

LiveEdu - Powering Global Online Education with Blockchain Smart Contracts. Next-generation Lynda.com

Y-combinator company

Abstract

Live and video streaming has become one of the most popular online learning methods for teaching college students and professionals practical skills. It has resulted in new methods for teaching worldwide. Despite the current number of online learning platforms available for beginners, there is a definite lack of a practical project-based learning platform for learners who have passed the beginner stage and are interested in real practical projects. LiveEdu is building the world's largest project-based learning (PBL) library on any topic starting with the seven topics programming, game development, data analytics, design, augmented and virtual reality, artificial intelligence and cryptocurrencies. The aim is to develop a decentralized online learning ecosystem that is not reliant on learning theory but practical useful career skills. The LiveEdu peer-to-peer marketplace will connect streamers (content creators) and viewers (learners) from all over the world. The idea being that streamers will create educational premium projects and are paid a monthly lifelong royalty fee if their projects are watched by viewers. The immediate business objective behind the LiveEdu crowdsale is to build 3,500 premium projects with 500 premium projects for each of the seven topics. LiveEdu also seeks to bring cryptocurrency to the masses by educating college students and professionals using real practical cryptocurrency tutorial projects covering cryptocurrency basics, blockchain mining, Bitcoin, Ethereum, security and ICOs. In this paper we will elucidate the benefits of project-based learning as well as the token mechanics for the EDU smart tokens and how we intend to fully integrate EDU into LiveEdu.

Tables of Contents

1. Introduction and Executive Summary	2
1.1. Executive Summary	2
1.2. Project History and Milestone Achievements	5
1.3. Team, ICO Advisors and Partners	5
1.4. Problem and Product Solution	7
1.5. Market and Competition Analysis	8
2. LiveEdu Platform and API Ecosystem	9
2.1. List of Topics and Categories	9
2.2. Main Product Features: Live Streams, Videos, Chat	10
2.3. Premium Tutorial Projects	11
2.4. LiveEdu API Ecosystem and Third-party Apps	13
3. LiveEdu EDU Token Model	14
3.1. Use-Cases for EDU Smart Tokens	14
3.1.1. Payment Method for all Financial Transactions	14
3.1.2. Paying Premium Project Content Creators	15
3.1.3. LiveEdu Token Utility Activities for Learners	16
3.1.4. LiveEdu Token Rewards for Quality Assurance and Site Moderation	16
3.1.5. LiveEdu Token Rewards for LiveEdu API Ecosystem Developers	16
4. Technical Implementation of EDU Tokens	17
4.1. Smart Contract Implementation	17
4.2. Token Model	17
4.3. Crowdsale Objective and Token Allocation	18
4.4. Use of Funds	21
5. Roadmap and Future Potential Developments	21
5.1. Roadmap and ICO Risk Factors	21
5.2. Future Potential Development	22
5.3. Conclusion	22

1. Introduction and Executive Summary

1.1. Executive Summary

LiveEdu is a live streaming and video tutorial learning platform where content creators teach learners how to build real products. We are an existing Y-combinator company and our site is accessible under the domain www.liveedu.tv. Our product has already been used by over 1,000,000 people from 194 countries. We launched our alpha version at the end of 2015 with a focus on programmers streaming and sharing their personal projects live. More than 13,000 streamers (content creators) created over 200,000 hours of video content. In 2017 we launched premium tutorial projects and expanded the number of topics by adding the six new topics game development, data analytics, design, augmented and virtual reality, artificial intelligence and cryptocurrencies. There are two main types of projects on LiveEdu, namely premium and non-premium tutorial projects.

For the purpose of this ICO only premium projects will be tokenized because non-premium projects are neither narrative, fully educational nor monetizable. Premium tutorial projects are educational, narrative, well structured and created with the sole intention of teaching. It is the main project type LiveEdu has moved to focus on.

There is no online project learning platform which teaches college students and professionals who have passed the beginner stage how to build complete products.

LiveEdu is not for absolute beginners, but for those who have basic introductory knowledge in a field. LiveEdu is used mainly by college students and professionals working in the industry. They live in the US, China, Europe, Brazil and use premium tutorial projects to learn how to build complete products. Our premium content is available either as live stream, archived or uploaded video. The LiveEdu marketplace is a classic model that is highly suitable for blockchain smart contract tokenization. The blockchain will decentralize key product development decisions that are made on both the supply and demand side. Tokenization will help LiveEdu build its premium project content library faster and also make LiveEdu more successful business-wise:

Supply side

- LiveEdu does not create content itself, but provides a peer-to-peer premium project marketplace that connects streamers to viewers from the whole world.
- Tokenization is a key approach LiveEdu plans to use to solve its chicken-and-egg marketplace problem by incentivizing early premium project creators with a mix of EDU tokens and cash.

- Tokenization will enable LiveEdu to bind premium content creators as they will have a shared interest in the long-term value appreciation of EDU tokens.
- Use investors in the ICO who have subject matter domain expertise to create premium projects. Therefore we see the ICO as a way to build deep relationship with potential premium project creators.

Demand side:

- The success of LiveEdu will depend on creating content that viewers want to watch. So far, streamers have been deciding which projects to create, which most of the time deviates from what viewers want to watch. Tokenization will empower viewers as token holders to submit projects or vote on projects. This will transform LiveEdu from a supply side driven marketplace to a demand one.
- Tokenization enables LiveEdu to launch a native payment currency which is deeply embedded into the product and used for all payment transactions.
- Tokenization will enable LiveEdu to reward site supporters, moderators and API ecosystem developers using EDU tokens without spending any fiat upfront which reduces business risk.

LiveEdu does NOT compete directly with existing online learning platforms as it is focused on practical tutorial projects (project-based learning) and users who have passed the beginner stage (post-beginners, intermediates and experts). Compared to the indirect competitors Lynda, Pluralsight and Udemy:

- LiveEdu does not have expensive content production cost (< \$500 per project).
- Premium project completion speed on LiveEdu is faster (< 1 month).
- LiveEdu uses only project-based learning.
- Real practical tutorial projects. Real production level work.
- Learners watch how to build a complete product.
- Interactive Q&A chat to discuss things in real time.
- LiveEdu is a peer-to-peer marketplace (decentralized) which gives it access to a bigger content creator pool.

LiveEdu is led by founder and CEO Dr. Michael J. Garbade. Our core team members are the same since launch; Alex Zhukov, Ilya Toka and Muhammad Shoaib. We are a young team of business guys, educators, backend engineers, front end developers and tech marketers with work experience from Amazon, General Electric, Photobucket, Rebate Networks, Lashou and Mail.ru. Unlike other ICOs that do not yet have a product launched and bear product development risks, LiveEdu is an existing developed product with a monetization model. The team has extensive sector domain expertise in the education and video streaming space. Moreover, the team has worked for two years building LiveEdu and has gathered enormous insight on user acquisition, content

management, monetization models, non-valuable uses cases, and market data. The only new thing LiveEdu is doing is shifting from non-structured casual streaming (non-premium projects) to focus on monetizable projects (premium projects). **We have all the ingredients in place to scale the LiveEdu platform and business right after the ICO:**

- Established team with experience building education and video streaming products.
- Team is technically very strong. Built our entire live streaming and video infrastructure from scratch with 50 edge servers worldwide.
- No product development risk - Not starting from zero.
- No team risk - an established team working together .
- A scrappy young agile small team that moves fast.
- We have extensive data on the most cost-effective user acquisition channels.
- Completed monetization experiments and found a subscription model.
- Acquired 13,000 content creators with no paid marketing.
- We don't need to search for new streamers, but just provide the existing ones an attractive economic.
- We have a strong user base of viewers already who will buy premium projects if the projects match their project requests.

Our target users are highly familiar with live and video streaming. It is a common activity they do everyday. Media streaming platforms like Twitch, YouNow and Meerkat popularized live streaming, while YouTube popularized video streaming. The main difference between these platforms and LiveEdu is that they are focused on entertainment while LiveEdu is focused on online learning.

LiveEdu is building the world's largest project-based learning (PBL) library starting with the seven topics. Self-paced e-learning in particular generates global revenues in the region of \$46.6 billion as of 2016.¹ LiveEdu's mission is audacious and is targeting the online learning market. The aim is to develop a decentralized online learning ecosystem that is not reliant on learning theory, but practical career skills by using real complete projects. The peer-to-peer marketplace connects streamers (content creators) and viewers (learners) from all over the world. The idea being that streamers will create educational premium projects and are paid a monthly lifelong royalty fee if their projects are watched by viewers. The immediate business objective for the crowdsale is to build 3,500 premium projects with 500 premium projects for each of the seven topics.

¹ "ELEARNING MARKET TRENDS AND FORECAST 2017-2021." Docebo E-learning.
<https://eclass.teicrete.gr/modules/document/file.php/TP271/Additional%20material/docebo-elearning-trends-report-2017.pdf>.

LiveEdu also seeks to bring cryptocurrency to the masses by educating college students and professionals using practical cryptocurrency tutorial projects covering basics, blockchain mining, Bitcoin, Ethereum, security and ICO.

The token is called “Education token”, has the abbreviation “EDU” and is based on the Ethereum ERC-20 standard. EDU tokens are going to be fully integrated into all core modules and transactions on LiveEdu; a payment method for financial transactions, rewarding premium project streamers, viewers, site moderators, and API ecosystem developers. investors can buy EDU tokens directly with Ethereum (ETH), Bitcoin (BTC), Litecoin (LTC), fiat (USD/EUR) and other coins indirectly via Shapeshift.com. There is a soft cap of \$1M and hard cap of \$8M for ETH investments (non-ETH investments do not count toward the hard cap). For the execution of this ICO, LiveEdu has partnered with the reputable and experienced ICO technical advisory firm “[New Alchemy](#)” who are guiding LiveEdu hands-on in all aspects of the ICO. LiveEdu has been featured in Mashable, Venturebeat, TechCrunch, Habrahabru, Spiegel, Opensource.com, Pingwest, Businessinsider, and many leading tech blogs in China, Brazil and Russia.

1.2. Project History and Milestone Achievements

LiveEdu is an already existing product. We launched our beta version at the end of 2015 under the name 'Livecoding.tv' with a focus on programming related content. In 2017 we changed our name to 'LiveEdu', expanded our content topics and shifted to focus on monetizable premium tutorial projects. Since launching, LiveEdu has already been used by over 1,000,000 people from 194 countries. More than 13,000 content creators have created over 200,000 video content. Some of the major project milestones include:

- Launching Livecoding.tv end of 2015.
- Announcing the launch on Reddit which included a pre-signup of 3000 people.
- Releasing the Alpha version which was featured in a Mashable article.
- Joining Y-combinator. Releasing the Beta version which resulted in the addition of HTML5 streaming and LiveEdu API.
- Adding the Asia-Pacific streaming cluster, adaptive bitrate streaming
- Re-branding as LiveEdu in 2017, adding a subscription model, premium project tutorials, six new topics and releasing a new site design.

1.3. Team, ICO Advisors and Partners

The parent company of LiveEdu.tv is LiveEdu Inc. which is legally registered in San Francisco, CA. LiveEdu Inc. owns the UK subsidiary Livecoding Ltd. We are a remotely distributed company with team members working from the US, Europe and Asia. A

young team of business guys, educators, backend engineers, front end developers and tech marketers. Our core team members are the same since launch; Dr. Michael J. Garbade, Alex Zhukov, Ilya Toka and Muhammad Shoaib.

Dr. Michael J. Garbade is a serial entrepreneur and hybrid of a business guy and Python engineer who enjoys building applications in Python, Django and Sencha Touch. He co-founded and exited the e-Commerce cashback platform Kyuda and ran business operations for multiple start-ups at Rebate Networks. He previously worked at Amazon, GE, and Photobucket. From past projects, he is experienced in building live music and video streaming applications using Wowza, NGiNX RTMP and Red5. He has a Masters in business administration and physics and a PhD in finance. He speaks English and German and has worked in the US, Europe and Asia. At LiveEdu he is the CTO and also runs business operations. He has been involved with multiple bitcoin and cryptocurrency startups. A few years ago, he built the Bitcoin education quiz app Bitcoinmillionaire on Android, iOS and Web. Initially created as a personal side project he plans to add it to the list of premium projects on LiveEdu and open source the code base so other developers can develop it further.

Alex Zhukov is an experienced Python and Django developer with experience building Django applications starting from Django 0.96. Besides Python he commands modern JavaScript, React.js, Go, and Erlang/OTP. He is a self-taught programmer with a masters degree in radiophysics. Most of his career he worked in software, systems and networking positions at ISP companies including Novgorod Datacom and Alphacom. At LiveEdu he develops backend web applications.

Ilya Toka is an experienced JavaScript developer with experience building React.js applications. Besides JavaScript he also commands HTML, CSS, Jekyll, Django, Sass, Gulp, Webpack, and Git. He is self-taught programmer and worked in different positions at several companies including Criterion and NGO. At LiveEdu he develops the frontend part of the application.

Muhammad Shoaib is business graduate in Finance and also pursuing higher degree research specialization in Marketing and Branding. He worked at PartimePartners and FunFit. At LiveEdu he manages content creator relations. He is learning Python and Django development using LiveEdu premium tutorial projects.

After the ICO we plan to expand our team to fill key positions including a seasoned Head of Marketing, Head of Sales, Product Manager and Head of Curriculum. Running a technically flawless ICO can be challenging for a startup that has never done one

before. That is why LiveEdu decided early on to partner with the reputable and experienced technical ICO advisory firm “[New Alchemy](#)” who are guiding LiveEdu hands-on in all aspects of the ICO including smart contract, token security, token mechanics, token allocation, white paper and token deployment. Managing Director Peter Vessenes leads New Alchemy. He launched the first venture capital backed Bitcoin company in 2011, was co-founder of the Bitcoin Foundation and is holder of a patent for deanonymizing Bitcoin. His team members at New Alchemy are experts in the areas of business development, investment banking, and fundraising. New Alchemy has ran and managed multiple ICOs which have raised over \$200M including Monolith Studios, Funfair and TokenCard. The Funfair ICO raised \$26M in four hours.

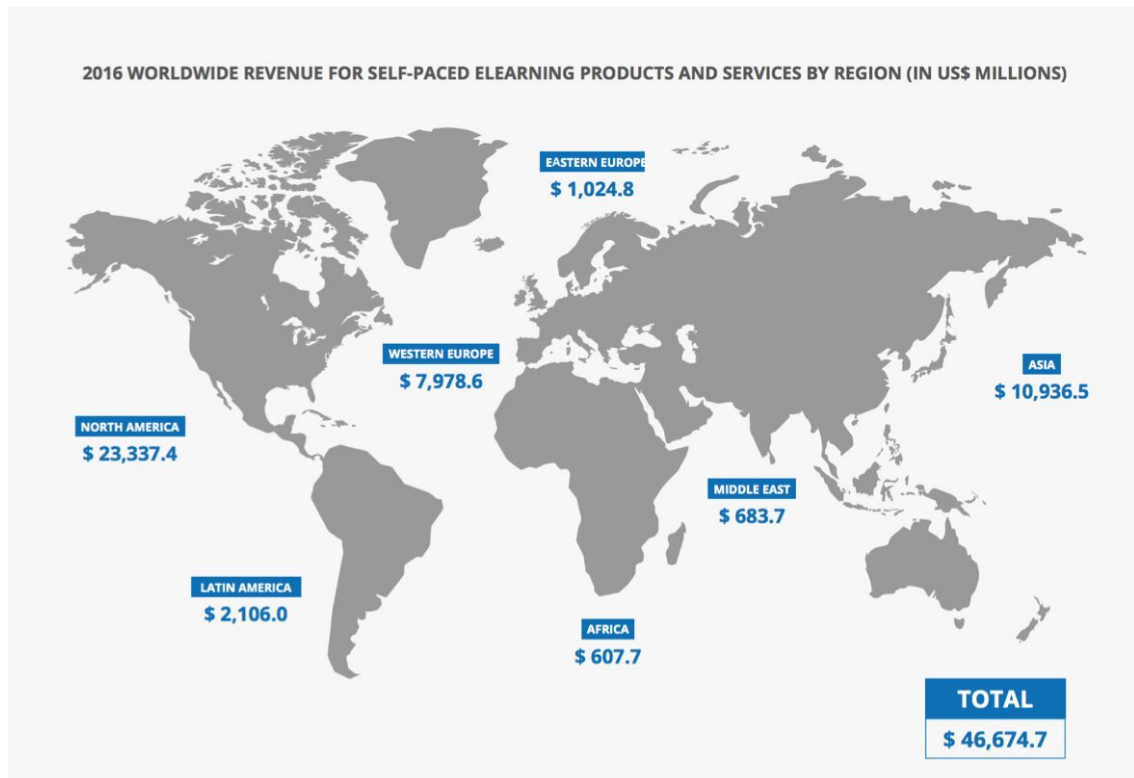
1.4. Problem and Product Solution

Many students and professionals dream of building real products. But not many achieve this goal because they lack the real skills needed to build a product from the fields of programming, game development, data analytics, design, augmented reality, virtual reality, artificial intelligence or cryptocurrencies. It is easy for anybody to take introductory courses on any topic online and say they completed it. Udemy and Lynda do not teach learners how to build real products from beginning to end. Many learners give up after learning the basic curriculum due to the lack of real life applications of their learning. Beginners can easily find places online to learn basic introductory courses on Udemy, Pluralsight or Lynda.com. Those courses are basic and do not necessarily teach learners the practical skills needed to build a real product. Where people get stuck and give up is after they have finished the beginner courses and want to build real products. There is no platform out there which teaches learners how to build real products. This is the exact problem LiveEdu solves. It is focused on learners who already have basic knowledge on a topic. Using practical tutorials we teach learners how to build real products from scratch and give them project files to download and practice with. LiveEdu does not create content itself, but provides a monetization platform for content creators to teach premium tutorial projects. With LiveEdu learners are able to:

- Watch and learn how to build a complete product.
- Watch sessions live or as archived video.
- Download videos and project files to practice with.
- Get instant answers on questions in interactive live chat.
- Be in a supportive peer-to-peer knowledge sharing community.
- Improve their job market skills and make more money in their career.

1.5. Market and Competition Analysis

As of 2015, the global e-learning market was valued at \$165 billion and poised to “grow at a CAGR of around 7.2% over the next decade to reach approximately \$325 billion by 2025”². Self-paced e-learning generated global revenues in amount of \$46.6 billion in 2016. Some of the largest regions for this revenue generation include North America, Asia and Europe. These three areas currently generate revenues in the region of \$23.3, \$10.9 and \$9 billion respectively³.



Some of the biggest players in this market include platforms such as Zuoyebang, Juesheng, Changingedu, NetDragon, Udemy, Coursera, Udacity, Lynda and Pluralsight. In China, some of the largest internet companies including Alibaba, Baidu and Tencent have also entered the commercial and eLearning markets in partnership with universities. More people worldwide are adopting these learning platforms in order to

² “E-Learning Market Size- Industry Share Report, 2023.”

<https://www.gminsights.com/industry-analysis/elearning-market-size>

³“ELEARNING MARKET TRENDS AND FORECAST 2017-2021.” Docebo E-learning.

<https://eclass.teicrete.gr/modules/document/file.php/TP271/Additional%20material/docebo-elearning-trends-report-2017.pdf>.

⁴ Ibid.

improve their skills to meet certain practical requirements for new jobs as well as to satisfy their own curiosities. Trends emerging in the industry include live streaming learning, peer-to-peer learning, advanced self-learning, project-based learning, mentorship-based learning, gamified learning and group-based learning. **Note that the market for VR, AR, AI and cryptocurrency education is nascent and not covered by any player yet.** LiveEdu does NOT compete directly with existing online learning platforms as we are focused on practical tutorial projects (project-based learning) and users who have passed the beginner stage (post-beginners, intermediates, experts).

LiveEdu is focused on intermediate to expert educational level, while other existing online education sites are focused mostly on beginners. We are focused on the main reason people start learning new skills; building a product. We don't see Coursera, Udemy or Udacity as competitors, but as potential partners to work with. We see them as customers and distribution partners and plan to syndicate our content to them via our API. Those sites are great for beginners to learn theory and introductory topics. LiveEdu does not provide this, but is focused on teaching people who are above the level of these sites how to build a complete product, e.g a VR Game, an AI Bot, a Bitcoin autotrader. You can describe them as kindergarten and LiveEdu as high school.

Compared to the indirect competitors Lynda, Pluralsight and Udemy:

- Indirect competitors have high expensive content production costs while it costs LiveEdu less than \$500 to create a complete project.
- Project production speed on LiveEdu is faster (< 1 month).
- LiveEdu uses only project-based learning.
- Real practical tutorial projects. Real production level work.
- You can learn how to build a complete product.
- Interactive Q&A chat to discuss things in real time.
- LiveEdu is a decentralized peer-to-peer marketplace which gives it access to a bigger content creator pool.
- LiveEdu is flexible and can create projects on new emerging technologies faster.

2. LiveEdu Platform and API Ecosystem

2.1. List of Topics and Categories

LiveEdu covers seven topics; programming, game development, design, data science, virtual and augmented reality, artificial intelligence and cryptocurrencies. Each of these seven topics contains its own sub-categories. As mentioned in section 1, the topic programming is what LiveEdu initially launched with and it is the topic for which LiveEdu has the biggest content volume. The six other new topics were launched in August

2017 and LiveEdu does not yet have significant content for them. Currently, there is no premium project content on LiveEdu except for programming. Our plan is to use part of the funds from the ICO to incentivize streamers to create premium projects.

Programming	Data Science	Artificial Intelligence	VR & AR	Design	Game Development	Cryptocurrency
As Currently On LiveEdu	Data Visualization	Machine Learning	Mobile VR	Logo Design	GameDev	Cryptocurrency Basics
	Big Data	Robotics	Desktop and Console VR	Mobile App Design	GameMaker	Blockchain Mining
	Data Analytics	Natural Language Processing	VR Games	Web App Design	Unreal Engine	BitCoin
	Text Processing	Self Driving Car	Augmented Reality	Art and Illustration	Love2D	Ethereum
	Data Warehouse	Computer Vision		UX Design	Unity	Security and Hacking
	Data Mining					ICOs
	Wolfram					

2.2. Main Product Features: Live Streams, Videos, Chat

Content on LiveEdu is organized around projects. Each project contains a live streaming channel, video project playlist and live chat window. Each live stream is archived automatically as a video. LiveEdu gives content creators the ability to deliver their projects via live stream or offline recording. There are two main types of projects on LiveEdu; premium tutorial projects and non-premium projects. The interactive live chat is the main mode of Q & A communication between a content creator and viewers. Learners ask questions, give suggestions for improvement and also socialize with other learners. When a learner opens a live stream he can see the live channel, chat window, project description, curriculum and downloadable resources. Live Streams can be pre-scheduled or not scheduled and are delivered in real time. The schedule contains all pre-announced live streams. In order to not miss any live stream, learners can subscribe to a content creator and will be notified when a stream is live. Live streams and videos can be watched in HTML5 or flash and are delivered in three quality formats 480p, 720p and 1080p. Even though LiveEdu does not yet have native mobile apps, streams and videos can be watched in HTML5 on smartphones and tablets. Content

creators use the streaming software client Open Broadcaster Software (OBS) to stream their desktop, audio and camera to one of the LiveEdu streaming origin servers.

2.3. Premium Tutorial Projects

Premium tutorial projects are projects created with the sole intention of teaching learners. They are fully narrative, structured, contain well drafted project descriptions, streamed at same weekly schedule and have downloadable project resources. The creation of premium tutorial projects undergoes a strict content moderation process to ensure the highest quality standard. Creating a premium tutorial project requires the content creator to spend time preparing the content. The content creators selected for premium tutorial projects have vast real industry experience, with at least four years in their field. They love teaching and sharing their skills to train and educate the next generation of learners to improve their practical career skills. On LiveEdu premium projects that are live are displayed under the “[Premium](#)” tab of the live stream section. In order to decide which projects to create content for, there is a project request board on site where learners submit project suggestions and then others upvote or downvote it. Below are examples of premium tutorial projects from the fields of data science and programming that explain how LiveEdu teaches learners how to build real products:

Project Title: [Python Data Analytics and Visualization](#)

Ryan Schuetz is a developer from Minneapolis, United States with over eight years of experience. In this tutorial, he covers all facets of building a complete and operational analytical dashboard. Learners will be guided through all the steps and concepts, starting from setting up a new Django project, building an ORM model, business logic, math functions and visualizing data using JS libraries (D3, NVD3, Charts.js). Ultimately learners will be able to create their own data analytics and visualization application.

Project Title: [How to Create a Dating Web App in Node.js](#)

Igor Kuzmenko is a software engineer from Odessa, Ukraine who resides in Basel, Switzerland. In this tutorial he explains in detail how learners can use Node.js, MongoDB, and React.js to quickly build products. He has about eight years of experience shipping products and has founded two startups. Throughout this highly educational project, Igor will cover all the details of creating a dating website so a learner can build it from scratch, add their own features, and adapt it to their specifications.

Project Title: [Machine Learning Model: Python Sklearn & Kera](#)

Andrey Bulezyuk is a data science expert from Nuremberg, Germany with over five years of experience in Python. In this tutorial, he teaches learners how to create two simple machine learning applications. They are for solving a classification problem. Nonetheless, it is one of the most complex problems in the world, since the data they are trying to "predict" is stock market data. Learners can take a look at two completely different libraries; Sklearn and Keras. Before they dive into the main task, they can see what a "Hello World" in Machine Learning looks like. After that, they learn numer.ai and use their pre-defined data sets.

'Premium tutorial project' is the main content type that LiveEdu has moved to focus on because it provides the maximum educational value for learners compared to non-premium projects. In addition, learners are willing to pay for it because they gain huge educational value from it. Learners pay a monthly subscription starting from \$9.99 to \$19.99 depending on the number of topics. There are also quarterly, bi-annual and annual pricing packages. The table below is an illustration of the subscription price packages. We started monetization with a focus on consumers using a B2C model, but our main sustainable revenue source will be with bulk subscription purchasers such as public institutions (high schools, libraries, colleges), businesses (B2B) and other established online learning platforms (bootcamps, Udemy, Lynda, Codecademy, Udemy, Pluralsight). We plan to start bulk subscription sales after creating 500 premium projects for each of the seven topics.

1 SINGLE	3 TRIPLE	* ALL!
1 topic	3 topics	All topics
Unlimited access to premium projects	Unlimited access to premium projects	Unlimited access to premium projects
Unlimited access to project playlists	Unlimited access to project playlists	Unlimited access to project playlists
Download project files	Download project files	Download project files
Download project videos	Download project videos	Download project videos
Access for mobile apps	Access for mobile apps	Access for mobile apps
Send project requests*	Send project requests*	Send project requests*
Watch in high or low resolution	Watch in high or low resolution	Watch in high or low resolution
No Advertising	No Advertising	No Advertising
Unlimited project creation	Unlimited project creation	Unlimited project creation
Up to XGB video storage per month for non-educational content	Up to XGB video storage per month for non-educational content	Up to XGB video storage per month for non-educational content
Set videos private	Set videos private	Set videos private
Opt out archiving	Opt out archiving	Opt out archiving
Team Channel	Team Channel	Team Channel
24hr customer support	24hr customer support	24hr customer support
\$ 9^{,99} / mo START FREE TRIAL	\$ 14^{,99} / mo START FREE TRIAL	\$ 19^{,99} / mo START FREE TRIAL
Save more with annual subscription!	Save more with annual subscription!	Save more with annual subscription!
\$ 56^{,99} / 6 month SAVE 5% SUBSCRIBE	\$ 85^{,99} / 6 month SAVE 5% SUBSCRIBE	\$ 113^{,99} / 6 month SAVE 5% SUBSCRIBE
\$ 107^{,99} / year SAVE 10% SUBSCRIBE	\$ 161^{,99} / year SAVE 10% SUBSCRIBE	\$ 215^{,99} / year SAVE 10% SUBSCRIBE

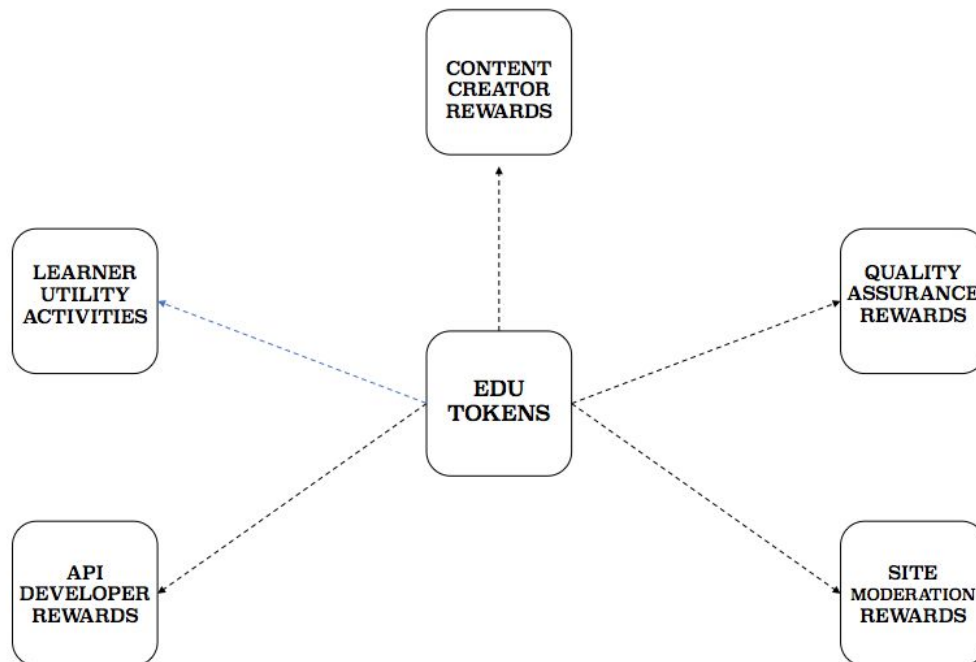
2.4. LiveEdu API Ecosystem and Third-party Apps

As LiveEdu seeks to position itself as the major tutorial learning platform in the world, an API will help to make this into a reality. Authentication and access controls are performed using standard and widely supported OAuth2 protocol. The API is available over HTTPS and follows RESTful conventions. Third-party developers can build their own complete applications on top of the LiveEdu [API](#). This can be bots, mobile apps, websites, widget or plugins. As the users are mostly software developers, providing them API access gives a way to empower end-users to do things the platform was not built to do. One of such example is the LiveEdu streamer lamvalerio who is using the API to build a LiveEdu Android app.

3. LiveEdu EDU Token Model

3.1. Use-Cases for EDU Smart Tokens

Each positive activity a learner, content creator, site moderator or ecosystem participant completes on LiveEdu represents the minting of EDU tokens. EDU tokens are going to be fully integrated into all core modules and transactions on LiveEdu; a payment method for all financial transactions; rewarding premium project tutorial creators, positive learner behavior, site moderators, and API ecosystem developers. When the EDU tokens are fully rolled out and integrated into LiveEdu, this is how they will be used on our website and in mobile apps:



All new and existing LiveEdu users will be assigned an EDU token wallet. Each LiveEdu user will be given a small free token amount as a starting balance. For each new user that creates an account on site, a wallet will automatically be created and used as storage to store his tokens. This is also the wallet which will be used for all incoming and outgoing token transactions of the user.

3.1.1. Payment Method for all Financial Transactions

EDU tokens will replace fiat payment methods as the main method of payment by users for subscriptions and donations. Currently financial transactions on LiveEdu are powered by fiat payments using Stripe and Paypal. One of the biggest issues Paypal poses for LiveEdu is the lack of transparency in the transaction fee calculation, based

on the location of the buyer. When EDU tokens are fully deployed, users can pay for their Single, Triple or All subscription payment without need for credit card or Paypal account. Users in Europe and Asia without a credit card or Paypal account will be able to buy EDU tokens with their normal bank accounts and pay for their subscriptions in EDU. LiveEdu has an international user base with people from 194 countries. Thousands of donations are made monthly on LiveEdu to content creators. Donation is one of the ways learners show their appreciation to content creators. EDU tokens will be used for making micro donation transactions. When a learner makes a donation to a content creator the EDU tokens will be sent from one EDU user wallet to another instantly without the need for a payment provider.

Subscription prices on LiveEdu will be denominated in USD\$ and not EDU units. Viewers cannot use fiat, BTC or ETH directly on LiveEdu. They must first buy EDU tokens and then expense them for activities they do on site. The most important viewer activities will each cost a certain number of tokens. Viewers can buy EDU tokens in \$5 increments with a minimum starting amount of \$10. The total number of tokens a user will get at the time of purchase will depend on the EDU token market price at that time. Viewers will use the tokens for paying subscriptions, downloading project files, sending messages, voting on projects, submitting project requests, requesting custom projects, sending personal Q&A to streamers and donations. Since we are running a subscription model, each month we will give EDU tokens to paying subscribers. For example, if a user has a monthly single subscription for \$10, each month he is assigned 30 tokens. If LiveEdu gets back 15 tokens from the subscriber's activities on the platform, 20% of that is burned and the remaining 80% is sent back to the subscription pool. Viewers can still go on the site and buy EDU tokens without a subscription and just hold the tokens in their wallets or use them for non-subscription related activities. Token price value changes will not have effect on the subscription price USD\$ nominal value. It will only have effect on how many tokens a user needs to buy a subscription.

3.1.2. Paying Premium Project Content Creators

As shown in the LiveEdu token utility model in the section content creators, premium project creators will be rewarded EDU tokens as part compensation for their work. 15% of all tokens minted for the purpose of this ICO is reserved for them and will be distributed over a 3 year period till all premium project creator tokens are allocated. Each month a fixed percentage of two point eight percent ($1/36$ months = 2.8%) of the original total content creator tokens is to be distributed. How many EDU tokens is allocated monthly for each premium content creator is calculated based on his proportional view time. Proportional view time of a content creator is his total view time divided by total LiveEdu view time. Total LiveEdu view time is the sum of the view time

of all premium live streams and videos on LiveEdu for a given month. Total premium content creator view time is the sum of the view time on all of his live streams and videos for a given month. The number tokens to be allocated is simply calculated by multiplying the proportional view time by the total number fixed monthly tokens.

$$T_{CC} = (T_{CCVT}/T_{TLVT}) * T_{FMT}$$

T_{CC} = total number of tokens allocated to a content creator monthly

T_{TCCVT} = total monthly content creator view time

T_{TLVT} = total monthly LiveEdu view time

T_{FMT} = total number of fixed monthly tokens

3.1.3. LiveEdu Token Utility Activities for Learners

Learners on LiveEdu will be rewarded for each positive learning activity they complete; watching live streams, watching project video playlists, total monthly view time, submitting premium project suggestions, inviting friends and following projects. For each activity a learner completes successfully, a tiny token fraction will be allocated. The total number of tokens to be allocated to a learner at month's end is the sum of all tokens the learner minted:

$$T_{TL} = \sum_{i=1}^n T_L$$

T_{TL} = total tokens allocated to learner

T_L = sum of tokens for each desired learner activity completed

3.1.4. LiveEdu Token Rewards for Quality Assurance and Site Moderation

Quality assurance encompasses reporting bugs, technical streaming issues, video quality issues and content moderation. LiveEdu users will be allocated tokens for each quality assurance activity. Quality assurance is an important activity as it improves user experience for all learners and content creators. Site moderators are an integral part of the LiveEdu community and without them the site cannot run. Paying site moderators with EDU tokens for their time will motivate them to carry out site moderation weekly.

$$T_{TMQ} = \sum_{i=1}^n T_{MQ}$$

T_{TMQ} = total tokens for site moderation or quality assurance

T_{MQ} = sum of tokens for each moderation or quality assurance activity completed

3.1.5. LiveEdu Token Rewards for LiveEdu API Ecosystem Developers

The API has been in high demand by LiveEdu users but we have not been able to meet all of the endpoint request developers have been asking for, due to limited engineering

capacity. So far, LiveEdu has provided API ecosystem developers no attractive incentive to develop a big number of applications. EDU tokens will be allocated to developers for each application developed on top of the LiveEdu API which is deployed and used by at least 1000 end users. The best apps and bots will be endorsed by LiveEdu and shared to all LiveEdu users. The amount of tokens for each app developed is the sum of the base amount plus additional tokens depending on popularity, quality of app, and availability of source code for others:

$$T_{AD} = BTA + \sum_{i=1}^n TA_{API}$$

T_{AD} = total tokens per app developed

BTA = base token amount

TA_{API} = sum of tokens for each API ecosystem development activity completed.

4. Technical Implementation of EDU Tokens

4.1. Smart Contract Implementation

The EDU smart contract is fully implemented and set-up by the experienced blockchain and ICO experts from New Alchemy as mentioned in section 1.3. The token is based on the ERC-20 standard with minimal deviations. This was designed with inspiration from other ERC-20 tokens such as Bancor, Filecoin and Civic. The smart contract accepts only ether. investments made with other coins and fiat will be converted to ether.

4.2. Token Model

investors can buy EDU tokens directly with Ethereum (ETH), Bitcoin (BTC), Litecoin (LTC), fiat (USD/EUR) and with other coins indirectly via Shapeshift. An EDU token can have maximum eight decimal points. There is a soft cap of \$1M and hard cap of \$8M for ETH investments (non- ETH investments do not count toward the hard cap). The total number of EDU tokens to be minted for the LiveEdu ICO will be determined after the ICO closes. The total token supply is limited by the hard cap. As soon as the hard cap is reached the ICO closes. For both the pre-ico and main crowdsale, minimum investment amount per transaction is \$3. If you send less than \$3 per transaction, you will lose that. For you to qualify for any bonus in the pre-ico or main crowdsale, you have to invest a minimum of \$50 per transaction. If you invest less than \$50, you will get no bonus. The token is denominated in US\$:

1 USD = 10 EDU tokens

1 ETH = \$ETH value * 10

1 BTC = \$BTC value * 10

1 LTC = \$LTC value * 10
1 EUR = \$EUR value * 10

Pre-orders for pre-sale:

The company is pre-selling EDU tokens prior to the public sale at a discount on a wholesale basis for large volume purchases:

<= \$10,000 USD + receives a 25% bonus
>= \$10,000 USD + receives a 30% bonus
>= \$ 30,000 USD + receives a 35% bonus
>= \$50,000 USD + receives a 40% bonus
> \$100,000 USD + receives a 50% bonus

Bonuses are assigned only once per individual or entity even for multiple purchases.

You can place your pre-order by following the 'Buy Tokens' guide on the site "Tokensale.liveedu.tv" or by emailing us at "tokensale@liveedu.tv" or an authorized affiliate. The hard cap for the pre-sale is set at \$500,000 in ETH investments.

Public crowdsale

EDU tokens are intended to be sold at the following rates starting Nov 21 - Dec 15. The sale will be closed in next 48hrs after the first \$4 million is raised.

First USD\$2 million tranche: 1 USD = 12 EDU tokens (20% bonus)

Second USD\$2 million tranche: 1 USD = 11 EDU tokens (10% bonus)

After that : 1 USD = 10 EDU tokens (0% bonus)

Note that the exact dates and rates for the public sale could change. For any already sold tokens, the exchange rates are locked at the purchase rate.

4.3. Crowdsale Objective and Token Allocation

There is a soft cap of \$1M and hard cap of \$8M for ETH investments (non- ETH investments do not count toward the hard cap). The additional money will help the company scale faster by getting more content creators on board to create quality content, expand our streaming cluster infrastructure, marketing efforts, team size and number of countries served. If the soft cap is not reached all investments will be refunded. For the token distribution the fixed percentage split is displayed in the table below.

To keep the EDU token supply low, no future tokens will be issued and surplus tokens will be burned. If after three years all the content creator, supporter and API tokens have ran out, all future token incentives for them will be funded from the subscription pool using blockchain smart contract.

As the team has already been working on the product for some time, the vesting schedule for EDU tokens assigned to team members is as follows; twenty five percent (25%) will be allocated immediately and seventy-five percent (75%) over the next eighteen (18) month period. Team members cannot sell more than twenty five percent (25%) of their tokens per year in the first two years.

Allocation	Percentage
Pre-Sale	5%
Main Crowdsale	45%
Subscription pool (user token purchases)	10%
Content Creators (streamers)	13%
Team	13%
ICO Legal and Technical Advisory, Bounty Program, ICO Marketing	6%
API Ecosystem Developers	3%
Supporters (Quality Assurance and Site Moderation)	3%
Learners (viewers)	2%
Total	100%

Streamers represent the most valuable element in the LiveEdu product value generation chain. Our product is a peer-to-peer decentralized marketplace where we connect streamers with viewers. The streamers represent the supply side. Since the premium content program is a new product, LiveEdu does not currently have a large premium content library for the seven topics. LiveEdu will ultimately succeed or fail based on the content quality of the premium projects created by streamers. If the premium projects are educational, structured and of high quality, viewers will buy them. We want to attract the best content creators. As with building any marketplace business, the supply side (content) needs to be built first. Thus, LiveEdu needs to build a huge initial content library quickly by incentivizing premium content creators generously. There are three possible ways LiveEdu can cover the initial content creator acquisition cost: i) cash ii) EDU tokens iii) mix of cash and EDU tokens. Option 1 requires LiveEdu to raise a huge amount of cash just for content generation. This option is not ideal because it does not

intrinsically enforce content creator loyalty. Option 2 will not be very attractive to content creators because at launch there will neither be a huge organic demand for tokens nor trading on exchanges. Similar to other marketplace ICOs like Civic and Musicoinimi, Option 3 is the best approach for LiveEdu to incentivize content creators to create exclusive quality content. 13% of tokens minted in the ICO will be used for partly funding the content creator acquisition cost. This will be distributed to them over a three year period. The monthly allocation will follow the formula defined in section 3.1.2. To avoid content creators dumping tokens onto the market and creating oversupply, their tokens are subject to a vesting schedule:

- For every 3 premium projects completed, a content creator gets 30% of tokens released. The more projects they complete, the more tokens will be released.
- They cannot sell more than 50% of their released tokens per quarter.
- They cannot sell more than 50% of their released tokens per year.

To ensure that content creators create only high quality content, any project created is only counted if it has a minimum total view time of 20hrs (live stream and videos) and has been marked as completed by site quality assurance moderators.

There are many benefits for ICO investors to buy EDU tokens besides just the holding of tokens. ICO investors will have voting rights for key decisions in the ecosystem, like which premium projects to build first and which new topics or product features to add. LiveEdu is the first education technology ICO and seeks to bring cryptocurrency to the masses by educating college students and professionals using real practical cryptocurrency tutorial projects covering cryptocurrency basics, blockchain mining, Bitcoin, Ethereum, security and ICOs. With expert content creators educating people about these topics through the use of practical projects, we hope to remove some of the fear and uncertainty surrounding the wider cryptocurrency market.

To organically create token scarcity so that token price rises for all token holders, each month we will burn 20% of monthly subscription expensed viewer tokens. Consequently, the more viewers watch content and use LiveEdu, the more tokens will be burned and the higher the value of the EDU tokens will appreciate. On the supply side, to incentivize streamers to create content faster, for every 300 premium projects completed, LiveEdu will burn 5% of remaining content creator tokens. Demand for EDU tokens will be generated organically by purchases on LiveEdu and inorganically by trading on exchanges. After the crowdsale all EDU tokens sold to investors will be sent to their wallets in ca. 2-3 weeks. We will apply to be listed on following exchanges after the ICO closes; Bittrex, Poloniex, Etherdelta, Liqui, Bitfinex, Tidex, HitBC.

4.4. Use of Funds

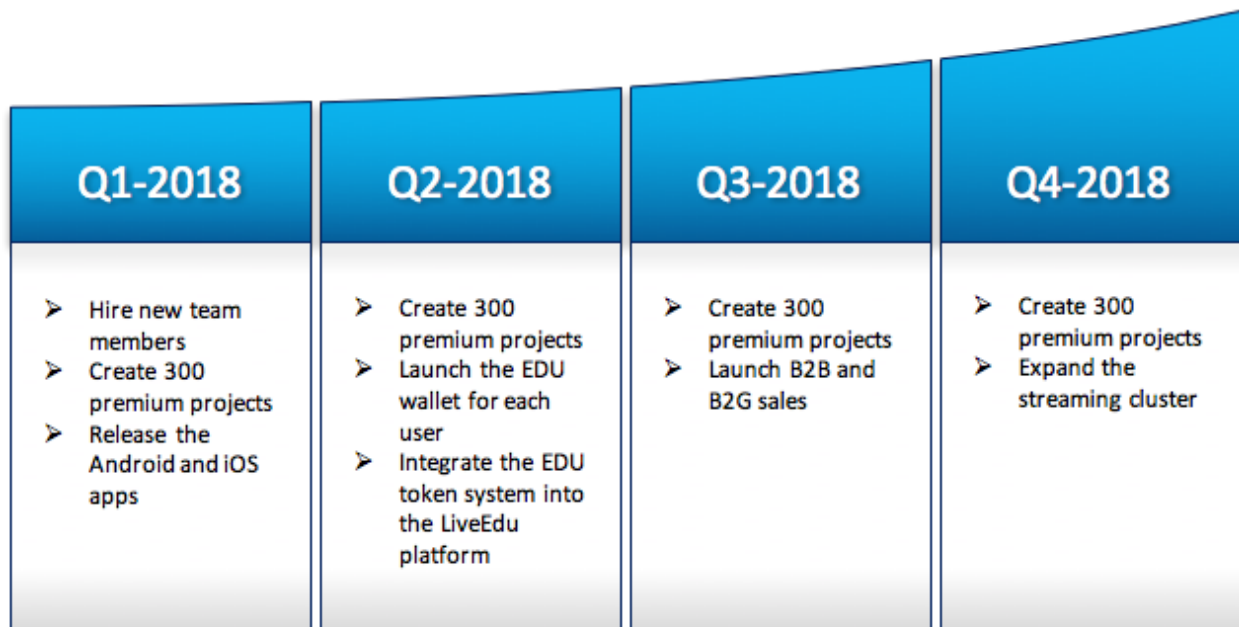
The main business objective behind the LiveEdu crowdsale is to build 3,500 premium projects with 500 premium projects for each of the seven topics over a three year period (3 years):

- Building Premium Projects (15%): Each quarter approximately 300 premium projects will be created by streamers.
- Team Member Expansion (35%): Hiring of new team members: engineers, product manager, chief marketing officer, head of curriculum, and head of sales.
- Platform Development and Server Costs (25%): Integration of EDU token into LiveEdu. Expanding streaming cluster and improving stream quality. Native Android and iOS app development.
- Marketing: (15%).
- Overhead: (10%).

5. Roadmap and Future Potential Developments

5.1. Roadmap and ICO Risk Factors

The roadmap outlines the planned milestones for LiveEdu for the first year following the completion of the ICO.



The purchase of EDU tokens in this crowdsale does not represent a right of equity ownership of the company itself. There are typically a variety of risk factors associated with an ICO. LiveEdu does not guarantee to investors that there will be a successful

long-term exit via an IPO or trade sale. The company is running its ICO through the UK subsidiary Livecoding Ltd with the company registration number 09346459.

5.2. Future Potential Development

While we do not know what the future might hold, some of the potential ideas we have for future development include:

- API endpoints for other online education sites to integrate our projects in their site
- Localized content for the Chinese, Korean, Japanese, Spanish, German, Portuguese and Arabic markets.
- Setting up LiveEdu billboard screens in big metropolitan cities around the world where people can watch projects live; San Francisco, New York, Toronto, Dubai, London, Berlin, Paris, Moscow, Beijing, Seoul, Tokyo and Sao Paolo.
- Expanding the content catalogue to include more topics just as Youtube and Spotify did.

5.3. Conclusion

LiveEdu represents a pioneering effort in the area of practical project-based learning on any topic. The first live streaming and video tutorial learning platform has a chance to fundamentally change how college students and professionals gain valuable practical skills. Our mission is to be the place on the web for project-based learning. We are building the world's largest project-based learning (PBL) library on any topic.

The immediate business goal behind the LiveEdu crowdsale is to build 3,500 premium projects with 500 premium projects for each of the seven topics. We also intend to build strong mutual relationships with investors who we can use as premium project content creators. investors who participate in the crowdsale and hold EDU tokens will have voting rights for making key decisions in the EDU economy. EDU tokens will be native to the LiveEdu platform and deeply integrated into the product to manage incentives in a way that benefits all participants in the ecosystem. We also seek to bring cryptocurrency to the masses by educating college students and professionals using real practical cryptocurrency tutorial projects covering cryptocurrency basics, blockchain mining, Bitcoin, Ethereum, security and ICOs.