

## **Introduction**

This research project is compiled for the benefit of a new blockchain training course — Blockchain Training in Balance. This is a new offering from an experienced teacher and blockchain expert. It is not a programming course, but an overview of blockchain, smart contracts and decentralized applications and is designed for entrepreneurs and business leaders who need to understand how blockchain will disrupt their industry — and how they can be at the forefront of the disruption.

Accordingly, this research will look into the other blockchain courses available either through free courses, paid courses or university-level courses available online, and assess the interest in such courses. Given blockchain is a new technology and still in the nascent stages of adoption, it will be difficult to track demand, but it is fair to say that as cryptocurrency and blockchain applications become more prevalent, the demand for such training will increase.

## **Market Analysis**

### **Key Drivers of Demand**

Demand for blockchain courses will inevitably be derived by the adoption of blockchain by Fortune 500 companies and governments and thus the wider acknowledgement and appreciation of the power of the technology. As the blockchain becomes crucial in enterprises areas such as financial, supply chain, insurance, digital identity and land registries, entrepreneurs who disrupt those industries will be curious to understand how blockchain will aid the disruption.

Because entrepreneurs are also known to prioritize continued learning, development and study, there will be a swell of entrepreneurs, founders and business leaders seeking blockchain education and consultancy,

As blockchain benefits become more widely known they will provide a reason to adopt and a reason to invest in learning and development. The below is a look at how the benefits will shape business:

- Blockchain and security go hand in hand with the storage of information throughout a network of computers in comparison to a single server. The decentralized storage of information and lack of single ownership resolves any threats of hacking transaction data.
- The demand for blockchain skills in 2020 is also increasing largely for transparency facilitated by blockchain technology. It is practically impossible to alter any records in the blockchain without the knowledge of other network participants. One small change in any record could reflect directly on the entire chain, thereby ensuring transparency of all blockchain records.
- The next important aspect that can answer the question 'is blockchain a skill' refers to speed of transactions in the blockchain. Blockchain takes away the need for intermediaries, thereby ensuring faster negotiations, settlements, and clearings. All records are maintained in a single digital ledger, thereby taking away any concerns for interruptions.
- Blockchain enables permissioned access to all network participants for the immutable data in the blockchain. So, there is no intrusion of middlemen, thereby presenting reliable prospects for reducing the costs of transactions by almost half.

- Most important of all, the demand for blockchain skills is increasing due to the traceability benefits of blockchain. Blockchain technology features an audit trail which finds out the origin of an asset and all the milestones it has been through. The audit trail showcases the identity of users involved in the modification of an asset in the blockchain along with the timestamp.

## **Key Market Statistics**

- By 2023, the worldwide expenses on blockchain solutions would be valued at almost 15.9 billion. As of 2019, the worldwide expenditure on blockchain technology was \$2.7 billion, with promising disruptions in the finance sector. [\(Source\)](#)
- According to the 2020 Global Blockchain Survey of Deloitte, almost 39% of senior executives and practitioners have adopted blockchain into production. If companies worth more than \$100 million in revenue are taken into account, the share of blockchain adoption increases to 41%. Therefore, the potential for growth in the blockchain industry serves as a prominent reason for the increased demand for blockchain skills. [\(Source\)](#)

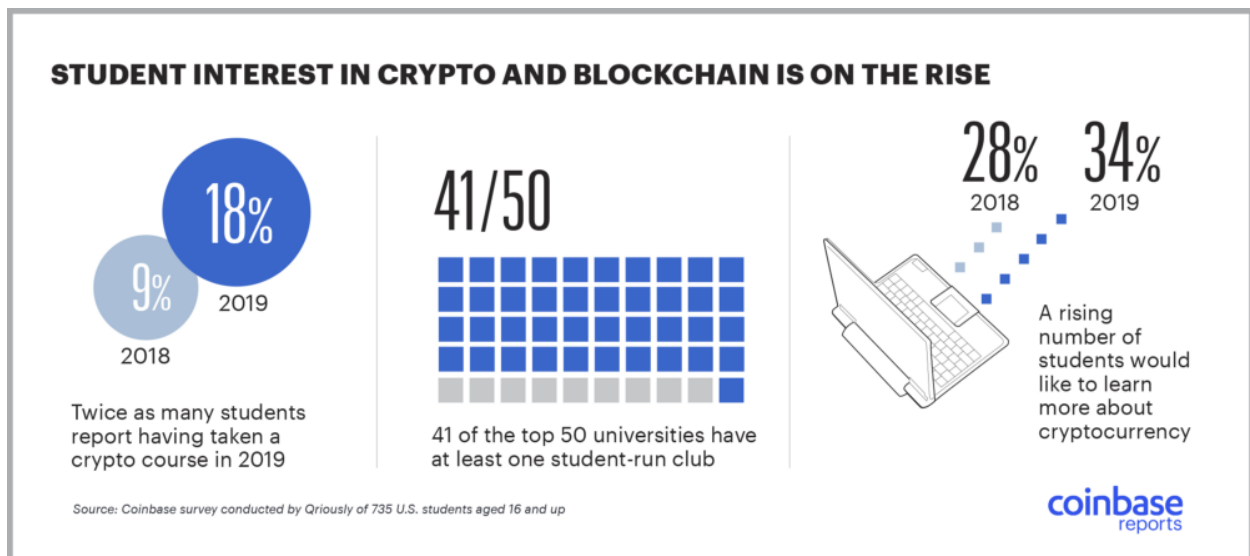
- The number of blockchain accounts has grown by 100% every year since its creation in 2010.
- By 2024, the global blockchain market will be worth \$ 20 billion.

## **Blockchain and Cryptocurrency in Universities**

To illustrate the rapid rise of blockchain in education and the growing thirst from developers to acquire new programming capability and blockchain experience, we've identified the following statistics as to the availability of blockchain education in universities

- 56 percent of the world's top 50 universities now offer at least one course on crypto or blockchain — up from 42 percent in 2018
- Twice as many students report having taken a crypto or blockchain course than they did in 2018
- Nearly 70 percent of crypto and blockchain classes are in departments outside of computer science, including law, the humanities, and economics

- Original Coinbase research includes a Qriously survey of 735 U.S. students age 16 and older, a comprehensive review of courses at 50 international universities, analysis of research citations and non-coursework offerings, and interviews with professors and students.
- Cornell University tops the Coinbase 2019 Leaders in Crypto Education list



Note, students don't have to be enrolled as a full-time student in an elite university to learn about crypto and blockchain. As we'll see in the competitive analysis below, there are a host of other online options. MIT's Sloan School of Management offers a six-week online course for professionals, and UC Berkeley offers a similar online class called Blockchain Fundamentals via the online learning hub edX (which also hosts classes on

the topic created by the LINUX Foundation). Other sites, including Udemy, Coursera, and Udacity offer an array of courses, including Udacity's "Become a Blockchain Developer" and Coursera's "Fintech Specialization" course, created and taught by faculty from the University of Pennsylvania's Wharton School of Business.

## **Target Market**

Our course is different from other blockchain courses that focus on development and programming. Ours is designed for entrepreneurs hoping to start their blockchain education and learn the theory and technology behind the code. This information will give students the opportunity to apply it to their businesses and disrupt industries. Thus, we're targeting entrepreneurs. The below sets out the demographics and characteristics of our target audience .

## **Target Persona**

### Key entrepreneur statistics and demographics:

- There are 582 million entrepreneurs in the world
- There are 25 million Americans who were starting or already running their own business as of June 2020.
- Studies show middle-aged men start the most successful businesses. 60% of people who start small businesses are between the ages of 40 and 60
- 95% of entrepreneurs have at least a bachelor's degree
- 15 million Americans are full-time self-employed
- As of 2019, there were approximately 252 million women worldwide engaged in entrepreneurial activities

### Working traits and characteristics:

- Creativity
- Persuasiveness
- Vision
- Versatility
- Risk tolerance
- Flexibility
- Decisiveness
- Collaboration



## Target Industries

Entrepreneurs in any of the industries below for the target market criteria. Here are the reasons why for each of the target industries.

1. Banking — Blockchain disrupts the commercial banking system by providing a peer-to-peer payment system with high security and low fees. No central authority exists. Using cryptocurrency, like Bitcoin, payment transactions are recorded in a ledger that is viewed and reviewable by any of the cryptocurrency users – giving you true autonomy over your transaction.
2. Finance — As above. Two billion people in developing economies have limited or no access to formal financial services, creating cause for substantial research interest in financial inclusion as a complex multidimensional phenomenon. Digital finance technologies, including blockchain, have empowered a type of creative entrepreneurship that seeks opportunities in relation to financially excluded individuals.

3. **Cybersecurity** — Because blockchain is a decentralized system, it's ideal for environments where high security is involved. Here, all the information stored on a blockchain network is verified and encrypted using a cryptographic algorithm – which means there is no single point of entry for a wide-scale attack. Also, you can easily identify malicious data attacks with blockchain due to peer-to-peer connections, where data cannot be altered or tampered. And, by eliminating a central authority, blockchain provides a secure and transparent way of recording transactions without disclosing private information to anyone. One example of a company successfully using cybersecurity this way is Guardtime.
  
4. **Supply Chain Technology** — Blockchain technology can trace all the steps of a supply chain, so that, let's say, you placed an order for food, had the food delivered, and found the food disgusting. The owner of the company from whom you ordered it could go back through his blockchain ledger and find out where in the supply chain the order went wrong to displease you. For example, he can go from the farmer to the producer, to the distributor, to the retailer, then to you, the purchaser. In other words, in supply chain management, blockchain provides permanent transparency and validation of transactions shared by multiple supply chain partners. All transactions are permanent and verifiable, making it easy for an owner or a customer to view each record. It can be used for any type of verification – for example, seafood verification, where it can track the seafood

from ocean to market. The Pacific Tuna Project uses blockchain to manage fishing information, exporting/importing details, and purchasing details to track tuna fishing. This prevents illegal fishing.

5. Healthcare — Blockchain technology eliminates the need for a central authority and enables rapid access to data. Keeping personal medical file information private is of the utmost concern, so blockchain technology is the perfect solution, but anonymised, collated data of symptoms and health outcomes also make it easier for medical professionals to diagnose patients (a bit like having a record of every symptom ever recorded and the ailments to look out and test for). Another healthcare concern revolves around counterfeit medication and blockchain technology can control this, too. The problem is that, often, counterfeit medications are difficult to distinguish from real ones. Blockchain technology solves this problem by using supply chain management protocols where the medicine provenance can be traced.
6. Voting — Blockchain technology can end voter fraud. In a traditional voting process, most voters stand in line to cast votes or send in mail votes. Then, the votes must be counted by a local authority. Online voting is possible in this scenario, too, but as with all other industries we've discussed, because a central authority is used, problems of fraud arise. Using blockchain technology thus becomes the wisest choice. Here, people can vote online easily without revealing

their identities. Using blockchain, officials can count votes with absolute accuracy, knowing that each ID can be attributed to only one vote. Fraud cannot occur because it is next to impossible with blockchain technology. And, once a vote is added to a ledger, it cannot be changed or erased.

7. Insurance — With blockchain technology's decentralized system, insurers can identify false claims and prevent forgeries.
8. Transportation — Utilizing blockchain technology enables traceability in the transportation industry, where the shipment of goods can be easily tracked.
9. Cloud Storage — Storj is a decentralized blockchain cloud storage system. By eliminating servers, Storj uses blockchain to store data in the cloud. With high speed and low cost, users can earn money by sharing their unused storage space on Storj.
10. Real Estate — Deploying blockchain technology in real estate increases the speed of the conveyance process and eliminates the need for money exchanges.
11. Lawyers — See conveyancing above. But blockchain could also influence the execution of all contracts with self-executing smart contracts, releasing payments

from escrow and so on. Wills is another example of blockchain coming to the legal industry.

## SWOT Analysis

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"><li>- Gold-standard learning: We intend for our course to be the leading blockchain course online. We do this through our experience , user testing and comprehensive, hands on training. While others offer high-level, we offer in-depth.</li><li>- Ease of use: The best training is easy, fun and engaging. We'll develop our course using the most up to date gamification, deep</li></ul>	<ul style="list-style-type: none"><li>- Hard to prove efficacy: Without having developed our own cryptocurrency, blockchain application or so on, it's difficult to justify our claims of being the most qualified and best course.</li><li>- Brand: Most learners choose to learn from an established platform, for example, EdX, Coursera. We're an unknown and that could be a barrier for some customers.</li></ul>

<p>learning trends to give our students the best experience.</p> <ul style="list-style-type: none"> <li>- Marketing machine: With free trials, regular reminders, conversion funnels and more, we're confident our sophisticated engagement and re-engagement engine will attract and retain students.</li> </ul>	<ul style="list-style-type: none"> <li>- Mass marketing: It's hard to target entrepreneurs who are interested in blockchain because blockchain is still in its infancy and we need to sell blockchain benefits and then our course (double sell)</li> </ul>
<p><b>Opportunities</b></p>	<p><b>Threats</b></p>
<ul style="list-style-type: none"> <li>- Acquisition: Because blockchain is an in-demand skill, many companies will scramble to have a presence. This includes traditional learning establishments, online educators and big consultancy firms. If we produce an in-depth course we could be acquired.</li> </ul>	<ul style="list-style-type: none"> <li>- Regulation: While blockchain will revolutionise many industries (i.e. voting, healthcare, donations), that means it's a threat to others and governments or Google for example may restrict access to blockchain services.</li> <li>- Low barriers to enter: Many</li> </ul>

<ul style="list-style-type: none"><li>- Government partnerships: Governments too will start to realise the importance of fostering the innovation of blockchain. We could partner with Governments to subsidise our course, promote our course, become certified and more.</li><li>- Diversification: When we become the market leader on blockchain, we can also offer courses in other cryptocurrency, AI, machine learning and advanced technology.</li></ul>	<p>courses already exist and many more will pop up. It's easy to start a course online and the winners will be the best presenters and the best marketers.</p>
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### **Competitive Analysis**

Most of the courses offered online or in-person are about blockchain development. Very few focus on the content that we will deliver — entrepreneurial use cases for blockchain.

<b>Competitor</b>	<b>Description and Deliverables</b>	<b>Weaknesses</b>
<p>University of Canada West  <a href="https://www.ucanwest.ca/school-courses/blockchain-entrepreneurship">https://www.ucanwest.ca/school-courses/blockchain-entrepreneurship</a></p>	<p>This course teaches the knowledge, vocabulary and skills needed to manage blockchain and cryptocurrencies in professional situations, as well as understand and apply valuable entrepreneurial concepts without diving into coding.</p> <p>—</p> <p>3 levels - each level is 40 hours</p> <p>8-week course</p> <p>1 hour per week live instruction</p>	<p>Only one hour of live instruction each week is a disappointing return for students and limits opportunities to network.</p>



	Price: \$999 per level	
<p>Udemy</p> <p><a href="https://www.udemy.com/course/blockchain-for-business-the-new-industrial-revolution/">https://www.udemy.com/course/blockchain-for-business-the-new-industrial-revolution/</a></p>	<p>Develop a solid fundamental understanding of the inner workings of blockchain with detailed explanations of "mining", decentralized consensus, cryptography, smart contracts and many other important concepts.</p> <hr/> <p>6 hours on-demand video  4 articles  Full lifetime access  Access on mobile and TV  Certificate of completion</p> <p>\$16.99</p>	<p>The price gives an indication of the quality of the course and the teaching. It has mass market appeal, but at just \$17 it lacks the perception of value.</p>

<p>EdX</p> <p><a href="https://www.edx.org/professional-certificate/linuxfoundationx-blockchain-for-business">https://www.edx.org/professional-certificate/linuxfoundationx-blockchain-for-business</a></p>	<p>Describe Business</p> <p>Blockchain and Distributed Ledger Technologies to audiences with varying experience</p> <p>Blockchain impact and potential for change around the world.</p> <p>Demonstrate some of the immediate blockchain use cases in technology, business, and enterprise products and institutions.</p> <p>—</p> <p>2 skill-building courses</p> <p>Self-paced</p> <p>6 months</p> <p>2 - 3 hours per week</p>	<p>This course is sponsored by Hyperledger, so it lacks the independence that other courses have.</p> <p>Sponsorships are both an area of opportunity for us, but could dilute the strength of the brand and trust in our transparency.</p>
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	\$313	
MIT Executive	<p>This online program draws on the work of leading MIT faculty and cryptoeconomics expert, Professor Christian Catalini, to examine blockchain technology from an economic perspective.</p> <p>—</p> <p>Location: Online</p> <p>Tuition: \$3,500</p>	<p>Both this and the Berkley course below are very formal. This is appropriate for some students but too intense for others. We believe entrepreneurs won't be seeking a formal qualification, but comprehensive education they can use in the real world.</p>
<p>Berkeley</p> <p><a href="https://executive.berkeley.edu/programs/blockchain">https://executive.berkeley.edu/programs/blockchain</a></p>	<p>A two-month online course for Progressive leaders in both the public and private sectors that need to understand what new digital technologies such</p>	<p>This course isn't self-paced, therefore some entrepreneurs may lose the time or motivation to complete the course. A better option is to provide</p>

	<p>as blockchain can and can't do for their organizations.</p> <p>—</p> <p>Two-months in total, 4-6 hours per week.</p> <p>\$2,600</p>	<p>both live and on-demand options.</p>
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## Competitive Advantage

We've identified the following traits as contributing to a successful course and providing a competitive advantage:

1. Our course is interactive. Courses should be more than placeholders for students to access information. A good online course provides information but also interactions between professor and students with personalised feedback, support and guidance. We pride ourselves on debate, social connections and vibrancy.

2. A good online course is engaging and challenging. It invites students to participate, motivates them to contribute and captures their interest and attention. It capitalizes on the joy of learning and challenges students to enhance their skills, abilities and knowledge. Blockchain will also be
3. A good online course involves practice. Good courses involve students in “doing” — not just watching and reading — “in a theoretical course this could take the form of a presentation, case study, business concept or so on.
4. A good online course includes an instructor who is visible and active, and who exhibits care, empathy and trust for students. This is the difficulty with online courses that are designed to scale. There’s no consistent teacher, mentor or face for the students to trust. We’ll fix this with dedicated teachers, support reps who have dedicated office hours, just like a university.
5. A good online course promotes student agency. It gives students autonomy to enable opportunities for relevant and meaningful learning. Such a course redistributes power - to the extent that is possible - in the classroom.

## **Additional Resources**

[Best Blockchain Courses](#)

[Best Blockchain Courses 2](#)

[Best Blockchain Courses 3](#)

[Blockchain and Big Data](#)

[Blockchain Goes to School](#)