CREATING A NEW WAY TO LEARN, THROUGH AI-BASED RE-SKILLING

The world is facing a re-skilling emergency

More than 1 billion jobs *(almost one-third of all jobs worldwide)* are likely to be transformed by technology in less than a decade, according to OECD estimates. How can we ensure that people around the world are not left behind?

*"We must come together — governments, businesses, and society – to provide education, skills, and jobs for at least
1 billion people by 2030."*
World Economic Forum

As jobs evolve, so will the skills needed to perform them. 42% of core skills within roles are expected to change by 2022.
This is why Studyum is so essential.

"Our mission is to connect all students across the globe with our educational platform, based on artificial intelligence and blockchain technology."
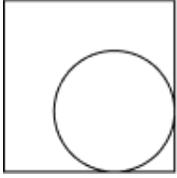Igor Dyachenko

Our platform revolutionizes learning by putting top educators, coaches, and experts in front of every student, innately encouraging students by way of NFT rewards systems.

3D avatars of instructors provide students with VR-based guided learning. Our decentralized system with token integration and NFT marketplace organically encourages demand from students and educators. Our students will become part of an innovative e-learning ecosystem, where they are rewarded with Studyum (STUD) cryptocurrency tokens for achieving milestones.

1. Introduction

1.1 Problem Statement

The underfunding of education in many parts of the world results in higher education being unaffordable to many people. Local colleges and online courses are more affordable, but budget restrictions can cause unpredictable instruction quality.

Studyum has identified four thinking and learning styles:

1. Concrete sequential — Focus on reality in a linear process.
2. Concrete random — Experiments through trial and error.
3. Abstract random — Reflections with a non-linear process.
4. Abstract sequential — Theory with concepts and analysis.

These differences in learning styles are why our current system is so broken. In a traditional setting, there would need to be four classrooms teaching in four different styles, to ensure all students can learn effectively. Even in existing e-learning models, platforms only cater to the concrete sequential style of learning, meaning someone can drop thousands of dollars on e-learning, not find it useful, then give up in frustration.
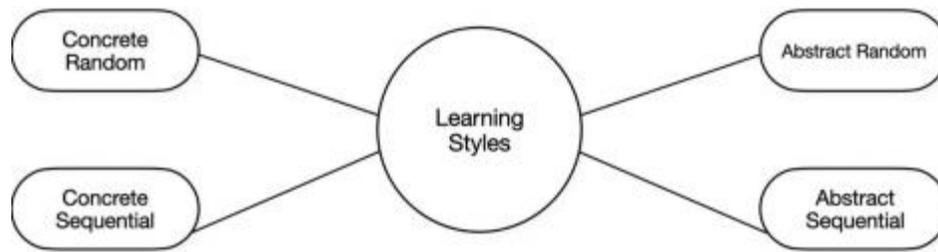
*"Educators are failing students
by only using one book on the bookshelf "*
Igor Dyachenko

The main factors that restrict student learning include:

- Not everyone learns the same way. What is natural for one person might be alien and strange to another. People learn and gain skills by metaphor, hands-on experience, or theory. Students cannot retain new skills and information because the delivery is not in a format that matches their learning style.

- Students don't recognize the learning model that is best for them. Without an evaluation of which learning model will suit a student's needs, they struggle to engage with the content in a meaningful way. This means there's no guarantee of retaining information long-term.

- Poor content quality. E-learning platforms lack top-quality, engaging content.

- Educators can't teach individual students. It is impossible for coaches and teachers to know each student's learning style and thus provide individualized classes.

- Lack of accountability. Students are not held accountable for their learning and are not motivated to learn.

- No tracking. E-learning platforms don't track progress while simultaneously inspiring the student.

- No rewards system. E-learners and content creators are not rewarded with revenue streams.

1.2 The Opportunity

There is an opportunity for students to be aligned with educational content that's delivered in their preferred learning style. This will allow every student to learn anything, in a manner suited to them while earning rewards through STUD tokes.

"Studyum has unlocked the human brain's capabilities
and transformed learning as we know it."
Igor Dyachenko

There is an opportunity for:

- A learning system that learns how people learn and identifies the learning style of students.

- The creation of educational content in auditory, visual, and physical formats.

- A system that matches teachers and students based on their teaching and learning styles.
- Personalizing best-in-class content from experts.

- A platform made for people of all ages, that rewards both teachers and students.
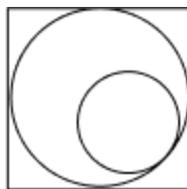
2. Introducing Studyum

Studyum is the educational platform of the future for the future. Like other online classes, it has fantastic content but is deeply immersive and personalized. It goes where other platforms don't by helping people focus, retain information, and perfect skills.

*"Learning doesn't have to be boring
and one-dimensional."*
Igor Dyachenko

Studyum uses blockchain technology and smart contracts to create accountability. Studyum will track accountability and trust through an immutable platform. Studyum sees new ways to interact with data. Studyum has amassed a team of advisors, writers, investors, and programmers to take advantage of this.

Our founders own a Karate studio on the Upper West Side of Manhattan and have extensive experience education children and adults. Studyum has far-reaching connections within the world of professional sports and investing. Our board cosists of C-suite executives across industries and Fortune 500 companies. Igor, one of the founders, was a two-time champion in Karate and has competed all over the world.

*"Effective learning takes a commitment from the student.
For active learning to take place, there is a need for high instruction-
quality from teachers and masters in their field."*
Igor Dyachenko

Through our connections in the world of Karate, Studyum will work with the National Olympic Committees to implement our training plans. Through our affiliation with National Olympic Committees, Studyum has immediate access to promote our learning platform.

2.1 The Studyum Platform

Studyum has been developing the learning platform since 2005.

Studyum is unique to other blockchain educational projects because:

- Our healthy and unique teaching methods focus on stimulating the formation of new neural connections.

- Our interactive virtual learning platform uses augmented reality, machine learning, and virtual reality to create an instinctive user experience.

- Studyum are experts in creating original 3D content.

- Studyum separates theory into micro-lessons to facilitate the learning process.

- Studyum incentivizes students to keep learning with a reward amount that increases at each level.
- Studyum uses revolutionary deep-learning technologies to match content to the learning style, frequency, performance, and goals of each student.

- Our self-learning app tailors alerts, motivation, and suggestions to help the student reach their desired goals.

- A customized practice environment is created in the app, for every student.

- Our virtual smart-chat celebrity coaches learn everything about the student's preferences to continually interact, engage, and guide them.

- Studyum uses a private blockchain solution that uses cryptography to keep people's data and financial transactions secure.

"Our celebrity coaches inspire new habits,
are patient with your pace, adapting to your learning style, and
stimulating new neural connections with effective
practice techniques."
Igor Dyachenko

Studyum uses a decentralized platform for developers and educators. The decentralized platform allows developers and educators to integrate their content. New content undergoes an algorithmic comparison to ensure the quality of each course. Our AI and blockchain technology enables the Studyum platform to identify if a class is effective at helping students progress. Students also have a say with an integrated voting system.

Studyum simultaneously rewards students and educators, ensuring the long-term retention of our users actively encouraging the adoption of our cryptocurrency, with the Studyum smart contract token (STUD). Studyum uses the tokens to incentivize educators, students, and institutions.

Our celebrity coaches inspire new habits,
are patient with your pace, adapting to your learning style, and
stimulating new neural connections with effective
practice techniques."
Igor Dyachenko

Students invest in the ecosystem when they use tokens to invest in a course. The reward system only releases reward tokens once certain milestones have been achieved. The reward system motivates students and keeps them eager to learn and progress. It also encourages them to expand their horizons and learn even more subjects.

2.2 How it Works

Students get a guided, personalized experience with access to theoretical knowledge, webinars, and podcasts, as well as training and other bonus features. The learning program can be uniquely customized.

Teachers access tools to create preset classes and manage groups, remotely or in real-time. The instructors can make short videos targeting the individual weaknesses of a child, and send them to parents as homework. Teachers can set a modular interface where only the elements *they* want to use are visible.

Families can leverage preset modules, and parents can use the program to help their child with completing an exercise through training tips. Parents receive recorded videos as proof of completed teaching and for advice on how the child can improve their performance. Families and teachers are brought together while older children can take control of their homework assignments.

Enterprises take control of different levels of classes and courses, through an instinctive user interface. Enterprises can sell their programs and courses to anyone they wish and use a portion of those funds to sponsor students living in developing countries, who also earn rewards to feed their families. This easy-to-use giveback program lets employees re-skill themselves while creating charitable benefits for businesses, and having a positive impact on the world.

2.3 Competitor Comparison

The education industry is enormous, and having competitors is essential to our progress. As such, there are several existing education platforms, as well as companies with similar functions, but they have fewer future-based models. In this section, Studyum offers direct comparisons to highlight where Studyum capitalizes on competitors' missed opportunities.

LiveEdu
LiveEdu (LEDU) is targeting the project-based professional development market,

bridging the gap between YouTube tutorials and blockchain.

Studyum provides the platform and includes content creation for educators, whilst LiveEdu only provides a platform for the educators' profit. Studyum is a fully engaging student-incentivized learning experience. LiveEdu does not test information retention or track student progress, whereas Studyum's AI-blockchain integration is what makes it unique and effective.

Feature	Studyum	Udemy *	Masterclass *
Content creation in 3D	✓	✗	✓
Educator incentive	✓	✓	✗
Student incentive	✓	✗	✗
Student progress tracking	✓	✗	✗
Learning management system	✓	✓	✗
Guided and motivation experience	✓	✗	✗
Webinars and podcasts	✓	✓	✓
AI chat bot	✓	✗	✗
Blockchain for NFTs	✓	✗	✗
Content ranking	✓	✗	✗
Group lessons	✓	✗	✗
Real-time class management for coaches	✓	✗	✗
Personalized content for each learning style	✓	✗	✗

* Top players on the market

Masterclass
In terms of instruction quality, this is the model Studyum emulates most closely. On their platform, famous experts and influencers from all over the world teach specific skills to their viewers through elegantly filmed videos. We like their *"learn from the best, anytime, anywhere"* motto. Studyum creates videos like these but expands the content beyond celebrities and masters. Masterclass has no progress tracking or student testing. Studyum offers these features, along with more advanced technology and with real learning incentives.

Tutellus
Tutellus is the project most similar to ours in terms of rewarding participants with their cryptocurrency TUT token. Their teaching model is traditional, and students' profiles are visible to potential employers. Studyum exceeds their vision from a technological standpoint with AI, VR, and revolutionary blockchain technology completely transforming how students learn.

Brave Browser / Basic Attention Token (BAT)
Brave and their cryptocurrency are not in direct competition with Studyum, but their model is similar to ours. Although in a different market, this model proves the platform is successful and demonstrates there is plenty of room for Studyum's growth. BAT tokens allow individuals to tip content creators, and users are paid BAT tokens for watching ad content. Similarly, Studyum rewards users for their attention. However, Studyum sets itself apart with a fully immersive learning experience that utilizes AI, VR, and motion-sensing. Unlike the BAT token, our cyclical token model encourages both trading and holding.

BitDegree
BitDegree is a technical-educational platform, and although the edtech market is saturated, their token sale raised $22 million. Users pay for courses using BitDegree tokens (BDG), they receive rewards for learning, and achievement tracking is in place. BitDegree has been available to the general public since its coin inception, but Studyum is taking a slower approach.

Our technology is so innovative it is generating a large amount of investor interest. Investors test our platform, and Studyum offers our technology exclusively to investors before future mass adoption. Our top-down approach to selecting world-class instructors results in our content being the best of the best.

EiPlatform

This platform is engaging the sports and gaming communities in a similar way to Studyum. Their goal is to solve the problem of inefficiency in e-sports marketing. They use smart contracts to allow direct, personalized marketing. Studyum, on the other hand, is a universal education platform that targets a broader scope for adoption. Our platform integrates advertising by offering free services to students who do not mind watching advertisements.
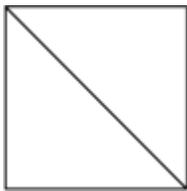
3. Studyum Network and Ecosystem

3.1 Work Scheme

Content creator

NFT: Smart contract market place

Student/ colector

- Advertisers. Advertisers can partner with content creators to pitch or use their products. They can choose to pitch products to learners through the platform as stand-alone ads or commercials on relevant content. The popularity of content creators will determine the cost to advertisers.

- Anonymized User Profile. All classes and advertisements to the learner will come through the user profile. Anonymized data will flow freely from the user profile to the AI and Machine Learning engine.

- Artificial Intelligence and Machine Learning. The AI and Machine Learning engine will be part of the platform. All raw data from the profiles will be run through the engine to understand how the platform best serves each learner. The AI will catalog and derive conclusions based on learner interactions with the platform. These will include classes chosen, time to complete, session time, class involvement, information retention, etc.

- Content Creators. Content creators can either send complete coursework to the platform or work with platform-provided co-creators. The AI will monitor content creator output, content, reputation, and conduct. It will either promote or demote content presented to learners. AI will also suggest additional actions they can take to improve their content. Content creators can pay or reduce content remuneration to advertise their product to new learners or work with advertisers for additional income.

- Employers/Trusted Recipients. An employer or trusted recipient is anyone with whom a learner desires to share platform accomplishments. After receiving a key from the learner, the employer or trusted person will send it to the platform.

- Learner. A learner can also be a content creator who can create an anonymized user profile that approved classes and advertisements pass through. Machine learning data passes between learner and user profiles. Learners can choose to respond to advertisements from their user profiles via the platform or directly to advertisers. The learner can send keys to employers or trusted recipients to show progress or completion of courses.

- Studyum Platform. All creator content, advertising, validation, and AI suggestions will flow through the Studyum platform.

3.2 Topics and Categories

The topics and categories on our platform are wide-reaching. Studyum will begin with sports professional training and with world championship content for Olympic sports. Studyum will expand to cover additional subjects:

- Education. Practical and advanced skills, university courses, testing prep.

- Virtual Reality. Augmented reality, mobile VR, gaming VR, desktop VR.

- Gaming. Interactive gaming, mobile gaming, motion detection, competitive training.

- Artificial Intelligence. Natural language, algorithms, robotics, machine learning, computer vision.

- Decentralization. Trust, quality education, the marketplace, training platforms, currency.

- Quality Assurance. Artificial intelligence, voting systems, innovative education, moderators.

- Data Science. AI learning, data mining, big data, wolfram language, data analytics, text processing.

- Cybersecurity. Mobile security, cybercrime, malware protection, phishing protection.

- Cryptocurrencies. Blockchain, cryptocurrency basics, crypto markets, bitcoin, Ethereum, ICOs, NFTs, exchanges.

- Design. UX design, mobile design, web app design, training platforms, 3D design.

3.3 Content

E-learning shouldn't be limited to watching videos and attempting to retain information. Our comprehensive platform includes video, augmented reality, motion-sensing, and AI. This content creates an immersive yet grounding experience. It helps students retain theoretical and practical information in the mind and body.

- Videos. Studyum uses explanatory videos for instruction that include narration and footage, shot from the front and side. These videos allow students to break down each technique into smaller steps, viewed at various speeds and from different angles. Instructors can upload their training videos, creating a decentralized space for people to share their knowledge and learn from experts.

- Augmented Reality. Certain modules are built using AR in our high-tech studios. Studyum creates 3D avatars of sports coaches to create accurate and in-depth learning material. Students can break down the techniques or learn drills in small steps, with a 360^0 perspective.

- Artificial Intelligence. AI helps us create the most advanced e-learning experience in the world. AI uses the individual learning pattern (speed, style, and information retention) of each student to provide encouragement and motivation that suits their learning style. The platform guides the student in the right direction through daily alerts, reports, and a virtual chat room, where they can connect with others who share their interests.

> *"Students can now learn at their own pace and interact with their AI personal tutors in a completely new way."*
>
> Igor Dyachenko

In the future, our augmented reality environment will combine with AI. Our real-time trainer will guide and correct each technique (ergonomically and biomechanically) during practice. This step-by-step training method is the healthiest way to learn and retain skills, in and out of the sports world.

- Real-time training. Motion-detection technology allows us to simulate a true, real-time, private, hands-on interactive training environment. Studyum plans to create the first World Championship level training platform that can integrate with users' existing devices.

- Real-time competition mode. Studyum integrates training mode with practice time in a gaming mode that simulates a real competition.

- Social competition. A human-focused design takes into account people's core motivations. The platform creates a positive feedback loop for students through social profiles, which display the courses their friends are taking.

3.4 Client Acquisition and Sustainability

Acquiring clients is essential for our platform to gain value. Studyum already contains our content. Studyum will assign a proportion of our budget for further client acquisition. Studyum will present at conferences, universities, athletic institutions, as well as visit potential clients, professional athletes, coaches, and celebrities.

Studyum understands the concerns many investors have about ICOs (Initial Coin Offerings) given their poor performance over 2017-2018. Those that have done well have great sustainability models. Studyum operates as an IDO (Initial Dex Offering) with a unique Weighted Actuarial Disbursement Token Model.

Studyum offers the platform to outside developers as an API. Our modular ecosystem allows other educational enterprises to build their own virtual reality course on our platform.
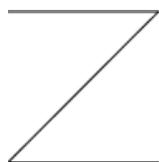
4. Studyum Token Model

Studyum is a shift from conventional learning to streamlined learning online. Instead of enrolling in a single university and using separate modules, students access a wide range of subjects and teaching styles, creating a decentralization of learning.

New and existing Studyum users are assigned a STUD token wallet. New users receive a small number of tokens as a starting balance, and they use their wallet for all incoming and outcoming transactions. Two-factor authentication protects the wallet, and KYC-AI integration makes each user's account interaction utterly unique.

4.1 Rewards for Content Creation

To drive demand, Studyum needs content. A percentage of tokens are set aside for Airdrop and Bountie incentives, which attract and fund initial contributors. With our existing ties to some of the world's best sports instructors, our first content is about the sports world.

"Studyum is the first sports education platform that relies on decentralized learning technologies."

Igor Dyachenko

Rewards for some content creators are a mix of fiat and STUD tokens. These rewards give immediate value coupled with the incentive to hold the STUD tokens for appreciation over time. Educators can efficiently upload content in 2D or 3D and create their own unique NFT collectible cards all from one platform.

4.2 NFT Rewards for Studying

With Studyum, educators will be able to create and trade personalized photo-holographic NFT crypto collectible cards.

Studyum will simultaneously reward students and educators through gamification, ensuring the long-term retention of our users; actively encouraging the adoption of our cryptocurrency, with the Studyum smart contract utility token (STUD).

Students will receive NFTs for learning — managing and trading their earnings via our DeFi partner platform (and ultimately our own). Via this decentralized NFTfi marketplace, students will one able to swap, stake, and trade.

A portion of tokens minted during the IDO is partially used to fund the acquisition of initial students. These tokens are part of the 20% set aside for student and contributor disbursements. Students receive rewards for reaching certain milestones:

- Watching video content.
- Achieving positive marks on exams.
- Finishing a lesson.
- Beating a personal record.
- Beating a community record.
- Referring friends.
- Following projects.
- Submitting project suggestions.

Rewards fall under three payout categories:

1. Instant payment. Rewards are given for watching videos, following projects, submitting projects, and beating a community record, with the latter having the highest reward.

2. Scaled payment. Payments increase for finishing each lesson as the student progresses through the course. Similarly, positive marks on exams above 85% will reward the student with a higher number of STUD tokens.

3. Retroactive payment. Studyum pays a 1% bonus of all tokens a referrer earns once the friend starts taking lessons.

Each class has a reward pool funded mostly through a system of NFT minting with knowledge. The pool is used to reward the best students for their efforts, including best grades, improvement, and consistency in signing up for classes with rare NFT collectibles.

4.3 Rewards for Voting

Early users are incentivized to hold tokens, due to higher voting weight, on the governance of Studyum. Users can vote on decisions regarding token usage, future platform functions, and the future shape of the application.
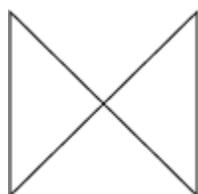
5. Technical Implementation and Tokenomics
5.1. Our Dual-Token Model

Studyum is launching an initial DEX offering for STUD tokens on the ERC-20 network, with a model that encourages people to continually invest in their education and continue to grow academically throughout their lives. The purpose of utilizing decentralized ledger technology and a requisite utility token (besides security and data storage) is the immutable proof of accomplishment of courses and earning certificates in the context of providing proof of qualified education to third parties such as employers and institutions.
The Studyum platform utilizes two separate blockchains to maximize efficiency and security.

The Financial Blockchain is a smart contract token built on the ERC-20 network. The STUD tokens created on this platform will represent all financial transactions from the project.The Information Blockchain will be a semi-custom distributed ledger designed to integrate with the AI machine learning capabilities of the platform and tie into learner accounts to facilitate a personalized experience for each user, timestamp achievements, and maintain accurate records.

The following elements of the Studyum infrastructure and tokenomic design will now be explained:

- Token Supply and Valuation.

- KYC/AI Matching.

- Functionalities.

- Weighted Actuarial Disbursement Model.

- Visual Model.

5.2. Token Supply and Valuation

The Studyum team has calculated an anticipated soft cap of $3 million and a hard cap of $36 million. As such, the total STUD token supply is 1 billion, to encourage long-term sustainable growth and user engagement with the content on the Studyum platform. The initial price of each token will be $.025, with five rounds of funding. The token distribution breakdown:

- 55%: Sold during Presale & IDO and used for Airdrops and Bounties (an unsold and undistributed portion goes primarily into cold storage and/or burned).

- 20%: For student and educator disbursements (the portion unused during the IDO to recruit educators will stay in cold storage until needed).

- 15%: For Team (a portion of this goes into the Operations Wallet and a portion goes into cold storage to be disbursed over time).

- 10%: Earmarked for sale on exchanges over time to fund the project. (after the project is self-sustaining, these funds can be used at the team's discretion).

A percentage of the unsold tokens will be burned, with the remainder going into cold storage for future sales. This will help maintain a stabilized and fair valuation for STUD tokens while ensuring that Studyum can continue to deliver world-class content.

5.3 Case Study

Ubex is a global decentralized advertising exchange. Ubex's goal was to fundraise $9.8 million (equal to 24,000 ETH) through its ICO sale. Ubex had no presale, had a token supply of four trillion, and 72% token availability.

Ubex's marketing strategy included elements such as being featured on third-party ICO platforms that include ICO listings. Ubex also attended blockchain events and seminars, attended by crypto influencers. Ubex keeps its community informed through its Telegram Group, which has 100k members.

Ubex's successful ICO fundraising was backed by a traffic increase from 174 in March 2018 to 820k in June 2018.

5.4 KYC/AI Matching

STUD tokens have dollar valuations and are purchasable using Ethereum or fiat currencies. The process for purchasing STUD tokens will include an intuitive KYC for each customer that will, in turn, create the 'AI-Profile' of each respective user. During the KYC process, in addition to standard measures of security (proof-of-person, etc.), the individual will also take several small tests to determine their basic learning profile. The data of an individual will be stored in their respective wallet, and will not be accessible to other users or the Studyum developers/team.

The AI-Profile will actively suggest classes for a user based on the chances of their success, actively calculated by previous performance and lesson style. Eventually, an individual's AI-Profile should create ideal learning environments for an individual's needs and desired outcomes.

If desired, users can subscribe to a monthly service that increases AI functionalities and personalization. To comply with GDPR, users will have the ability to delete their profile if they choose to leave the platform.

5.5 Immediate Functionalities

It will take time for the Studyum platform to attract enough end-users and content creators to become a truly self-sustaining educational ecosystem. Only limited features and strong incentives for content creation and user engagement will be immediately available upon completion of the IDO. The core features of the first generation of the platform will be:

1. Licensing courses for coaches.
2. Training programs for coaches and parents.
3. Training programs for students.
4. Group and individual learning.
5. Homework section.
6. A lesson-by-lesson curriculum and course roadmaps.

7. Creation of user blocks, so that AI can be used to help provide personalized programming. The user does not have access to this information, as it is stored privately on the blockchain. After the core program is completed, Studyum will start to include in-depth learning levels.

5.6 Future Functionalities and Staking

A portion of the unsold tokens from the IDO pool will be frozen to provide funding for the future possibility of any STUD token holder to create content. This will work similarly to many token-curated registries in that an individual stakes a certain amount of STUD to be able to teach a lesson. If anyone believes that the class holds no purpose or that the teacher is not qualified, they can challenge the proposition of the potential teacher.

The greater Studyum community can then ensure the quality of proposed classes by either challenging the proposal, or credibility of a class being offered. If an individual successfully challenges a proposed class (meaning that the potential teacher was deemed an unworthy candidate), then the person who issued the challenge has a right to the funds staked by the original candidate. The process looks like this:

- MIN_DEPOSIT. The number of tokens a candidate must lock as a deposit for their application, and the duration of their listing thereafter.

- APPLY_STAGE_LEN. The duration, in blocks or epoch time, during which an application can be challenged. If this period passes with no challenge being issued, the candidate's course is listed on Studyum.

- COMMIT_PERIOD_LEN. The duration, in blocks or epoch time, during which token holders can commit votes for a particular challenge.

- REVEAL_PERIOD_LEN. The duration, in blocks or epoch time, during which token holders can reveal committed votes for a particular challenge.

- DISPENSATION_PCT. The percentage of the forfeited deposit in a challenge, which is awarded to the winning party as a special dispensation compensating them for their capital risk.

- VOTE_QUORUM. The percentage of tokens out of the total tokens revealed in favor of admitting/keeping a challenged candidate necessary for that candidate to obtain/retain listed status. The VOTE_QUORUM does not count non-voting tokens, and unrevealed tokens are considered non-voting. By way of example, a VOTE_QUORUM of 50 means all challenges are simple majority votes.

While this is a future functionality of the Studyum platform, it is an important one. Eventually, the content that the AI-Profile suggests that a user engages with what will be necessarily the best-of-the-best, or it won't make it past the curated-list-registration process of proposing a new class. The exact fixed costs of a user staking a proposal for teaching will be determined by the earliest users of the Studyum platform, during several rounds of platform-functionality decentralized voting processes. The curated token registry applications of our platform will ensure that only quality content is distributed to the Studyum greater community. Using a modified version of a Cobb-Douglas utility function ensures that as long as there is quality content provided and curated on the Studyum blockchain, then there will always be some form of positive net utility derived from the underlying decentralized ledger.

$$ U(x_t, z_t) = (1 + E[x_t])^\alpha \cdot E[z_t]^\beta $$

Where E[x] is the expected demand and E[z] is the expected number of experts (content creators) in the system. Note that even when there is zero demand but a non-zero number of experts (E[x]=0; E[z]>0), the customer still receives a non-zero utility from the service.

Conversely, when the service is very popular and has high demand but zero expert knowledge (E[x]>0; E[z]=0), the utility from the service is zero despite its popularity. Because Studyum is committed to providing the world's best quality content for its students, and the way that curated token registries encourage vigilant policing that only the best content is allowed on the platform, there should *always* be some utility derived from Studyum's architecture and intrinsic design.

The number of tokens a candidate must lock as a deposit for their application, and for the duration of their listing thereafter, will be determined according to feedback from our system.

## 5.7. Weighted Actuarial Disbursement Model

The Studyum platform will utilize a weighted actuarial disbursement token structure for stabilized token value and fiscal responsibility within the project. The problem with most purely deflationary utility tokens, such as Ethereum or Bitcoin, is that they encourage an arms race mentality and greatly increase barriers to entry. It is for this reason that Studyum has created a system that encourages long-term sustainable growth and token distribution while also ensuring that students are actively using their tokens to either take lessons or sell them to new users that wish to take lessons.

In this way, only users that intend to use their tokens to learn more and study more will be encouraged to hold them, whereas those that aim to use the Studyum platform to make quick profits will be encouraged to sell their unused tokens to new users. The way it works is this:

- All token holders will get rewards based on the weight of their wallet and the success of their progress on the platform. The sources of these incentives include income streams from advertisements, course licensing, teacher licensing, and subscriptions from users. These income streams, along with a percentage of tokens from the IDO pool, comprise Studyum's 'Reward Fund'.

- The Studyum team will also have a separate arm of Studyum, named *Studyum.tech*, that sells its AI-powered education solutions to private institutions or individuals. A portion of the profits from such sales, as well as some of the funds in the Reward Fund, will be distributed to all STUD token holders — proportional to how much weight their wallet represents. The weight of their wallet will be determined by the total amount of STUD stored as compared to the average amount of STUD stored per wallet, creating a relatively level playing field for receiving staking rewards from the funds.

1. Quarter-ending holdings:
   - Cold storage token count.
   - Allocation fund token count.
   - Operations account total amount.
2. Quarter-ending total operations account expenditures:

   - # of tokens purchased at market price.
   - # of tokens distributed as student bonuses.
   - # of tokens distributed to educators.
   - # of tokens distributed to team members.
   - # of tokens sold on to exchanges to fund the project.
3. Complete token history:
   - # of tokens EVER sold to end-users.
   - # of tokens EVER distributed as student bonuses.
   - # of tokens EVER distributed to educators.
   - # of tokens EVER distributed to team members.
   - # of tokens EVER sold by Studyum on exchanges to fund the project.
4. The number of tokens in circulation.
5. Average token exchange price for the quarter ending.
6. Quarter-ending market cap (Line 4 x Line 5).
7. Quarter beginning cold storage draw.

The more STUD tokens an individual possesses, the more rights they have to the rewards from the financial statement. The total circulating supply of tokens will remain proportional to the actual need created by the number of students and content creators actively engaging with the system. Thus the Studyum ecosystem can continue to grow as long as both students and content creators are genuinely engaging with the system, producing new content, or taking more lessons.
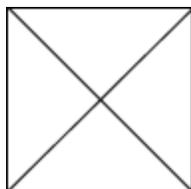
6. Crowd Sale Goal and Token Allocation

Our soft cap is $3M with a $36M hard cap. Our goal is to reach the soft cap during the private sale process. Studyum needs to reach this goal to provide elemental functionality on the platform as we continue to raise money. As Studyum reaches certain fundraising milestones, Studyum will be able to add the more advanced features of the learning system. These stages are discussed further in our roadmap. Studyum hopes to alleviate some of the uncertainty around our future by establishing conditional goals. In this way, Studyum remains realistic and flexible.

To purchase tokens, you should complete our quick and simple form. We will confirm your acceptance by email and provide our wallet details for you to buy tokens. When we receive your funds, we will tell you when you can sell your tokens and the dates of our listing and initial DEX offering.

The following table is subject to change, pending market conditions, 55% of all 1,000,000,000 STUD tokens are allocated for purchase as follows:

To register for the sale, please click on the options you would like to participate in and follow the registration and KYC flows below. The allocation will be as follows:

	Private sale	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**	**IDO**	**Uniswap**
Pre-sale Dates	April 21-May 5, 2021	May 6-10, 2021	May 11-15, 2021	May 16-20, 2021	May 21-25, 2021	May 26-30, 2021	May 31, 2021	June 6- June 23, 2021
Purchase Limits/Lock up*		$100/1K (3 months)	$100/1K (3 months)	$100/1K (3 months)	$100/1K (3 months)	$100/1K (3 months)		
	$500K/2.5 M (24 months)		$1K/10K (6 months) 10K/100K (9 months) 100K/1M (12 months) 1Mln+ (24 months)	$1K/10K (6 months) 10K/100K (9 months) 100K/1M (12 months) 1Mln+ (24 months)	$1K/10K (6 months) 10K/100K (9 months) 100K/1M (12 months) 1Mln+ (24 months)	$1K/10K (6 months) 10K/100K (9 months) 100K/1M (12 months) 1Mln+ (24 months)		
% of Total Supply	8.0%*	5.0%*	6.0%*	5.0%*	5.0%*	5.0%*	5.00%	16%
Num of Tokens	80M	50M	50M	60M	50M	50M	50M	160M
Price per Token	$0.025	$0.03	$0.04	$0.05	$0.06	$0.07	$0.10	$0.10
*Each Release date is calculated from the end date of the selected option								
**All unsold tokens from Pre-Sale are transferred to Public Sale								

6.1. Ensuring Quality Content and Paying Creators

Our success or failure will ultimately be determined by the quality of our content. Studyum will have well-known innovators and creators teaching on our platform. To drive demand, the first thing Studyum needs is content. This is why our first content creators will be from the sports world because Studyum knows them best, and they will want to be a part of it from the beginning.

Others will need to be incentivized to create content for the platform. Studyum is using a mix of fiat and STUD tokens, which provides immediate value through fiat AND an incentive to see their STUD token value appreciate over time.

Ten percent (10%) of tokens minted during the IDO will be partially used to fund the acquisition of initial contributors (those that are not willing to simply create content for us for free). The distribution will occur over three years. Just as with the team member pool, Studyum has created rules regarding the number of tokens allowed to be distributed to each content creator, and how many tokens they are allowed to sell in a given time to avoid unfavorable market moves or dumping on the market. These rules will be as follows:

- For every three projects created, a content creator gets 30% of their tokens released.
- They cannot sell more than 30% of their released tokens per year.

A project is only counted as "completed" when it passes the quality assurance moderators and has a total engagement time of at least 20 hours from the community. If, after the three years during which the content creator receives distributed tokens, the pool runs out, their token rewards will be funded through the decentralized subscription pool via smart contract.

6.2. Distribution for Team Members

The team members will own a 15% stake of Studyum tokens, and must also abide by specific guidelines. Each team member and advisor will sign a conduct policy before receiving tokens, and not all tokens will be immediately distributed. The first 10% will be disbursed upon IDO completion, with the remaining 90% frozen and distributed quarterly over the remaining three years.

To minimize the market influence of team members' holdings, they are not allowed to sell more than 25% of their coins per year within the first three years. This also minimizes risk to investors, who are often worried about the impact of company-held tokens on market value.

The schedule for distribution is as follows:

- Payout #1 on IDO Completion 10.00%
- Payout #2 frozen 6 months   10.00%
- Payout #3 frozen 12 months   10.00%
- Payout #4 frozen 18 months   10.00%
- Payout #5 frozen 21 months   10.00%
- Payout #6 frozen 24 months   10.00%
- Payout #7 frozen 27 months   10.00%
- Payout #8 frozen 30 months   10.00%
- Payout #9 frozen 33 months   10.00%
- Payout #10 frozen 36 months   10.00%.

6.3. Use of IDO Funds

Our crowd sale is necessary to fund the vast amount of high-quality content and advanced
technological integration Studyum wants to include on our platform. As such, funds from the crowd sale will be used as follows:

- 40%   Operations, development, and technology.
- 25%   Sales and marketing.
- 15%   Team member pay and bonuses.
- 10%   Legal and technological consultants.
- 10%   Educator and licensing acquisition.
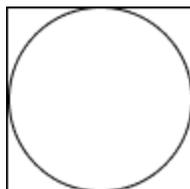
7. IDO, Roadmap, And Future Goals

The IDO is just the beginning. Of course, Studyum needs the capital to fund developments, as our vision is ambitious. Studyum is well aware that the future of education is happening all around us, and Studyum is committed to playing an important role, if not the *central* role. As this is the first version of our White Paper, the roadmap below shows our goals leading up to and after the IDO.

2018/2019
Launch and research

2018 Q3
Studyum launch

2018 Q4
Tech research, market research, and ecosystem architecture

2019 Q1
New website launch//white paper

2019 Q2
Proof of knowledge consensus mechanism concept development

2019 Q3
Extensive blockchain, AI, and 3D model motion capture research

2020

Funding and fundamentals

2020 Q1
3D model motion capture avatar production

2020 Q2
First celebrity coach signed

2020 Q3
NFT collectibles and DeFi (NFTfi concept development)

2020 Q4
Seed fundraising campaign

2021
Launch and growth

2021 Q1
Smart contract launch
MVP platform release (G1 App 1st edition)
PR campaign launch
Private token sale

2021 Q2
IDO on Polkastarter
Listing on Uniswap and PancakeSwap

2021 Q3
Platform optimization
Post-feedback
Chainlink VRF Integration

2021 Q4
G1 app 2nd edition release

2022

Advanced technologies releases

2022 Q2
G2 app release (our showcase of 3D celebrity content and informational architecture)

2023
LMS kids platform release

2023 Q1
Learning Experience Platform release (our main product which generates high revenues without content creation.)

2023 Q4
Studyum Kids release

7.1. Reasons to Buy Studyum Tokens

Generally, investors buy tokens because they expect to sell their tokens for a much higher price than originally paid. This is not 2017. Many cryptocurrencies have decreased in value by 95% or more since their bull market peaks.

Market behavior tells us that this will not be the case forever for strong projects. The growth potential for the blockchain sector is still astronomical, and if Studyum is to capture even a small percentage of the $2 trillion higher education market, let's say even 0.5%, that would bring our market cap to $10 billion.

On the e-learning side of things (a market valued at $200 billion), if Studyum captured even 1% of this market, the market cap would be $2 billion. While this is one advantage for investors, they will also have a say in how the ecosystem grows from its inception.

Holders of the tokens can vote on which projects should be created first, as well as which features to add. Studyum will also be expanding platform capabilities and content, which will increase the use of Studyum tokens. Additionally, a portion of our net profits will be donated to non-profit organizations focused on helping children in need.

7.2. Team and IDO Advisors

Igor Dyachenko, Founder/CEO
Igor Dyachenko is an innovative celebrity coach and entrepreneur in the sports education industry. He specializes in neuroscience, sports physiology, and psychology.

Aleksandar Gajic, COO
Aleksandar is a project manager with over eight years on special projects in the Blockchain industry. His skill-set includes skilled management, strategic planning, marketing strategy.

Dejan Radic, CTO
With a Master's in software engineering and informatics, Dejan's been a software engineer for over 7 years. He's implemented business applications for various international organizations by utilizing novel technologies and, of course, blockchain.

Martin O'Toole, CMO
Martin is a former Englishman-turned-mindful global citizen and remote worker. He's a brand and marketing strategist, with over 25 years co-running and co-founding several UK-based integrated creative agencies.

Deepak Sudera, Chief Investor Relations Officer
For over 20 years, Deepak has been raising capital across all major markets; engaging and advising in a significant number of cross-border transactions.

Neeraj Kapoor, Board of Advisor (APAC Region)
Neeraj is the business transformation catalyst and marketing mind behind Studyum's Asia Pacific initiatives. He's worked with half a dozen $1bn brands.

Marina Nikitina, Mobile App Promotion Manager

Marina ensures the constant quality of digital traffic, delivering campaigns in line with defined marketing strategy metrics.

Jordan Fiksenbaum, Strategic Partnerships

Jordan's a former VP of Marketing at Cirque du Soleil. His expertise is in managing and growing complex, and creative live entertainment content businesses.

Dima Grytsenko, Fundraising & Corporate Development

Dima's a seasoned sales executive, possessing corporate skills and experience to develop and nurture c-level business relationships in competitive software and IT markets.

Vlad Danilchenko, Full-stack Developer

Vlad's an internationally award-winning developer of websites and mobile applications.

Roman Cheller, Chief SEO Ninja

Roman's a content strategy and holistic whitehat optimization specialist, delivering engagement strategies to improve a site's visibility and performance.

Hugo Jacques, Funding & Project Mentor

Hugo is an entrepreneur with 20 years of experience in consulting and startup advisory (edtech, deeptech, blockchain). He's a crypto Investor and investment analyst.

Julien Machot, MSc, MA, Advisor

Julien is a partner at Verso Capital, a dedicated independent UHNW Advisor, former Swiss Private Banker. He works exclusively with international UHNW and Institutional clients.

Manfred Jehle, Fundraising & Government Relations Advisor

Manfred has more than 35 years in business and was a partner in three tech startups. In 2017, he published several articles on special XML-based blockchain technology.

Peter Malachi, Marketing & Communications Advisor

Peter has worked in global marketing communication since 1995, across multiple luxury & lifestyle business categories including fashion, hospitality, wine & spirits, cosmetics, and travel.

Fantasy, UI/UX Development Co-Founders
Fantasy is a world-famous digital experience agency designing digital ecosystems, platforms, and products since 1999. They are developing the G2 app and LMS and have invested $500K to cover UI/UX development during our pre-seed round.

Enjoy Digital, Digital Marketing Agency
 is one of the fastest-growing independent digital marketing agencies in the UK. Working directly with our CMO, this award-winning agency will execute our inclusive acquisition-service marketing strategy.

7.3. IDO Risk Factors

Investors should always be aware that purchasing Studyum tokens does not equate to holding a stake in the company itself, and that profits are not guaranteed. One of the major reasons to hold any kind of cryptocurrency is to take part in that currency's ecosystem. A successful exit is not guaranteed through an IPO or trade sale either.

Studyum is running our IDO on the ERC-20 network and hopes to secure a few options as payment gateways. As per U.S. regulations, United States citizens are not allowed to participate in the Pre-sale or IDO, pending changes.

7.4. Future Potential Development

Studyum admits that these goals are very ambitious and that the future is uncertain. Nevertheless, Studyum is excited about the range of technologies it plans to implement on its platform and the massive potential for growth.

These technologies (AI, motion-sensing, VR) are ripe for use within the education field. If achieved, our vision is revolutionary in terms of virtual learning. We're also very excited about our plans to introduce our platform to the National Olympic Committees. The world of international sports has not been tackled yet by blockchain, and Studyum is looking forward to this particular frontier.

7.5. Conclusion

In this paper, Studyum has outlined our planned accomplishments while giving a detailed comparative market analysis and explanation of how Studyum tokens will be used. It is paramount that Studyum secures the first round of private funding so it can proceed to instill confidence in prospective investors after entering the IDO stage.

Confidence in this market is hard to come by – Studyum understands that the state of the cryptocurrency market is uncertain, but Studyum views the recent market correction as an opportunity for projects to make themselves known in the space. Studyum intends to have a firm foothold as regulations and adoption increase over the coming months and years.

With more market clarity, people will be investing in projects in which they see the potential. Studyum is not just a revolutionary platform, but a way to further our learning and build our confidence.

People tend to limit themselves with numerous technological distractions, but Studyum will help us harness technology and focus on self-improvement while also helping others. Imagine a world in which you can form healthy habits for learning about anything.