Governance of Digital Money: Stability of Next-Gen Financial Sectors

by

Michael Palage

(michael@palage.com)
Evolution of Global Financial Sector

- **1690**: National Bank of Egypt
- **1894**: Banque de Tunisie
- **1898**: Diners Club
- **1950**: Mastercard
- **1958**: Visa
- **1958**: American Express
- **2004**: Alipay
- **2008**: Bitcoin
- **2008**: WeChat Pay
- **2008**: Fawry
- **2013**: Arab Internet Governance Forum
Chinese - Mobile Payment Market

• PayPal processed $451 billion in transactions in 2017, however, both AliPay and WeChat Pay individually processed more transactions in a single month.

• Alipay has over 700 million active monthly users and WeChat Pay has over 1 billion active monthly users, whereas ApplePay has only 127 million users worldwide.

• Source: https://www.raconteur.net/finance/alipay-wechat-china-payments
Egyptian - Mobile Payment Market

• The Egyptian market has the largest population (48 million) of internet users in the region, however only 8% make online transactions.

• In 2017, only 32% of the Egyptian population had a banking account

• Fawry is the oldest and most popular mobile payment in Egypt and can be used in over 65,000 businesses within, In 2017 it processed ₣22bn ($113.2m)

• Fawry revenue is generated by a convenience fee imposed on the bill payer, although Fawry shares a portion of the fee with business that allows its customer pay with Fawry.
Tunisia - Mobile Payment Market

• The Tunisia dinar is a “non-convertible currency”, thus cross-border eCommerce purchases are not possible without the Tunisia Central Bank granting specific allowances. See https://www.export.gov/apex/article2?id=Tunisia-eCommerce

• As part of the Digital Tunisia 2020 initiative, Tunisia Telecom recently account the launch of TelecoMoney that will be the transfer of funds between the mobile wallets of three telecom providers.

• A second phase of TelecoMoney envisions the transfer of funds to other financial institutions.

• Tunisia Post has also experimented in connection with digital currencies (eDinar).
Blockchain/Distributed Ledger Technology
Blockchain / DLT

Blockchain is networking platform having a distributed ledger containing hashed blocks of data created by validators (miners), who use a consensus protocol to authenticate data from a cryptographically-signed exchange of tokens (and/or processing of a smart contract) between digital wallets for anonymous parties on a peer-to-peer network.
Blockchain/DLT Building Blocks

• The Ledger
• “Blocks” of data
• Peer to Peer Network
• Protocol
• Cryptography
• Consensus
• Permissioned (Closed) / Permission less (Open)

• Podcast on Blockchain/DLT basics, see http://www.ipfridays.com/blockchain-meets-intellectual-property-interview-with-michael-palage-ip-fridays-episode-94/
Bitcoin vs. “Blockchain” vs. “DLT”

- Bitcoin is the original cryptocurrency using a “blockchain” distributed ledger
- There are now numerous other blockchain cryptocurrencies (e.g. Ethereum, Litecoin, XRP)
- Blockchain technology is now being used as a platform for Distributed APPlicationS
- There are a number of different distributed ledger architectures (e.g., Hyperledger)
- Distributed ledgers are one type of decentralized data store...
Blockchain/DLT - Cryptocurrency


• Current global cryptocurrency global market cap - $119,304,208,289 (4-Dec-2018)

• Bitcoin’s valuation/market cap (4-Dec-2018)

• XRP valuation/market cap (4-Dec-2018)
Cryptocurrency

• Violative & Speculative
Emerging Legal Issues - ICOs

- ICOs have emerged as an alternative to traditional Venture Capital for start-ups.

Emerging Legal Issues - ICOs

- ICOs generally involve the issuance of “tokens”.
- The two most common type of token classifications are “utility tokens” and “security tokens”.
- On 25 July 2017, the United States Security and Exchange Commission (SEC) issued an investigative report in connection with Decentralized Autonomous Organizations (DAOs) regarding the offering and sale of digital assets by "virtual" organizations that are subject to the requirements of the federal securities laws. See https://www.sec.gov/litigation/investreport/34-81207.pdf
- The Monetary Authority of Singapore (MAS) has taken actions to shut down illegal ICOs, see https://nulltx.com/singapores-mas-shuts-down-ico-and-forces-it-to-refund-investors/
- The SEC has initiated a number of actions against non-compliant ICOs, see https://www.sec.gov/ICO
Other Emerging Legal Issues

• The United States Government through the Office of Foreign Asset Control recently brought an enforcement action against two Iranians in connection with a cyberattack and their use of Bitcoin addresses. See, https://www.coindesk.com/get-ready-for-crypto-sanctions-enforcement


• The United States Department of Homeland Security Small Business Innovation Research Program has issued pre-solicitation to investigate the potential tracking of “privacy” cryptocurrency, see https://www.coindesk.com/us-homeland-security-is-interested-in-tracking-privacy-coins

• There are several governments that are in different states of evaluating/implementing/rejecting State Issued Digital Currencies, see https://cointelegraph.com/news/state-issued-digital-currencies-the-countries-which-adopted-rejected-or-researched-the-concept
Emerging Legal Issues – Legislative/Regulatory

• BitLegal
  http://www.bitlegal.io
Halal Compliant Blockchain/DLT Projects
Thank You