 Million Steem Power delegation from Ned Scott - Launch of new logo & media kit, - Launch Discord channel	**Announcement #6** Uploader update: **Announcement #7**
	ENCODING & SEM OPTIMIZATION **v0.7 (March, 7)** - GPU encoding, 720p encoding - SEM: Server side rendering, embed support - Subtitles, channel update with user activity	**HIGH AUDIENCE GROWTH** - Rank #1 on hacker news, - New staff: CEO	**Announcement #8**
	Performance milestone : 1 upload/minute & 4 Million monthly Unique Visitors		

	PRODUCT	BUSINESS	DETAILS
Q2	**LIVESTREAM & CHAT** **v0.8 (Aug, 9)** - Fully open source code - Livestream - Decentralized chat - Notifications - Infrastructure clustering	**SPONSORSHIP PROGRAM** - Economic update (May, 7) - Launch DTube sponsorship program - DTube commission redistributions	**Announcement #9** **Announcement #10**
Q3 **Q4**	**NEW DPOS BLOCKCHAIN** - Research & Development of a new DPoS Javascript blockchain using Proof-of-Brain mechanism: Avalon	**+2 NEW STAFF** Graphic designer, Head of growth	**Announcement #11**
2019			
Q1 **Q2**	**DTC TESTNET** **v0.9 (June)** Launch new DTube testnet with: - Avalon Blockchain - New monetary settings - New gameplay New features: share links from other video platforms	**+3 NEW STAFF** UX designer + Head of communications + Mobile App developer - Marketing: open official mainstream social media accounts	— *NOW* —
Q3	**DTUBE FULL RELEASE** **v1.0** - **Full launch DTube v1** - **Mobile Apps** - **UI redesign**	**DTube Coin IEO + AIRDROP** - **DTC Initial Exchange Offering** - **DTC Airdrop** - **Launch Referral Program**	
Q4	**VIDEO STORAGE OPTIMIZATION** - Decentralized and centralized storage optimization - Browser extension - Livestream	**DTC OPEN TRADING** DTC open tradability on markets	
2020			
Q1	**LOADING OPTIMIZATION** - Adaptive streaming - 1080p	- Launch Merchandising shop	
Q2	**WALLET AND TV APP** - TV App & built-in wallet	**DTUBE AD EXCHANGE** - Built-in Ad exchange release	

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WEBSITES

DTube : **https://d.tube/**

About & FAQ: **https://about.d.tube**

DTube is live: have a try now with your dedicated account:

d.tube/login/dtube

Username: **investor**

Private posting key: **HywUtc79hsT44B5oSY8mQE9KkRSotjb13bkxE1PnRM65**

INVESTOR PAGE:

https://token.d.tube/

OFFICIAL SOCIAL MEDIA:

 https://steemit.com/@dtube

 https://discord.gg/dtube

 https://twitter.com/DTube_Official

 https://t.me/dtube_official

 https://www.reddit.com/r/dtube/

 https://linkedin.com/company/dtube

 https://bitcointalk.org/