

Mind the blockchain knowledge gap

Immersing in tech, combining self-learning with courses, networking all add to experience

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In recent years, new technologies have disrupted the finance sector's status quo and created a wealth of opportunities worldwide.

In Singapore alone, the fintech industry created 2,000 jobs in 2016 and 2017, and thus met the target of Singapore's Financial Services Industry Transformation Map.

Within the fintech arena, blockchain technologies led a surge in demand for skilled manpower, especially in software development. Blockchain turned into the fastest-growing job skill while salaries for blockchain-related jobs jumped above those for software developers in non-blockchain companies.

One of the drivers of the increased demand is the large amount of money raised via initial coin offerings (ICOs) – an innovative method for early-stage financing. A typical blockchain company spends a large portion of its ICO war chest on hiring new talent to deliver on the promises made during the ICO.

In response to a surge in labour demand, a brain migration from related industries, such as software development, increased the labour supply. Additionally, the global labour market has been experiencing talent flight into early-adopting nations where blockchain companies are thriving, in part due to mild or non-existent crypto-related regulations. Nevertheless, a gap in labour supply-demand remains.

HOW TO PREPARE?

So how does one prepare for the possible disruptions in the labour market that technologies such as blockchain are causing?

One important aspect is that this new technology is a combination of a multitude of diverse fields like many other currently emerging technologies. Blockchain uniquely amalgamates cryptography, computer science, economics and finance.

Although one does not need to have an in-depth education and knowledge in all these fields to start a career in blockchain, a firm grasp of all the important concepts as well as an understanding of how they fit together is highly desirable.

Adding to the complexity, the path to a career in blockchain is hindered by the lack of proper certification programmes. Top finance companies such as JPMorgan Chase, Citigroup and the Nasdaq stock exchange recently advertised multiple positions related to blockchain that require accreditation, though it is not entirely clear what would constitute a proper certification.

One cannot have a formal education in blockchain as, arguably, no official standards exist yet.

WHO SHOULD FILL THE GAP?

So, if blockchain skills are in high demand, who should fill the gap?

The Institute of Banking and Finance (IBF) seems like a natural authority to initiate the standards, as it has a mandate to establish competency standards in Singapore's financial sector.

On a country level, the Monetary Authority of Singapore (MAS) typically takes a hands-on approach in talent development.

It supports bringing in international talent for transfer of knowledge as well as building a local pipeline of IT talent for the financial services sector. The MAS also works with key financial institutions to help their staff get retrained for new jobs.

At the university level, blockchain is an integral component in education such as the Executive Master of Science in Investments and Risk Portfolio Management (Emir) at the National University of Singapore (NUS) Business School. Globally, major universities such as Stanford, Princeton and MIT have also developed blockchain-related courses as part of their finance, computer science or law curricula.

But self-learning appears to hold the most appeal. In a fast-paced field such as blockchain, where new technology solutions appear almost every week, traditional learning resources like books become outdated quickly.

In fact, abundant blockchain

Business School, students from 12 countries were invited along with 113 Singapore teams to propose blockchain innovations, culminating in a hackathon to develop the corresponding app architecture.

Such competitions give students opportunities to be part of a "live" blockchain case, experience blockchain at work, and learn as they analyse the case for solutions. Such competitions can also be extended to practitioners to motivate them to learn more about blockchain.

Experience is, indeed, the best teacher, and being at the forefront of the research and development is always gratifying in the long term and may clearly differentiate anyone from their peers in the job market.

WHAT'S NEXT?

In the short to medium term, a

plethora of jobs await suitable candidates. Acquiring blockchain knowledge may eventually lead to a well-paid and satisfying job in technology and finance start-ups, as well as established companies.

Self-motivation, keeping pace with the rapidly changing technology landscape and careful planning for a blockchain career can be very fruitful in the nascent field with numerous job opportunities.

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Technicians monitor cryptocurrency mining rigs at a facility in Canada. Acquiring the technology may eventually lead to well-paid and satisfying jobs. PHOTO: BLOOMBERG