

WHITEPAPER



LOGISTICSS

“Protocol enabling AI-powered
decentralized network of marketplaces
and learning communities”

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The Company has been separately organized by the founders and principals of Experfy, Inc. (“Experfy”), in order to undertake the mission and vision of the Logisticss Ecosystem. The Company is not a subsidiary nor owned by Experfy. Accordingly, it has been separately organized as a Cayman Islands Exempted Company and was incorporated in January 2018. All operations regarding Logisticss Ecosystem shall be conducted by and through the Company, including the actual launch of the proposed ICO, the operation, maintenance, and continued development of the underlying technology. As a result, purchasers of the Logisticss will not actually have any ownership nor equity stake in Experfy, as it is a separate company.

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This White Paper contains statements that constitute “forward-looking statements”, including but not limited to the financial performance and statements relating to the anticipated financial performance of the entities that are or will be undertaking the business and financing strategies further described in this White Paper and/or any of such entities’ subsidiaries or affiliates (collectively, the “Company”), which such business and financing strategies being generally described as: a crypto currency, blockchain, and ed-tech and distributed training, education, and collaboration solution (the “Ed-Tech Solution”); and (ii) the offering of certain crypto currencies in order to finance the foregoing Ed-Tech Solution and provide a dedicated crypto currency “token” dubbed “Logisticss” to facilitate consumer payment of the services offered by and through such Ed-Tech Solution (the “ICO”). While these forward-looking statements represent the Company’s judgments and expectations concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ

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Certain statements in this White Paper constitute forward-looking statements. When used in this White Paper, the words "may," "will," "should," "project," "anticipate," "believe," "estimate," "intend," "expect," "continue," and similar expressions or the negatives thereof are generally intended to identify forward-looking statements. Such forward-looking statements, including the intended actions and performance objectives of the Company, involve known and unknown risks, uncertainties, and other important factors that could cause the actual results, performance, or achievements of the Company in its development of the Logistics Ecosystem to differ materially from any future results, performance, or achievements expressed or implied by such forward-looking statements. No representation or warranty is made as to future performance or such forward-looking statements. All forward-looking statements in this White Paper speak only as of the date hereof. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statement contained herein to reflect any change in its expectation with regard thereto or any change in events, conditions, or circumstances on which any such statement is based. Prospective purchasers of the Logistics Token are not to construe this White Paper as investment, legal, tax, regulatory, financial, accounting or other advice, and this White Paper is not intended to provide the sole basis for any evaluation of an investment in an interest. Prior to acquiring an interest, a prospective investor should consult with its own legal, investment, tax, accounting, and other advisors to determine the potential benefits, burdens, and other consequences of such investment.

Abstract

Harvard-incubated Experfy, Inc runs an AI-focused community of 30,000 data scientists to help Fortune 500s mentor and upskill their employees and also hire expert freelancers on-demand. Witnessing growth in demand for its platform, Experfy seeks to exponentially expand the impact of its business vision. However, rather than add new specializations to its existing platform, Experfy plans on decentralizing its technology by and through Logisticss, Inc with the goal of allowing anyone to launch a new community with its own marketplace instantly. These new proposed operationalized communities are called “Republics” and are intended to exist within an ecosystem of decentralized marketplaces that are powered by AI and blockchain.

Each Republic is intended to be formed with a charter to advance learning and create jobs relevant to the digital economy. For instance, there can be a “Republic of Smart Manufacturing,” “Republic of Nanotechnology,” “Republic of Blockchain in Finance,” “Republic of Augmented Reality,” “Republic of Cloud Computing,” etc.

We anticipate that the Ethereum blockchain will provide the backbone for the governance of Republics, while they are operationalized using smart contracts, open protocols, APIs, front-end libraries, learning content, and subject matter experts.

We also anticipate that matter experts will seek “citizenship” in each Republic to create learning experiences, source jobs, and/or provide services. Once an expert has established a profile of work experiences and learning accomplishments, he or she may also contribute to other Republics. For instance, an expert who has created an interactive game or a course for the “Republic of AI in Cardiology” may want to pursue a freelancing project in the “Republic of Healthcare Professionals.” Moreover, we intend to implement functionality that enables the content or expert profile to be replicated from one Republic to another also replicates existing user ratings and reviews in order to create a high level of transparency, data portability and mobility.

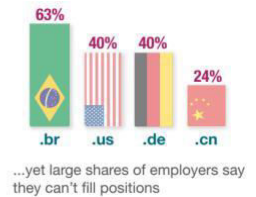
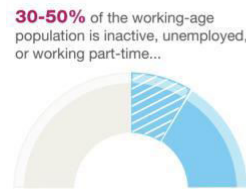
We anticipate that with ready-made front-ends and open source frameworks that are extensible with the aid of ancillary modules, each Republic can be formed quickly and can create a virtual economy with the potential to make a material impact on the phenomenal world.

Our proposed Logisticss Ecosystem—which would encompass all Republics that will be launched—derives its name from our proposed “multi-utility” token, the “Logisticss”. We intend such cryptocurrency token to be an ERC-20 token, which would enable it to be used by apps, platforms, marketplaces and programs across all Republics to reward contributors, developers and participants. The “cross-border” commerce within virtual Republics and with institutions that are outside the Logisticss Ecosystem would help bring Logisticss into

Problem Statement

Three related problems are showing cracks in the traditional education-to-employment system.

High-levels of unemployment and underemployment: According to McKinsey, in countries around the world, 30 to 45 percent of the working-age population is unemployed, inactive in the workforce, or working only part-time. In the United States, the United Kingdom, Germany, Japan, India, Brazil, and China, this amounts to 850 million people.¹



Shortage of people with critical job skills: Paradoxically, there is a growing scarcity of critical skills at the same time. In a survey conducted across nine countries, only 43 percent of employers agreed that they could find enough skilled entry-level workers. This problem is only getting worse. By 2020 there will be a global shortfall of 85 million high- and middle-skilled workers.²

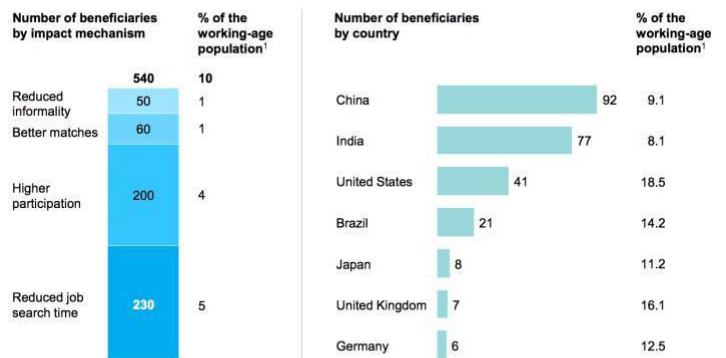
Changing nature of work requires continuous upskilling: With advancements in technologies like AI, entire occupations and industries are being transformed at an alarming pace, and the skills needed to keep up in almost any job are churning at a faster rate. Average human knowledge is doubling every 13 months, and IBM predicts that in the next couple of years, the volume of information will double every 11 hours.

Online talent platforms serve as clearinghouses that can inject new momentum into job markets. By 2025, they could add \$2.7 trillion, or 2.0 percent, to global GDP and increase employment by 72 million full-time-equivalent positions.¹

Clearly, there is a disconnect between school curricula, the critical skills demanded by employers and the manner in which people perform work. There is a need to bring together education in its various forms (courses, assessments and mentorship) with hands-on work opportunities (internships, gigs and jobs) using a talent platform. Experfy has been addressing this problem through a platform that brings together both learning experiences and work opportunities with a focus on emerging technologies. We now seek to take this idea and apply it to other disciplines and areas of expertise to scale our efforts.

By 2025, online talent platforms could benefit some 540 million people, or 10 percent of the working-age population

Million people, 2025



The total number of people who could potentially benefit far exceeds the 72 million full-time equivalent jobs created. The 540 million figure includes people who will experience faster job searches, people who are already employed but find better jobs, people who add hours on freelance platforms, and people who move into the formal sector.

¹ Ages 15-64.
NOTE: Numbers may not sum due to rounding.

SOURCE: MGI Online Talent Platforms Model; McKinsey Global Institute analysis

Solution

Serving Fortune 500 clients with demonstrable success, Experfy is an on-demand AI consulting and training marketplace with 30,000 experts that first debuted on March 31, 2014. *TechCrunch* wrote in its headline: “Harvard-Backed Experfy Wants to Create a McKinsey in the Cloud for Big Data Talent”³ and the one from *Forbes*, “Harvard-Backed Startup Experfy Launches to Match Top Data Talent with Thousands in Freelance Cash,”⁴ both encapsulated the mission of the platform on the day of our launch. Roughly a year later, *Datanami* observed the platform’s dramatic growth with the headline, “Experfy: The Uber of Big Data Projects,”⁵ while *The Wall Street Journal* announced that the Experfy had raised \$1.5 million in seed funding in a round led by Peter Diamandis.⁶ Recently, in May 2017, recognizing Experfy’s both consulting and training offerings, Gartner named Experfy a “Cool Vendor in Data Science and Machine Learning.”⁷ Experfy’s clients include Macy’s, Deloitte, PwC, McKesson, Cigna, Tata, Gulf, Vistaprint, Keurig Green Mountain, The Food Group, UC Davis and Federal Reserve Bank of San Francisco, among others.

To foster an ecosystem that is open, decentralized and highly scalable, Experfy believes it must create a series of new products, services, and systems. However, building a decentralized system is a complex process, and the transition to it must be done in a responsible manner over time. We believe the Ecosystem will establish a new protocol that will allow individuals and organizations to create and launch new marketplaces for different areas of specialization.

Educators serious about preparing students to enter the workforce; employers scrambling to upskill their employees; and experts dissatisfied with 9-5 work regimes are all beginning to recognize the limitations of slow-moving centralized organizations. These organizations are operating on learning and employment models that were devised over a hundred years ago. The future of education and work is clear. Education will be skills-based—employers care little about degrees—while work will be increasingly distributed and performed by teams of specialized experts from around the globe.

Our vision is that anyone seeking to make an impact in a particular area of specialization should be able to leverage a mature technology stack and launch a decentralized platform to reinvent both education and work for that specialization. According to Harvard Business School professor Clayton Christensen, half of all American colleges are bound for bankruptcy in the next few decades. By launching a large number of learning platforms and integrating them with relevant work experiences, we hope to bring about a meaningful change in an industry facing disruption.

Republics

“In Skills We Trust”

It is our intention that each Republic will be highly specialized and is intended to consist of six pillars that become available as soon as the Republic is created:

Learning Marketplace: Listing of course offerings and interactive games promoting learning experiences within an area of expertise. All offerings are rated. AI-powered adaptive learning system to deliver courses, hands-on coding exercises and capstone projects.

Jobs Marketplace: Platform for employers to post and facilitate apprenticeships, internships, short-term contracts and full-time job requirements in the Republic’s area of specialization.

Mentorship Marketplace: Mentors for hire to help students and corporate employees on both technical and non-technical topics ranging from writing code to expert advice.

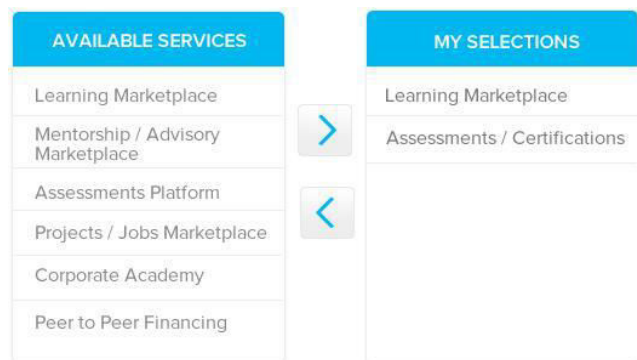
Assessment Platform: Assessments to identify skills gap for a job role or an area of expertise. Helps employers screen candidates during recruiting process. Assessments will also provide benchmarking against other users in the field, followed by micro-credentialing and certifications.

Corporate Academy: Team and group interface for companies to understand employee course engagement and completion rates. Companies can bulk purchase learning content or purchase subscriptions for their employees.

Financial Aid Marketplace: Peer-to-peer financial aid offered through a marketplace. A student may request tuition assistance and the lender pays directly to the course creator on the student’s behalf. Course creators may also serve as lenders in exchange for a premium on the course price.

The individual launching a new Republic will be able to choose which platform services launch first. Developers will be able to develop new apps and offer them in the Logisticss app store in order to expand the functionality of Republics.

What’s noteworthy is that Experfy has been using four of the six pillars with its customers and generating revenue in the process. These pillars represent cutting-edge products that have earned the trust of Fortune 500s. As these pillars are decentralized, we believe they are likely to make a real contribution to the Logisticss ecosystem with their rich feature-set.



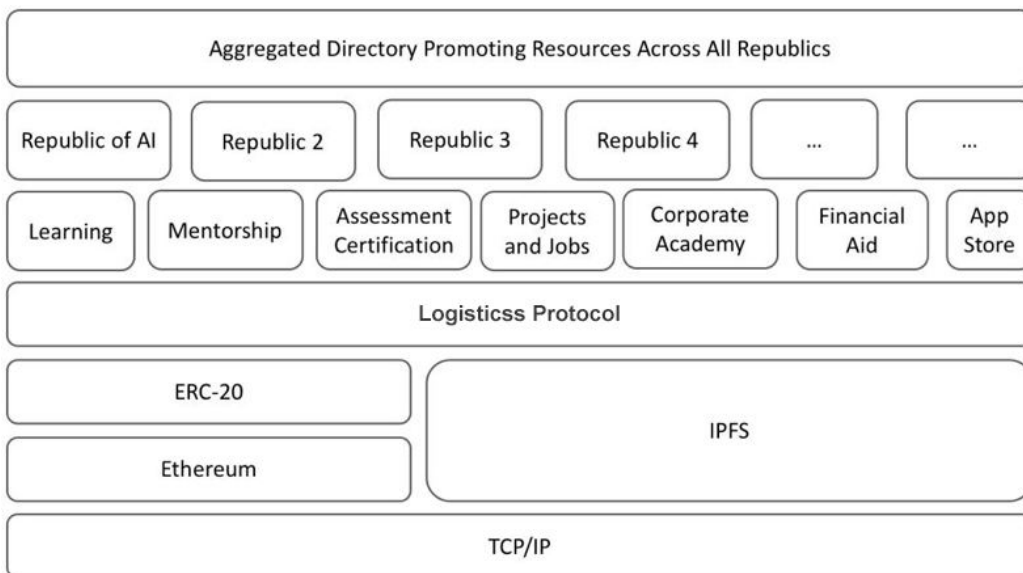
Engineering Architecture

Logisticss protocol's architecture represents an existing set of open-source libraries, frameworks and distributed systems, while pioneering new innovation in this field. To our knowledge, Logisticss is one of the first protocols to use Ruby on Rails, server-side web application framework written in Ruby under the MIT License. This would allow us to attract a large number of existing full-stack web developers to build on top of the Logisticss protocol with very little training.

Logisticss leverages the Ethereum blockchain to store important transactional data, Logisticss Trust Quotient and credentials that are discussed below in the sections describing each of the six Pillars. Sensitive data such as personal details and contact information are encrypted and made available only to the transacting parties when necessary. A proxy re-encryption will be used to provide delegated access using a secure and decentralized service like NuCypher that can be applied to big data lakes that use Hadoop and Spark, both of which are also open source technologies. Logisticss Republics are expected to be content-rich communities that are both producers and consumers of monetized content. To ensure both scalability and cost-effectiveness, all meta data, video resources, images and reviews will be hosted on InterPlanetary File System (IPFS) and cryptographically linked to their respective contracts.

Design Philosophy

Our design philosophy is predicated on an overarching goal of building a system that is trustless and distributed as much as possible with the current technology at our disposal. The use of distributed systems helps us avoid any single point of failure and censorship by authoritarian governments.



Logisticss Proposed Infrastructure

InterPlanetary File System (IPFS)

IPFS is a protocol and network designed to create a content-addressable, peer-to-peer method of storing and sharing hypermedia in a distributed file system. Using IPFS to store non-critical information, instead of storing it on the chain, is far more economical and scalable from a storage perspective. When a data object is created within a Pillar or a third-party DApp—for example, a course with corresponding videos; an assessment with questions and answers; or a project with price and details of its deliverables—it is stored on the IPFS. This data object is referenced using a unique IPFS content hash, which is then stored on the Ethereum blockchain.

```
$ ipfs init
initializing ipfs node at /Users/jbenet/.go-ipfs
generating 2048-bit RSA keypair...done
peer identity: Qmcpo2iLBikrdf1d6QU6vXuNb6P7hwrBNPW9kLAH8eG67z
to get started, enter:

ipfs cat /ipfs/QmYwAPJzv5CZsnA625s3Xf2nemtYgPpHdWEz79ojWnPbdG/readme
```

A cryptographic keypair that allows an IPFS node to cryptographically sign the content and messages.

When we add contents of a file to IPFS a hash is created as follows:

```
$ ipfs add mytextfile.txt
added QmZtmD2qt6fJot32nabSP3CUjicnypEBz7bHVDhPQt9aAy mytextfile.txt
```

QmZtmD2qt... is the content's cryptographic hash returned by IPFS. If the file's content changes, the hash will also change, but if the file's content remains the same, the hash will always be the same.

Now, if we change the contents of mytextfile.txt in this example, the hash pointing to it also changes:

```
$ echo "version 2 of my text" | ipfs add
added QmTudJSaoKxtbEnTddJ9vh8hbN84ZLVvD5pNpUaSbxwGoa QmTudJSaoKxtbEnTddJ9vh8hbN84ZLVvD5pN
```

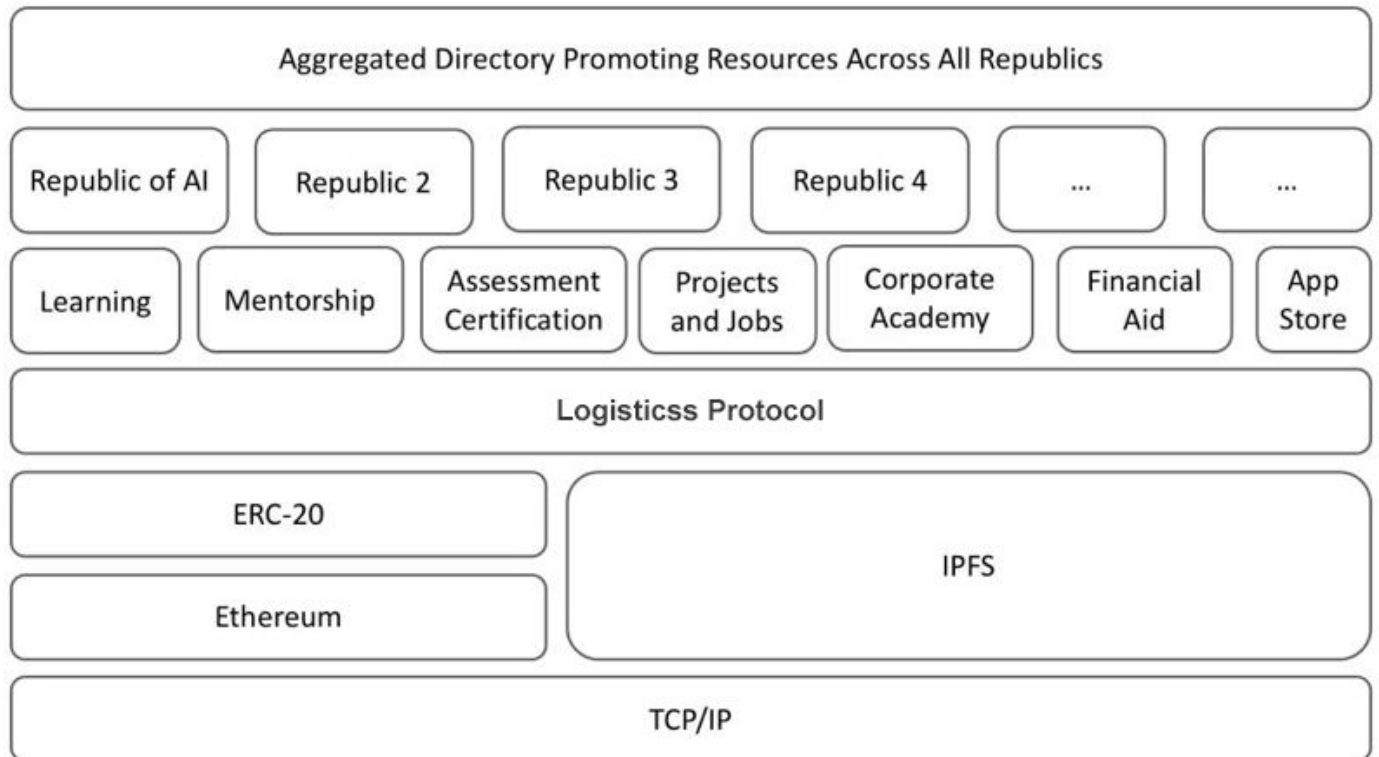
If you have two different files containing identical content, IPFS will track that content with one hash. The filenames may be different, but because the content is the same, the hash of the content will be identical.

IPFS provides a high-throughput, content-addressed block storage model, with content-addressed hyperlinks. This forms a generalized Merkle directed acyclic graph (DAG), where each node is accessed via its name. Each branch of Merkle is the hash of its local contents, naming children by their hash instead of their full contents. Therefore, after creation there is no way to edit a node. This prevents cycles (assuming there are no hash collisions), since one cannot link the first created node to the last node to create the last reference. In general, for any Merkle to create a new branch or verify an existing branch, a hash algorithm is used on some combination of the local contents, such as a list of child hashes and other bytes.

IPFS combines a distributed hash table, an incentivized block exchange, and a self-certifying namespace. IPFS has no single point of failure, and nodes do not need to trust each other, except for every node they are connected to. Distributed Content Delivery saves bandwidth and prevents DDoS attacks, which HTTP struggles with. The filesystem can be accessed in a variety of ways, including via FUSE and over HTTP. Files are distributed using a BitTorrent-based protocol. Other users viewing the content also aid in serving the content to others on the network.

Smart Contracts

A set of smart contracts for each Pillar provide an authoritative source of truth and also serve as a distributed database.



Smart contracts facilitate a plethora of different functions depending on the pillar attributes. For instance, in the Learning Marketplace pillar, the smart contracts contain the course listing, its price, reviews garnered from students and student's performance in the course. We are also working on tooling that will deploy an abstraction layer to allow for continuous integration and testing for code updates. Each smart contract would reside within a wrapper contract with its own public address. The latest smart contract logic and data will be imported by the wrapper contract. A version control mapper will record the contract location of all previous versions, allowing for direct access to older contracts at any time. Each individual function will have its own set of smart contracts that will be recorded in the registry depicted above.

Logisticss Trust Quotient

Each and every participant in the Logisticss Ecosystem—whether an individual or an organization—will possess an Logisticss Trust Quotient. Even each Republic will also have a Trust Quotient to ensure that it is not run by malicious actors. The Trust Quotient will protect both buyers and sellers during transactions. Malicious actors detected through the trust mechanism will be banned from the Ecosystem, unable to join or launch any Republic in the future.

The Logisticss Trust Quotient will be calculated using a confidence interval to take into account the proportion of satisfied users and the number of tasks completed or sales made. In order to calculate Logisticss Trust Quotient, we first calculate the lower bound of the binomial proportion confidence interval as calculated by the Wilson score interval. The lower bound, c_1 , is defined by the below algorithm where \hat{p} is the fraction of positive outcomes, n is the total number of transactions, and $z_{\alpha/2}$ is the $(1-\alpha/2)$ quantile of the standard normal distribution.

$$c_1 = \frac{\hat{p} + \frac{z_{\alpha/2}^2}{2n} + z_{\alpha/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n} + \frac{z_{\alpha/2}^2}{4n^2}}}{1 + \frac{z_{\alpha/2}^2}{n}}$$

Here \hat{p} is the observed fraction of positive outcomes, $z_{\alpha/2}$ is the $(1-\alpha/2)$ quantile of the standard normal distribution, and n is the total number of transactions. We can implement this formula in Ruby as follows:

```
require 'statistics2'

def ci_lower_bound(pos, n, confidence)
  if n == 0
    return 0
  end
  z = Statistics2.pnormaldist(1-(1-confidence)/2)
  phat = 1.0*pos/n
  (phat + z*z/(2*n) - z * Math.sqrt((phat*(1-phat)+z*z/(4*n))/n))/(1+z*z/n)
end
```

pos is the number of positive outcomes, n is the total number of total transactions, and $confidence$ refers to the statistical confidence level, where 0.975 means we have a 97.5% chance that our lower bound is correct.

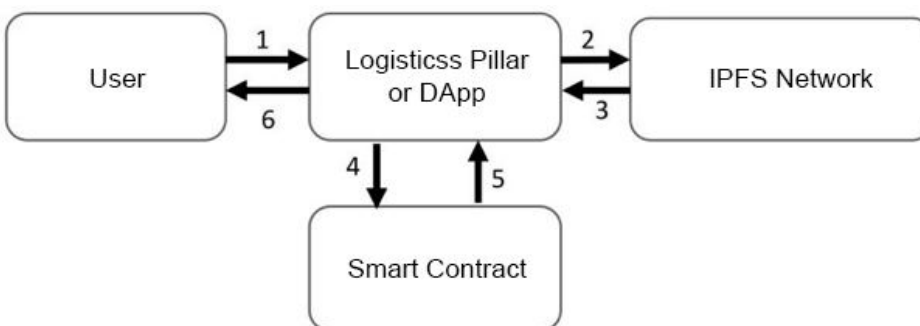
Retuning to our mathematical representation above, with an increase in the proportion of positive outcomes, \hat{p} , the confidence level increases. As the number of transactions n increases, the maximum value of c increases

Logisticss Pillars as Front-End DApps

The Logisticss Pillars represent highly polished front-ends that are available out of the box to each Republic. These Pillars are more than adequate to serve majority of use-cases. However, the Logisticss protocol can be used to build additional custom front-ends as well. The Logisticss protocol gives all front-ends the capability to interact with the Ethereum blockchain, the IPFS network, and indexing server(s) of their choice. Some DApps may have the need to bypass the Logisticss protocol to interact directly with the IPFS network. Logisticss allows the use of an IPFS implementation in Javascript (ipfs-js),⁸ giving users of the various front-end DApps the flexibility to interact with IPFS network directly, if necessary.

User Interaction with Pillar, DApps and Network Resources

1. User of a Republic connects with a Pillar or a custom front-end DApp.
2. The Pillar or the DApp creates a JSON object and also validates that the submitted JSON object conforms to all of the validation rules of the selected JSON schema and then pushes the JSON object to the IPFS network.
3. The IPFS network publishes the content and returns the content hash.
4. The Pillar or the DApp sends this content hash to the smart contract on Ethereum along with pricing and necessary details of the transaction that vary from one pillar to another.
5. The smart contract returns an Ethereum transaction ID.
6. The Pillar or the DApp monitors the pending Ethereum transaction and notifies the user of whether or not the submission has been successful.

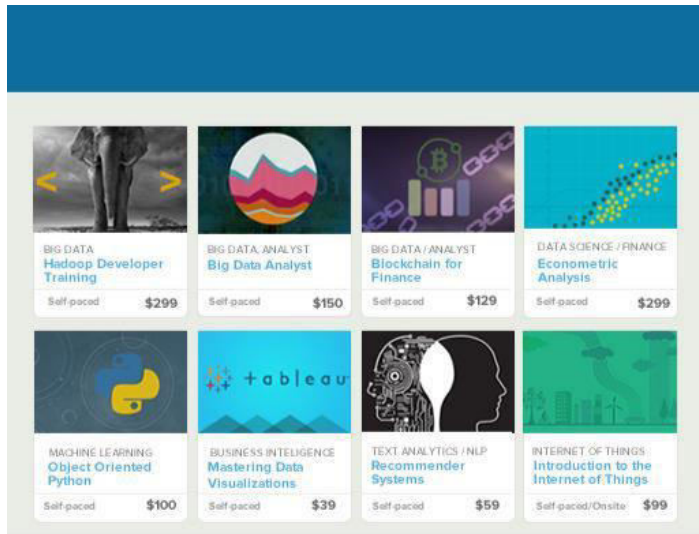


Logisticss will deploy an indexing server, open-source, server-side application that continually fetches the list of content hashes from the Logisticss registry smart contract. It then fetches that content from IPFS and indexes it so it may be quickly searched and filtered by Logisticss Pillars or DApps. A number of indexing servers—hosted by Logisticss and third-parties—will be available for faster response times and to provide scalability to the network. The Logisticss Pillar or App can connect directly to them to enhance performance.

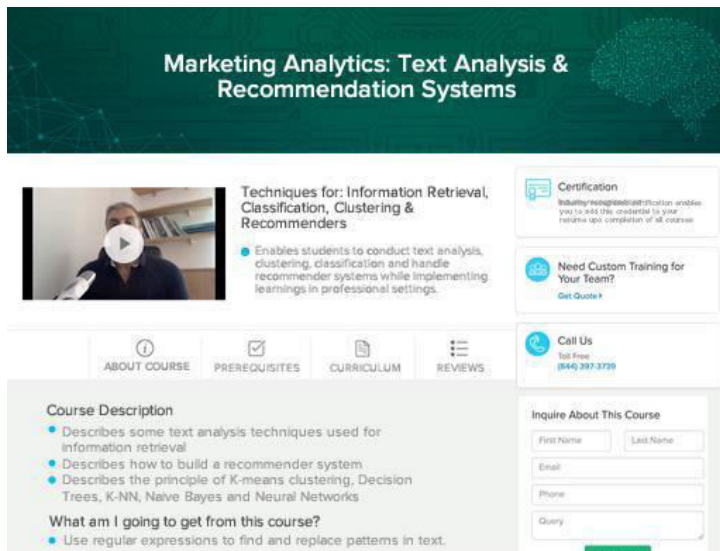
⁸ <https://github.com/ipfs/js-ipfs>

Pillar 1: Learning Marketplace

The Learning Marketplace is intended to consist of a listing of all learning experiences designed for the Republic. See <https://training.logisticss.co> for a live example of the existing *Experfy* marketplace functionality that will be decentralized.



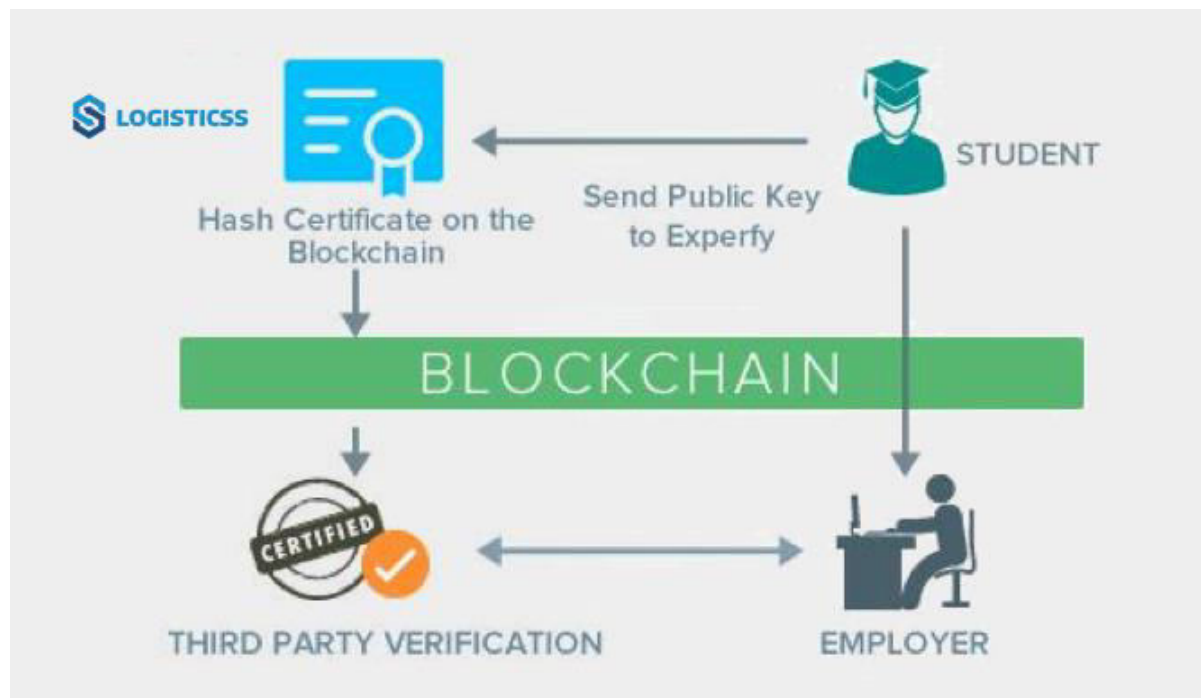
Course Catalog



Course Marketing Page

Learning Tracks and Certifications

Learning Tracks and Certifications are expected to be added to give structure to learning within each Republic. Furthermore, Republics are also expected to have the ability to bundle courses that may be sold at a discount. Finally, we also anticipate the use of coupons to promote certain courses.



Hashing of Certificates to the Blockchain and Employer Verification

The Learning Marketplace—the first proposed pillar of the Logisticscs Republics infrastructure—will issue both certifications and micro-credentials such as badges after a learning experience has been completed. In order to overcome the limitations to the current approaches to the issuance of digital certificates, the Ecosystem will employ Blockcerts technology, a digital certification framework developed by MIT Media Labs.⁹ Experfy Ecosystem certificates will be registered on the Ethereum blockchain and cryptographically signed (see figure above). Digital certificates are expected to become validated by the Logisticscs Republics and be tamper proof.

Some users may choose to broadcast their certificate (e.g., display it on LinkedIn), while others may prefer to disclose it only when needed. The Logisticscs Ecosystem will aim to give the learner similar flexibility when using digital credentials. When a learner chooses to share a certificate with a potential employer, only the contents of the specific certificate will be shared. We are committed to availability of credentials, without single points of failure, which is why blockchain becomes important. Relying on centralized authorities to verify authenticity is slow, complicated, and impermanent. The blockchain replaces institutions with a permanent and tamper-proof infrastructure of trust. Furthermore, the blockchain empowers individuals to hold their own official records and share them directly with others. The blockchain acts as a notary that can always attest to the authenticity of certificates.

Pillar 2: Jobs Marketplace

The current *Experfy* Jobs Marketplace is designed as a platform that brings together enterprises with specific consulting needs and thousands of experts to provide services. The Jobs Marketplace serves companies ranging from the size of Fortune 500s to small startups. Experfy's technology has received Gartner "Cool Vendor" recognition in 2017. The functionality that Experfy has built for the Jobs Marketplace is planned to be decentralized and made available as the second pillar of the Logistics Republics infrastructure, pursuant to an IP license. Moreover, it is anticipated that payments will be made in Logistics and smart contracts on the Ethereum blockchain will govern all transactions.

The screenshot displays the Experfy Jobs Marketplace interface. It features three job listings in a grid layout, each with a title, description, pricing, and client information. To the right is a sidebar with a 'Categories' section containing a list of industry and technical functions.

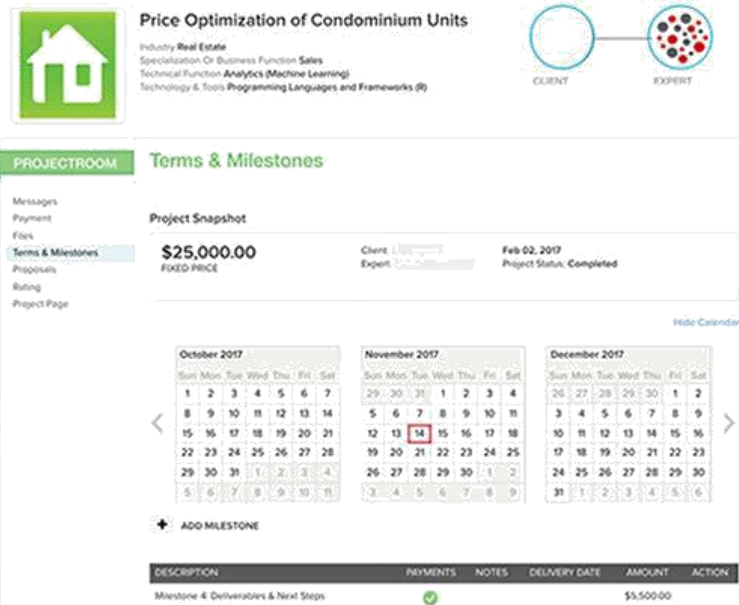
Job Listing 1:
Title: Statistical Model to Establish Relative Strength of a Business Based on Online Ratings and Reviews
Price: \$3,000 - \$7,500
Starts: Nov 13, 2017
Proposals: 10
Status: HIRING
Client: J Turner Re...
Posted: Nov 08, 2017
Tags: PROFESSIONAL SERVICES, REAL ESTATE, MARKET RESEARCH

Job Listing 2:
Title: Assessing the Value of User Data in Online Native Advertising
Price: \$100/hr - \$300/hr
Starts: Nov 13, 2017
Proposals: 5
Status: HIRING
Net 30
Client: Taboola
Posted: Nov 03, 2017
Tags: MEDIA AND ADVERTISING, CUSTOMER LIFETIME VALUE, WEB ANALYTICS

Job Listing 3:
Title: NLP Machine Learning Expert to Build Predictive Model on Unstructured Data
Price: \$50/hr - \$150/hr
Starts: Nov 06, 2017
Proposals: 19
Status: IN PROGRESS
Client: Global anal...
Posted: Oct 26, 2017
Tag: MACHINE LEARNING

Categories Sidebar:
Industry: 0
Specialization or Business Function: 0
Technical Function: 1
Listed categories: Analytics, Blockchain (checked), Business Intelligence, CRM, Accounting, Marketing Automation, Computational Biology, Data Infrastructure, Data Management, Data Visualization, Alt-coins, Bitcoin Protocol, Distributed Ledgers, Governance, Identity Management, Initial Coin Offering, Meta-coins, Mining, Networking, Para-chains, Payments, Security, Smart Contracts.

Project directory with hourly rates or fixed price a client is willing to pay.



Project Room with Message, Payment Schedules, Files, Terms, Proposals and Ratings.

The current **Experfy** Jobs Marketplace platform has rich functionality consisting of the following features.

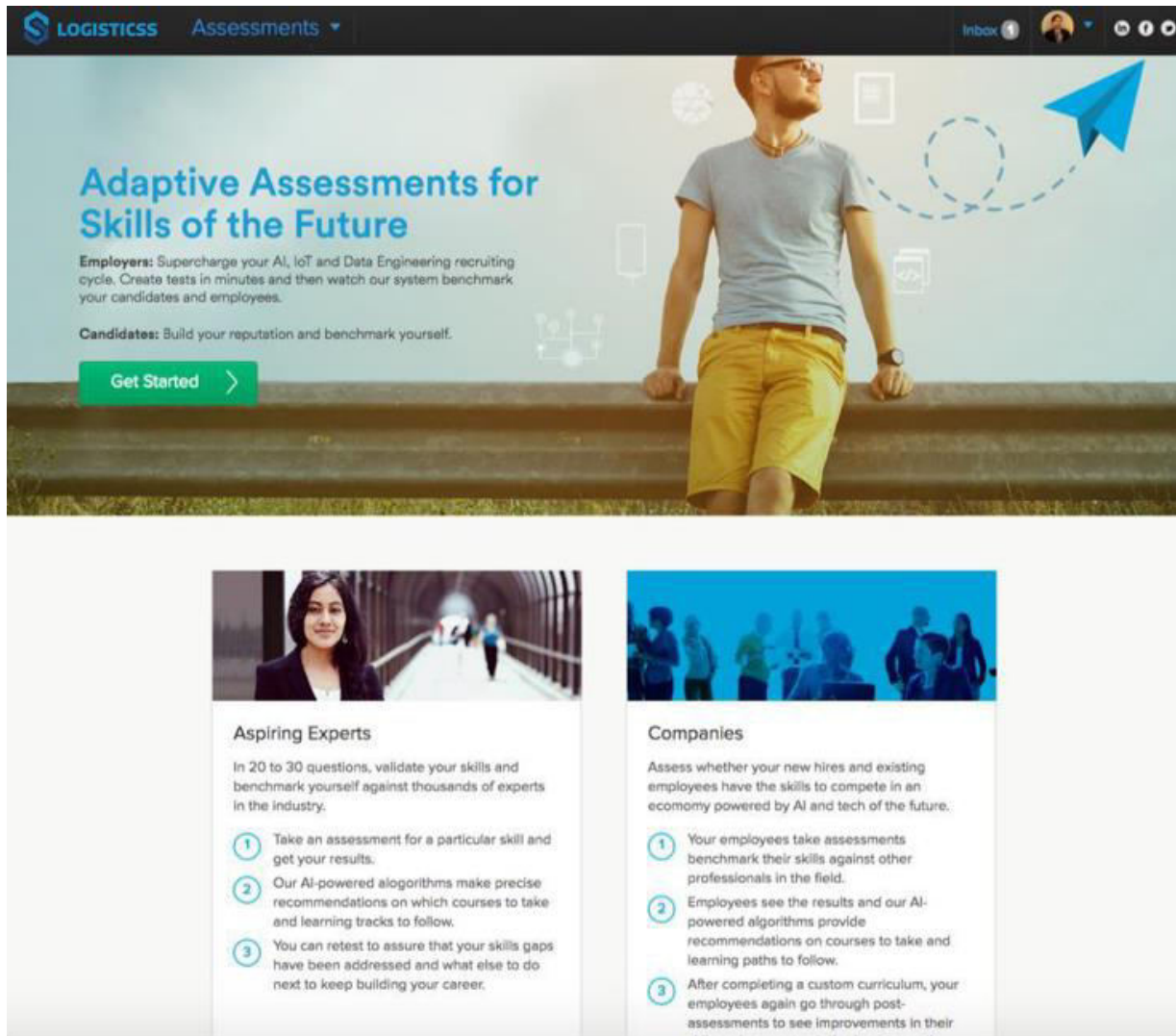
- Member directory
- Project listings
- Listing search
- Bidding mechanism
- Messaging between buyers and sellers
- Interview scheduling
- Payment processing and wallet
- Project Room with timesheets, milestones and agreement versioning
- Rating and reviews

See <https://logisticss.co> for a live demonstration of some of these features.

Smart contracts on the Ethereum blockchain are intended to govern all transactions on the be decentralized version of the marketplace. From the definition of milestones to hiring of experts on a time-and-materials basis, transactions are recorded on a distributed ledger, allowing the community to verify transactions should a dispute arise. A voting mechanism is intended to be used to resolve disputes without involving a central authority. All payments are anticipated to be made using Logisticss. Any disputes between buyers and sellers will be presented to the community for voting.

Pillar 3: Assessment Platform

A key prerequisite to skills development is identification of gaps. Experfy has been working on developing a comprehensive assessment system to benchmark a candidate's skill-level. Based on the data available for each candidate, Experfy's machine learning algorithms can build dynamic learning paths to recommend a training curriculum that is highly personalized and tailored to match each individual's learning goals. This platform, like the previous one, will need to be decentralized with the help of the blockchain.



LOGISTICSS Assessments Inbox 1

Adaptive Assessments for Skills of the Future

Employers: Supercharge your AI, IoT and Data Engineering recruiting cycle. Create tests in minutes and then watch our system benchmark your candidates and employees.

Candidates: Build your reputation and benchmark yourself.

[Get Started](#)

Aspiring Experts

In 20 to 30 questions, validate your skills and benchmark yourself against thousands of experts in the industry.

- 1 Take an assessment for a particular skill and get your results.
- 2 Our AI-powered algorithms make precise recommendations on which courses to take and learning tracks to follow.
- 3 You can retest to assure that your skills gaps have been addressed and what else to do next to keep building your career.

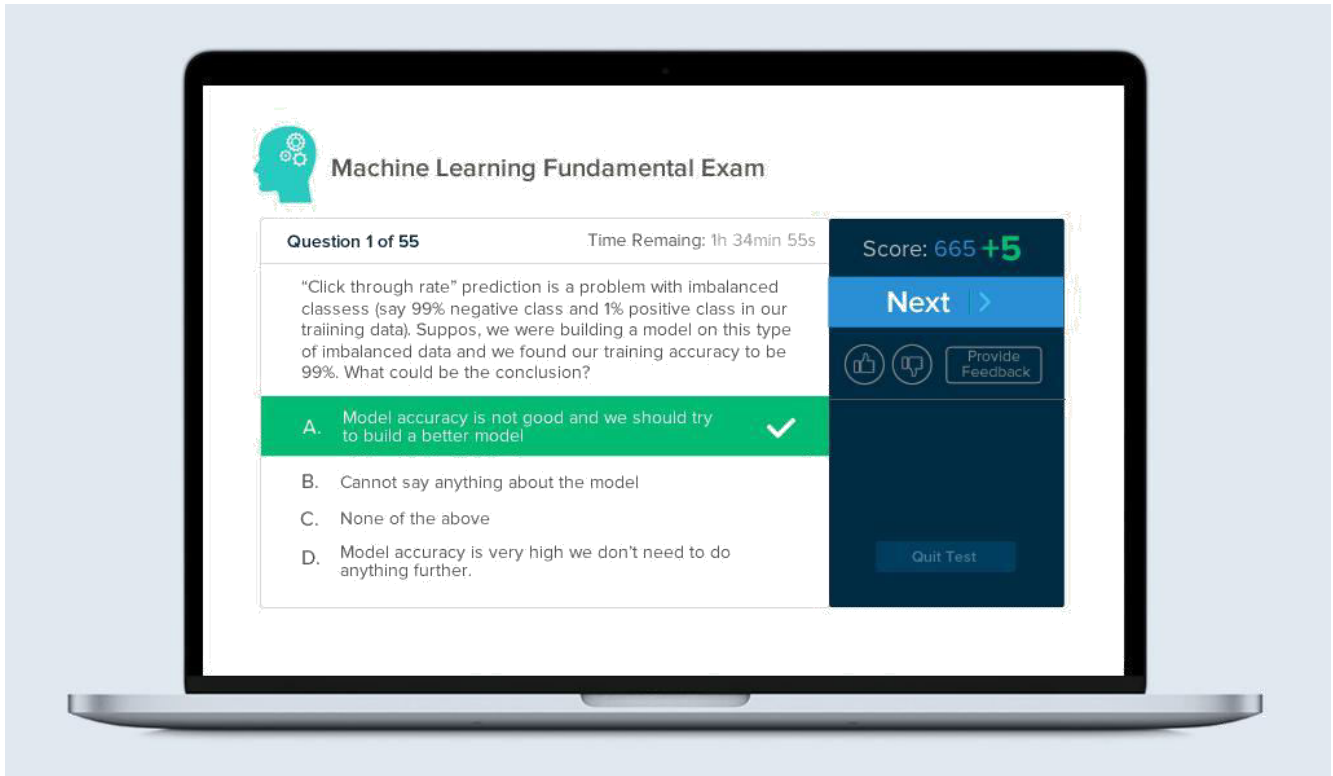
Companies

Assess whether your new hires and existing employees have the skills to compete in an economy powered by AI and tech of the future.

- 1 Your employees take assessments benchmark their skills against other professionals in the field.
- 2 Employees see the results and our AI-powered algorithms provide recommendations on courses to take and learning paths to follow.
- 3 After completing a custom curriculum, your employees again go through post-assessments to see improvements in their

Assessment Marketing Page

The Assessment Platform is anticipated to issue blockchain-based digital certificates for each assessment that the test-taker can share confidentially or display publicly on LinkedIn. These certificates are planned to be registered on the Ethereum blockchain, cryptographically signed, and tamper proof.



A Timed Assessment in Progress

Search Candidates	OBJECT ORIENTED PYTHON	ML FOR PREDICTIVE ANALYTICS	CLASSIFIC
Mike	780	767	756
Smith	766	704	688
Jane	702	694	589
Jake	677	654	646
Lily	603	617	579
Tyler	573	601	555

YOUR SCORE CARD

Mike
Machine Learning Fundamental

Machine Learning Total **97/100**

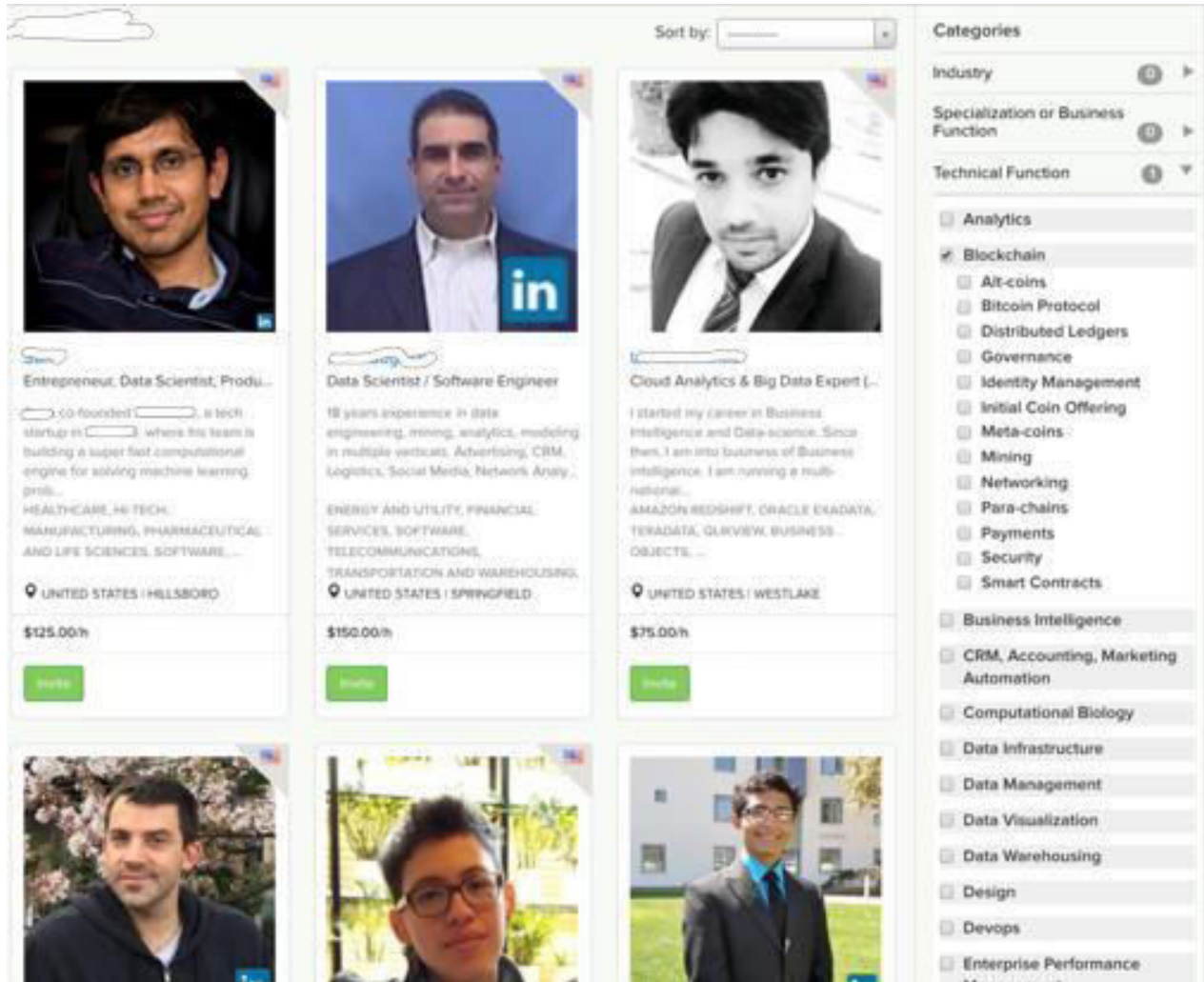
Machine Learning for Predictive Analytics
97/100

Supervised Learning: Classification
65/100

Student scorecard that benchmarks skills against peers

Pillar 4: Mentorship Platform

The Mentorship Platform is designed with a flexible taxonomy across four dimensions: Industry; Business Function; Technical Function; and Technology and Tools. Each Logistics Republic will be able to customize this taxonomy and also curate its own expert mentors who will provide mentorship, interviewing workshops, resume review and office hours to students or company employees looking for expert advice. A smart contract on a blockchain is expected to govern all payments via Logistics.



Directory of mentors with a highly customizable taxonomy

Clicking on each mentor name will open up a full profile with links to additional profiles on LinkedIn, Github, Kaggle, Topcoder, Stackoverflow and other platforms. Furthermore, each mentor's work history, if any, will be displayed to understand the depth of their professional experience. The profiles can pull information such as professional experience and education to the extent allowed by LinkedIn's API or entered manually.

Mentor Profile

The profile page features a search bar at the top right. The mentor's name is redacted, but her business is identified as "Machine Learning and Decision Intelligence Services" located in "USA | LAKEWOOD, CO". A rate of "\$2.5 (ECN 25) / min" is displayed. A prominent green button says "SCHEDULE A CALL". Below this, statistics show "21 Calls", "24 Reviews", and a "40 Min Avg Call". A bio states: "My specialty is understanding how your data stack, analytics, predictive analytics, and machine learning can drive value for your organization, and how to supercharge your investment in data science to create business value." Verification badges for "Email Verified", "Credit Card Verified", and "LinkedIn Connected" are shown. A "Skills and Expertise Tags" section lists: "DECISION INTELLIGENCE", "PATTERN RECOGNITION", "DYNAMIC SIMULATION", "STATISTICAL MODELING", "DATA", and "NEURAL NETWORKS". A video pitch is embedded in the bio area.

Mentor profile which includes a video pitch

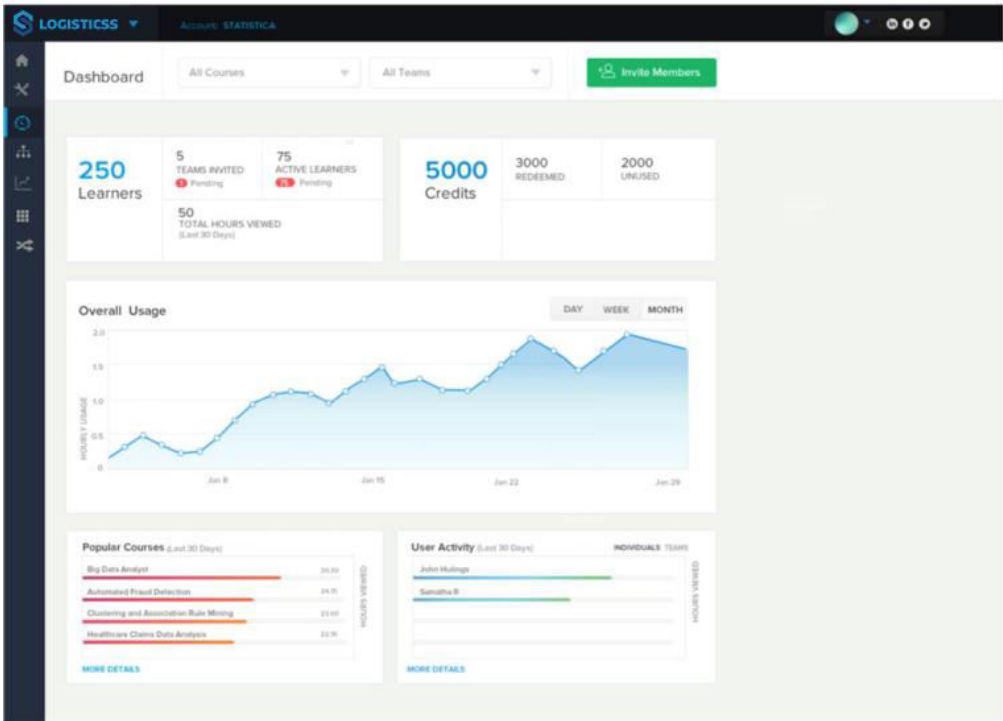
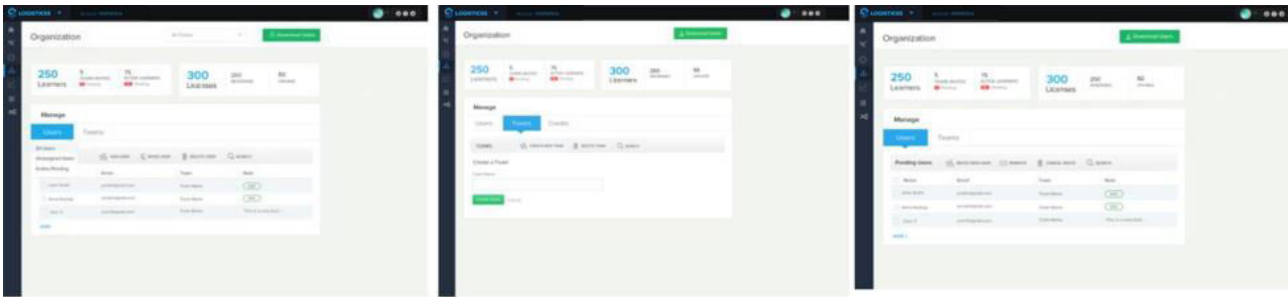
The "Availability" screen has "Cancel" and "Continue" buttons. It shows the mentor's profile and a prompt: "Suggest 3 times to [redacted] to schedule a call with her. She can accept a time or suggest alternative time slots." A "Your Timezone" dropdown is set to "(GMT - 04:00) Eastern Time (US & Canada)". Three time slots are listed: "Monday Jan 08, 2018 at 12:30 PM", "Monday Jan 15, 2018 at 12:30 PM", and "Thursday Jan 25, 2018 at 11:30 AM". A green "Continue" button is at the bottom.

The "Payment" screen has "Cancel" and "Continue" buttons. It shows the mentor's profile and a prompt: "Please provide your payment info so that we can connect you. I want to pay with". A radio button is selected for "EXPERCOIN (Expercoin Wallet Balance EXP 5400)". Below, it asks "How much I will be billed?" with a sub-note: "You will be billed for the number of minutes you use."

Automated call scheduling and billing

Pillar 5: Corporate Academy

The Corporate Academy Platform is intended to help enterprises onboard and upskill a large number of their employees. It is further intended to provide user management and control over the types of training content available within a company. Companies demand analytics that help them see the ROI on their training dollars. Accordingly, our plan is for Republics with corporate and institutional clients to have access to a Corporate Academy right out of the box. Experfy has developed a number of dashboards after carefully listening to customer feedback from clients such as Cigna and continues to improve these offerings for other Fortune 500s. Once this platform is decentralized through Logisticscs, the course ratings from the blockchain will be available to all corporate customers.



Corporate Academy dashboards showing user administration and usage analytics

Pillar 6: Peer-to-Peer Financial Aid

We believe there is a major movement toward peer-to-peer lending and this is great news for struggling students and professionals who want to acquire new skills but lack the financial resources to pay for upskilling. With availability of loans from other members of the community or even course producers, learning need not be deferred because of lack of funding. Out of the box, we intend for each Republic to have the ability to provide a financial aid mechanism, once this functionality is implemented. We further believe this facility will differentiate the ecosystem and drive revenue with the use of Logistics.



- Borrower creates a smart contract by creating a new borrowing request.
- Borrower places data on the smart contract, such as the loan amount, premium and co-signatories, if any.
- Lender funds the loan by sending loan amount to the smart contract
- Borrower repays the loan by sending loan amount back and the premium to the smart contract.
- In case of a default, the default is shared across the entire community of lenders, reducing risk.

Logistics plans to implement a system where underlying issuance, pricing, payment, credit scoring, and origination mechanisms of peer-to-peer lending is abstracted away into a shared, decentralized infrastructure. Accordingly, we believe the Logistics Ecosystem will enable online borrowers to connect and transact with lenders, free from heavily regulated marketplace lending platforms acting as intermediaries—irrespective of a borrower’s location or access to traditional banking.

This proposed pillar does not currently exist in any shape or form within the existing Experfy infrastructure. It is also the most complex to implement and requires a great deal of thought. As lending protocols for tokenized debt issuance—such the Dharma Protocol and Ripio Credit Network—become available, we may integrate with a third-party protocol to reduce complexity within the Republics infrastructure. Logistics would provide a seamless experience to all members of its Republics by enabling the use of Logistics for all transactions.

Logisticss: A Utilitarian Cryptocurrency Designed to Power Marketplace Economies

Logisticss, Inc. plans on introducing a utility token called “Logisticss,” envisaged as a cryptocurrency that will account for all economic transactions within each Republic and the larger Ecosystem, and it will serve as the basis for interoperability with other digital services built on top of the ecosystem. We intend for Logisticss to be implemented on the public Ethereum blockchain using the ERC-20 token. Wallets are essential to store currencies and transact. Experfy’s existing platform already provides its users a wallet that integrates with Stripe for fiat currencies. It is characterized by ease of use to ensure all interactions are seamless. We aim to bring the same user-experience to the Logisticss “Wallet.”

The Utility of the Logisticss Token

The Logisticss token is more than a payment mechanism. It provides a wide range of functions necessary to create decentralized economy that is not governed by any central authority. Our intent for Logisticss is to allow for voting, governance, fraud adjudication, spam prevention, account verification, and rewards, among others.



Voting to Fight Fraud

As in any online marketplace, a large number of individuals may be deployed to discourage bad actors from engaging in fraud. Companies like Amazon and eBay deploy hundreds of customer service representatives ensure that the items sold by a seller are true representation of what is purported in the item listing. Even if these companies are unable to take preventative measures in identifying fraud, buyers still can dispute the fraudulent transactions with their credit card provider. In the case of payments using a cryptocurrency .

Logisticss will require a Deposit-Challenge-Vote process to discourage bad actors. Each user when selling a course, posting a freelance gig, filing a complaint, contributing to an assessment, etc. will be required to deposit Logisticss tokens, based on Logisticss Trust Quotient. If the activity is valid, then deposited tokens will be returned to the user. If the activity is invalid or constitutes spam, then the user will forfeit the tokens.

Let's take an example. A bunch of FinTech geeks have created a "Republic of Blockchain for FinTech." Imagine Jimmy, a seller, coming to this Republic and listing a course entitled [Blockchain for Finance Professionals](#). Susan, a buyer at Goldman Sachs, comes along and purchases the course for the listed price of \$129, only to find that it is a fake course that has nothing to do with either blockchain or finance.

Luckily for Susan, when Jimmy listed the course, he was required to deposit Logisticss tokens equivalent to two times the course price or \$258 into escrow to be returned after two successful sales of the course. The amount Jimmy had to deposit was based on his Logisticss Trust Quotient discussed above. Susan challenges the authenticity of the listing by depositing another \$129, which is held in a smart contract. To kick off this challenge, Susan provides evidence of why she thinks the course is not authentic. The *Republic of Blockchain for FinTech* now opens up the issue for voting to all Logisticss token holders. Those voting must also deposit a small amount of Logisticss tokens from their unique wallet addresses. Even though Jimmy tries to game the system by inviting his friends, they are no match for the number of people incentivized to vote by the Logisticss Ecosystem. The voters cast their votes and the matter is decided in the favor of Susan. Jimmy forfeits his deposit of \$258 and 50% of this amount (\$129) goes to Susan, in addition to her "challenge" deposit of \$129. Those voting in favor of Susan also receive a portion of the remaining funds forfeited by Jimmy. All tokens deposited by voters on both sides are returned to them. Logisticss does not penalize the voters of the losing side since wide participation of all users is necessary to ensure the network has strong decentralized self-governance.

A very similar Deposit-Challenge-Vote is used when two parties have engaged in a highly complex transaction and arbitration is necessary. In such a case, all of the users of the Republic are incentivized to become arbitrators and can cast their vote as long as they hold the Logisticss token. Their decision reflected in the voting process is final and binding on all parties involved in arbitration.

Mandatory Tokenization of Accounts

On the Experfy platform, we have found that users who add their credit card before [posting a project](#) are more likely to be good actors and also end up awarding the project to a freelancer. Those who do not add their credit card before posting a project may be "kicking the tires," often with no intention of hiring someone. This led us to require each buyer to have a credit card on file and charge a \$500 deposit before they post a project on the platform. We will take a similar approach here through the tokenization of user accounts.

Any user would be able to create a user account in any of the Logisticss Republics for free. However, each person who would like to hire a freelancer or engage in high value transactions—as a buyer or seller—would need to verify their account by staking Logisticss tokens. The number of tokens to be staked would depend on the types of activities the user seeks to engage in within the Republic. Those involved in high-value transactions would be required to stake a larger amount than those involved in micro-transactions. The deposit of token signals that the account is trustworthy. Those who has verified their accounts through this tokenization will also see an increase in their Logisticss Trust Quotient. Those engaging in bad behavior or fraud would forfeit the tokens they have staked to verify their accounts.

Ecosystem Self-Governance by Logisticss Token Holders

Our goal is to achieve platform self-governance by the holders of the Logisticss tokens. The token holders will be able to vote of critical matters such as the future direction of the platform to more commonplace matters such as which Republics should be prioritized to be launched before others. Any token holder would be able to stake Logisticss tokens and submit a proposal to the community of Logisticss token holders concerning a new project or a Republic. The community would then vote on the proposal. A deposit of tokens ensures that the proposals submitted are not spam. If they are determined to be spam, then the tokens would be forfeited by the initiator of the proposal.

Importance of a New Token and Portability of Blockchain

Given the ambitious scope of our project, scalability of the blockchain is vital to its growth and survival. In addition to Ethereum, we are also considering RSK as an alternate blockchain. The system we are building can be ported to a different blockchain and because we have our own token and not tied to a single blockchain. Given we are developing a native token—instead of using Ethereum or Bitcoin—it makes the entire design agnostic and portable to its even our own blockchain if it were become necessary. This way we would not be at the mercy of third-parties like Ethereum in case they fail to scale their blockchain or if their transaction costs increase significantly.

Tokenized Rewards

Logisticss tokens will be used to incentivize users to perform different activities. Each Republic will have the ability to create its own Rewards Program with Logisticss bounties for the following, among other use-cases:

Course Development

- Propose a course track that is accepted by the community through sufficient votes
- Peer review course outlines to give feedback on the direction of course curriculum
- Peer review course content to give feedback on actual course before launch

Course Marketing

- Course promotion via social media channels such as Quora, YouTube, Reddit, Twitter and blogs

- Affiliate sales

Projects and Job Assistance

- Projects scoping assistance by an expert to a client
- Project completion verification by an expert if when requested by a non-technical client
- Help with collecting facts for arbitration during a dispute before case is voted by the community

Assessment Development

- Propose new assessment category that is accepted by the community through sufficient votes
- Contribute assessment question(s)
- Peer-review existing assessment questions to find incorrect answers or low-quality questions

Sales

Bring an enterprise client to a Republic that results in a sale. Reward will be a percentage of revenue generated that is set by the Republic.

Cross-Border Payments

The Experfy Marketplace currently uses Stripe, which supports merely twenty-five countries, leaving out many important geographies.¹⁰ For instance, Stripe does not support payments to India, within which approximately ten percent of Experfy’s providers reside. A payment to a freelancer or an instructor outside the U.S. by wire transfer can cost as much as \$50 per transaction to the sender, not to mention manual work that can result in expensive mistakes. The recipient may also incur bank fees for receiving the wire transfer. We believe the use of Logisticss will create a frictionless payment mechanism and enable us to attract more talent from around the globe by giving our experts a fast and low-cost payment option.

Declined Credit Card Transactions

When users are purchasing training on Experfy, as many as 5% of international credit card transactions are declined by Stripe, often causing lost business.

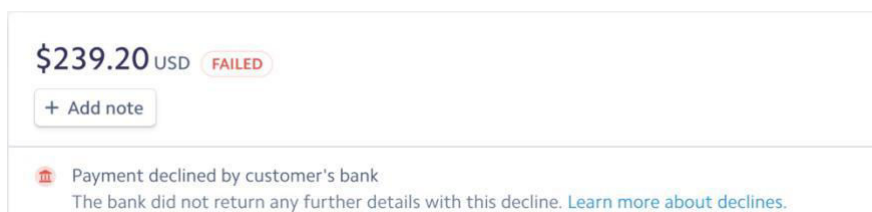


Figure 3: Shows an actual declined charge by Stripe. The same charge was successfully processed using QuickBooks, suggesting aggressive risk management by the former payment processor, not the customer’s bank.

To put this in perspective, each declined transaction requires follow-up and we have to manually send an invoice from a different payment processor—QuickBooks—to the customer because Stripe refuses to process a perfectly legitimate transaction.

¹⁰ <https://stripe.com/global>

We firmly believe the use of Logisticss will disintermediate bank networks such as Visa and payment processors such as Stripe, enabling us to ensure each that the customer using Logisticss is able to purchase both training and consulting in a frictionless manner.

Savings on Credit Card Transaction Fees

Experfy is currently in the process of white-labeling its training marketplace platform for a government agency. The agency is expected to pass approximately \$7 million in transactions in the first year for one of its programs. Based on a quote received from Stripe, the revenue would be subject to payment processing fees as high as 3.5% (approximately \$245,000) if fiat currency is used. Theoretically, if this marketplace—like Republics—were to adopt Logisticss, it would bring payment processing fees close to a statistical zero and eliminate the headaches of dealing with declined transactions described above.

Financial Aid for the Disadvantaged

Experfy holds the conviction that those from the disadvantaged sectors of society should be prioritized to receive an affordable education. We intend to introduce peer-to-peer (P2P) lending, allowing the affluent to fund the disadvantaged and underrepresented, with blockchain allowing for registration and tokenization of loan assets. Logisticss plans to partner with non-profits and government agencies to help subsidize the education costs for the marginalized and underrepresented sections of society across the globe.

Logisticss App Store

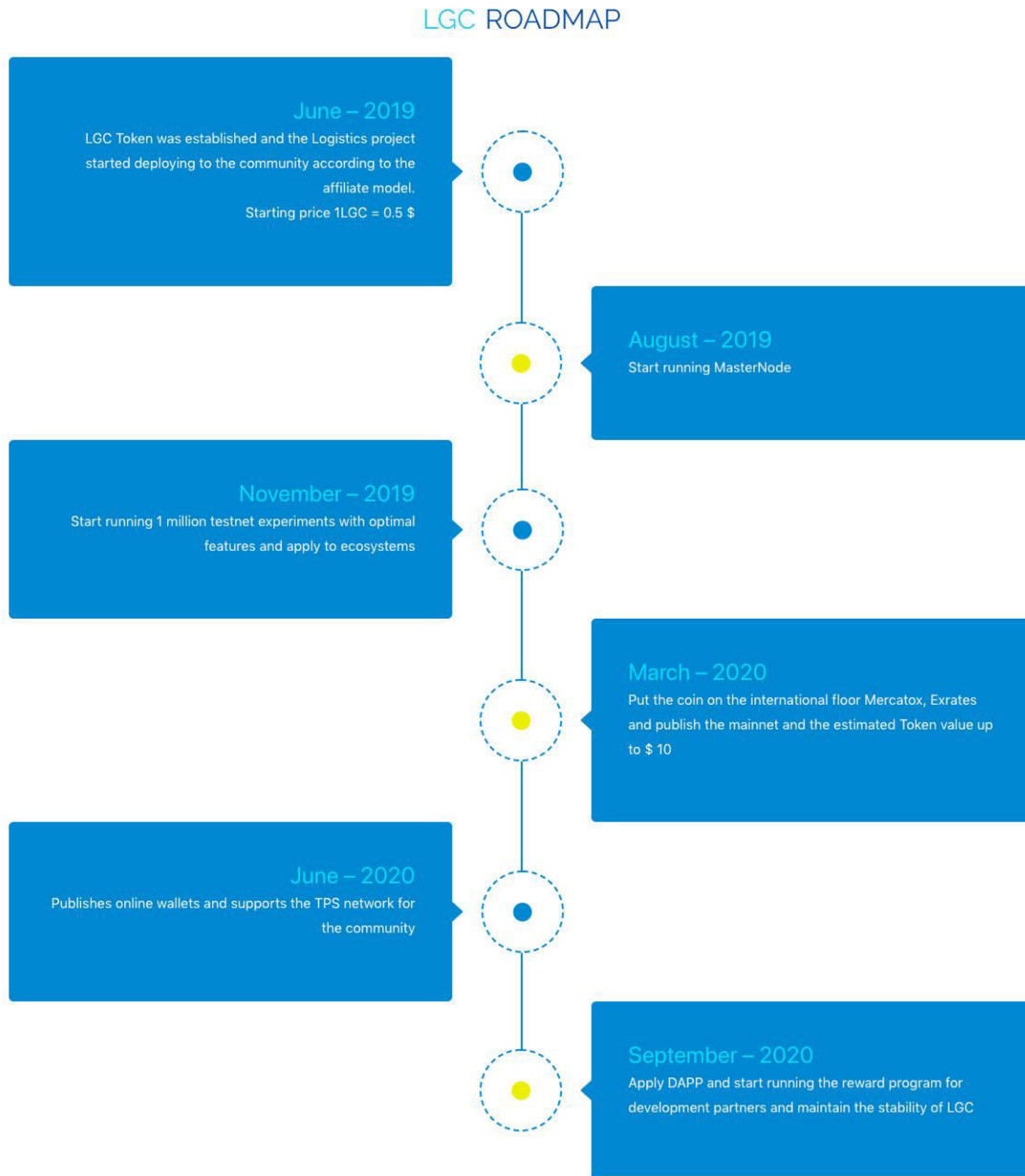
The Logisticss App Store is anticipated to provide a discovery mechanism to find contributions of community members to extend the functionality and user experience of the Republics in the Ecosystem. The following types of content are planned to be made available in the App Store:

- Apps to extend Republic functionality;
- Course content to seed new or enhance existing learning offerings;
- Interactive games to enhance learning experiences;
- Algorithms and bots to enhance LMS and marketplace functionality;
- User Interfaces to launch new front-ends and mobile experiences.

We intend for the developers contributing to the App Store to be able to set their own prices based on usage. Smart Contracts will track the usage and automatically withdraw money based on terms set by an app's developer

Proposed Roadmap

The following presents are anticipated roadmap and timelines for execution of the decentralization, block chain network implementation, and deployment of the Logistics, as described in this white paper.



IMPORTANT NOTE: Since many exigencies can only be determined at the time the project is commenced, the scheduling information contained herein is subject to change by the Company and is provided for convenience, the, accuracy and completeness of the information cannot be guaranteed.

Anticipated Use of Funds

Launching a decentralized ecosystem is a massive undertaking and we plan to use the funds from token generation event to ensure long-term stability and viability of the system.

The Logisticss Ecosystem will have access to rich front-end functionality of the Experfy platform through an IP licensing agreement. We, however, need to decentralize this infrastructure so that it is highly scalable as multiple marketplaces are launched. Currently, the Experfy marketplace produces one terabytes of data each month and uses significant computing power. As decentralized marketplaces multiply, there will be a need to decentralize the core infrastructure as much as possible without losing reliability. All of this requires big data architecture that is well thought out and can operate at scale. What does the architecture look like for 1,000 or 10,000 marketplaces? Creating a scalable infrastructure is a significant undertaking that the token sale will support.

Logisticss anticipates entering into a comprehensive IP (intellectual property) license and use rights agreement with Experfy for the use of the entirety of the branding, software, and software related intellectual properties held by Experfy, which currently “power” the Experfy suite of software products (including but not limited to the CodeBase, UX, databases, and architecture, pursuant to a worldwide, royalty-free, fully paid-up and in perpetuity license grant, with the further right to have, possess, own use any and all derivative works and/or modifications). While it is further anticipated that Logisticss will likely only leverage Experfy user experience, process flow, and dataflow architectures, rather than the CodeBase (primarily because it is anticipated to be creating a block chain based decentralized CodeBase that will be proprietary to Logisticss and will “power” the Logisticss Ecosystem. Moreover, Logisticss expects that such license will not be subject to at will termination and that Logisticss may in turn choose to make some its proprietary technology available to the public via open source licensing in furtherance of its mission.

Big Data Architecture

- Support thousands of decentralized marketplaces and platforms
- Provide data redundancy and backups across the network in the event of failure

Blockchain R&D and Scalability

- Design of sidechains to ensure transaction speeds are not limited by the Ethereum blockchain, which currently support only a few transactions per second

Open Source Software

- Evaluate and open-source necessary components of Experfy platform to enable the Logisticss community to extend their functionality. For example, currently the Experfy Assessment Platform supports auto-checking of code using the Python language. Others in the community may want to extend this component to include C++ and Java.
- Put best practices and security audits in place to ensure that no malicious code enters the Ecosystem. Not having a process could impact a large number of marketplaces and significant investment is needed to ensure system are not compromised by bad actors.
- Open-sourcing cannot be done in a haphazard manner and must be done in a way that is not confusing for the community and provides sufficient documentation to enhance or extend the existing code.

New Functionality

- We believe that a major value proposition of the proposed Logisticss Ecosystem is the ability for a non-technical person to launch one or more marketplace services within minutes using a simple wizard. This automated functionality needs to be developed to ensure there is ease of use across all marketplace components.
- Logisticss Wallet will provide seamless conversion from fiat currency to Logisticss and vice-versa. This requires integration with cryptocurrency exchanges where conversions may be made. Furthermore, to maintain customer trust the Experfy Wallet will provide high degree of security such as two-factor authentication and this functionality needs to be developed.

Logisticss App Store

- It is envisioned that the Logisticss App Store will allow any developer to submit their apps to extend the functionality of a Republic using ancillary modules. We anticipate that we would need to create a submission process that verifies the integrity of the app and ensures there are no security holes. This verification process likely will be “farmed out” to individuals registered in the Logisticss Ecosystem who will be rewarded in bounties for their service. In addition, a framework for tiered pricing of the apps—whether a one-time purchase or a subscription fee—will likely need to be created to provide ease of use for both app developers and Republic administrators, who will consume them.

IMPORTANT NOTE: The budget allocations contained herein represent best estimates based on assumptions considered reasonable under the circumstances. No representations or warranties, expressed or implied, are made that actual results will conform to such projections/budgets. This document is provided subject to errors, omissions, and changes in the information and is subject to modification or withdrawal.

