



跨境电子商贸 – 智能合约与区块链的使用以及法律风险管理

Cross-border E-commerce – the use of smart contracts and blockchain and legal risk management

郭思锋律师

香港律师会 创新科技委员会委员

Philip Kwok

Member, InnoTech Committee, The Law Society of Hong Kong

2018年9月5日



THE
LAW SOCIETY
OF HONG KONG
香港律師會

什么是区块链？

What is Blockchain?

- 区块链是一种去中心化和分布式数字账本或条目列表，由不同参与者在计算机网络中维护

A blockchain is a decentralised and distributed digital ledger or list of entries – that is maintained by various participants in a network of computers



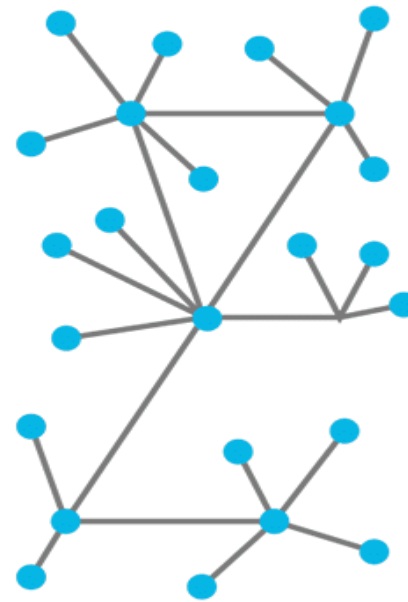
什么是区块链？

What is Blockchain?

中心化
Centralized



去中心化
Decentralized

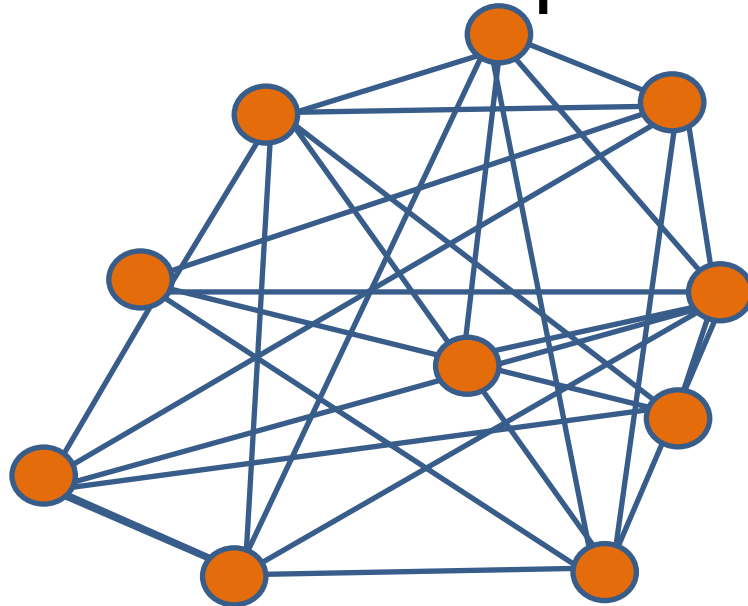


什么是区块链？

What is Blockchain?

- 区块链的数据在多个数码地点中进行共享、复制和同步

Data in the blockchain are shared, replicated and synchronised across multiple digital locations



区块链技术: 去中心化

Blockchain Technology: Decentralisation

- 去中心化意味着网络可以按P2P模式运营，无需传统网络中促成交易的中间人

Decentralisation means the network can operate on a P2P basis, taking out the middle man who facilitates transactions in a traditional network

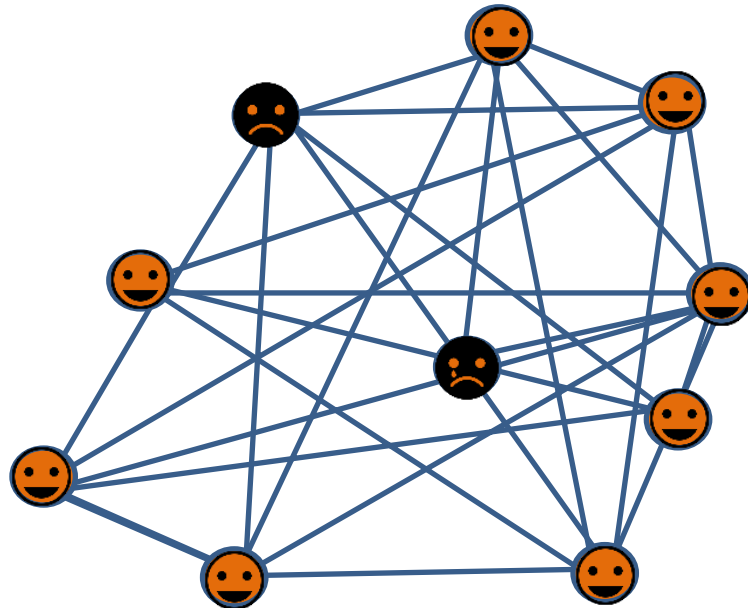


区块链技术: 去中心化

Blockchain Technology: Decentralization

- 由于解决了单点失效问题，分布式账本被认为具有安全性

Decentralised ledgers are considered secure because there is no single point of failure



区块链技术: 分布式

Blockchain Technology: Distribution

- 分布式意味着数据并非处于一个位置，而是被复制或共享

Distribution means that data do not exist in one place but are duplicated or shared

- 由于每项交易经多个用户验证，分布式账本具有准确性

Distributed ledgers are accurate because multiple users validate each transaction



区块链的运作原理

How Blockchains Work

- 区块链收集数据、将其分别放入各个“区块”并使用加密技术将其按时间顺序链接到一起，为区块链用户确保条目的安全性

A blockchain gathers and orders data into “blocks” and chains them together chronologically using cryptography, providing comfort to blockchain users that the entries are secure



区块链的运作原理

How Blockchains Work

1. 验证
Validation



2. 区块构成
Block formation



3. 时间戳
Time stamp

1:45

4. 加密
Encryption



5. 链结
Link



其他分布式帐本技术

Other Distributed Ledger Technologies (DLTs)

- 并非所有虚拟货币或分布式帐本都是基于区块链
Not all virtual currencies or distributed ledger technologies are on blockchains
- 区块链只是分布式账本技术的一种
Blockchains are just one type of DLT



什么是智能合约？

What is Smart Contract?

- 一个利用区块链技术的计算机程序或自动程式码
A computer program or automated code adopting blockchain technology
- 程式码定义规则及条件，及在规则及条件符合时需采取的交易行动
The code defines the rules and conditions, and the transactions to undertake once these rules and conditions are met

什么是智能合约？

What is Smart Contract?

- 当条件符合，数字货币或资产便会自动转移，交易记录马上在区块链上的各方同步

When conditions are met, digital currencies or assets are transferred automatically, and transactions records are immediately synchronised across all parties on the blockchain



区块链的应用

Blockchain Applications

- 保险合同及自动理赔 Insurance Policies and Automated Insurance Payouts
- 数字资料版权保护 Copyright Protection of Digital Contents
- 贸易融资 Trade Financing





香港律师会

电话：+852 2846 0549

电邮：adceam@hklawsoc.org.hk