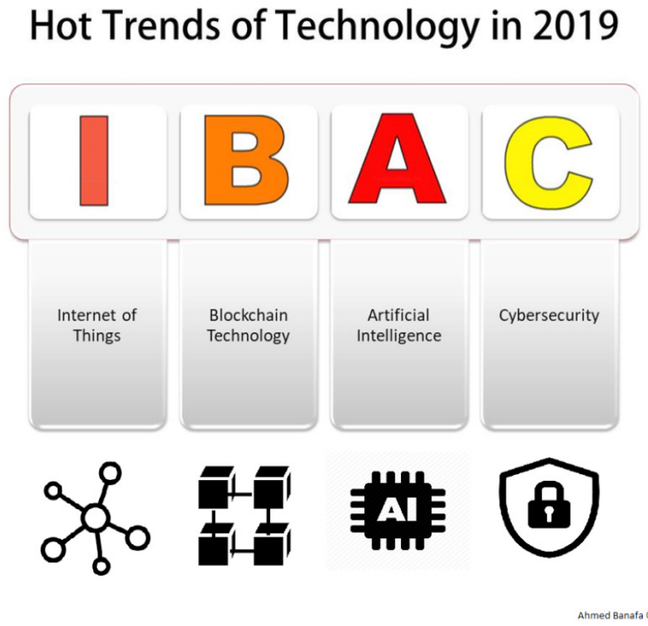
THE BLOCKCHAIN WAVE IN 2019 AND BEYOND

PROF. AHMED BANAFA



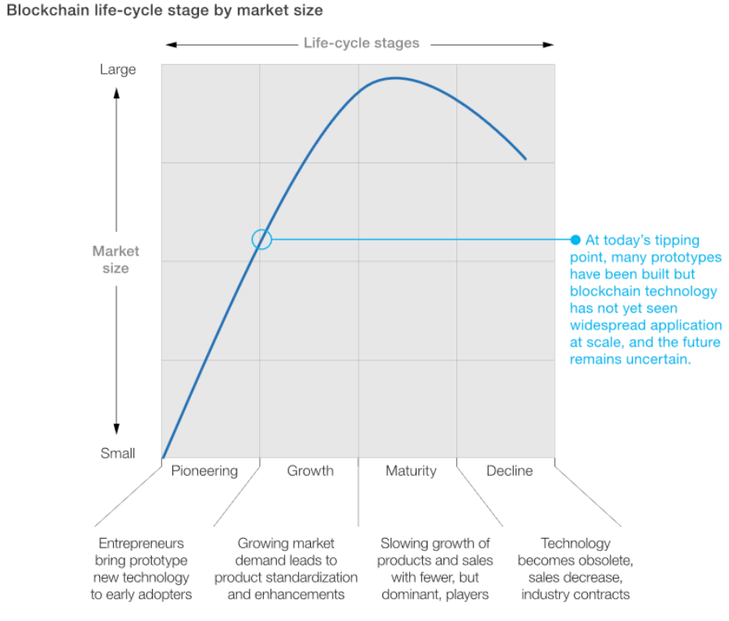
BLOCKCHAIN IS ONE OF THE TOP HOT TECHNOLOGIES IN 2019 AND BEYOND LISTED ON IBAC (IOT, BLOCKCHAIN, AI AND CYBERSECURITY)

Prof. Ahmed Banafa has extensive research work with focus on IoT, Blockchain, cybersecurity and AI. He served as an instructor at well-known universities and colleges. He is the recipient of several awards, including Distinguished Tenured Staff Award, Instructor of the year and Certificate of Honor from the City and County of San Francisco. He was named as No.1 tech voice to follow, technology fortune teller and influencer by LinkedIn in 2018, featured in Forbes, IEEE-IoT and MIT Technology Review, with frequent appearances on ABC, CBS, NBC and Fox TV and Radio stations. He is a member of MIT Technology Review Global Panel.

He studied Electrical Engineering at Lehigh University, Cybersecurity at Harvard University and Digital Transformation at Massachusetts Institute of Technology (MIT). He is the author of the book "Secure and Smart Internet of Things (IoT) using Blockchain and Artificial Intelligence (AI)".

This promising technology is just entering the growth stage in PLC(Product Life Cycle)

Blockchain is struggling to emerge from the pioneering stage.



Blockchain will face many changes and obstacles but still provides many promising applications; the following list discusses both challenges and applications of Blockchain technology in 2019 and beyond

1. A Reality check for Blockchain

In 2018, we saw an increase in funding for Blockchain startups. However, like any new technology, Blockchain is still immature in its implementation; as a result, many Blockchain startups are expected to be just a waste of time and money. False starts in Blockchain deployment will lead organizations to failed innovations, rash decisions, and even complete refusal of this innovative technology.Gartner predicts that most traditional businesses will keep an eye on Blockchain technology, but won't plan any actions, waiting for more examples of the best applications of Blockchain technology.

2. The 'Emerging Disruptor' startups fueled by Blockchain

The Blockchain 'emerging disruptor' companies are fast growth startups that have found themselves in the position to be able to disrupt other businesses in their sector. They often have the benefit of being well-funded, and headed by executives who are experienced and well-connected in their industries.

3. Blockchain and Cybersecurity

With the growing prevalence of data breaches and the massively interconnected world we live in, new ways to verify identity and protect privacy will be game changers. Blockchain is a natural for this role because the whole point of it is to provide robust, incorruptible — yet encrypted — record keeping that anyone can easily verify.

4. Internet of Things (IoT) meets Blockchain

It's no secret that the internet of things is coming to connect our devices and to make it easier than ever for us to create and store data about ourselves. This applies to everything from wearable devices to home hubs, connected fridges and any other type of internet-connected device that you can imagine. But all of these internet-connected devices will need some sort of security system that ties them together and that makes their data secure. That could be where the Blockchain comes in, but only if different manufacturers can agree to come together and agree on the specifications of the Blockchain that's required.

A 2018 Gartner CIO survey revealed on average that only 3.3% of companies worldwide had actually deployed Blockchain in a production environment.

5. Increased use of smart contracts

Smart contracts are one of the most interesting aspects of Blockchain technology because they have the potential to bypass third parties and to create airtight agreements that must be honored. This has plenty of practical applications in all sorts of industries, from finance and real estate to logistics and recruitment. Contracts could be signed and verified in real-time in a secure environment, and that can make all of the difference when it comes to getting things done and reacting quickly to changes in the market.

6. Increased regulations

As Blockchain becomes more widely used in all sorts of different industries, it'll also start to receive more attention from regulators and lawmakers, especially if governments can find ways to use Blockchain technology on a large scale. And let's not forget that cryptocurrency is technically classed as a property and not a currency when it comes to taxation, at least in the United States.

7. Financial institutions will lead Blockchain evolution and revolution

Unlike other traditional businesses, the banking and finance industries don't need to introduce radical transformation to their processes for adopting Blockchain technology. After it was successfully applied for the cryptocurrency, financial institutions begin seriously considering Blockchain adoption for traditional banking operations.

8. Blockchain integration into government agencies

The idea of the distributed ledger is also very attractive to government authorities that have to administrate very large quantities of data. Currently, each agency has its separate database, so they have to constantly require information about residents from each other. However, the implementation of Blockchain technologies for effective data management will improve the functioning of such agencies.

According to Gartner, by 2022, more than a billion people will have some data about them stored on a Blockchain, but they may not be aware of it.

9. Blockchain experts will be in high demand

Despite Blockchain is on the top of its popularity, the job market experiences a lack of Blockchain experts. Upwork, an online freelancing database, has recently reported a fast-increasing demand in people with "Blockchain" skills. While the technology is new, there are a limited number of Blockchain engineers.

10. Blockchain and Artificial Intelligence (AI)

Blockchain can provide the data authentication on which AI models depend since the data stored on the ledger cannot be changed and is available publicly. That makes data stored in a Blockchain more relevant than data that is delivered on unproven platforms that have embedded errors.

Just like in the case of the IoT, the Blockchain has been identified as having the potential to facilitate certain aspects of the AI implementation. In order to function to its fullest capacity, machines capable of learning require access to "big data." The majority of the big data available for mainstream use is reserved for analytics. Exchange of big data hasn't been economically feasible but with the aid of the Blockchain, this could all change.

IoT, Blockchain and Artificial Intelligence in Action