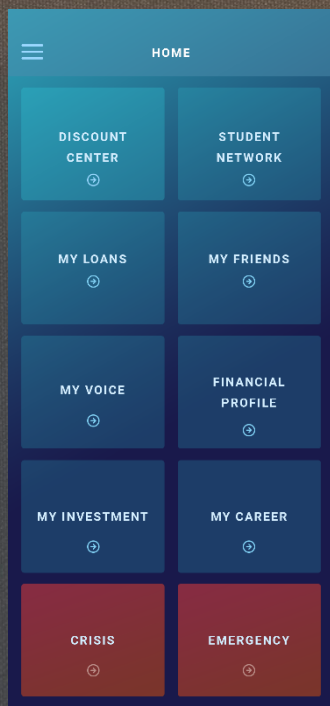


2018

STUDENT COIN

Seratio Whitepaper 10.0



#studentcoin

#goodistrending

CCEG Blockchain UN Lab

STUDENT COIN FOR STUDENTS BY STUDENTS

Seratio Whitepaper 10.0: Student Coin

Student Coin is part of CCEG's SERATIO® family of Blockchain solutions

Benjamin Stone and Drew Nagys



Other white papers¹

Seratio Blockchain 1.0: Currency of Intangible Non-Financial Value

Seratio Blockchain 2.0: Values Based Impact Interventions

Seratio Blockchain 3.0: Proof-of-Impact Transaction Platform

Seratio Blockchain 4.0: Platform for Non-Financial Enterprise Solutions

Seratio Blockchain 5.0 Decentralised Learning Ledger

Seratio Blockchain 6.0: Initial Coin Offering

Seratio Blockchain 7.0: The Microshare

Seratio Blockchain 8.0: Women's Coin

Seratio Blockchain 9.0: Growth Impact Bond

Seratio Blockchain 10.0: Student Coin

Seratio Blockchain 11.0: TimeTraveler Trading

Student Coin: www.studentcoin.uk

Student Blockchain Hub: www.studentblockchainhub.com

Seratio Coins ICO Platform: www.seratio-coins.world

CCEG Think Tank: www.cceg.org.uk

Rothbadi Institutional Blockchain Consultancy & Advisory: www.rothbadi.com

CCEG Blockchain UN Lab: www.ccegblockchain.com

Internet-of-Value Blockchain Alliance for Good: www.bisgit.org

Non-Financial Metrics: www.seratio.com

Frontiers in Blockchain peer reviewed journal: <https://www.frontiersin.org/journals/blockchain>

21st June 2018 [version 10.31]

¹ <https://github.com/seratio/whitepaper>

1 The Current Status Quo

In 2016 there were 2.28 million students studying at a higher education level in the UK. With this demographic, currently being a decentralised group, this means that students have very little influence over businesses and how they interact with students. As a group working as one the student demographic can develop a voice to ultimately empower students and give them back control of their direction in both their personal and professional lives.

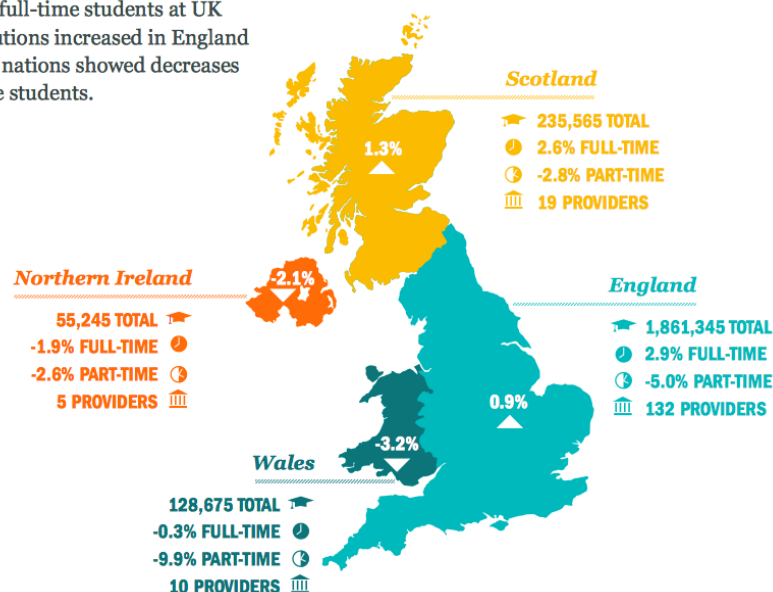
Equally, currently there is no real relationship between students and businesses. Discounts offered to students are currently generic and have no further impact beyond the point of transaction. Typically, businesses offer blanket discounts that are relevant for some, although not for most. These discounts are used to entice students to buy in to their brand, ultimately taking away the little purchasing power students have. At this stage of a student's life, much of their income is being spent on day to day expenditure such as food shopping and university supplies.

For many students, this is the first time they have had to manage their own money and live independently. This can be daunting for many people. Businesses currently adopt the approach of looking like they help students when in fact the outcome is they cause students to over spend on items that they don't need.

The student demographic has lost its power. Not so long ago if students had a problem they would go on strike, then the institutions would listen and act. Now being a modern student means handing over tens of thousands of pounds just to be allowed to study at a university, whilst borrowing tens of thousands of pounds just to be able to live whilst studying at university. As the cost of studying as a student you would assume that the power of the student has increased, but in recent years students have lost their power and ultimately lost their voice.²

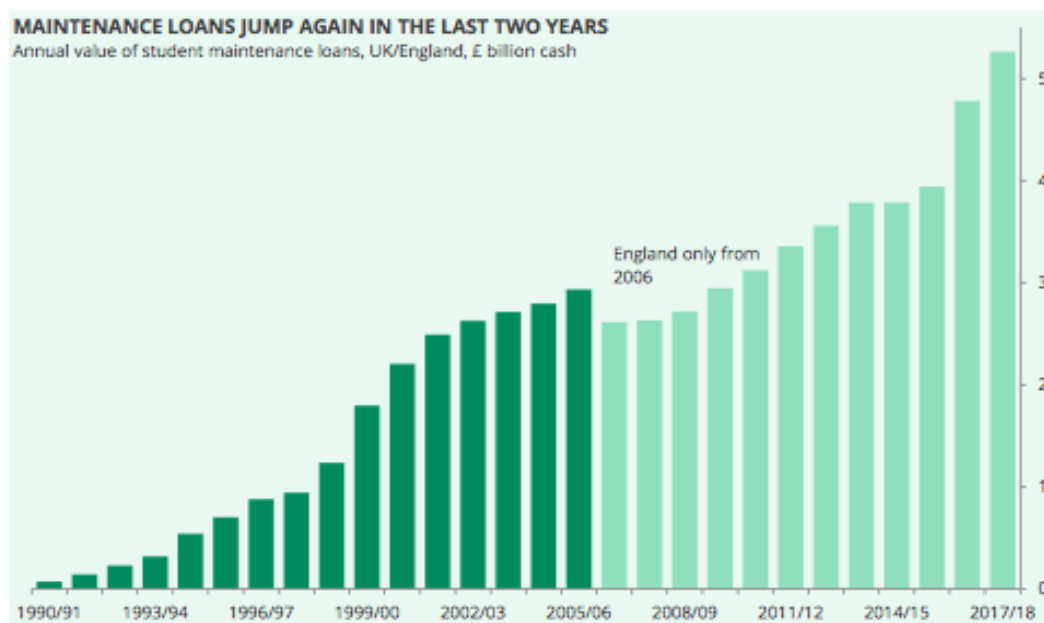
STUDENTS BY COUNTRY OF PROVIDER, 2014-15 TO 2015-16

In 2015, the number of full-time students at UK higher education institutions increased in England and Scotland. All home nations showed decreases in numbers of part-time students.



² <http://www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/higher-education-in-facts-and-figures-2017.pdf>

Even though there are organisations in place such as local Student Unions and the National Union of Students (NUS), these are all centralised groups which mean that they are sitting on the other side of the problem, they are not truly on the side of the students. This results in the decisions made not for the benefit of the students, but for the benefit for the universities. Students have a huge amount of influence. If all the students in the UK disagreed with a decision, they could all act and create change, but being a decentralised group there is nothing holding students together as a group, resulting in little to no action on the student side.



Of great concern is the increasing debt situation for students which has led to questions about higher education and its value for students³, covered frequently at www.efficiencyexchange.ac.uk.

To combat these issues, what is proposed is the development of a mobile student dAPP (decentralized APP) that has a multiplicity of functions including but not limited to ...

- Student voting representing a decentralized community
- Digital wallet with smart contract control and spending rules
- Integrated profiled retail discounting, loyalty, sponsorship and incentives
- Cryptocurrency investment to pay off student fees and loans
- Student networking and usual commercial services
- AI U-Bot to guide, help, advise and crisis manage 24/7
- Micro-loans available instantly based on social media
- An educational digital passport for employers and others

All these separate elements are already in development by the Student Coin platform partner Seratio® Blockchain and described in other whitepapers in the series.

³ <http://www.parliament.uk/commons-library>

1.1 Student Market

According to the Universities UK report for the academic year 2016-2017, the size of the student market is the following:

- Undergraduate: 1.76 million
- Postgraduate: 551,585
- Full time: 1.80 million
- Part time: 518,930
- Students from the UK: 1.87 million
- Students from the EU: 134,835
- Students from non-EU countries: 307,540

1.2 Potential growth

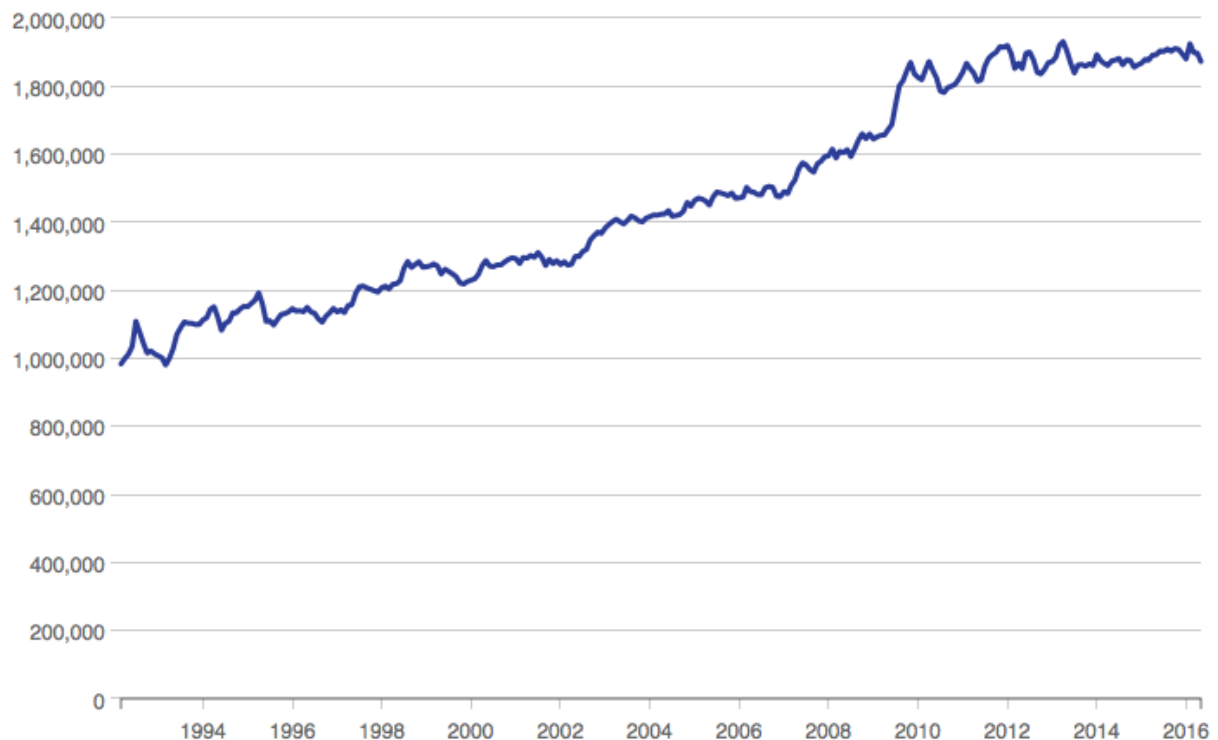
The student market continues to fluctuate each year. The figure below shows just how varied the growth is across the UK alone.⁴

DOMICILE	COUNTRY OF INSTITUTION											
	2007-08				2015-16				CHANGE BETWEEN 2007-08 AND 2015-16			
	ENGLAND	NORTHERN IRELAND	SCOTLAND	WALES	ENGLAND	NORTHERN IRELAND	SCOTLAND	WALES	ENGLAND	NORTHERN IRELAND	SCOTLAND	WALES
ENGLAND	700,895	410	7,045	13,465	599,860	1,225	8,500	13,925	-14.4%	198.8%	20.7%	3.4%
NORTHERN IRELAND	4,665	20,065	1,460	190	5,125	19,090	1,305	215	9.9%	-4.9%	-10.6%	13.2%
SCOTLAND	5,155	55	72,120	280	4,390	110	61,555	165	-14.8%	100.0%	-14.6%	-41.1%
WALES	9,630	15	250	40,075	11,390	65	280	31,820	18.3%	333.3%	12.0%	-20.6%
EU	44,740	1,765	6,485	4,760	46,380	1,035	8,790	2,890	3.7%	-41.4%	35.5%	-39.3%
NON-EU	105,850	590	12,205	7,825	145,155	1,410	16,630	8,990	37.1%	139.0%	36.3%	14.9%

The fluctuation is to be expected as any financial downturn such as a recession will have dramatic effects on the number of students attending universities. The lowering numbers are widely attributed in the press to the growing discontent amongst students to incur debt and fail to get value for money. Many universities are also failing financially together with their declining NSS (National Student Survey) numbers, providing further uncertainty in the market. Students don't feel as though they have a voice and with the number of entrants to university courses decreasing by 28.6% between 2006 and 2016, the effects of these attitudes are clear. The opportunity for Student Coin is based on the potential growth of the market and with the media recently covering student's lifestyles and tuition fees in greater depth. Student Coin is here to meet a market demand linking to the changing landscape for students.

⁴ <http://www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/patterns-and-trends-2017.pdf>

Although the above figures show the fluctuating nature of the student demographic, the potential for growth is still very high particularly when including the international market growth. In fact, since 1992, the number of UK students has doubled and as the figure below shows, the rate of long-term growth is stable and brings huge potential and opportunities for Student Coin as a company that intends to help and support students throughout every aspect of their academic life.



With Student market set to grow even further from international students, there is a need to provide the students with robust personal and career growth mechanisms. Our proposition includes the establishment of a decentralised and autonomous Student Coin Foundation. Decentralised Autonomous Foundation (DAF), a derivative of the DAO (distributed autonomous organisation), will become the Voice for student empowerment section and fulfilment. Following successful launch in September 2018, we aim to expand into international markets in September 2019 through a phased approach.



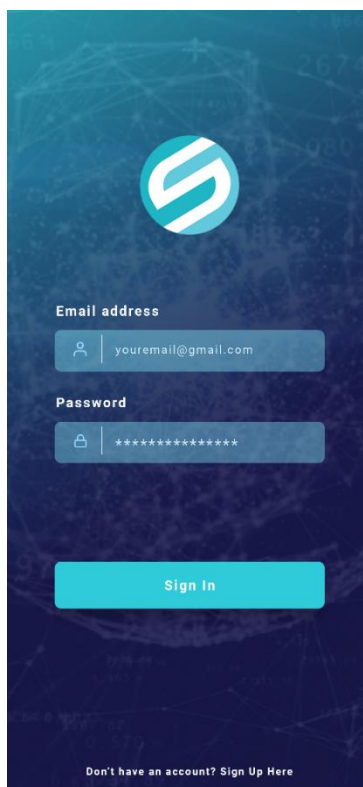
2 dAPP Design and User Experience

The Student Coin dAPP is being developed for use with both Android and IOS. It will be optimised for use with mobile phones with a web interface also being developed for users who prefer to use a PC. The user interface on both mobile and web versions will be easy to navigate with clear buttons, simplified menus and a neutral colour which will be easy to read in different situations.

The application will open to a home page also known as the “Hub” containing the shortcuts to each part of the app to make sure that the user is able to see the important notifications without having to go looking for them. From the Hub the user will be able to access the main menu which will contain all aspects of the platform, ranging from the features, settings, news, notifications and social feeds.

Each user will create an account which will be able to be done via Facebook or Google + accounts, or via the manual method using their email. The user will have the option of linking their social media feeds, which will allow them to invite friends, share updates and link up with businesses directly from the dAPP.

When a student opens an account, Student Coin will need to verify the status of that individual to ensure that they are an active student. This will be done using their Student Finance England (SFE) number or using their University email. If the user is a postgraduate, then Student Coin would need the user to provide a reference to a SFE application which is within the set period after graduation to still be classed a postgraduate student. In the case of a parent opening an account for the investment scheme then they need to prove their identity and will need to agree to the terms and conditions of that specific investment terms.



The Sign In screen features a dark blue background with a subtle geometric pattern. At the top center is the Student Coin logo, a white 'S' inside a teal circle. Below the logo are two input fields: 'Email address' with a person icon and 'Password' with a lock icon. Both fields contain placeholder text. A teal 'Sign In' button is positioned below the password field. At the bottom, a link reads 'Don't have an account? Sign Up Here'.

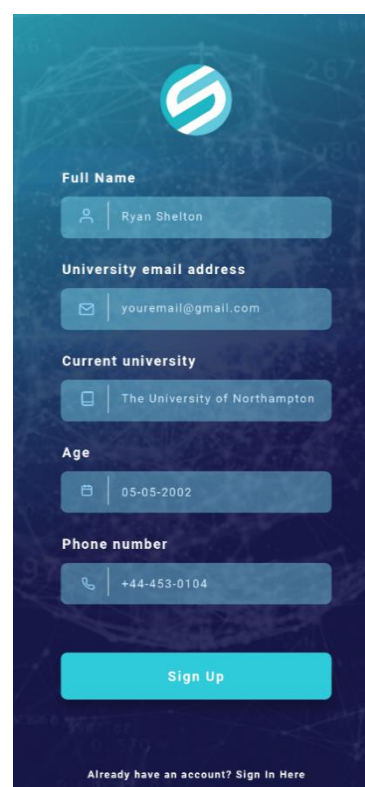
Email address

youremail@gmail.com

Password

Sign In

Don't have an account? Sign Up Here



The Sign Up screen has the same dark blue background and logo as the Sign In screen. It contains a series of input fields for user registration: 'Full Name' (Ryan Shelton), 'University email address' (youremail@gmail.com), 'Current university' (The University of Northampton), 'Age' (05-05-2002), and 'Phone number' (+44-453-0104). Each field has a corresponding icon (person, email, building, calendar, and phone). A teal 'Sign Up' button is at the bottom. A link at the very bottom reads 'Already have an account? Sign In Here'.

Full Name

Ryan Shelton

University email address

youremail@gmail.com

Current university

The University of Northampton

Age

05-05-2002

Phone number

+44-453-0104

Sign Up

Already have an account? Sign In Here

2.1 Financial Profiles

This financial button will allow Student Coin to build a profile based on spending habits, investment styles and general management of money. Although optional, a profile will allow Student Coin users access to micro loans, offers and to more easily manage their finances. The student's financial profile will analyse their financial behaviour to ensure stability, something that can plague the student long after graduation.

This profile will also allow them to manage their student loan repayments, ensure that they are not over paying. Using this financial profile will educate students in managing money, to allow them to step into the world after university with confidence in themselves that they can manage their finances and allowing them to progress in the world without having to worry about repayments and bills.

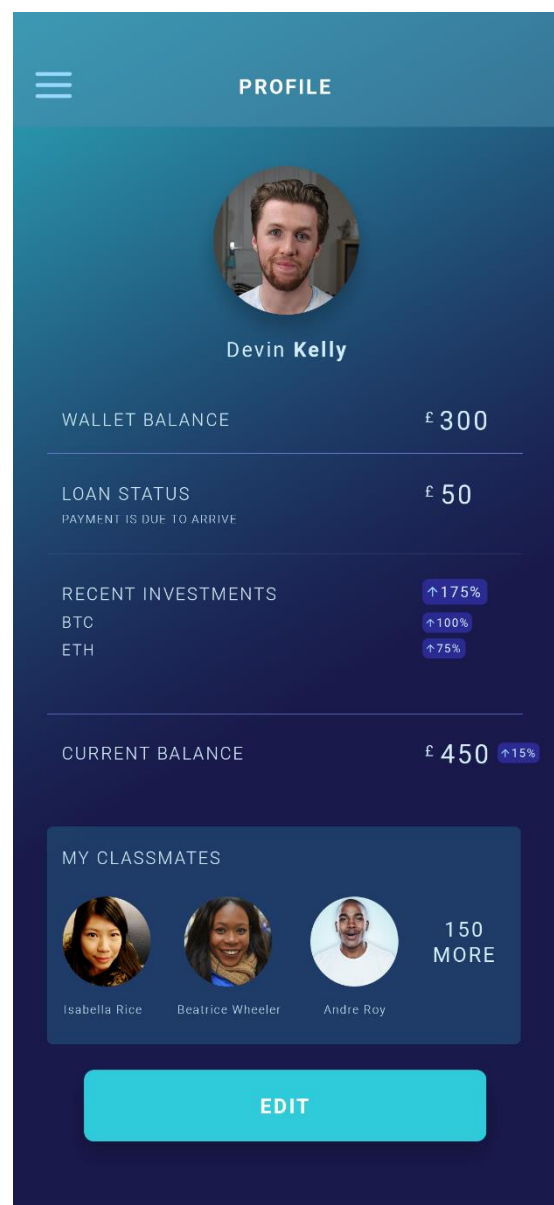
2.2 Discount Centre

The discount centre is the part of the dAPP where the users will be able to see all their active discounts. In essence this means that discounts will automatically apply ensuring that they get the best offer. The payment process would be completed using their phone including using NFC technology much like Apple and Android pay. This eliminates the need for a separate card or having to sign up to receive these discounts. The money they save can either be sent straight to their wallet or they can choose to put it into an investment scheme allowing them to save money.

This result means that the initial discount has so much more of an effect. Not only does it save the user money upfront but allows them to then do something useful with the money they saved.

Using the data from their financial profile, Student Coin will be able to recommend the most appropriate offers for the user. Option can be applied to choose which discounts you have active from the collection of all the discounts we have on the platform. As a student uses the app more and more then they will be rewarded via a system of points, and once they reach certain milestones then they would be rewarded via exclusive offers, directly receiving Student Coins and other exclusive events. Having this system in place will add an element of gamification, allowing people to have another reason to use the system on a regular basis.

But this choice of being able to decide where students spend their money is not only limited to financial savings, but the ability to put the purchasing power back into the student hands. For example, if a certain brand does not listen or appreciate students, then the users can feed that back to Student Coin through the integrated Voting System, resulting in the removal of that brand from



the “approved” brands list. This allows students to take back control over the market and to show that students want to be listened to and that businesses need to recognise that.

From the point of view of a business, the ability to access a detailed profile of students will allow that business to better target products and marketing efforts to reach the right customer they want. For example, a business wants to increase their sales to 20-year-old males who have an interest in a specific subject, Student Coin will be able to send out that offer to that specific group of individuals. This results in the business reaching the exact target group at a fraction of the cost and time when compared to traditional methods.

There are many popular student focused brands such as Just Eat, Amazon and Asda. Student Coin would make sure that any of the partner companies are bringing some additional value to students and are not just there to make a profit. This process will be done by both the company and by the students. This means that if there is a company that the students feel should be a partner then this will be implemented into the Student Voice voting section.

An important feature of the Discount Centre is the integration with the Seratio Provenance Engine described in the *Seratio Whitepaper 8.0: Women’s Coin* whitepaper. In essence it will allow student population to pick and choose products, companies, even people, based on alignment to their values. As student values are more forward thinking and ‘green’, less accepting of mal practice and practices such as modern slavery in supply chains, students will be able to choose products depending on the alignment to their values.

2.3 Micro Loans





This button will allow users to quickly and effortlessly receive small amounts of money when they need it, typically around £50, with an upper limit of £250. But these numbers would be subject to change depending on the user’s financial profile data. If they choose not to use the profile then the limit would be £50. If the user has a financial profile and the score is good then this limit would be the full £250. This is the level of money to fulfil short term money needs to get the weekly shop a train ticket home.

The Micro Loan is not intended to pay rent or bills but be there when a student needs money quickly but does not want to go to a loan company and pay back high interest rates with the risk of effecting their credit score. The repayment terms would be fair, and quick repayment would increase your financial profile. Student Coin would not promote the Micro Loan element as it is not a loans company, but the feature is there to take the pressure off students when managing finances. Keeping it in house allows Student Coin as a company to better assist and educate students in financial management. Student Coin would be open to joint venturing with peer-to-peer micropayment lending platforms.

2.4 Investment Schemes

The investment schemes would offer users access to a fully managed investment portfolio, allowing them to be involved in investing but without the need to spend several hours a day setting up trades. The nature of the investments would be medium to long term, allowing the user to benefit from long term investments whilst being flexible in the packages they pick; for example Student Coin

can offer anything ranging from six months to 5 years. The investment includes in cryptocurrencies which rose 1320% in 2017 including failed ICO's.⁵ This level of return is hard to beat using traditional investment schemes which are typically 6-8%.

MY INVESTMENT		
INVESTMENTS OPEN		
CURRENT PRICE	MY INVESTMENT	PROFIT/LOSS
 £ 6114.98	£ 370	↑ 534%
 £ 413.98	£ 228	↑ 627%
 £ 8.43	£ 50	↑ 849%
 £ 121.44	£ 105	↑ 317%
CURRENT TUTION FEE TO PAY		£ 27,750
FORECAST CUMULATIVE ROI		
£ 424.50	£ 3,604.00	£ 30,598.00
YEAR 1	YEAR 2	YEAR 3

The first part of the investment scheme would be to offer it to parents whose children are going to university. This would allow the parents to set aside an amount of money into the investment portfolio. Over the years their portfolio would be gaining much more profit when compared to a savings account. When their child starts university, this money could be taken out of the portfolio in stages to pay for the costs of university. After the three or four-year course, the student fees would be paid off, and depending on how much was put in initially there could be money still in the portfolio. From the point of view of the parent, there was no cost to them to send their child to university and for the student they did not need to take out a loan.

For some students these managed investment portfolios would allow them to set aside any money they have spare and invest it. This means that as soon as their next academic year they might not even need to take out a maintenance loan to live at university. The range of portfolios will range from short term six months, up to three-year terms to allow them to have an investment portfolio growing as they study, giving them money when they graduate to kick start their lives. For students, this is an option to show that their money can have so much more of an effect, that money makes money, no matter how small the initial investments are. Of course there are no guarantees in investments but the trend in cryptocurrency investments are generally upward despite market fluctuations.

2.5 Student Voice

The student zone will be all about getting people's opinions and concerns heard. This is done to a certain degree on a university by university basis by their university student union. But even on this local level the concerns and demands of these students to not go very far and in most cases do not

⁵ http://docs.wixstatic.com/ugd/59bcf2_9c2ec55330ae40dd82c5d09993065bd0.pdf

result in any action being taken. What the student zone will do will be to take all of these and use the collective power of all students to go out and create real change.

For example, a student can create a short poll to see how many other students have the same concern or problems. Students around the country would vote; once it hits a certain level then the issue would be raised and taken to student representatives at Student Coin which would take the issue to the right people and handle the concerns of students. Being able to consolidate lots of small groups and putting all the issues that those students face into one movement will ensure that the issues are addressed by the people who it concerns.

This system will be a direct way of getting a student issue out to the people it needs to go to, students will also be able to link up with other student lead campaigns to show their support, get involved or simply show that they agree with what that group want to achieve. We intend to use the Decentralised Autonomous Foundation (DAF) model described below to implement the voting system fairly; the DAF is based on Distributed Autonomous Organisation (DAO) established in 2016

At Student Coin we would apply this same DAF idea of grouping together towards how we run the company. Students will be able to buy micro shares in the company either via investments or through their daily spending. This means that every student using the system will be seen as a shareholder, and if as a user they feel something in the company needs to change then they would be able to vote and once all the votes hit a critical number then the board would address the issue. As a company we don't only allow students to be heard by institutions but to be heard by the company.

2.6 Student Network

This feature will allow students to not only connect with key members in the student market, but with other student run societies and clubs giving these societies much more of a reach and an impact which is no longer limited to one university. If students want to setup and run a society then why should it be limited to one university, being able to link together these will allow students to have more of a choice and to further increase their reach. It can be used for both academic and social events, ranging from academic lectures, investment events and student only festivals.

This tool can also be used from the perspective of a business. They will be able to view student profiles that match what they are looking for and offer them placements and job offers. Students will be able to create their own "Student Profile" which they will be able to choose which industries interest them. Student Coin will then make sure that their profiles reach the right businesses, and the businesses adverts are seen by the right people.

2.7 My Career

The Student Coin dAPP can be the new "CV". There is no longer a need to send off for job applications, as a student progresses throughout university. They can keep adding to their profile, linking into extra curriculum activities and university grades. The recording of both tangible certificated academic achievements and intangible 'soft' achievements (eg volunteering) is the subject of Seratio Whitepaper 5.0 "Educational Passport: Distributed Learning Ledger", and will be implemented in the Student Coin dAPP, as with the EduCoin and marketplace offering from CCEG's

CyberFutures consortium (www.cyberbutures.net) which consists of 15 universities as well as Microsoft, British Telecom, Tata and Informa Plc (FTSE 100 educational provider).

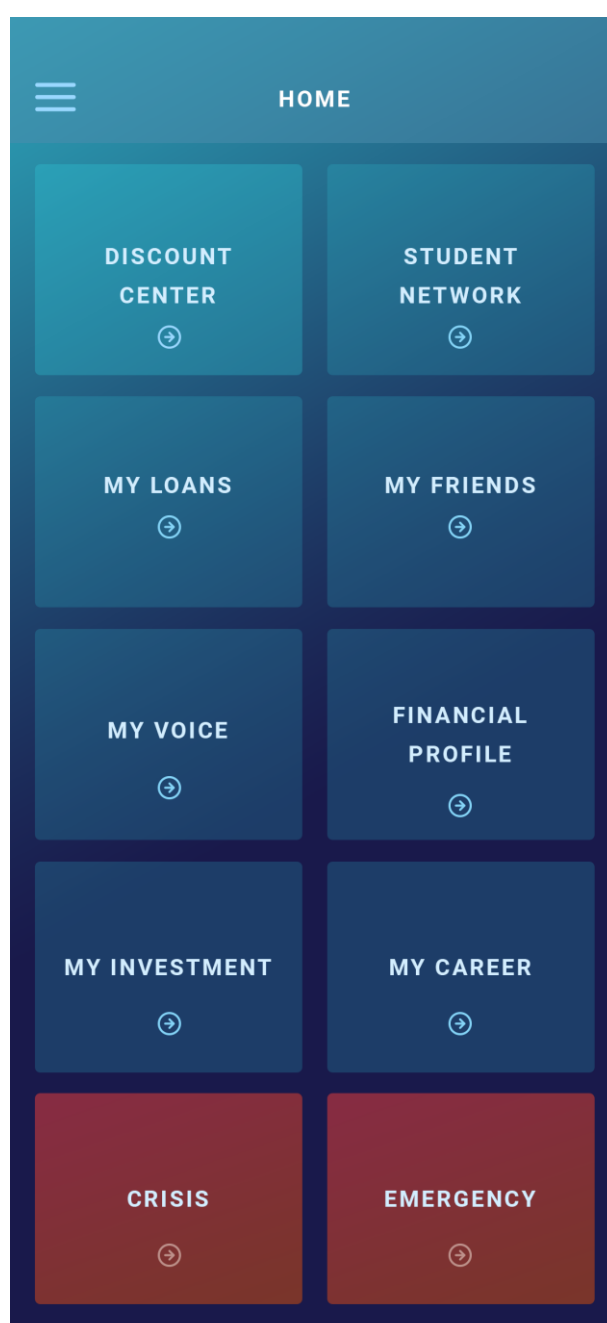
2.8 Crisis Guidance

With the lowering of grades to accommodate more students into the university system, an increasing number of students are attending unprepared for the challenge. The reported degree of mental health interventions at universities have increased significantly but away from home, often for the first time, leaves the student isolated and vulnerable. Our response is to use the Seratio U-Bot system, an AI (artificial intelligent) mobile based bot that is available 24/7 to assist you and help you through crises and management of stress. This will be blended with 24/7 physically manned hotline for emergency use.

2.9 Our Aims

Student Coin is here to serve the students before, during and after their time at university. As a company we view students as the future of our country and being able to get them started in the world one step ahead will make the whole university experience worthwhile. We believe that building strong relationships is a vital activity in the modern world and why do businesses fail to do so with students? At Student Coin we are there for students. At the start of university year we will provide the platform for students to learn, experience and grow as an individual and get them prepared for graduation and to continue to support them after graduation.

The Student Coin platform is the link between the world of students, the world of business and a world of possibilities for students. Student Coin is the catalyst for change. As a scattered group, students do not have the power to influence the government, as existing institutions do not sit on the side of students. As one group, students can create incredible change. Student Coin will be that platform which allows students to step up, unite as one group and make the rest of the world listen to us. Whilst we do this we also ensure that a student's time at university is to focus on the learning and not on worrying about finances and how they are going to pay that next bill.



3 DAO 2.0: The Decentralised Autonomous Foundation (DAF)

3.1 Microshares

In the Seratio® system, Microshares are the non-financial representation of the value of a designated community group. They are the enduring “Badge” of recognition to show an individual has aligned values to that group.

But much more than that, Microshares are also a community engagement tool, a true voice and vote; they can be used to determine community action and desires.

Each community has their own attributed Microshare aligning those to WomensCoin (www.womenscoin.com) or UbuntuCoin (www.ubuntucoin.io) for example, and the same applies for Student Coin. The benefits available and the level of control extended to Microshare holders will vary by each community group. Therefore, the demand and market opportunities for different Microshare types will also vary by group.

The Microshare Exchange alongside enabling peer to peer exchange, will facilitate three unique and engaging uses for Microshares:

- a) A Decentralised Autonomous Foundation Model (DAF)
- b) Retail Discounts/Loyalty/Incentives
- c) A Vote and/or a Voice
- d) Foundation / Community offers
- e) The Virtuous Circle of Value Alignment – Microshare rewards

The combination of the community engagement, spend, exchange and reward give a unique platform to drive activity, support and action.

3.2 The DAF Model

Decentralised Distributed Decisions, creating community engagement

An automated process based on pre-set, foundation-agreed smart contracts and wisdom of the crowds type tool to determine the criteria for who may receive the benefits/support funding from the Foundation and on what impact conditions being met.

The Foundation will allocate a percentage of funds or the entire fund to distribute in this manner. Ultimately the foundation maintains overall control of the parameters via the terms and smart contracts and wisdom of the crowds type tool, whilst allowing the communities to determine the beneficiaries within the boundaries set. Time, geographical considerations and funding bands can all be built in to give control boundaries. Decisions that are contingent on Impact achieved will be measured and articulated through the Social Earnings Ratio.

This DAF will capture the excitement and engagement created by the [DAO](#), the best known digital decentralized autonomous organization that raised in excess of US\$150m from more than 11,000 investors in the first half of 2016. The DAO is a Distributed Autonomous Organisation which has no

requirement for directors, board, shareholders and all decision making is through a Smart Contract on the blockchain. The DAF is a hybrid of the DAO bridging old and new world values, and, of course addressing the coding vulnerabilities.

The decentralisation of foundation distribution gives full transparency, and perhaps even more importantly, it gives power and autonomy to the stakeholders community it supports and is supported by to determine the distribution of the funds. This can create a virtuous circle of accountability and interest.

Arguably the most empowering and engaging community engagement tool, the DAF Model has the potential for worldwide acclaim and interest.

Worked example:

The Foundation Stakeholders are the Microshare holders.

Organisations bid in a similar way to crowd funding / crowd sourcing to get the Microshare holding community' support – which then entitles them to funding.

The bids are hosted on the Microshare Exchange website and referenced on the Foundation Website.

The exchange and vote mechanism are fully automated.

1. The Foundation allocates funds eligible for distribution –e.g. US\$1,000,000
2. The Foundation Sets the criteria
 - Timeframe - June to December 2018
 - Amounts – individual allocations between US\$5,000 up to US\$50,000
 - Beneficiary requirements
 - An established Charity / NGO/ community Group in operation for more than 6 months. Authenticity of the entity will be validated through creating its E-Passport⁶ - an encrypted attributes-assessed digital presence of an individual / product / community / service on the blockchain
 - Has the support /votes of more than 1000 foundation stakeholders
 - Has a bid for funding clearly articulated on the foundation website/exchange
 - Has a clear measure of impact success and the way this will be measured.
 - Bids for Repeat funding may be allowed after a 12 month period
 - Support is given by votes and/or Microshares donation
 - Support may also be requested in kind – offers to directly give time/services to the beneficiary

Once the criteria are met, the smart contract kicks-in and the funding is allocated to the beneficiary from the foundation's allotted fund, automatically. All facilitated by smart contract.

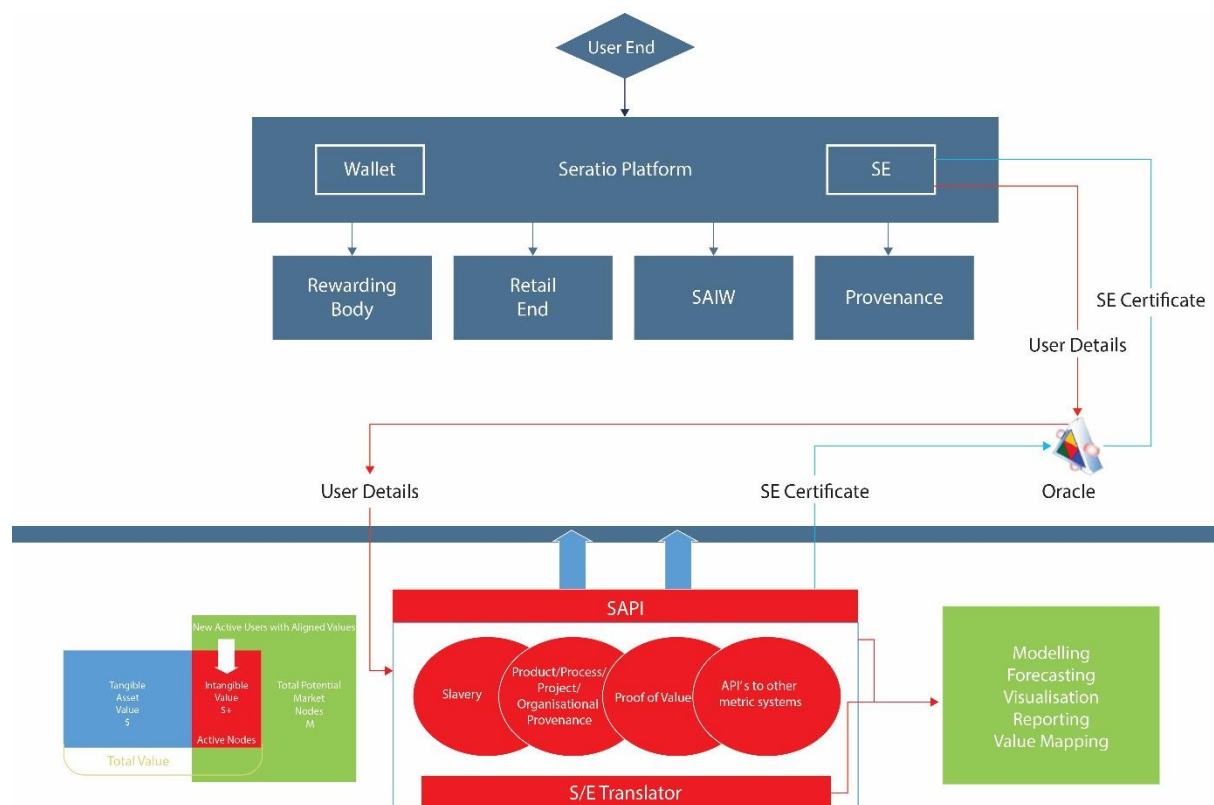
⁶ E-Passport is integral to the Social Earning Ratio supported Provenance Engine (adjunct component of the Seratio Blockchain Platform). E-passport brings together hard tangible and soft intangible attributes and is hosted on the Ethereum Classic blockchain.

A fully transparent and “automated” system of distribution

DAF technical support will be provided through **Seratio Blockchain Environment**⁷ – multi-tier blockchain system. The system brings together:

- a) blockchain platform with an embedded e-wallet – Seratio Wallet
- b) platform adjunct components: Provenance Engine, Seratio AI Wallet, Retailer's Portal and Rewarding Body Portal.

Future services include but are not limited to Mapping, Forecasting, Modelling, Visualisation, Reporting Engines. Central to the Seratio Blockchain Environment is S/E based API – Seratio API (SAPI).



3.3 Retail Discounts/Loyalty/Incentives

A retail-led exchange of Value for Microshares

The retailer will provide an exchange rate between its own loyalty and discount schemes and identify the communities that they wish to reward e.g. Student Coin Women's or Ubuntu Coin Microshare token holders. Exchange rates can be allocated at different tariffs to different communities representing the target audience and community values the retailer is incentivising.

⁷ Seratio Blockchain Environment Whitepapers: <https://github.com/seratio/whitepaper>

Retailers can also present offers and special incentives for exchange fitting in with their own agenda and systems ensuring there is a low barrier to entry. No special Point of Sale upgrades are required, the exchange facilitates the mechanism to the retailers own rewards/offer programmes.

CCEG has the capability to accommodate such functionalities within its Social Earning Ratio supported software. Precisely, specially designed Retailer's Portal⁸ provides a system to offer services and goods in the most customer aligned way alongside supporting rewards programmes in Microshares.

The case for Retailers

The Microshare Exchange is accessible to ALL retailers big and small – Any location Any Territory, Online or on the High Street.

Retailers will give access to deals/discounts/special offers tailored by microshare type, and thus can be used as a marketing tool to incentivise and engage community groups that the retailer may wish to target.

As each Deal available is exchanged for Microshares, the Retailer has an ongoing transparent audit trail of what has been exchanged and received. Once exchanged, the retailer then owns the Microshares and can then report in the Retailer's Corporate Social Responsibility agenda for supporting their chosen community groups.

The result is **a compelling market place for Microshares to be exchanged for value, via an accessible engaging retailer platform with clear marketing and incentives for retailers, big and small available in all territories.**

3.4 A Vote and/or a Voice

Engaging the community on Foundation matters, Microshare allow the Foundation/Community to perform like a mutual, giving community supporters a voice, a vote or as a governance method for certain aspects of operational consideration or strategic direction ratification.

The Microshare is a key engagement tool. It allows all Microshare token holders belonging to that Foundation to be eligible to cast a vote on matters akin to an Annual General Meeting. For example, to appoint or remove Trustees, to govern or vote on strategic direction, to operate like a Mutual Society where members have real input into how the Foundation operates and agree on what the priority issues are.

Allowing some autonomy to the community group creates passion and enthusiasm for the mission.

To be eligible to vote, the holding of Microshares would be a foundational criteria. However, for certain issues, to demonstrate an even higher level of alignment/commitment, the Foundation may decide a small exchange of Microshares is also required for vote eligibility.

⁸ Retailer's Portal is an adjunct component of the [Seratio Blockchain Platform](#). Retailer's Portal is hosted on the Ethereum and Ethereum Classic Blockchains.

3.5 Foundation / Community Offers

As a non-financial token, Microshares have full flexibility to be an evolving tool for community engagement and action.

The Holding of a Microshare may be used as an eligibility for holders to access

- Special Competitions
- Access early bird offers
- Access premium or exclusive goods / services
- Access to premium Concert tickets
- Access Meet ups

Plus, any offer that can be exclusively given or promoted to the community. You must hold the Microshares to be eligible to win/participate/enter etc.

Distinctive from Retailer offers these special incentives are driven / arranged through the Foundation, in direct support of the Foundation. For example, a Celebrity may give a special exclusive competition to meet them and attend a concert. By allowing the prize, the Celebrity is showing their support and alignment to the foundation's aims.

3.6 The Virtuous Circle of Value Alignment

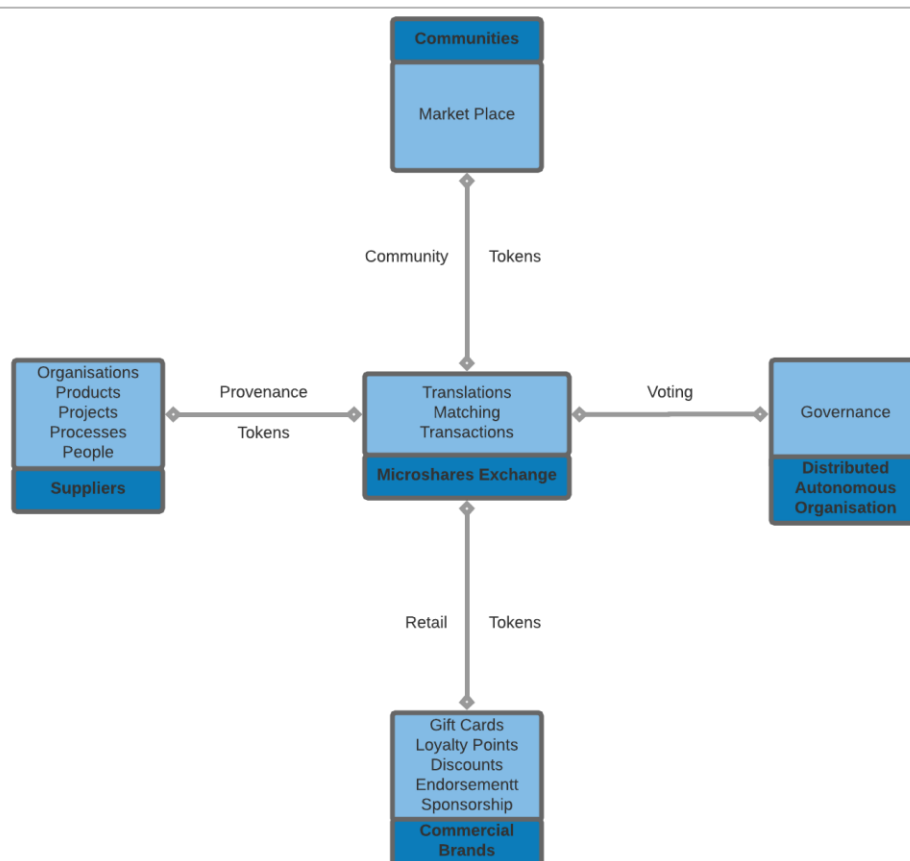
The ability to earn Microshares for aligned behaviours and actions creates a virtuous circle within the exchange community.

The aligned provenance of products, and the matching of values of a retailer or manufacturer to a given community's set of values creates a perfect circle. For example, supporters of Women's Coin will want to shop in retailers where they know that the female employees of that retailer are paid the same rates as their male counterparts. Women's Coin holders will want to buy products that are free from child labour and slavery conditions in the manufacturing process.

By bringing the transparency of the provenance of products, the freedom measures within supply chains, the openness of salary disparities in the retailers and providers where we shop, Microshare holders will have the choice to make purchases aligned to their own value sets.

This transparency is delivered using the Seratio Provenance Engine, a complex analytical tool which allows tracking provenance of products, organisations, processes, projects and people through monitoring and analysing financial and non-financial values.

When we buy what we value, that is, when the values of suppliers, manufacturers and retailers are aligned with those of the Foundations Microshares, then we can be rewarded with additional Microshares. The Foundation becomes the channel for Microshare recognition as an awarding body, using the Social Earnings Ratio.



4 Launch Overview

4.1 Initial Coin Offering

Student Coin Limited is a company registered in the United Kingdom under number 11003810 and has its registered office at 41 Millbrook Road, Crowborough, United Kingdom, TN6 2SB. Student Coin has contracted Centre for Citizenship Enterprise and Governance (CCEG) to manage their Initial Coin Offering including the Pre-ICO and this initial Private Placement Investment.

For the Private Placement in Student Coin for each *GBP£1.00* invested – Investors will receive:

1 Student Coin - Seratio (SER) based token and

1 Student Coin Microshare.

The SER token is a tradeable Ethereum ERC20 standard digital currency – which has already been taken through Initial Coin Offering which was 100% successful.

The Student Coin will be deposited in a newly created personal digital SER Wallet for the investor within specified time of receipt of cleared funds. The token will then be fully tradable or exchangeable by the investor.

The Student Coin Microshare is a non-financial token with Student Coin attributes. Student Coin Microshares (SMCR) is a cryptocurrency hosted on the Ethereum Classic blockchain. Student Coin Microshares are tradeable and will be deposited to the investor's SER wallet.

The minimum Investment is GBP£50.

All investors must fall within the definition of "Experienced Investor" – FSA (experienced investor funds) Regulations 2012. It is recommended that all investors do their due diligence.

Terms and Conditions can be found on the [website](#) and are downloadable in a pdf ⁹.

4.2 Schedule

The Student Coin Initial Coin Offering is planned to operate within the following timeline:

Date	Activity
22nd April 2018	Whitepaper Published
1st May 2018	Private Placements
July – August 2018	Promotional Campaigns
15th – 30th September 2018	Pre-ICO UK roadshow
15th-30th September 2018	Pre-ICO
15th – 18th	Early Bird 50% off
19th – 22nd	Early Bird 25% off
23rd- 26th	Early Bird 15% off
27th-30th	Early Bird 5% off
1st-31st October 2018	ICO
1st December 2018	Student Coins minted
1st May 2019	Stakeholders Release
2019 - 2030	Student Foundation (DAF)

The DAF will release it's tokens evenly through the 2030, in line with the United Nations Sustainability Development Goals (SDG).

⁹ The purchase of SER Tokens and Microshares are further subject to the Terms and Conditions available at www.seratio-cons.world. Nothing in this whitepaper constitutes advice. You are recommended to seek independent financial advice. Buying, selling and holding digital assets or cryptocurrency is never without risk. The market itself can go down as well as up, and the digital assets you pick can perform badly. If you are going to purchase digital assets it is important to research each proposition to see if it is suitable for you. Make sure you do not purchase more than you can afford to lose. You can also consider purchasing in a number of unrelated digital assets in order to spread your risk. The value of digital assets in the market can go down as well as up. This Private Placement is governed by the law of England and Wales, and is subject to the exclusive jurisdiction of the England and Wales.

4.3 Marketing Campaign

Summer 2018 Plans in place for the Student Coin team to approach and potentially work with partners / retailers:

- Approach the local universities regarding SU events
- Target local nightclub attractions for promotional events
- Local radio and TV production
- All local student-based stores i.e. Topshop, Zara
- University stores on national scale.
- Amazon
- Tesco
- Asda

Date (week beginning)	Activity
2 nd July	ICO advisors, investor groups
9 th July	University partners, education boards
16 th July	Student Unions sign on (campaign sponsors)
23 rd July	News (BBC, Lad Bible, Student Life)
30 th July	YouTube, Instagram influencers (targeting students)
6 th August	Online retailers (Ocado, Amazon, eBay, Staples)
13 th August	Supermarkets (Asda, Tesco, Morrisons, Aldi, Lidl)
20 th August	Clothing (Topman, Topshop, Primark, Nike, Next, Zara)
27 th August	Wetherspoons
3 rd September	Interviews (for Student Coin members and other students)
10 th September	ICO Preparations, filming for campaign videos
15 th September – 30 th September ICO	Vlogging campaign road trip, linking into local universities, SU's and events)

4.4 Roadshow

The Student Coin team is planning on organising a number of campaign events through out the UK. At time of this publication, the schedule is as follows:

Number	Institution	Students enrolled (2016 – 2017)	Campaign Event
1.	Open University	126,210	
2.	University of Manchester	40,490	18 th September
3.	University College London	37,905	26 th September
4.	University of Birmingham	34,835	21 st September
5.	University of Leeds	33,300	
6.	Manchester Metropolitan	33,010	
7.	University of Nottingham	32,515	20 th September
8.	University of Edinburgh	31,910	

9.	Coventry University	31,690	
10.	Cardiff University	31,595	
11.	Sheffield Hallam University	30,815	
12.	King's College London	30,565	27 th September
13.	Nottingham Trent University	29,370	
14.	University of Sheffield	28,715	19 th September
15.	University of Glasgow	28,615	
16.	University of the West of England	27,880	
17.	University of Liverpool	27,070	18 th September
18.	Northumbria University	26,675	
19.	University of Southampton	25,180	
20.	University of Warwick	25,045	21 st September
21.	Newcastle University	24,980	17 th September
22.	Leeds Beckett University	24,885	
23.	University of Oxford	24,650	
24.	Ulster University	24,640	
25.	University of Hertfordshire	24,580	28 th September
26.	University of Central Lancashire	24,160	
27.	Birmingham City University	24,130	
28.	Queen's University Belfast	23,850	
29.	University of Bristol	23,590	
30.	University of Portsmouth	23,505	
31.	University of South Wales	23,465	
32.	De Montfort University	23,205	20 th September
33.	University of Exeter	23,175	24 th September
34.	University of Strathclyde	22,955	
35.	Liverpool John Moores University	22,445	
36.	Anglia Ruskin University	22,245	28 th September
37.	University of Brighton	21,655	25 th September
38.	University of Plymouth	21,645	
39.	University of Kent	20,220	25 th September
40.	Bournemouth University	20,200	24 th September
41.	University of Salford	19,995	
42.	University of Cambridge	19,955	
43.	University of Greenwich	19,915	26 th September
44.	University of Westminster	19,650	
45.	University of Wolverhampton	19,560	
46.	Middlesex University	19,505	
47.	Kingston University	19,470	
48.	City, University of London	19,405	27 th September
49.	Swansea University	19,160	
50.	Queen Mary, University of London	18,890	
51.	Teesside University	18,555	
52.	University of Durham	18,385	17 th September

53.	University of the Arts London	18,290	
54.	University of Huddersfield	18,280	
55.	London South Bank University	17,985	
56.	University of York	17,900	
57.	Oxford Brookes University	17,805	
58.	Imperial College London	17,690	
59.	University of Derby	17,585	
60.	University of East Anglia	17,195	
61.	Loughborough University	17,130	
62.	University of Bath	16,910	
63.	University of Leicester	16,800	
64.	University of Sussex	16,685	
65.	University of Hull	16,530	
66.	Glasgow Caledonian University	16,415	
67.	University of Surrey	16,065	
68.	University of the West of Scotland	15,955	
69.	University of Reading	15,840	
70.	Open University in Scotland	15,460	
71.	University of Dundee	15,390	
72.	University of Chester	15,325	
73.	Edge Hill University	15,220	
74.	Canterbury Christ Church University	15,200	
75.	Staffordshire University	14,910	
76.	University of Essex	14,585	
77.	University of Aberdeen	14,150	
78.	University of Lincoln	14,105	
79.	University of Bedfordshire	14,000	
80.	Lancaster University	13,615	
81.	Brunel University London	13,130	
82.	University of East London	13,215	
83.	University of Sunderland	13,020	
84.	University of Northampton	12,850	
85.	London Metropolitan University	12,145	
86.	Robert Gordon University	12,530	
87.	Edinburgh Napier University	12,910	
88.	Cardiff Metropolitan University	10,995	
89.	Aston University	13,610	
90.	Birkbeck, University of London	12,915	
91.	University of Stirling	12,065	
92.	Southampton Solent University	11,060	
93.	University of Bradford	10,960	19 th September
94.	The University of St Andrews	10,330	

95.	Bangor University	11,270	
96	Heriot-Watt University	10,500	
97.	University of Worcester	10,745	
98.	London School of Economics	11,210	
99.	University of West London	10,390	
100.	Keele University	10,600	
101.	Royal Holloway, University of London	10,325	
102.	University of Wales, Trinity Saint David	9,755	
103.	University of Cumbria	8,635	
104.	Aberystwyth University	8,455	
105.	Roehampton University	10,205	
106.	Buckinghamshire New University	8,870	
107.	Goldsmiths, University of London	9,345	
108.	University of the Highlands and Islands	8,720	
109.	University of Gloucestershire	8,505	
110.	Bath Spa University	7,980	
111.	University of Winchester	7,540	
112.	Open University in Wales	6,880	
113.	Wrexham Glyndŵr University	6,415	
114.	University of Bolton	6,425	
115.	School of Oriental and African Studies	6,360	
116.	York St John University	5,940	
117.	St George's, University of London	4,855	
118.	Harper Adams University	5,410	
119.	St Mary's University, Twickenham	5,535	
120.	University of Chichester	5,540	
121.	Queen Margaret University	5,210	
122.	University of Suffolk	5,080	
123.	University College Birmingham	4,935	
124..	Liverpool Hope University	5,240	
125.	University for the Creative Arts	6,180	
126.	Falmouth University	5,385	
127.	Abertay University	3,845	
128.	Cranfield University	3,935	
129.	Leeds Trinity University	3,625	
130.	University of Buckingham	2,520	

4.5 Distribution

The Student Coin is part of the Seratio Branded Coins. The Student Coin and Student Coin Microshares are compliant with ERC20 Token Standard and are developed utilising latest developments in the sector. The Development Team is pioneering the ERC827 standard for added security and user comfort. The codes have been subjected to a full rigorous security audit by UK professionals Sandblocks Consulting experienced in blockchains, nuclear and railways industries.

The Student Coin Team is planning to raise GBP£ 5 million (soft-caped), releasing 40 million Student Coins in total.

The proposed structure of the token distribution¹⁰ is the following:

25% - 10 million tokens - ICO (incl. Pre-ICO)

25% - 10 million tokens - Student Coin Stakeholders (held until 1st May 2019)

50% - 20 million tokens – Student Coin Foundation (held and released through DAF)

Student Coin will be minted to the SER Wallets on 1st December 2018. With the exception of the tokens issued to the Student Coin Stakeholders and to the Student Coin Foundation, each of which are subject to further hold periods, all other tokens become freely tradable after 1st December 2018.

Once the initial token distribution is complete and depending on the community demand, the Student Coin Team may consider another token generating round for the international roll out.

Private Placement UK£ 2 million soft cap target at 55% discount

SER INCENTIVE AND TOKEN SWAP MECHANISM

An incentive package has been implemented to reward those who have received SER tokens either through the Seratio ICO or through subsequent purchasing after minting.

- UK£ 1.00 Investor at Student Coin Private Placement also receives 1 SER token which they do not need to surrender
- UK£ 1.00 Investor at Student Coin Private Placement also receives 1 MCR-Student Coin token
- Each MCR-Student Coin will enable a token swap with a UK£ 1 Student Coin at 55% discount (ie £0.45p)
- Investor at Private Placement is allowed to utilise his/her pre-existing SER tokens to invest in the Student Coin (Pre-ICO/ICO), but only to a maximum of 4 SER (ie 1 new SER from PP and 3 pre-existing SER tokens). This is conditional on taking part in the Student Coin Private Placement.
- SER investment at Pre-ICO/ICO will not have any discount
- SER will not be accepted for the Private Placement, only BTC, ETH or FIAT.
- The value of the SER will be determined before the start of the Pre-ICO.

¹⁰ For the UK fundraising round

Example Return on Investment (RoI)

Based on purchasing SER at £0.20p, and valued at UK£ 1 at Pre-ICO/ICO, gives a return of UK£ 6.22p for a UK£ 1.6 investment. This is equivalent to x 3.9 RoI for those who already have SER tokens, based on an SER rise to UK£ 1 due it's usage to invest in Seratio Alt-Coins.

For those who do not have SER tokens already, this incentive package is equivalent to x 3.2 RoI.

For those who do not wish to trade their SER token received at Private Placement the RoI is x 2.2, allowing them to use SER at a later date

5 The Team

5.1 Core Student Team



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5.3 Our Story

The foundations of Student coin were formed in a social enterprise workshop during year one of our university degree. The aim of the group work was to come up with a social enterprise. Initially Ben wanted to start a company based on cryptocurrency however, at first the group members didn't want to pursue the idea until Drew saw the potential and supported the idea.

As the weeks progressed, Ben and Drew refined the idea towards the student demographic. Over time many factors that affect student life were analysed until they determined that the direction to take the business was to help students on a financial level.

The assignment was in the form of a presentation, to be delivered to two lecturers. The idea was received well with the people in the room. Following on from the presentation, Ben and Drew decided to continue with the business idea.

In May 2017, Ben pitched the Student coin concept at a CCEG blockchain event, this was a great opportunity to talk to specialists in the field of blockchain. After the event Ben was able to take a more in-depth view of the block chain world.

Our first social enterprise lesson, back in our second year was run by Professor in Social Enterprise, Olinga Ta'eed¹¹ touching on block chain once again as a social financial instrument. We stayed in contact after the session.

During the Seratio ICO (www.seratio-coins.world), Ben and Drew continued to meet with several members of CCEG. The ICO gave Ben a good insight on how to deal with challenges that the team faced. Looking back on the ICO, we believe that this helped us to understand the marketplace and how to further develop the business idea.

Being full time students we have found the balance between the business and our university life challenging at times, however, our commitment to creating change for students has allowed us to work on both commitments. The last few months have focused on the direction for the company and the team we would require moving forward. We met with Olinga on how we could establish the company and start building what we wanted to achieve.

Over the festive period Ben and Drew had the chance to talk to friends and family enabling them to gain an insight in to the general attitude towards crypto based companies. They established some early investments which has since expanded the budget that the company can use for promotion and exposure. Ben also had the opportunity to talk to friends positioned in different universities around the country, talking to a variety of students helped them to build a bigger more detailed picture of university life around the UK.

¹¹ <https://loop.frontiersin.org/people/540552/overview>

6 Background Information



Centre for Citizenship Enterprise and Governance

The Centre for Citizenship, Enterprise and Governance (CCEG) www.cceg.org.uk which is the world's leading Think Tank on the Movement of Value and established in 2013 based on a theoretical framework in 2011. We have 5 divisions within a not-for-profit structure that carries 120,000 members. We are independent of any particular organisation.

(i) Metrics division

This is housed in www.seratio.com which provides open source non-financial metrics. We have over 100 commissions (www.socialearningsratio.com) and provide SaaS platforms to support government legislative frameworks for UK (eg. Social Value Act 2012 www.publicvalue.online), Modern Slavery Act 2015 (www.modernslavery.uk), 5 EU commissions (www.socialvalue.eu), 2% law in India/Indonesia/Mauritius, etc. We also have an active research interest in Personal Value (www.serat.io). We have our own journal Social Value & Intangibles Review <https://issuu.com/seratio>

(ii) Blockchain division

We have one of the largest blockchain teams in the world operating in an academic environment (<http://mypad.northampton.ac.uk/cccg>) which includes the UK's first (and so far only) official ICO operating under FCA (www.seratio-coins.world). You will see there our advisors include Eversheds Sutherlands solicitors – a global firm, and Chandler Guo who is now owner of US\$ 10 billion bitcoin and a third of Ethereum in the world (<https://irishtechnews.ie/why-seratio-is-a-unique-ico-chandler-guo-world-blockchain-summit-dubai-25th-october-2017/>)

We have 12 open source whitepapers <https://github.com/seratio/whitepaper> and a 24/7 news feed <https://seratio-coins.world/news/>

We have c. 20 commissions from prestigious organisations to for TGE (Token Generating Events) for www.womenscoin.com launched in New York and House of Lords, Student Coin www.studentcoin.uk, Growth Impact Token www.growthtoken.uk, Black Value Coin www.ubuntucoin.io, City Coin www.cityblockcha.in, Islam Coin (<http://ow.ly/9nD3306wUdk>), UNDP Coin (www.cceg.org.uk/lab), etc.

We run the IoV Blockchain Alliance for Good (www.bisgit.org). We have signed two 5 year agreements to provide Blockchain education and solutions to Fordham University in New York, and Chengdu UESTC University in China (the largest blockchain solution provider for Chinese government). On 23 June 2018 CCEG will release the inaugural edition of the first independent international peer review journal in the sector, *Frontiers in Blockchain* (<https://www.frontiersin.org/journals/blockchain>), in partnership the world's largest open access academic publisher, Frontiers Media (<https://blog.frontiersin.org/2018/04/19/blockchain-journal-olinga-taeed-christopher-clack/>).

(iii) Cyber Futures division

We have setup a consortium of 15 universities, and partnership with Microsoft, Tata, British Telecom and Informa Plc (FTSE 100 company in education) at www.cyberfutures.net. This has 2 funding commitments through www.Edcast.com (backed by Softbank – largest software VC in the world) and Kerzner Family Office in South Africa. Edcast is a global provider of MOOC's and our online education partner.

(iv) Efficiency Exchange division

As from 2nd October we are the owners of www.efficiencyexchange.ac.uk which was given to us by 4 organisations that run universities in the UK – HEFCE, JISC, UniversitiesUK and LFHE. In return we are educating the sector on value in the sector. We also have ownership of exchange.ac.uk which we intend to be the basis of a new Digital University for September 2018 release as a global proposition.

(v) Rothbadi - Blockchain Impact Institutional Consultancy and Advisory

We have secured UK£ 1m funding to start a high end institutional consultancy and advisory aimed at banks, corporates, investment houses including impact/faith investing, incubators, family offices, governments, ngo's, UHNWI, etc (www.rothbadi.com). It is established in Zurich but also using the CCEG presence in Shanghai, New York, Kochi, Tokyo and London.

WHITEPAPER SCHEDULE

Updates are available at: <https://github.com/seratio/whitepaper>

- 1.0 Currency of Intangible Non-Financial Value (October 2016)
- 2.0 Values Based Impact Interventions (December 2016)
- 3.0 Impacting With Value: Capture-Translate-Transact-Report (February 2017)
- 4.0 Seratio Platform Architecture (March 2017)
- 5.0 The Blockchain Educational Passport (April 2017)
- 6.0 Seratio Initial Coin Offering (August 2017)
- 7.0 The Microshare (October 2017)
- 8.0 Women's Coin (February 2018)
- 9.0 Growth Impact Bond (March 2018)
- 10.0 Student Coin (April 2018)
- 11.0 TimeTraveler Trading (June 2018)



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[@student_coin](https://www.instagram.com/student_coin)



[Student Coin](https://www.youtube.com/StudentCoin)