⊘ LIVETREE ADEPT™

Own the future of entertainment

LiveTree ADEPT

Advanced Decentralized Entertainment Platform for Transparent distribution

Ashley Turing with thanks to the many contributors, October 5, 2017

Abstract

LiveTree is an established, socially responsible crowdfunding company based in London, UK. Over the last two years, it has captured 5% of the UK crowdfunding market (in the film and content category) and forged partnerships with several leading names in entertainment, including the British Film Institute Future Film, the Screen Arts Institute, Red Rock Entertainment and 20 independent organizations. LiveTree has compiled a contact directory[1] of 14,000 entertainment suppliers and thousands of individuals who work across film, TV and content.

Having established a unique, successful and sustainable crowdfunding model[2] for film and TV projects, LiveTree and its partners have identified the following problems within the entertainment industry:

- **Creative project funding, creation and distribution:** The entertainment industry suffers from incoherent methods of funding. There is no best-practice funding model, with the result that project finance is often structured on a piecemeal, project-by-project basis, driven by access, timing and contacts.

  The same incoherence is true of the current content distribution process. Traditionally, new content is shared with the wider market via film festivals and content fairs. This route to market is frequently out of reach for creators, meaning that valuable content — potentially the next big TV drama, for example — can be overlooked. The current system also impedes broadcasters and distributors seeking fresh new content since it is opaque, inefficient and lacks a consistent mechanism for evaluating the market potential of projects in economic terms.

- **Content gatekeepers:** The big online distributors, such as Netflix, Google and Facebook, act as creative gatekeepers for new content. By dominating the market, filtering and pre-selecting what is available to viewers based on their own profit, these corporates add yet another barrier preventing consumers from accessing the content they want. Consequently, content-makers currently have no direct, peer-to-peer means by which they can contact their — sometimes millions of — engaged fans, who would willingly pre-purchase their content and promote it passionately among their friends and contacts.

- **Bridging the gap between traditional creative industry and technology:** Economic turbulence has taken its toll on creative projects, and budgets have shrunk markedly in recent years. Arguably, projects are becoming more dependent on personal connections, private wealth and insider knowledge than talent and dedication.

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1. https://secure.livetree.com/#!/search-directory

2. https://secure.livetree.com/#!/howitworks LiveTree's unique crowdfunding model is based on a series of win-win scenarios. The first is that project creators allocate a percentage of the money raised to bloggers, influencers and anybody who helps to fund and promote a project. Thus the money that would have been paid to corporate social networks and search engines for advertising space is channelled to those who have actively helped to realize the project. Secondly, project creators who crowdfund their work via LiveTree also allocate a percentage of the money raised to a non-profit or charity. For many potential backers, the knowledge that their investment is not just supporting a great creative project but also helping a good cause is a powerful incentive.

It is clear that a step-change is required to help consumers and creatives develop content within a structured, market-driven approach to distribution and financing.

LiveTree is set to embark on a new project to addresses these industry challenges. This white paper sets out its solution across three key areas:

- **LiveTree ADEPT:** A decentralized platform that reimagines entertainment's value chain: the process of content creation, funding and distribution. Distribution is via Blossom, a game-changing, decentralized digital rights management system that is set to revolutionize how content is interacted with, shared and consumed.

- **LiveTree Seed:** Supporting ADEPT is a digital token called Seed, designed to provide equality and remove gatekeepers restricting the market. Its value is created through demand, driven by its use throughout the platform and subsequent repurchase from the secondary market.

- **LiveTree Incubators:** The Incubators, operated through LiveTree's partners by Oscar- and BAFTA-nominated filmmakers, are designed to advance the careers of both emerging talent and experienced filmmakers. By providing content and real-world projects, they also serve to migrate the current industry to ADEPT. In addition to delivering real-world projects that can be used to stress test smart contracts during the development stage, the Incubators provide content that can be used to market and add value to ADEPT, because the content is subsequently sold in Seed.

In order to ensure the success of this project, LiveTree's approach is both pragmatic and rooted in the real world. There is no assumption that the global $500bn entertainment industry is going to change overnight, or that consumers are about to stop watching film and TV content via the traditional channels. Therefore, the project has been structured with industry partners in five keys stages to incrementally realize value for the buyers of Seed:

1. **Minimum viable product:** Intended to immediately realize Seed revenue from the sale of Incubator-developed content

    a. Note: Three productions are potentially immediately available through Red Rock Entertainment.

2. **Crowdfund:** Migrates LiveTree's existing crowdfund business

3. **Network:** Migrates LiveTree's contact directory and builds a market-driven contact network

4. **Blossom:** Launch pre-pay-to-view (PPVOD) channel enabling fans to pre-pay for content they want to be made

5. **Blossom TV:** Drive Mainstream adoption

It is becoming increasingly clear that the blockchain, with its ability to simplify content creation, distribution and funding, represents the future of the creative industries. Those that buy Seed now, as owners of these future industries, will be well positioned to reap the benefits of this new creative world as the LiveTree platform is rolled out globally through 2018.

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Context

2. Context

The world's markets are still dealing with the after-shock of the financial crash of 2008 and the unsustainable levels of debt created by ever-widening pay, social and geopolitical divides. A decade of economic turbulence has taken its toll on creative projects, which have seen their sources of funding dwindling to dangerously low levels. Career progression within the creative industries has also been hit hard by shrinking budgets, and is arguably now more dependent on personal connections, private wealth and insider knowledge than talent and dedication.

One obstacle is the difficulty of valuing creative projects in economic terms. In the past, creative projects were judged on their ability to improve society and the human condition, as well as to entertain. In today's harsher climate, only projects that have been selected as having 'mainstream' appeal are likely to find funding. This results in a cookie-cutter approach to content, limiting both consumer choice and creative diversity.

ADEPT is a response to this constraining, unsustainable creative economy. The platform represents an alternative future for the entertainment industry — one in which the creative and commercial skills needed to produce, market and distribute content work in synergy rather than in opposition. It allows creatives to create within the safety net of a market-driven approach to distribution and investment. It gives distributors access to a pipeline of premium new content, and backers more choice in terms of what and how they invest in creativity. In short, the new platform represents a step-change in our approach to creativity and the structure of the $500bn global business that supports it.

3.

Background

3. Background

LiveTree's mission is to develop a creative financial network that benefits all participants, the first phase of which has been achieved in the form of an alternative-funding platform that disrupts online advertising and empowers human potential.

3.1. The current system

LiveTree's successful, fully operational, [reward-based crowdfunding system](#)[1] has served as the prototype for the proposed next-generation platform. Unlike many other companies entering the blockchain space, LiveTree has tried-and-tested experience of funding creative projects, along with a number of established industry partners. This section explains how its existing model works.

Under the current system, people back a project with pledges of money and, in return, the project's creators 'thank' their backers with rewards based on the size of the investment. The reward could be, for example, a signed copy of a script, or dinner with Hollywood talent. Essentially, the rewards are a product, service or experience related to the project. There is no equity exchanged in return for the financial backing, so the only risk for the project creator is a loss of his or her time. This system is also effective in terms of assessing a project's market potential and gauging demand.

One of the central challenges with crowdfunding, however, is how to make people aware of new projects. In a world of information overload, it can be hard for creative ventures to cut through the clutter. LiveTree's solution was to devise a financial network advertising system that sheds light on how the sharing of information is monetized and works for the benefit of individuals, rather than the social networks and search engines that dominate the online advertising space. These power players act as gatekeepers, filtering information and data for their own financial gain, with repercussions across society.

As when a trusted friend recommends a film or TV show, LiveTree has found that the most effective way to market projects is the time-tested technique of personal recommendation. Based on this insight, a referral system was embedded into the crowdfunding platform. Called 'Branching Out', in line with the LiveTree imagery, it allows project creators to dedicate a percentage of any money they raise to bloggers, influencers and individuals if they undertake to refer a project to their networks of friends and contacts. In practice, this means that anybody who refers a contact to a project earns a commission percentage on any money subsequently pledged. The commission earned by the promoter — or 'Brancher', in the LiveTree vernacular — is defined by the project creator. The Brancher can refer-a-friend to a project simply by sharing it online through any social channel. Project creators can also dedicate a percentage of the funds they raise to a non-profit organization, which also incentivizes the latter to market their work.

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1. https://secure.livetree.com

4.

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4. LiveTree ADEPT

Armed with the learnings from the success of its current platform, LiveTree is now ready to launch ADEPT (**A**dvanced **D**ecentralized **P**latform for **T**ransparent distribution). The new platform supports projects throughout their entire life cycle, from creation through distribution to funding. It is a model that not only reimagines LiveTree's existing operation, but the entire creative, film, TV and content industry.

ADEPT's goal is to incentivize Branchers, backers, consumers and any other interested party to help market projects, harnessing the network effect to amplify the project's value and unlock its maximum potential in terms of popularity and success.

The networked economy empowers content creators by enabling them to connect and form new communities to help bring projects to fruition. The interaction between Branchers (consumers, suppliers, distributors, non-profit organizations, influencers), and backers creates sustainable, mutually rewarding scenarios that financially motivate everyone involved to help make the project a success by increasing its popularity. Branchers, backers and creators are bound by smart contracts, implemented by the Ethereum blockchain platform, which are decentralized and completely transparent. In addition, smart contracts, which can be negotiated between individuals, companies and groups, remove legal overheads, lower barriers to entry and open the door to new forms of collaboration, funding and distribution.

The following subsections outline LiveTree's strategy for connecting people in a networked economy that functions for the benefit of creativity and the value of Seed.
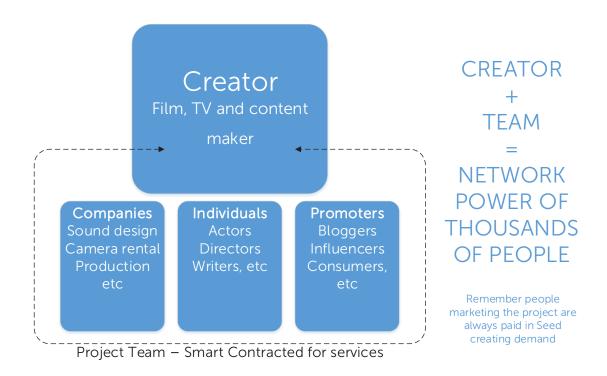
4.1. Content creation: creating what the people want

Every great project starts with a great story. To make that story a reality, a great team is required. The stronger the story, the greater its chances of attracting world-class talent, both in front of the camera and behind it. But everybody in that team needs to know the terms of their engagement, specifically their earning potential, benefits and likely risk. Once these terms have been defined, an in-principle team can be formed.

The lengthy list of credits at the end of a motion picture or TV series is an indication of the size of team required to produce premium content. Over the past year, LiveTree has been building a contact list of established industry players, which currently numbers more than 14,000 companies and individuals. Project creators can also add their own participants to the network on a per-project basis.

There are potentially tens or even hundreds of people in a team, and each person will bring their own network of friends and contacts to the project.

To help guide creators, fans, investors, project creators and all participants in a project, ADEPT will also transparently score projects based on LiveTree's ADEPT Analytics, which are peer-driven and based on community governance. Initially the scoring system will consist of statistics based on the team and project's financials. The system is open-source and based on community input, meaning that the creator and consumer, not a corporate, has control over makes it on to the screen.

Creator
Film, TV and content maker

Companies
Sound design
Camera rental
Production
etc

Individuals
Actors
Directors
Writers, etc

Promoters
Bloggers
Influencers
Consumers,
etc

Project Team – Smart Contracted for services

CREATOR
+
TEAM
=
NETWORK POWER OF THOUSANDS OF PEOPLE

Remember people marketing the project are always paid in Seed creating demand

Team members can also refer potential backers to the project and earn a percentage of any money subsequently pledged, paid to them in Seed. This payment of Seed serves to increases both demand for the token and its value. For professional content makers, smart contracts simplify complex deals, remove legal overheads, create transparency and guarantee payment flows.

4.2. Funding: unique project financing

ADEPT offers two new and unprecedented funding returns, as well as a funding model:

- **Profit share return:** This option enables backers to earn a percentage of any sales. For example, if a project creator opts to use Blossom TV, backers earn a percentage of each pay-per-view.

- **IP rights return:** Several contracts covering various IP transfer options are available, including per-territory, per-episode and per-license-period. This is discussed further in the technical section under Digital Rights Management.

- **Milestone-reached' model:** The crowdfunding industry currently has two models. The first is the 'all-or-nothing' model under which, if the funding target is not met, the funds are returned to the backers. For example, if the target raise is $1,000 and $999 is raised, the funds are returned. The second model is 'keep-what-you-raise', under which the creator keeps any funds raised. For example, if the target is $1,000 and $999 is raised, the creator keeps what has been pledged. ADEPT introduces a third completely new model: 'milestone-reached'. Under this system, a milestone target is set and backers' funds are only released upon sign-off. For example, the creator sets two milestones, the first at $1,000 and the second at $2,000. Backers pre-fund the first $1,000, which is released only upon sign-off (or a timeout). This process is repeated with every pre-set milestone. If a dispute occurs an arbitration process takes place similar to the current LiveTree (e-Bay-style) resolution procedure.

Backers

- New way to fund projects in return for IP and share of profits
- New funding method "milestone-reached"
- Team earns Seed when they attract more backers

Consumers and Backers can pay in Seed, ETH or fiat

Contract fees are paid in Seed

Percentage goes directly to promoters to encourages backers – Always paid in Seed

ADEPT is the first platform to offer content creators a combination of reward-based crowdfunding, profit share and IP revenue. Its 'milestone-reached' funding model is also unique. These are made possible through the use of smart contracts and decentralized technology. All contract fees and payments in Seed drive demand for Seed and as a result, its value. These innovations alone will assist ADEPT in becoming the market leader in the global $1bn crowdfunding industry for film, TV and content.

4.3. Distribution: Blossom

Using the network effect of potentially hundreds of thousands of team members, content creators can decide how best to market and distribute their work. ADEPT supports three possible distribution scenarios:

- **Blossom:** This is a revolutionary new online channel operated by ADEPT. Initially, it will operate purely using ADEPT's unique pre-pay-to-view (PPVOD) model in order to capture market share. This enables fans to pre-pay for the content they want to watch. It is envisaged that independent content-makers and the LiveTree Incubators will be early adopters. Subscription (Netflix style), advertising (YouTube style) and pay-per-view models will be added as professional content makers take Blossom mainstream.

  Blossom TV provides a direct, peer-to-peer connection between content creators and viewers. Scoring and sharing content is encouraged and tracked through Blossom digital rights management (DRM) and rewarded in Seed. Blossom provides viewers an entirely new interactive experience. It is envisaged consumers will be able to cast and choose what gets made in a fully interactive fun 'gamified' fashion.

- **Online streaming:** This distribution model utilizes the popularity of YouTube and Vimeo to create a migration path to Blossom. It is suitable for professionals and emerging content-makers that want to gain exposure and build popularity for their projects. This option recognizes that these channels are extremely popular, and remain powerful channels for capturing market share. (Note: Google requires its users to have a special 'partner' account. Vimeo has similar requirements for accessing APIs and realizing revenue)

- **Traditional broadcasters:** This model provides access to broadcasters with existing infrastructure (for TV and cinematic releases). Traditionally, license contracts are negotiated between established content-makers and sales executives. Currently this negotiation process can take months and, in some cases, years. ADEPT smart contracts reduce this complexity, giving distributors more time to negotiate more sales, meaning more content gets to market. Additionally, ADEPT Analytics scoring system provides an efficient way to match content creators with distributors who are seeking fresh new content.

Distribution

- Blossom DRM
- Network power to negotiate deals with traditional broadcasters
- Seed fees charged on Blossom TV subscriptions, pre-pay, pay-per-view and ads based

Blossom TV

Vimeo YouTube

Traditional Broadcasts

Initially a pre-pay-per-view model with subscription, advertising and pay-per view upon mainstream adoption

Ad-revenue and pay-per-view returned

Mainstream distribution deals with broadcasters (BBC, NBC etc)

Consumers

- More choice
- More value
- More freedom

Blossom represents the distribution point of an entirely new, game-changing market that is set to revolutionize the industry. It provides professional content-makers transparent viewing statistics (something centralized providers such as Netflix and Amazon refuse to provide to producers), transparent digital rights management and gamification (note DRM which is currently locked into centralized solutions provided by corporates such as Microsoft, Google and Apple), efficiency gains for contract negotiations with traditional sales executives and emerging content makers the first ever pre-pay to view service, empowering the consumer to Seed their choice of what gets made. Blossom provides consumers a new level of interactivity. They get to choose who stars in the next episode, film or content, what gets funded and are ultimately rewarded for scoring and promoting the project in Seed.

All revenues derived from Blossom (subscriptions, ads, pay-per-view, pre-pay) will be paid in Seed, again creating demand and raising its expected value.

5.

⊡ LIVETREE INCUBATORS™

5. LiveTree Incubators

Clearly, the film, TV and creative-content industry will not change overnight, which means that the platform must function in today's marketplace as well as in that of tomorrow. To this end, a portion of the funds raised through the sale of Seed will be used to set up a series of incubators that will produce premium content, including documentaries, TV, film and online projects.

LiveTree has been working closely with BFI Future Film, Screen Arts Institute, Red Rock Entertainment and a number of other executive producers and distribution partners to design the Incubator program.

The goal of the Incubator program is:

- **Real-world expertise:** Incubators stress tests the ADEPT's smart contracts under real-world conditions, while fostering industry collaboration, trust and transparency. Incubators provide an easy route for the global creative industry to transition to the decentralized ADEPT platform

- **Opportunity:** helps creatives to develop fresh and original content, which in turn helps market and promote ADEPT.

- **Seed:** all projects funded through the Incubators will be transacted in Seed. This represents a potentially highly lucrative mechanism for those who own Seed to benefit from premium content directly.

In the first phase, Incubators will be launched in London and California, followed by New York and, provisionally, Beijing. Expansion into other regions and territories will be rolled out once the London and California Incubators have been established.

6.

Ⓢ LIVETREE SEED™

6. LiveTree Seed

6.1. A new form of entertainment ownership: Seed

Supporting ADEPT is a digital token called LiveTree Seed, reflecting the imagery of LiveTree. Seed is designed to incentivize good behavior within the LiveTree ecosystem, give back to the platform community and, moreover, deliver potentially significant returns for those that own it. Profits generated by ADEPT are used to buy back Seed. This is in addition to the activity built-in to the platform. The repurchase of Seed will drive the growth of the networked economy, which in turn is expected to increase the value of Seed.

Those that purchase Seed in the initial fund raise have the opportunity to realize value from being at the beginning of the future of how we interact and watch content.

6.2. Generating Seed value

As a project moves throughout the ADEPT ecosystem, Seed is purchased and demand created. This demand is proportional to the activity of the entire community. As Seed is a fixed quantity i.e. there will only ever be a certain quantity ever created, its value is driven by demand.

LiveTree is to reinvest profits in Seed token buy-backs from the secondary market, which is anticipated to fuel demand and drive up the value of Seed. Specifically, Seed revenue demand is generated through:
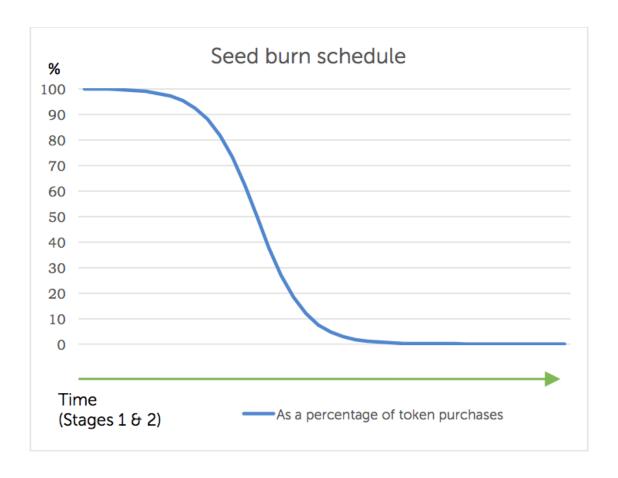
- **ADEPT Branch commission:** Fans, bloggers, influencers and organizations that help finance a project by sharing — or 'branching' it, in LiveTree vernacular — or by scoring it in an interactive gamification through Blossom are rewarded with Seed. This entirely new gamification market is accompanied by the taking market share from giant corporate advertisers such as Facebook and Google.

- **ADEPT fees:** Crowdfunding and smart contract fees. The fee is set at 2.5%, which is extremely low compared to the industry norm of 5%-20%. LiveTree currently charges 4.65% (with 2.4% plus 20p per transaction going to the credit-card providers), compared to fees of between 5%-10% levied by other crowdfunding platforms. These lower fees in addition to the end-to-end platform set ADEPT to not only generate a new market, but capture potentially large shares of crowdfunding and the entertainment industry as a whole.

- **ADEPT financing:** Projects entirely financed in Seed.

- **LiveTree Incubators:** The sale of new and original film, TV and creative content specifically created for ADEPT

- **Blossom:** SVOD, TVOD, AVOD and a new model pioneered by ADEPT PPVOD.

6.3. Seed incentive program

A great deal of time and consideration has been given to the question of Seed incentives that give back to good causes, grow the ecosystem, help develop the network effect and could serve as a sustainable template for future economies.

Seed repurchased by the system is to be:

- **Redistributed throughout the platform to encourage behaviors that further promote ADEPT's market adoption:**

  - Seed is to be issued to top Branchers who grow the community of backers, fans and projects;

  - Seed is to be issue to open-source developers who help extend ADEPT's reach. The open-source community is seen as key to the platform's growth. Developers who can extend contract functionality, help to define guidelines for incentives, and play an active role in the LiveTree community are not only central to the platform's design, but will help to ensure its future success.

- **Removed from circulation:** During the initial rollout stages of ADEPT, the Seed re-acquired by the platform (not consumer owned) may be destroyed to help bolster Seed's value. As Seed has been created in a fixed quantity, this would increase scarcity and overall market demand. Burning tokens is expected during stage one and two. The chart below illustrates the anticipated burn schedule in percentage of repurchased tokens. This is expected to be advantageous, in particular, to those that buy Seed in the initial sale.

Seed burn schedule

%

Time
(Stages 1 & 2)

—— As a percentage of token purchases

7.

LiveTree Governance

7. Governance

Openness and transparency are integral to ADEPT's philosophy and mission. As a result, it will operate in accordance to an open and transparent governance structure, similar to those found in open-source community projects. The platform ecosystem is envisioned as a network of fans, creators, backers, Branchers and organizations. The goal is to use this ecosystem as an example of how a networked economy can develop sustainable transparent growth while being highly profitable.

The purpose of ADEPT is to provide open and transparent benefits to its users, in the creative, film, TV and content industries. The structure of its corporate governance is therefore designed to fulfill these goals.

The platform represents a non-standard corporate entity. Its mandate is to create a sustainable economy that benefits both the participants and the wider community.

7.1. Structure

After examining several corporate structures, LiveTree has opted for a non-profit community foundation structure[6], which meets ADEPT's philosophy and approach, since profits are potentially used to repurchase Seed to drive the platform's value. As a non-profit entity, profits will not be distributed to the founders.

LiveTree plans to migrate ADEPT to a decentralized autonomous organization (DAO) structure[7] as it becomes more widely supported. This format, with its independent, global operating model, was seen as the most advantageous for a platform operating as a global entity. However, despite its benefits, this kind of organizational structure is not without its challenges. Initially, for example, the platform would be exposed to potentially unfavorable rulings from financial and tax regulators, since the international laws governing DAOs are still being written. The DAO structure will also require a number of decisions that might be not be easily codified. Moreover, voting rights for a DAO can be skewed.

In order to protect the participants of the economy in the absence of a legally enforceable DAO structure, a new community structure has been formed. It will be operated under an open-governance model and will oversee decisions related to compliance, legal matters and ecosystem guidelines. In this phase, LiveTree intends to foster a transparent and open relationship with its community by posting its profit-and-loss statement on its Telegram channel, and actively promoting its mission and values. The platform will set a governance template for the blockchain community to follow.

7.2. Transparency

LiveTree will make public the internal workings of ADEPT, ensuring the platform operates in a completely transparent manner. The rules pertaining to the sustainability of the platform and the Incubator program will be open-source and posted on the company's Telegram channel. Profit originating from ADEPT or derived from the Incubators will be returned transparently to the community, initially through the Seed incentive program.

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6. https://en.wikipedia.org/wiki/Private_company_limited_by_guarantee
7. https://www.ethereum.org/dao

The same standard of openness and transparency will be applied to the Seed incentive program, the rules of which will be posted on LiveTree's Telegram channel, as well as various public forums.

7.3. Open source

The entire ADEPT platform will be open-source, reflecting LiveTree's belief that the open-source developer community is pivotal to the platform's long-term success. To this end, several abstract extension points will be designed to allow developers to insert functionality. The design goal is to enable freelance and open-source developers to create bespoke contracts for distribution, funding and content creation.

It is envisaged that developers will ultimately be engaged by the platform's participants to extend its functionality. As with the Branchers, developers entering into such relationships would be compensated not only with payments, but also with rewards, such as red-carpet invitations or celebrity meetings.

7.4. Partners

LiveTree will connect with a number of organizations, and open-source and industry partners through both the platform and the Incubator program. The goal is to select strategic partners that can benefit from the networked economy and help LiveTree to innovate across the platform infrastructure. This process will require continual assessment and partnership-building with both traditional players and on the blockchain.

LiveTree's long-term strategy is to improve and grow the networked economy and its community. ADEPT is a template for a sustainable economy that will simplify commercial relationships and generate better, fairer returns for all those involved in the creation, production and distribution of content.

8.

Technical architecture

8. Technical architecture

LiveTree ADEPT and LiveTree Seed (ERC20) will be built on the Ethereum blockchain. All smart contracts built within the platform will employ the live Ethereum network.

8.1. Approach

The current LiveTree system is built on a micro-service architecture utilizing a .NET stack on top of Microsoft Azure services and infrastructure. The ADEPT platform and underlying services will migrate to open-source equivalents and adopt a loosely coupled, non-restrictive architecture philosophy.

Based on LiveTree's experience, large-scale software development projects such as ADEPT require technological flexibility in terms of approach. This is because the realities and challenges of implementation are frequently impossible to predict until detailed examination of factors such as application programming interfaces (APIs) and specifications have been closely examined.

With these facts in mind, the following sections offer a technical roadmap of the project, identifying the key design considerations. This paper is intended to serve as a guide to the technical process, which is expected to be adapted to resolve any challenges encountered during implementation.

8.2. Technical resources

The entire platform will be open source, reflecting LiveTree's belief that the open-source developer community is pivotal to the project's long-term success. To this end, several abstract extension points will be designed to allow developers to insert functionality. The design goal is to enable freelance and open-source developers to create bespoke contracts for distribution, funding and content creation.

LiveTree's core technical team will establish the roadmap, ensure delivery and assist the open-source community wherever applicable. From experience, a small core supplemented by a scalable set of resources for test and devOps tasks is the most efficient structure.

LiveTree has partnered with UseTech to scale the core team as needed. It has also established relationships with the DLTLabs, UCL Blockchain Department and Gavin Wood's consultancy Parity for further technical guidance.

Core technical team

- **Ashley Turing:** CEO, background in computer science AI/ML

- **Dr Jamie Ward:** technical officier providing oversight and guidance

- **Alexander Mitrovich:** ADEPT technical lead

- **Andrey Zaytsev:** ADEPT blockchain architect

- **Gustavo Guimaraes:** ADEPT blockchain and web programming master

- **Hibryda:** inventor of BitLattice; integral to project and LiveTree ADEPT design

- **Purav Gandhi:** technical lead for LiveTree's current .NET system

8.3. Licensing

LiveTree has taken guidance from the other open-source projects in its approach to licensing. It fully expects the community to further set and propose licensing to match the individual software component developed within the ADEPT platform. Provisionally, the community will be governed by two key principals:

- ADEPT will be developed in the spirit of open source and free software (otherwise known as FLOSS);

- There will be no preference for any particular legal entity, including the LiveTree Community Foundation.

LiveTree expects the core services offered by ADEPT to be released either under a MPL license or a LGPL license. However, other components within the ADEPT platform may adopt other licenses (for example, GNU General Public License), depending on the nature of the ADEPT application.

8.4. Key considerations

The following section briefly outlines some of the key technical considerations.

The following basic functionality has been identified:

- Smart contracts

  - Facility to execute micropayments

  - Storage mechanism

  - Complex processing capability

  - Reporting

- Ethereum

  After much debate, LiveTree has decided to employ the live Ethereum blockchain network as the foundation for ADEPT. There are well-documented concerns around Ethereum's scalability. The volume of Ethereum-based transactions has been growing steadily. According to EtherScan, daily transactions have increased to around 300,000 (Q2, 2017), with the average wait time approximately 20 seconds. There are a number of developments (Tendermint; The Raiden Network; Plasma; Coco) that could be used to counter time delays in block time should this prove to be a problem.

  Moreover, from a marketing and commercial point of view, Ethereum is more closely aligned with LiveTree's objectives in terms of mainstream adoption. LiveTree believes the wide appeal and adoption of Ethereum provides access to developers and long-term sustainability.

  The following is a summary of the other options considered by LiveTree:

  - **Ethereum options:**

    - Establish an Ethereum ADEPT network using the client provided by Ethereum;

    - Fork Ethereum and establish an entirely new blockchain specifically designed for ADEPT.

These options were excluded because they would involve a significant amount of development that was not in direct support of the objectives of ADEPT. For example, the overhead involved in client-wallet maintenance and core blockchain updates would be costly and time-consuming.

- **Tangle (IOTA):** this lacks the ability to process complex logic. It also lacks the mainstream adoption offered by, Ethereum.

- **BURSTcoin:** this has many positive factors in terms of storage and processing. However, forking it or the use of its core implementation lacks the potential for mainstream adoption. It also lacks widespread developer support.

- **Collaborations**
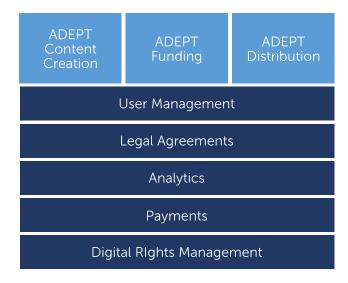
  Wherever possible, ADEPT will work with a number of existing blockchain projects that are already established within the community. Provisionally, LiveTree has examined:

  - **Application and wallet infrastructure:** BlockApps, Infura and Nethereum

  - **Scalability:** Tendermint, The Raiden Network, Plasma (when available) and Coco

  - **Storage:** Sia, Storj, MaidSafe and FileCoin (when available)

  - **Identity:** UPort and KeyBase

  - **Legal agreements:** OpenLaw and Mattereum

  Engagement with newly developed projects and the wider blockchain community is seen as key to the platform's long-term success. However, an important note on projects such as Sia, Storj, etc that operate on custom tokens: LiveTree believes that, in order to avoid a token 'soup', lower level components should be favored as solutions — for example, IPFS over Sia.

  To date, OpenLaw and UPort have been selected as initial integration candidates. Both projects are discussed further in the following section.

8.5. Key logical components

ADEPT Content Creation	ADEPT Funding	ADEPT Distribution
User Management		
Legal Agreements		
Analytics		
Payments		
Digital RIghts Management		

User management

This is the ability to register, login and share identity information. Provisionally, UPort will be used for identity management. Identity management may be augmented by LiveTree's existing identity and session-management micro-services to facilitate user ease-of-use and fiat-based credit-card transactions. It should be noted that the Session micro-service currently utilizes Redis caches for speed and structured storage for reporting. These data stores may be ported to decentralized solutions where appropriate.

Legal agreements

These are physical legal documents, modeled on the multi-party legal agreements common within the entertainment industry. Typically, these agreements work in a similar way across the world. While differences do exist in terms of licence scope (episode, series, film), period and jurisdiction, their impact on the agreement's execution is generally trivial.

The number of possible relationships is also limited. The key difference is between licensor and licensee. This relationship can share certain properties (similar to objects in programming languages), such as timeframe and fees. Those properties can again have certain sub-properties (fees, for instance, can be paid upfront or at intervals). The licensor does not have to be one entity: they can, for example, be a compound entity. The same applies to the licensee. However, this does not change the logical sequence of the agreement and, therefore, it is possible to model these relationships numerically. Armed with such a numerical model, LiveTree will utilize machine learning to build artificial intelligence (AI), which can used to dynamically select the most appropriate agreement type, and build the underlying agreements and binding smart contracts.

In order to access this functionality and to enable the platform to realize its full potential, ease-of-use is essential. Users will neither understand nor necessarily care about the underlying ML/AI/blockchain technology supporting ADEPT. For this reason, it is envisioned that chatbots will be used to facilitate the construction of the underlying agreements. A variety of frameworks have already been examined, including IBM Watson, Botkit and Microsoft's LUIS.

LiveTree plans to utilize IPFS to store the physical legal agreement. This will be effected in conjunction with a smart contract to store signatory and relationship details.

LiveTree has initiated discussions with OpenLaw, which provides an open database of agreements and a convenient mark-up language for legal document customization. The open nature of OpenLaw's database is also appealing, since it is in keeping with the spirit of ADEPT and the LiveTree community. An API that could facilitate ADEPT's numerical model would be an attractive addition to the platform. Furthermore, working with OpenLaw may also provide wider benefits to the community.

Analytics

In addition to project scoring and ratings, a variety of additional reporting requirements exists, from content creation requests to funding and distribution views (page views, backer rate, backer country, etc). LiveTree has already developed several reports within its current system and understands the importance of these in terms of driving and facilitating growth. Currently, LiveTree stores the data in big tables (Azure Table Storage), with appropriate partition and row keys to enable scalability. Provisionally, ADEPT plans to migrate these and future reports to a combination of IPFS Objects and IPFS Subscriptions, and BigChainDB. While this is effected, these reports will be made unitless within an n-dimensional vector space. This will facilitate a wider range of 'page-rank'-style reports.
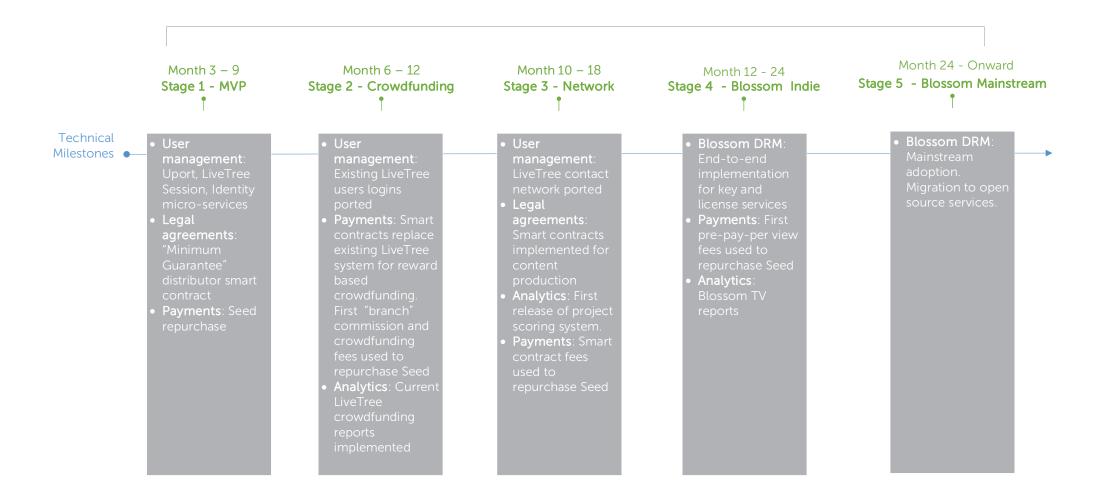
Payments

The ability to execute micropayments and transactions will be facilitated by ADEPT Ethereum smart contracts. LiveTree will continue its relationship with Stripe (primary) and MangoPay (secondary) for fiat-currency card authorization. Settlement with cross-currency and digital-token exchange will be effected through Tether. Seed-token repurchases will take place through secondary market purchases. Seed will then be destroyed, held or redistributed in line with the Seed incentive program. LiveTree has already contacted the main crypto exchanges, in order to ensure that Seed can be traded. Provisionally, HitBTC, for example, provides an API for re-purchase. Initially, however, a manual workflow will be put in place based on a multi-sig wallet and executed by smart contracts.

Digital rights management (DRM)

Utilizing the logical numerical model, described in the legal-agreements section above, ADEPT DRM is the process of attribution, provenance, licensing, distribution and verification. LiveTree intends to express the numerical model in the open-source framework COALA-IP (to maximize interoperability), which will be extended to meet the specific requirements of the video and entertainment industries. Extensions to COALA-IP will include, for example, a pre-pay-to-view licensing model, which will be developed within the spirit of the open-source community.

LiveTree's licensing and key management services, named Blossom, will be used to digitally encode and sign media. LiveTree currently uses micro-services built on top of Azure Media Services for media conversion and DRM (PlayReady, Widevine and FairPlay). These services will be migrated to a custom workflow to support Blossom and DRM. In future, these services will be migrated where applicable to open-source equivalents, such as FFMPEG.

8.6. Technical roadmap

Month 3 – 9
Stage 1 - MVP

Month 6 – 12
Stage 2 - Crowdfunding

Month 10 – 18
Stage 3 - Network

Month 12 - 24
Stage 4 - Blossom Indie

Month 24 - Onward
Stage 5 - Blossom Mainstream

Technical Milestones

- **User management**: Uport, LiveTree Session, Identity micro-services
- **Legal agreements**: "Minimum Guarantee" distributor smart contract
- **Payments**: Seed repurchase

- **User management**: Existing LiveTree users logins ported
- **Payments**: Smart contracts replace existing LiveTree system for reward based crowdfunding. First "branch" commission and crowdfunding fees used to repurchase Seed
- **Analytics**: Current LiveTree crowdfunding reports implemented

- **User management**: LiveTree contact network ported
- **Legal agreements**: Smart contracts implemented for content production
- **Analytics**: First release of project scoring system.
- **Payments**: Smart contract fees used to repurchase Seed

- **Blossom DRM**: End-to-end implementation for key and license services
- **Payments**: First pre-pay-per view fees used to repurchase Seed
- **Analytics**: Blossom TV reports

- **Blossom DRM**: Mainstream adoption. Migration to open source services.

Stage 1

Minimum viable product:

Business objectives:

- Set the base template for LiveTree incubators to realize revenue[8]

- Form distributor steering committee

- Realize revenue and implement Seed repurchase

Figure 1

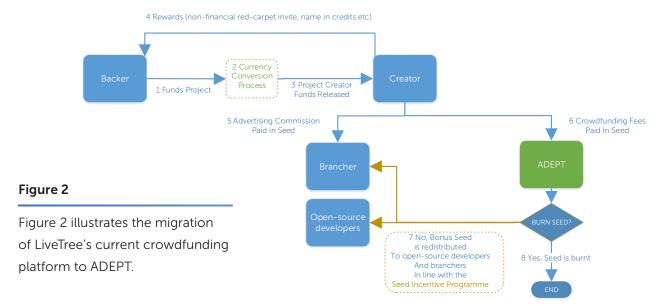Figure 1 illustrates the functionality needed for Stage 1.

1. LiveTree funds a production through the incubator program.
   a. Note: Three productions are provisionally available through Red Rock Entertainment.

2. LiveTree acquires distribution rights to content.
   a. The actual legal document, which is paper-based, takes the form of a 'minimum guarantee' (MG) contract.

3. LiveTree transfers the distribution rights to a sales executive (typically a company whom then resells the content to broadcaster channels or for theatrical cinema release whether that be on a jurisdiction, episode or other basis).The MG contract is digitally signed by both parties.
   a. Project can start building the distributor steering committee.

4. LiveTree is paid for the distribution rights as an outright sale in SED.
   a. The distributor purchases ETH/SED from the secondary market, which is sent as payment to an ADEPT smart contract.

5. If necessary, LiveTree converts ETH and purchases SED from the secondary market.
   a. LiveTree is in discussion with several leading exchanges. Depending on whether the APIs are sufficient, it may be necessary to convert ETH to SED manually.

6. ADEPT's distributed earnings in the form of SED is burnt.
   a. Burning tokens is a short-term measure designed to jump-start the market. Over time, the process will be replaced with token redistribution in line with the Seed incentive program.

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8. Replace a simple, signed, paper distributor licensing agreement (MG). These agreements license content to a particular territory, per episode and so on. It is envisioned that the agreement would be digitally signed and attached to a physical document, either through a hash or pointer to the document (potentially held in IPFS).

Stage 2

Crowdfunding

Business objectives:

- Convert existing LiveTree crowdfunding business to ADEPT

- Realize Brancher commission payments in Seed

Figure 2

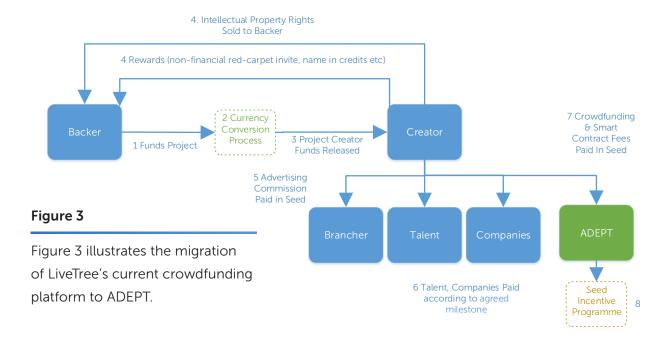Figure 2 illustrates the migration of LiveTree's current crowdfunding platform to ADEPT.

1. The Backer funds a project in SED, ETH or fiat currency.

2. ADEPT performs the necessary currency conversion.

3. The funds are always authorized (or held in the case of digital tokens) and only settled (in fiat currency) upon completion, depending on the funding model selected:
   a. 'Keep-what-you-raise': under this model, the creator keeps any funds raised. For example, if the target is $20,000 and the creator raises $19,999.99, the creator keeps the funds. LiveTree currently employs this model. Find out more here.

   b. 'All-or-nothing': under this model, if the target raise amount is not achieved, all funds are returned to the backers. For example, if the target is $20,000 and the creator raises $19,999.99, all funds are returned to the backers.

4. The creator sends the backer a reward, such as a signed DVD, their name in the credits or an invitation to a premiere.

5. Branchers (influencers, affiliated organizations and consumers) are always paid in Seed. ADEPT will automatically repurchase Seed from the secondary market.

6. Crowdfunding fees are always paid in Seed. ADEPT will automatically repurchase Seed from the secondary market.

7. If Seed is not burnt, it is redistributed according to the Seed incentive program.

8. Seed is destroyed, reducing the overall market supply. Because there is a fixed quantity of Seed, this creates scarcity.

Stage 3

Networking

Business objectives:

- Convert LiveTree directory and implement 'content creation' smart contracts

- Implement scoring system and migrate first end-to-end incubator project for testing
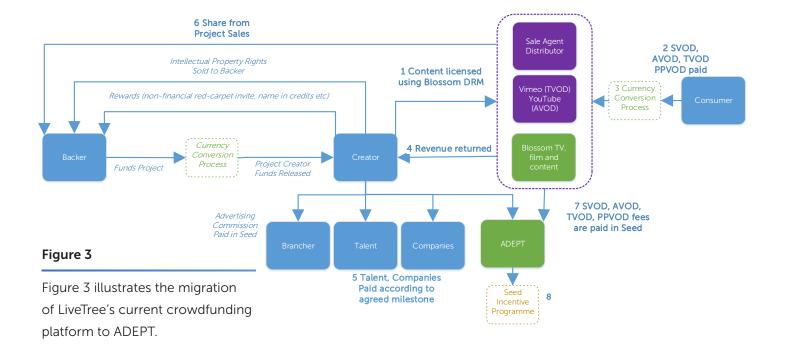
- Realize smart contract commission payments in Seed

Figure 3

Figure 3 illustrates the migration of LiveTree's current crowdfunding platform to ADEPT.

1. The backer funds a project in SED, ETH or fiat currency.

2. ADEPT performs the necessary currency conversion.

3. The funds are released according to the 'keep-what-you-raise' or 'all-or-nothing' models, or the new 'milestone-reached' model.
   a. In the 'milestone-reached' model, creators draw up a timeline featuring key deliverables to be meet by certain dates. Backers agree to fund according to the timeline milestones. The first milestone target must always be reached in order for funds to be released.

4. The creator gives the backer:
   a. a reward, such as a signed DVD, their name in the credits or an invitation to a premiere; or
   b. intellectual property rights to the project content, released at agreed milestones,

5. Branchers are paid in Seed, according to payment model selected.

6. Creators can set up milestone contracts separately with their creation network (talent and companies).
   a. Talent and companies have visibility over the funding model and available funds.

7. Crowdfunding and fees levied via smart contracts are paid in ADEPT Seed.

8. If Seed is not burnt, it is redistributed according to the Seed incentive program.

Stage 4 and 5

Blossom

Business objectives:

- The launch of the Blossom distribution platform

- Stage 4 is targeted toward the creation of independent content

- Stage 5 leverages success by launching mainstream content

Figure 3

Figure 3 illustrates the migration of LiveTree's current crowdfunding platform to ADEPT.

1. Content is licensed using Blossom DRM to either:
   a. Sale agent/distributor for theatrical or TV release;
   b. Vimeo's TVOD[9] (transactional video-on-demand or pay-per-view) system;
   c. YouTube's AVOD[10] (advertising video-on-demand or ad-revenue) system;
   d. Blossom TV:

   i. In Stage 4, Blossom supports a new pre-pay-to-view (PPVOD) model, which enables fans to pre-pay for the next episode or other content from the creator. In this case, the consumer acts as a backer in a fixed-milestone raise;

   ii. In Stage 5, Blossom supports subscription (SVOD or Netflix-style), TVOD and AVOD.

2. The consumer purchases the content through TVOD, SVOD or AVOD.

3. ADEPT performs the necessary currency conversion.

4. Revenue is returned to the creator.[11]

5. Optionally, creation network (branchers, talent and companies) are paid according to agreed milestones.

6. Optionally, revenue is returned to backers.

7. ADEPT SVOD, TVOD, AVOD and PPVOD fees are paid in Seed.

8. If Seed is not burnt, it is redistributed according to the Seed incentive program.

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9. If Vimeo permits the creator to have a Vimeo professional account
10. If Google permits the creator to have a YouTube Partner account
11. ADEPT may perform a currency conversion at this stage
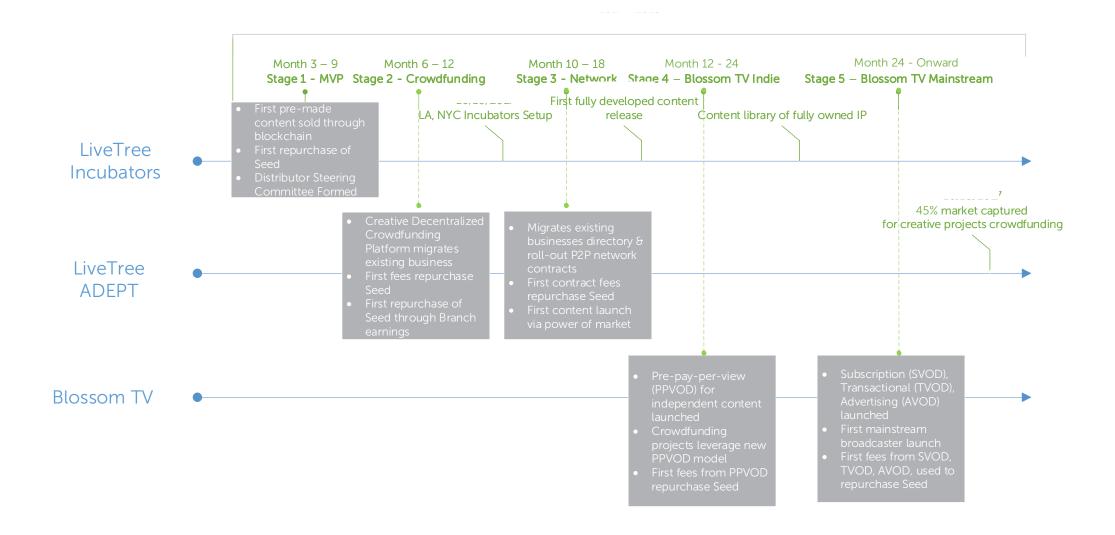
9.

Financials

9. Finanicals

Most white papers do not contain comprehensive financials because of the experimental nature of projects and the unknown variables associated with them. As ADEPT has been prototyped to some degree using LiveTree's established system, this section therefore outlines a pragmatic financial approach to achieving the overall objectives of the platform, along with its envisaged evolution. It outlines the intended approach across five key stages. Along the way, it also introduces revenue streams and an overview of the market landscape.

The sections are meant to serve as a guide rather than a rigid plan. As with any project of this size, further opportunities and revenue streams will develop as the project progresses. Any such opportunities will be explored to generate further value for the owners of Seed.

Month 3 – 9
Stage 1 - MVP

Month 6 – 12
Stage 2 - Crowdfunding

Month 10 – 18
Stage 3 - Network

Month 12 - 24
Stage 4 – Blossom TV Indie

Month 24 - Onward
Stage 5 – Blossom TV Mainstream

First fully developed content release

LA, NYC Incubators Setup

Content library of fully owned IP

LiveTree Incubators

- First pre-made content sold through blockchain
- First repurchase of Seed
- Distributor Steering Committee Formed

45% market captured for creative projects crowdfunding

LiveTree ADEPT

- Creative Decentralized Crowdfunding Platform migrates existing business
- First fees repurchase Seed
- First repurchase of Seed through Branch earnings

- Migrates existing businesses directory & roll-out P2P network contracts
- First contract fees repurchase Seed
- First content launch via power of market

Blossom TV

- Pre-pay-per-view (PPVOD) for independent content launched
- Crowdfunding projects leverage new PPVOD model
- First fees from PPVOD repurchase Seed

- Subscription (SVOD), Transactional (TVOD), Advertising (AVOD) launched
- First mainstream broadcaster launch
- First fees from SVOD, TVOD, AVOD, used to repurchase Seed

9.1. Stage 1: Minimal viable product

The finished platform represents a large and complex system. To invest considerable time and resources in building a platform only to find it irrelevant to the market or in need of re-engineering would clearly be unwise. To avoid this, the first step is to build the minimum viable product to realize value for the buyers of Seed while ensuring the platform is structured to allow for its development.

As ADEPT is based on a market-driven model, the first objective is to establish the Incubator program, acquire pre-made content and use the platform to facilitate traditional IP sales contracts. Any value realized from these content sales will be used to repurchase Seed. This will focus the platform's initial function to that of facilitating the exchange of traditional distribution contracts, which will accelerate roll out while delivering immediate Seed value.

Another key benefit of this approach is that it will foster engagement with the wider distribution community. In addition to achieving efficiency gains, creating a steering committee of established distributors is seen as key to the mainstream adoption of the platform by the industry. The committee will be spearheaded by BFI Future Film, Red Rock Entertainment and a number of other executive producers and partners. Limiting the platform's initial functionality to the facilitation of distribution contracts will also reduce user interface and contract requirements.

9.2. Stage 2 & 3: Evolving the platform

The platform's role in facilitating content creation and funding is implemented using in-development projects from the Incubators. IP sales, share of future sales and reward-based crowdfunding — along with combinations of these three models — will be thoroughly tested using real-world projects.

The Incubators will effectively serve as test centers for building the network and the funding mechanisms, helping to ensure that ADEPT is fit for purpose. In the process, the platform will begin to realize revenue from transaction fees.
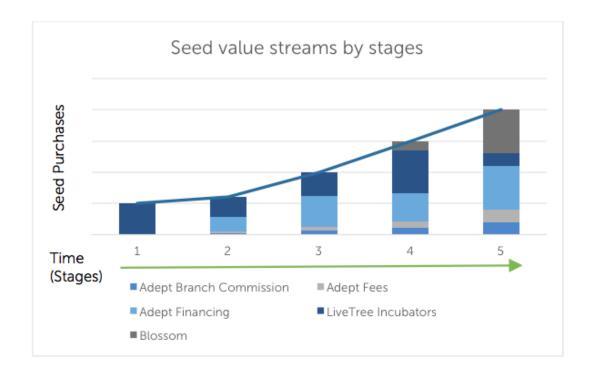
9.3. Stage 4 & 5: Blossom captures market share

The ultimate goal is for Blossom to become the de facto standard for distributing content and ADEPT the template for developing and funding film, TV and content, while setting a fair, sustainable and scalable economy that can be extended to other creative industries.

With the Incubators established as content generators and ADEPT delivering unique content, the full potential of Blossom can be realized through new video-on-demand (VOD) distribution models, in conjunction with traditional TV and theatrical release channels. ADEPT's goal is not to replace the traditional industry, but to introduce a fair, decentralized system that is owned by the content-makers.

ADEPT's VOD revenue models, initially based on Blossom TV, are expected to take a variety of forms. In addition to the established transactional (TVOD), subscription (SVOD) and advertising (AVOD) revenue models, these will include new streams, notably pre-pay-for-content (PPVOD), a pioneering concept introduced in this white paper. Combined with mainstream IP resale revenue, this hybrid approach will not only benefit the existing creative industry, but also the next-generation creators and the owners of Seed.

For the existing industry, the platform represents a compelling reimagining of distribution. There has been concern about monopolies such as Facebook and Google, which operate without restriction and [many feel](12) are creating an unfair and undemocratic market, to the cost of both traditional broadcasters and consumers. In contrast, the platform's decentralized, blockchain VOD distribution model offers the traditional industry a route to the future of distribution, connecting them directly with sales and removing the monopolies that currently act as gatekeepers.

For the next generation of content-makers, ADEPT also offers significant benefits. First and foremost, it levels the playing field by removing some of the barriers to entry erected by distributors. Today's complex, opaque industry processes mitigate against many smaller creative projects, as well as up-and-coming talent. The platform will ensure that, if content is good and consumers want it, it will reach the market. For the owners of Seed, this represents a stake in the future of entertainment.

Seed value streams by stages

9.4. Budget

The following section presents an overview of three possible scenarios for cost expenditure based on raise amounts of $1m, $30m and $50m.

Expenditure	$1m	$30m	$50m
ADEPT development	85%	33%	25%
LiveTree Incubators	15%	67%	75%

This table shows how Seed funding is allocated. Please note: this is supplemented by the revenues generated by the platform.

The more funds made available the greater the opportunity there is to invest in three key areas of expenditure, otherwise known as force multipliers, that aid the value of Seed and exponential growth of the platform:

- **LiveTree Incubators:** These provide a source of premium TV, film and creative content. The content generated will not only help to promote ADEPT and Blossom TV but will also, through its sale, increase Seed's expected value. Content costs vary enormously and size of budget does not necessarily equate to quality or market success. HBO's hit drama series House of Cards, for example, is said to cost $4.5m per episode —— over three times the budget of the BBC's iconic Doctor Who, which has also sold around the world. However, in order for the Incubators to produce the quality and diversity of content needed to help drive the launch of ADEPT, significant funds will nonetheless be required. As ADEPT and Blossom become established as an industry standard for the production, finance and delivery of content, Incubator expenditure is expected to decrease.

- **Marketing:** During the initial stages of rollout, significant marketing will be required to drive the global adoption of ADEPT and Blossom TV. This will primarily take the form of independent sponsorships, advertising and PR, in addition to the industry collaborations. As a result, the more funds available for marketing, the greater the opportunity to foster growth and realize Seed's ultimate value.

- **Incremental delivery:** For the $1m lowest raise amount, the expenditure represents the fixed costs required to build the initial phase of the platform. It covers the cost of the minimum viable product's functionality in order to realize revenue. While it may be possible to fund further development of ADEPT and Blossom from the resulting revenues, this approach limits functionality rollout and lengthens the time required for mainstream adoption.

For simplicity, the following subsections illustrate a $30m raise and exclude revenues from the overall budget.

Five-year budget (000s)		Raised	$30m			
	Year 1	Year 2	Year 3	Year 4	Year 5	
1000s						
Business, development and smart contract teams	1,200	940	959	978	998	
Insurance, contingency and external governance	120	122	124	126	129	
HR, legal and accounting	300	134	130	140	150	
Office and equipment	200	150	150	150	150	
Marketing, advertising and PR	790	810	400	340	310	
						Total
Total operating expenditure	2610	2156	1763	1734	1737	$10,000
Incubator programs	6000	7000	3000	2000	2000	$20,000
Total outlays	8610	9156	4763	3734	3737	$30,000

During the first year of operation, employee numbers will be at their highest, due to the expected volume of development work that needs to be executed, such as smart-contract design and operations management.

ADEPT realizes increasing returns to scale. In other words, as turnover on the platform increases, the cost-per-dollar falls for each additional project that is hosted on the platform. The reason for this is that many of the platform's expenditures are one-off investments in infrastructure, smart contracts and software. The benefits of these investments, however, will be reaped across multiple projects by multiple creators. As a result, the more activity that takes place on the platform, the greater the expected value of Seed in return for these fixed costs. It is for this reason that platform's total operating expenses per project fall over time.

9.5. Market

ADEPT sits at the intersection of content creation, distribution, funding and the general crowdfunding market. As a result, it has a unique market position.

Reward-based crowdfunding by category is:

Value raised through crowdfunding by category. This table was researched and generated using real-world LiveTree, Kickstarter and Indiegogo project statistics

Category	Value raised in US$
Film	1,045,267,109
Art	67,139,449
Design	201,714,085
Games	304,353,056
Technology	566,891,532
Publishing	99,039,692
Journalism	38,297,796
Music	107,404,167
Fashion	105,076,245
Photography	18,360,547
Theatre	17,073,067
Crafts	14,493,089
Comics	16,558,385
Dance	11,961,181
Food	209,961,828

The film industry alone generated $36bn last year[13] in global revenues. Television accounted for $430bn in revenues during 2015[14]. It is a little harder to gain accurate numbers for ad-based and subscription-based VOD. However, based on YouTube and Netflix, the yearly revenue is estimated at $12bn and $20bn respectively.

Please note: these figures are difficult to obtain and only analyst estimates are publicly available as a result of the opaque structures of many of these corporations. However, content revenue can be conservatively estimated at $30bn in total. Therefore, film, TV and content account for close to $498bn per year.

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13. http://www.mpaa.org/wp-content/uploads/2017/03/MPAA-Theatrical-Market-Statistics-2016_Final-1.pdf
14. https://www.accenture.com/us-en/insight-future-broadcasting-search-fundamental-growth

The table below represents a conservative and realistic expectation of ADEPT's potential market share.

Market	Size	Year 1	Year 2	Year 3	Year 4	Year 5
Global film, TV and content - Blossom Video-on-demand - Incubator content - Platform-generated projects	**$498b**	0.001%	0.006%	0.02%	0.05%	0.15%
Crowdfunding: film, TV and content category alone	**$1b**	0.3%	1.4%	4.4%	14%	45%

During the first year, ADEPT will invest in the Incubators in order to test the platform as a minimum viable product and to incorporate Blossom distribution activities. The combination of low transactions costs coupled with strong promotional campaigns make it reasonable to expect that the platform will capture a 1.4% share of the global crowdfunding market by the end of the second year.

The fully market-tested platform is expected to be completed by the first half of the second year. As the industry begins using Blossom and the full ADEPT platform, growth will begin to pick-up from a relatively low base in the first year of operation.

During years three to five, ADEPT will undergo improvements in response to community recommendations and customer needs. The promotional campaigns will continue and, by the end of year five, it is expected that around 0.15% of the global film and television market will be using the platform. This figure will include 45% of the crowdfunding market. Even by these extremely conservative estimates, the entire value of this combined market is estimated to be in the region of $500bn.
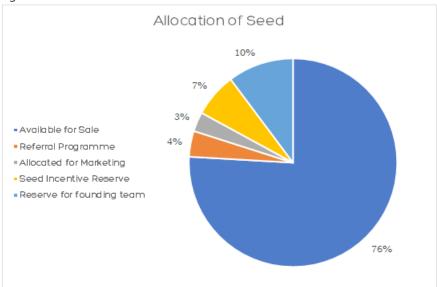
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13. http://www.mpaa.org/wp-content/uploads/2017/03/MPAA-Theatrical-Market-Statistics-2016_Final-1.pdf
14. https://www.accenture.com/us-en/insight-future-broadcasting-search-fundamental-growth

Seed token sale

The Seed token sale is divided into a pre-sale and a general sale. A hard cap of $30,000,00 has been targetted. To accomodate ETH price fluctations a total of 256,250,000 Seed are to be created. The Seed Tokens shall be subject to a hard cap of $30,000,000 determined by calculating the amount of ETH received against the prevailing exchange rate for ETH to US Dollars at CoinMarketCap.com as at 12:00pm UTC 31st January 2018. All unsold tokens will be burned. The allocation of Seed will be 76% available for sale, 4% will be available through referrals and 20% designated as illustrated below. :

15

	Tokens (Seed)		
Pre-Sale	35,000,000	13.7%	
Main Sale	160,000,000	62.4%	Capped at $30,000,000
Available for Sale	195,000,000	76.1%	
Referral Programme	10,000,000	3.9%	
Allocated for Marketing	7,687,500	3.0%	
Lottery	200,000	0.1%	3 months
Seed Incentive Reserve	17,362,500	6.8%	1 year vesting period
Reserve for founding team	26,000,000	10.1%	1 year vesting period
	256,250,000	100.0%	

Three per cent of Seed is allocated as rewards to marketing Seed influencer personnel in compensation for work done to promote the sale of Seed and launch ADEPT. Four percent will be allocated to a refer a friend referral programme

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15. Note 200,000 lottery Seed omitted

The founding-team reserve has been set aside for the key individuals involved in the platform. This reserve is frozen for 12 months.

The Seed supply is fixed at issue and is subject to a maximum number of Seed Tokens of 256,250,000 and a hard cap of US$30m. Any Seed that is unsold will be destroyed.

Seed token sale

```
Prices
Main sale
                 SED 1    =                  ETH 0.0010
                 ETH 1    =                  SED 1,000

Pre-sale (prices before
bonus)

                 SED 1    =                  ETH 0.0005
                 ETH 1    =                  SED 2,000

In addition, the pre-sale purchases result in bonus Seed awarded,
depending on the amount of Ether spent. This is detailed in the
bonus schedule.
```

Subject to deduction of applicable costs in accordance with the Terms published on the Website. There is a total of 195,000,000 Seed tokens on sale. 10,000,000 Seed tokens will be made available to the refer-a-friend referral programme. The tokens will be sold during two separate events: a pre-sale and a main sale event. There is a

The pre-sale is scheduled to begin on 1 December 2017, 10:00 UTC and end 20 December 23:59 UTC. The main sale will begin on 31 January 2018, 00:00 UTC and end 23rd February 23:59 UTC.

15. Note 200,000 lottery Seed omitted

Lottery

All buyers who spend 7 ETH or more in either the pre-sale or the main sale are entered into a lottery with a total prize of 200,000 Seed. The prize is frozen for three months after the end of the main sale. The allocation of the prize is as follows:

Lottery Place	Share of Prize	Seed
1	30%	60,000
2	20%	40,000
3	10%	20,000
4	9%	18,000
5	8%	16,000
6	7%	14,000
7	6%	12,000
8	5%	10,000
9	2.5%	5,000
10	2.5%	5,000
		200,000

15. Note 200,000 lottery Seed omitted

The pre-sale

During the pre-sale, 35 million tokens will be for sale at a price of 0.0005 ETH per token. Bonus Seed will be awarded in proportion to the amount of Ether spent by buyers, as indicated by the following schedule.

A purchase with a total value of less than 1.5 ETH will not receive any bonus. For a purchase of more than 1.5 ETH, the bonus will be:

Number of Bonus Seed tokens=ETH(2000×r)

Where:

ETH = the amount of Ether spent in transactions

r = the percentage bonus corresponding to the amount of Ether spent

Bonus schedule pre-sale			
Reward	ETH payment (lower bound)	1 ETH = SED	Percentage bonus
Tier 0	-	2000	0.0%
Tier 1	1.5	2010	0.5%
Tier 2	3	2020	1.0%
Tier 3	5	2030	1.5%
Tier 4	7	2040	2.0%
Tier 5	10	2050	2.5%
Tier 6	15	2060	3.0%
Tier 7	20	2070	3.5%
Tier 8	30	2080	4.0%
Tier 9	50	2090	4.5%
Tier 10	75	2100	5.0%

If any Seed remains unsold at the close of the pre-sale, it will be allocated to the main sale at the higher main-sale price.

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15. Note 200,000 lottery Seed omitted

The main sale

The main sale follows the pre-sale. There are 160 million tokens available for sale during the main sale, plus any tokens that may not have been sold during the pre-sale. All tokens are sold at the price of 0.001 ETH per token and the lottery still stands for those making any single purchase valued at 7 ETH or more. Bonus Seed will be awarded in proportion to the amount of Ether spent by buyers, as indicated by the following schedule.

A purchase with a total value of less than 1.5 ETH will not receive any bonus. For a purchase of more than 1.5 ETH, the bonus will be:

Number of Bonus Seed tokens=ETH(1000×r)

Where:

ETH = the amount of Ether spent in transactions

r = the percentage bonus corresponding to the amount of Ether spent

Any unsold tokens will be destroyed.

Bonus Schedule Main Sale			
Reward	ETH payment (Lower Bound)	1 ETH = SED	Percentage Bonus
Tier 0	-	1000	0.0%
Tier 1	1.5	1005	0.5%
Tier 2	3	1010	1.0%
Tier 3	5	1015	1.5%
Tier 4	7	1020	2.0%
Tier 5	10	1025	2.5%
Tier 6	15	1030	3.0%
Tier 7	20	1035	3.5%
Tier 8	30	1040	4.0%
Tier 9	50	1045	4.5%
Tier 10	75	1050	5.0%

10.

Team

10. Team

Ashley Turing Founder / CEO

Ashley is responsible for the overall vision, culture and delivery of LiveTree. He guides the strategic objectives, architecture and expansion of LiveTree into the market. He has worked for Credit Suisse, RBS and UBS in the areas of artificial intelligence for regulatory compliance through trade surveillance. Having acquired an acute understanding of the weaknesses in the current global economy first hand, Ashley launched LiveTree as an alternative sustainable model for economic development. Ashley studied computer science in Seattle before starting his career at Microsoft. He then went on to work with the founder and inventor of Winamp. Upon his return to Europe, Ashley became the CTO of an online charitable lottery gaming company. Having started programming from an early age, he has a strong technical background and passion for blockchain innovation

Cheryl Clarke Co-founder / Partner Relations

Cheryl is responsible for industry collaboration. She started her career in film, TV and content media in the early 1990s. She then moved on to Emap, where she worked on UK TV-industry bible Broadcast and its sister international title TV World, managing clients in both the domestic and international marketplace. Over the years, Cheryl has developed a deep understanding of the industry and has established several key partnerships throughout entertainment.

Dr Jamie Ward Co-founder / Technical Officer

Jamie is responsible for the overall technology strategy and roadmap of LiveTree ADEPT. He has worked with LiveTree for a number of years. He has a PhD in computer science from the Swiss Federal Institute of Technology (ETH) in Zurich. He has been interested in blockchain technology for some years, and as an engineer back in 2001, worked on developing hardware for elliptic curve cryptography. He maintains a research position at University College London (UCL) in the area of applied artificial intelligence for social interaction.

Lennard Van Otterloo Co-founder / CMO

Lennard is responsible for planning and executing marketing strategies across product development, customer service and the wider community. Prior to joining LiveTree, Lennard was Corporate PR consultant for Publicis' communication agency MSL Group and has been instrumental to the development and implementation of brand and marketing strategies for a range of corporates and startups. He studied Political Science at the University of Amsterdam and Marketing and Communications at SRM.

Alexander Mitrovich Technical Lead

Alexander is responsible for the overall implementation management of ADEPT. He has 15 years of IT Executive managerial experience in Global Technology Services and as an entrepreneur who built several successful small and medium size international businesses. Blockchain enthusiast since 2015, Alexander built a Blockchain Practice at Usetech, a 200+ person Software Development company. Having a MS in Engineering, and an MBA, as well as completing TGM Executive Education at INSEAD, Alexander started his IT career with FAME (now Sunguard) in New York. After that he was part of the Management team that built Luxoft (NYSE:LXFT), one of the largest Software Development companies to come out of Eastern Europe by serving top-tier Investment Banks like UBS and Deutsche Bank, Manufacturing and Energy companies. Prior to joining LiveTree, Alexander created several EdTech startups and ran an IT consultancy.

Andrey Zaytsev Blockchain Architect

Andrey is the chief blockchain architect for ADEPT. Andrey heads technical decisions and helps guide the development team. Besides leading the Ethereum blockchain development, Andrey utilizes his experience in developing high performance applications in variety of technologies and practices (.NET, C#, RESTful services, Microservices, SOA, SPA, TypeScript, Docker, etc) for backend processing. Prior to joining the LiveTree team, Andrey worked for global Financial institutions and Retailers such as ICBC Standard Bank London and MediaMarkt.

Edward Ridgway Project manager

Ed has been key in setting up and growing numerous start-ups, contributing both technically and commercially to corporate strategy, direction and day-to-day management. He is an advocate of renewable energy, having worked in the field for more than 15 years and helped drive the massive steps in development that have been achieved during this time. He has a passion for new technology and hands-on project management.

Jennifer Barham Marketing Director

Jen is currently Head of Marketing & Communications for a global corporate finance advisory business, having previously managed the development and distribution of investor content for the Ingenious Group. Prior to that, Jen held marketing and business development positions at global tax advisory firm Taxand, Thomson Reuters and Barclays Capital - where she was responsible for the marketing of Barclays' multi-asset class e-trading platform, BARX. Jen graduated from St. Catharine's College, University of Cambridge in 2008 with an honors degree in English Literature

Gustavo Guimarães Solidity Developer / Auditor Consultant

Enjoys finding solutions for real-world problems through the use of technology in industries education, publishing, entertainment and the arts. He was awarded the German Chancellor Fellow of the Alexander von Humboldt Foundation for researching technology impact on people's learning worldwide. Currently, he is building solutions using blockchain and smart contracts.

Advisors

Noel Goodwin Director head of British Film Institute Future Film

As director of BFI Future Film, Goodwin programs and manages regular monthly film industry-focused events for emerging filmmakers, identifying their, skills, needs and aspirations.

Anita O'Donnell VOD goddess

O'Donnell has worked with all the major platforms — from iTunes to Netflix and everyone in between — since 2006, both as a technical-services provider and an aggregator. Her thing is helping clients to deliver content on time, on target and in immaculate condition. Crafting simple plans to manage complex problems, operational and media supply-chain management, and forging and servicing client relationships are just a few of her talents.

Yives Reed Strategic visionary

Although Reed's focus is on digital and technology — he's been on the cutting edge of digital media since 2000 — he brings a hybrid commercial skillset to the table. His special subjects are identifying changing needs, demystifying technology, and offering inventive and effective answers to emerging challenges.

Gary Collins CEO, Red Rock Entertainment

Collins' career in the film industry began in 2012. Shortly after, he launched Red Rock Entertainment, based at the world-famous Elstree Studios, which works in conjunction with the most prestigious production companies to raise equity for independent film and television projects.

Stella Smith Director, Ingenious Group

Stella is currently a Senior Investment Director at Ingenious Group and has a personal interest in the technology sector. Prior to joining Ingenious, Stella was Director, Retail and Private Wealth, at HBOS Treasury. Stella built the financial markets wealth proposition at HBOS, and her role expanded after joining to cover the multi-branded Retail distribution channels across the Group. Her team provided financial markets products including structured product, foreign exchange, and interest rate risk management.

Hibryda Blockchain Architect

Creator of BitLattice Inventor, independent security researcher, expert-generalist. Can code in anything code-able; integral to project and provided technical guidance.

Purav Gandhi Technical Architect

Gandhi has more than 14 years of experience working on portals (liferay, websphere) and enterprise applications (Web, Mobile & Desktop) design and development. Gandhi heads the implementation of LiveTree's current .NET system.

Stephen Bloch Business advisory

Bloch is an experienced business professional, advisor, mentor and entrepreneur with a broad range of UK and international experience. His experience ranges from start-up and early-stage businesses to executive roles with companies in the UK, Australia and Spain. He has a working knowledge and established contacts in a range of markets and sectors, including TMT (technology, media and communications), life sciences, resources, real estate and entertainment.