Empowering people through Education

www.tutellus.io

Lightpaper

ver 3.25
The Vision

Education, The Pending Asset

Education has hardly improved in the last thousand years, and most importantly: no educational model lets people earn money while they study. On the contrary, they have to invest in their own education hoping to earn that money back in the long term.

There are, as we see it, four main problems in education:

1. People cannot earn money studying, they have to spend more instead.
2. Students often lack motivation, so they often stop studying.
3. Teachers can’t earn money depending on the value of the students that they generate, and are not fairly retributed for their efforts.
4. There is a huge gap between employment and education, with millions of jobs unfilled.

Tutellus.io: A New Paradigm

Tutellus aims to break the status quo, introducing a new paradigm in the student-teacher relationship with the creation of a new decentralized system to strengthen the commitment of both students and teachers. Tutellus is the first educational platform that pays students for learning (proof of learning) and remunerates the teachers according to their impact in the success of their students (proof of teaching).

Tutellus.io solves the problems we have identified in a very simple way:

1. Students can earn money learning, without paying.
2. Students gain the motivation to help others to learn.
3. With the success of their students, teachers themselves get more value out of teaching.
4. Companies can hire employees with a highly efficient matching process.
1. Introduction

In 2016, the online education market was worth USD 165 billion. It is still, however, highly inefficient in addressing the need for education around the world.

While the job market produces one billion contracts every year, over 300 million recent graduates remain unemployed and in search of a job. In Europe alone, the imbalance between job supply and demand is expected to be around 80%, particularly affecting the technology sector. As a result there is a growing perception that educational institutions are out of touch with employers’ needs.

On the other hand, the developing countries are home to millions of unemployed people who are gaining access to the Internet through their mobile phones. They can now join education platforms. However these require an investment from the poorest that is rarely affordable.

A new approach is needed to address the key challenges that the market faces, that the current educational model has failed to solve.

The Token System

The token system will be used for more functionality overtime: as a currency for buying products and services, serving as a measure of relevance in any skill, setting a governance model for the platform, and interacting with other tokens.

TUT will be used as the platform's currency and to interact with other platforms and currencies.

Smart TUT or STUT, will not be directly tradable in fiat, and will be granted to reward users who contribute educational value to the platform and as a measure of the quality of their participation.

A user may earn STUT in multiple ways, all of them related to learning or helping other users to learn. The number of STUT tokens held by a user provides a measure of the relevance and the importance of this user for the platform. An additional reward system will grant additional benefits for holding high amounts of STUT tokens.
2. The Problems

2.1. Poverty and Lack of Job Opportunities

There are millions of trained workers in developing countries who lack job opportunities. They may end up with unstable and poorly paid jobs, or below the poverty line.

With the high use of mobile phones in some of these countries, close to the level seen in the USA or Europe, people now have access to the Internet, which, combined with Tutellus, can provide them a way out of poverty.

These people will be eager to earn money, learning new skills in the process.

![Image of people with smartphones and a world map]

2.2. Low Student Motivation

Learning demands effort and motivation.

All EdTech platforms currently suffer from low levels of conversion and user retention. When comparing user engagement—the frequency a service is used on average—to those of other social platforms (either business or leisure-focused, from social networks to messaging services), we can observe how different the user behavior is. While the main social platforms get a high monthly cohort engagement over 80%, educational platforms measure a dramatically lower engagement around 5-10% in the long term.

This issue is not particular to a single company nor even to a single business model, but rather a constant, implicit trait affecting the entire sector. Low engagement on any platform means fewer social relationships, and generally lower revenue per user. As a result, the sector as a whole requires a higher marketing spending in order to attract new users and be sustainable.

The main reason behind the low level of engagement is the lack of student motivation. Studying, whether online or offline, requires dedication, sacrifice even, and the investment of significant amounts of money, effort and time. Meanwhile, students may be skeptical about whether the courses meet their expectations, either because they are concerned about the quality of their training, or because it might not help them find a job.
2.3. Low Teacher Motivation

Teaching is far from easy. Most of us probably remember our best teachers and the effort they put into their work. *This effort, however, is hardly recognized.* Good teachers are often not better paid than the others, and are rarely acknowledged for the quality of their work. This leads to the demotivation of good teachers, leading all to provide lower-quality teaching, and leaves badly trained students with fewer job opportunities.

For teachers, there is almost no difference between the earnings of a good teacher and those of a bad teacher. *There are still no efficient mechanisms to gauge the effort and dedication of the best teachers.* This lowers teachers’ motivation, and directly impacts the quality of the education students receive.

An efficient education system should reward teachers according to the performance of their students, as measured by high grades, high engagement, or job placement.

2.4. Weak Link with the Job Market

Education is also facing the diminishing value of degrees and certifications, which were at the core of the education system until the beginning of the 21st century. The market value of degrees and certifications is lowering in a new system in which people are normally assessed not by their grades, but rather by their work experience, involvement in real projects, and personal job fit. As a result, the job market is dramatically changing in the way it values education overall.

At the same time, there is an immense need for properly trained workers in several sectors, particularly in IT, and employers struggle to find suitable candidates; education is still needed to fill the existing gap between supply and demand, and formal education as it stands now does not respond to the market’s needs.

This disconnect creates a vicious circle within which companies become more disengaged from the education sector, widening further the gap between education and the job market.

Clearly, new tools and systems are needed to train and identify the most appropriate candidate for a position.
3. The Solution

3.1. Tutellus.io Objectives

The main objective of Tutellus is to create a new educational model that answers to the challenges of the market: train and identify the most committed students, increase the involvement of the best teachers, and strongly tie an educational community - the student body and teacher faculty - to the job market.

**Pulling people out of Poverty by paying and matching them with Jobs**

*Imagine a platform that help people to leave poverty behind.* Tutellus plans to partially fund education for some of its students that are studying for available jobs.

**Adding value to the Students**

*Imagine a platform that rewards the best students for their participation.* The logic is simple: the better the training the student gets, the higher the value of the student for both the education community and companies (employers, job placement agencies, other service providers). This higher value of the student body stretches across the education platform to reach employers, and further into society as a whole.

**Adding value to the Teachers**

*Imagine a platform in which teachers are rewarded for the excellence of their students:* the more the students become relevant to the education platform and the job market, the more money their teachers will receive. Improving the students’ relevance will motivate the teachers, which in turn will significantly improve students’ motivation, the quality of the content, and the teachers’ commitment to their students.

**Adding value to Companies searching for Candidates**

*Imagine a platform where companies may find the perfect fit for a position or contract.* The platform will help students become more relevant to companies by creating a virtuous circle motivating the entire community of teachers and students. Students will be identified as job candidates by companies by their value in any specific learned skill.

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Building upon its large student base (over 1 million students) and teaching material (over 130,000 video courses), Tutellus will become the first decentralized EdTech platform, answering the challenges faced by the education sector by using blockchain technology. Blockchain will allow for the creation of digital assets (or tokens) that will be at the core of the new system of incentives for the Tutellus community.
3.2. The Token System

The model uses two different tokens: TUT and Smart TUT (aka STUT).

<table>
<thead>
<tr>
<th>What does it represent?</th>
<th>TUT</th>
<th>STUT</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to products and services</td>
<td>Relevance to the community</td>
<td>A course valued 30 € may be paid in TUT tokens, and has a relevance of 3,000 STUT</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Where can I get it?</th>
<th>TUT</th>
<th>STUT</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside or outside the platform</td>
<td>Inside the platform only</td>
<td>There are multiple ways to get TUT tokens. STUT can only be earned by studying</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>What can I use it for?</th>
<th>TUT</th>
<th>STUT</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactions, donation, governance</td>
<td>Show relevance, access to benefits, job matching</td>
<td>TUT tokens act as a currency inside the platform. STUT tokens show relevance and can give you additional income.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>What is the value of the token?</th>
<th>TUT</th>
<th>STUT</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>Fluctuates</td>
<td>1 € = 100 STUT</td>
<td>The price of the TUT depends on the laws of supply and demand. The price of the STUT is always 0,01 EUR</td>
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</tbody>
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4. The Market

According to Forbes, the online education market was worth over USD 165 billion in 2016, mostly in the English-speaking world (USA, the UK, and India). It is expected to keep growing, reaching over USD 240 billion in 2023 (source: Docebo)

The Tutellus target submarket was worth USD 33 billion in 2016, with over 90% located on North America, Asia and Europe. Latin America accounted for only 4% of the submarket, with an immense growing potential.

5. The Company

5.1. Figures and Traction

Tutellus is the biggest online educational collaborative platform in the Spanish-speaking world. We started in May 2013 and now we have a community of one million users from 160 countries, with over 130,000 video courses, positioning us as the leading platform in the market.

We have agreements with over 80 universities and business schools for the distribution of unique content, as well as four joint ventures for the issuance of university degrees with exclusive content.
Our base product is the video course: educational packages formed by videos and additional services that improve the learning experience. From this core element we offer products with added value and higher prices, such as subscription services or University degrees.

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<th>1,000,000</th>
<th>2,000,000+</th>
<th>1b+ min</th>
<th>$10M</th>
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<tr>
<td>STUDENTS</td>
<td>TRANSACTIONS</td>
<td>LEARNING</td>
<td>TRADES</td>
</tr>
<tr>
<td>120,000+</td>
<td>3,000</td>
<td>80+</td>
<td>160</td>
</tr>
<tr>
<td>VIDEOCOURSES</td>
<td>TEACHERS</td>
<td>EDUCATIONAL INSTITUTIONS</td>
<td>COUNTRIES</td>
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The company has so far invested 1.5 million USD to date in developing the platform, defining the target market and the value proposal.

5.2. Team

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<thead>
<tr>
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<tr>
<td>MIGUEL CABALLERO</td>
<td>JAVIER ORTIZ</td>
<td>CARLOS LÓPEZ</td>
<td></td>
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<tr>
<td>CEO</td>
<td>CTO</td>
<td>Engineer</td>
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<tr>
<td>JAVIER CALVO</td>
<td>KAROLINA SZYMANCZAK</td>
<td>JAIME ZAPATA</td>
<td></td>
</tr>
<tr>
<td>Data Scientist</td>
<td>Designer</td>
<td>Operations</td>
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<td>NACHO HONTORIA</td>
<td>COVADONGA FERNÁNDEZ</td>
<td>ALEX GINÉS</td>
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<tr>
<td>Marketing Manager</td>
<td>Media Relations</td>
<td>PR &amp; Community</td>
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</table>
5.3. Advisors

Eddy Travia
CEO CoinLium and early investor in RSK, CoinDash, Indorse and others

Miguel Solana
Blockchain and VC advisor, ex-head of new business, Santander China, World Bank, Stanford University

Oleg Poskotin
Cryptonome CEO, previously founder of Viariv and Enkrypt, Xsolla VP

Yacine Terai
Startup Token CEO, Blockchain VC and crypto Business Developer, ESM-A & HEC Paris

Rene Lauk
CEO Oblity and legal counsellor for Estonian Government, Tallinn University Degree with honors

Daniel Diez
Global Head of Blockchain UST Global, ESIC professor, co-author of “The Blockchain book”
5.4. Partnerships

Tutellus works closely with educational and blockchain related institutions such as:

**NEM Foundation**
The NEM Blockchain is one of the top Blockchain in the crypto world, with an excellent match with the Tutellus platform through its layered infrastructure and APIs.

**Coinsilium**
One of the references in the Blockchain ecosystem. Investors on RSK, Coindorse, and Coindash, Coinsilium is a London listed company with a strong presence in Asia.

**Cryptonomos**
The most relevant platform for ICO retail, Cryptonomos has managed some of the most exciting ICOs in the world, raising more than 200 million USD for them.

**Avolta Partners**
One of the main european firms in VC, M&A and crypto fund. Based in Paris, the company has raised with + 200 million € for their startups.

**StartupToken**
A global company focused on promoting and boosting a few startups through Asian markets, giving them visibility in local ecosystems.

**Oblicity**
Oblicity is a leading corporate and internet law firm in Estonia, which offers the most advanced token sale framework in the European Union. Oblicity has been involved in +10 ICOs, raising USD10 - USD 75 million in each one.

**Donnelley**
Donnelley Language Solutions is a Donnelley company (a centenary company with +1bn Revenue), based in NYC and with the goal to provide global solutions worldwide.

**Indorse**
A professional network with emphasis on skills validation, and works with Tutellus improving the students experience through real accreditations.
6. Technology

Tutellus will use a four-layer architecture, as follows:

- **Multi-platform Application**: providing services both to apps (Android, iOS, web apps, etc.) and decentralized services. Fully developed and already in production.
- **Microservices API**: Open-source API providing methods and functions to the services. Partly in production (Affiliates API).
- **Token**: Fully tradable token, TUT, built on the NEM blockchain.
- **Blockchain**: Database where we will store the relevance of the users and any deployed smart contracts.
7. Roadmap

Operating without interruption since 2013, now is the time for Tutellus to make a quantum leap, migrating most of its infrastructure, applications and services from the current stack (microservices built around an API against a MongoDB database) to the blockchain. It will be a transparent process to the user, with all services functioning as before.

To date, the most important landmarks of the company concerning the platform have been:

- **April 2013** The platform is launched with 2000 video courses
- **January 2014** 10,000 video courses and 100,000 users
- **December 2014** Joint ventures with universities to create exclusive degrees
- **May 2015** New platform: API-based with microservices
- **October 2015** Over 50,000 video courses and 400,000 users
- **November 2015** Tuitermachine and other self-produced growth products
- **May 2016** Public API for affiliates
- **September 2016** Apps published in Apple and Google stores
- **February 2017** Collaboration with MIT on a deep learning project
- **September 2017** Over 130,000 video courses and 900,000 users. Move to blockchain.

There will be three large groups of services to be put into production during the following months:

- Services for users;
- Services for companies and third-parties;
- Services for other players through APIs.

7.1. Services for Users

- Wallet interoperability and management
- Implementation of internal operations with TUT and STUT cryptocurrencies
- Tokenization of the entire range of products (courses, subscription services, etc.)

The model will start working as soon as the users are able to gain relevance (STUT), and for that to happen, the platform needs to reward with tokens certain actions on the platform. It is therefore a first priority to tokenize the activities that grant STUT tokens to the students, detailed in section 3.3, all of them related with the learning process of the student. These activities are expected to be fully implemented within Q1 of 2018.
7.2. Services with Companies and Third-Parties

- Setting of parameters for access management, based on relevance
- Design of target entities (employers, organizations, companies, teachers)
- Creation of associated products (leads, big data, promotion, advertising, marketing, etc.)
- Implementation of smart contracts between all parties involved

7.3. Services with Other Players through API

- API publishing by microservices
- Token multifunctionality
- Tokenomics optimization applying deep learning techniques

Looking at this process chronologically: