

Ethics on the Block:

Ethical Considerations in a Web 3.0 World

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@IPProfEvans #EvansOnTheBlock #PrivacyPowerEthics2019

Overview

Blockchain 101

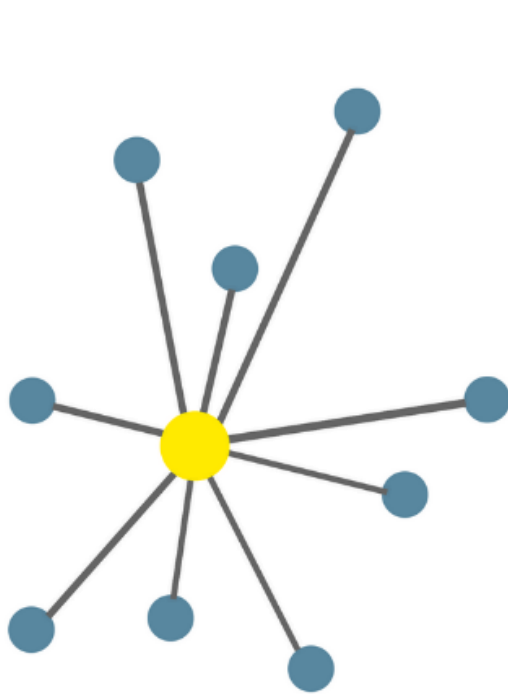
Stages of the Internet

Characteristics, Components & Concerns

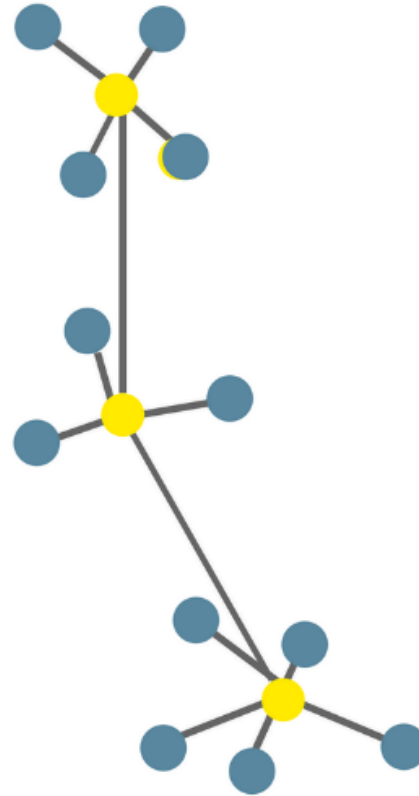
Mechanics

Ethical Issues

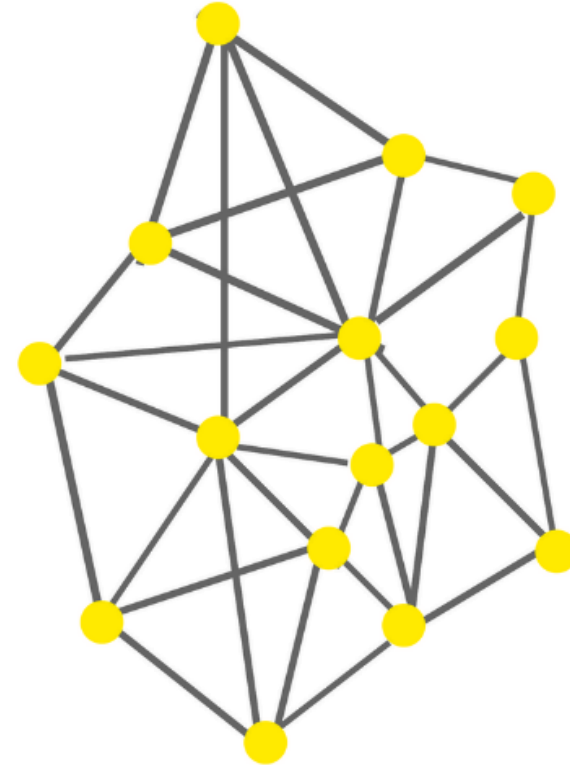
Three Stages of Computer Network Revolution



Centralized



Decentralized



Distributed

Source: Daxx.com

Blockchains Defined

Blockchains are **decentralized databases**, maintained by a **distributed network** of computers that rely on **network effects** and **economic incentives** to secure the network.

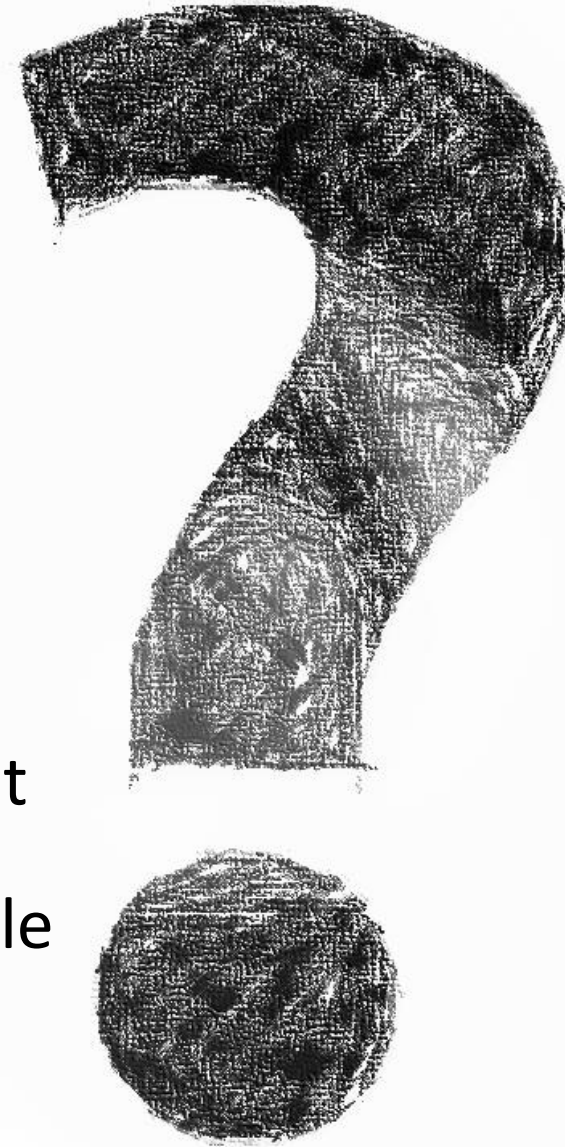
Blockchain's Origin

Created by “Satoshi Nakamoto” in 2008
(launched 2009) to solve the double-
spending problem for digital currency

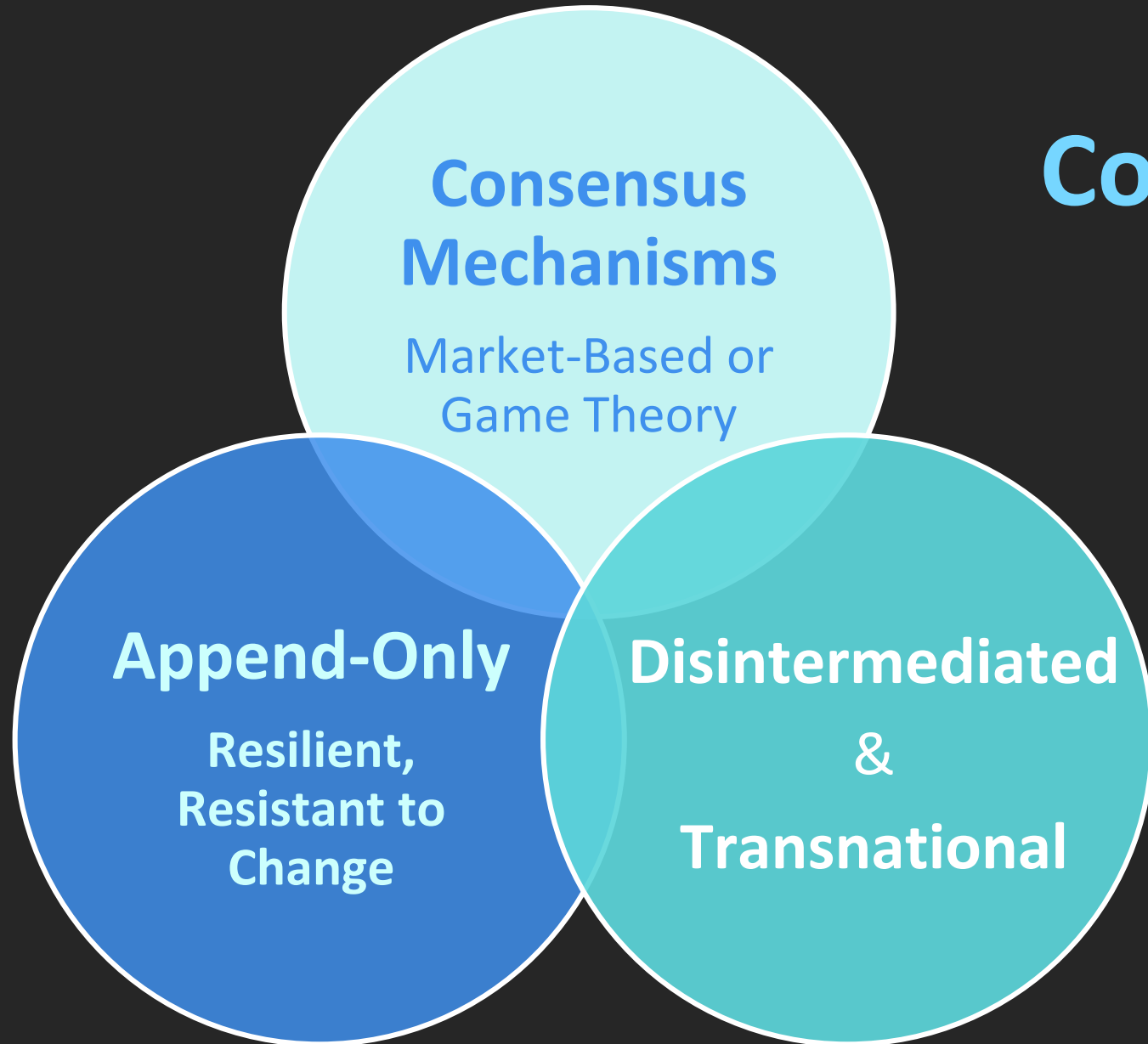
[\[Satoshi White Paper\]](#)

Different from current digital veneer that
involves “**trusted**” parties to maintain
separate transactional ledgers & reconcile
them

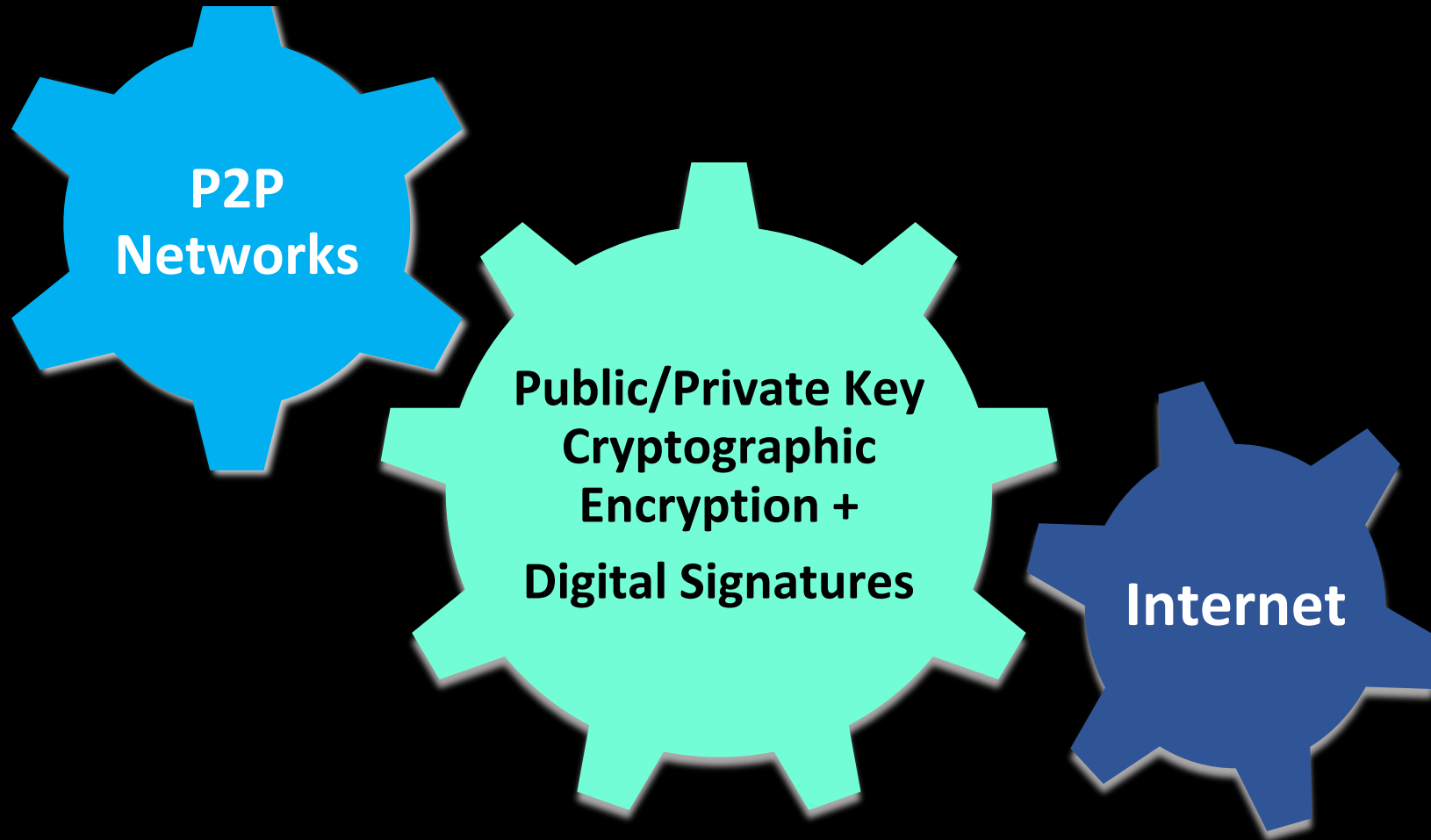
[Central Bank +Mint]



Core Characteristics



Core Technological Components



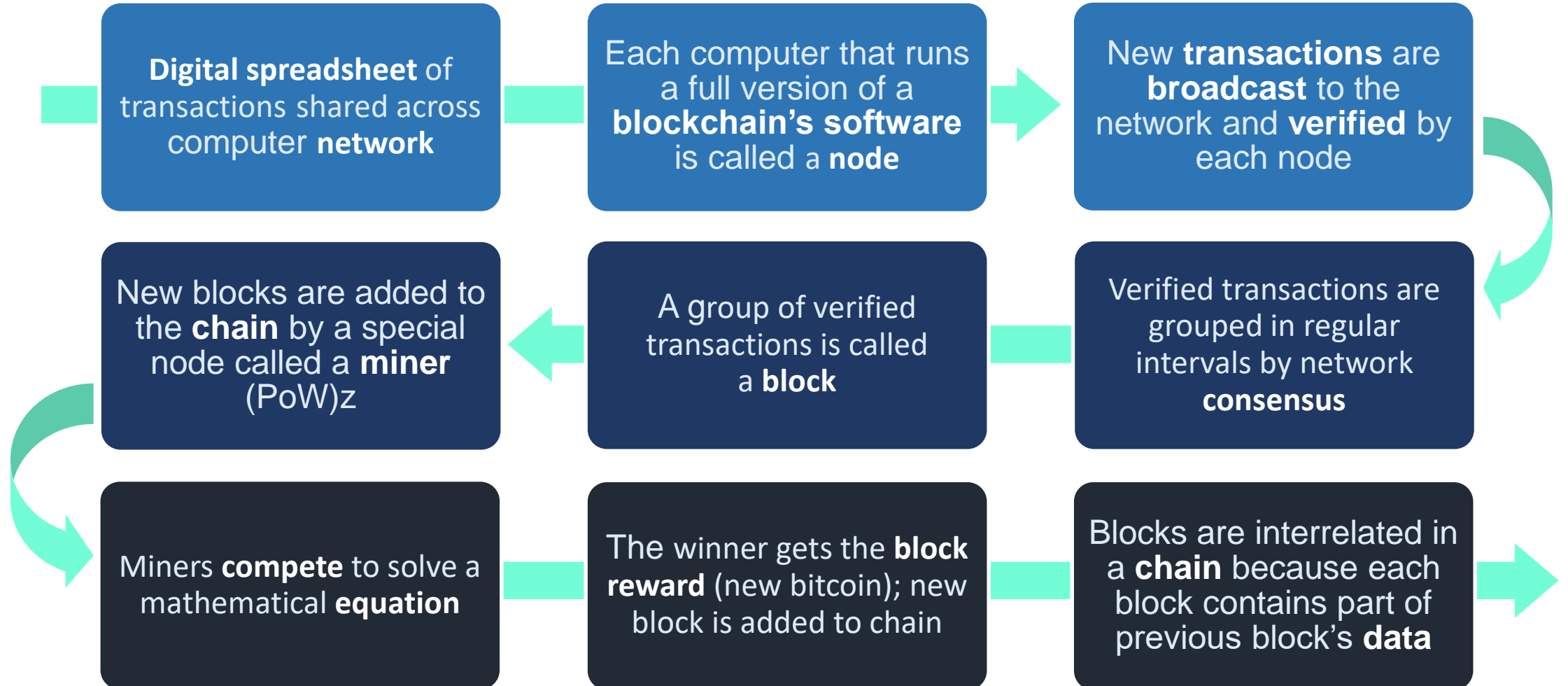
Core Concerns



Technological characteristics give rise to:

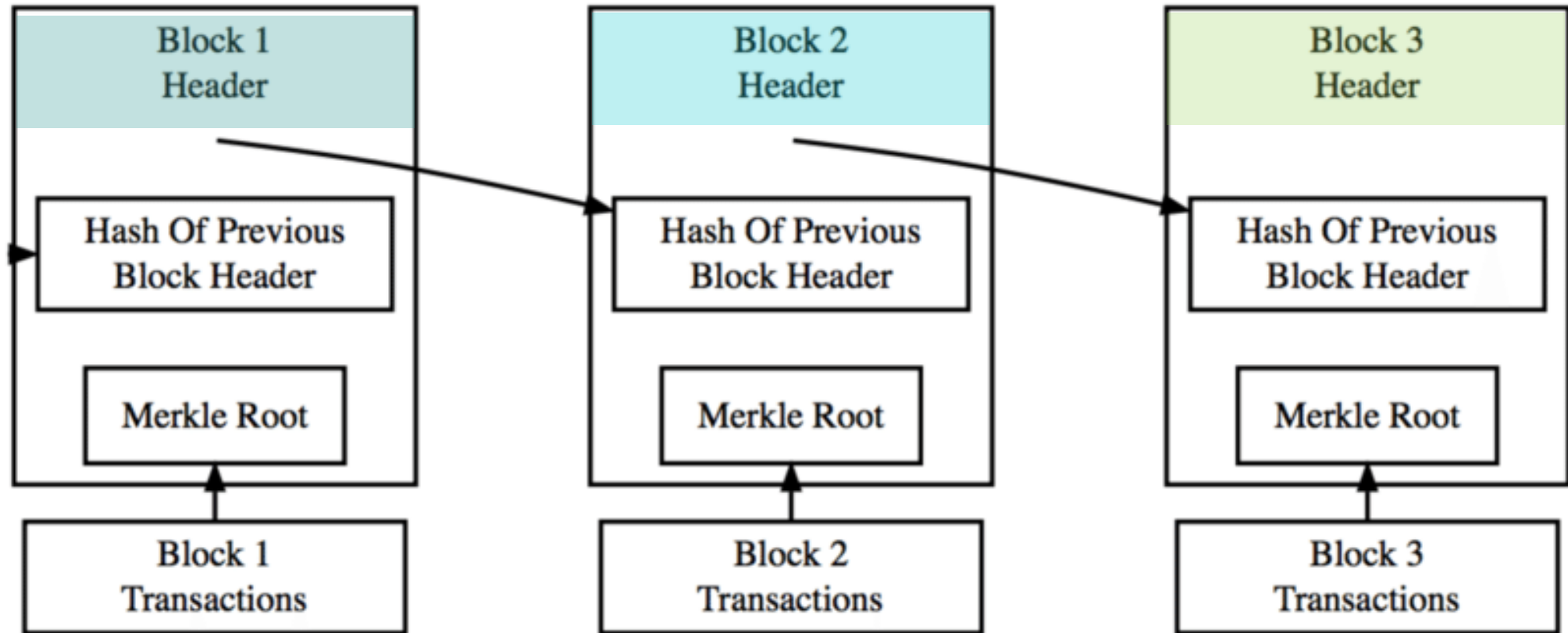
- No central point of accountability and lack of geographical boundaries makes blockchains
 - **difficult to govern**
- Append-only nature makes it
 - **difficult to change**
- Pseudonymous nature raises
 - **concerns of illegal activity**
- Transparent, traceable nature raises
 - **concerns of privacy**

Blockchain Mechanics 101



Blockchain Illustrated

An interrelated chain of blocks



Core Security Concerns



51% Attacks

Exchange Vulnerability

Core Privacy Concerns



- **Hyper-availability of transactional data runs contrary to long held norms**
 - EX: financial, medical, and legal sectors
- **Even pseudonymous transactions are problematic**
- **Private, permissioned blockchains mitigate some concerns**

The future of blockchain?

"**Distributed trust** and therefore **security** and **privacy** are at the core of the blockchain technologies, and have the potential to either make them a success or cause them to fail."

[[Computer.org](#) Magazine]

Ethical Issues in Web 3.0



Technological Competence in Law

Technology and Education

MRPC 1.1: Competent Representation

Client-Lawyer Relationship

A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.

Source: [ABA Pro Rep Guidelines](#)

MRPC 1.1: Comment 8

Maintaining Competence

[8] To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.

Source: [ABA Pro Rep Guidelines](#)

Maintaining Competence

Source: ABA Pro Rep Guidelines
MRPC 1.1



Lawyers should keep abreast of changes in the law and its practice



Including the benefits and risks of relevant technology through continuing study and education



Comply with all CLE requirements

Blockchain Use Cases in Education



Use Cases

Credentials

Skills Badges

Identity Verification

**Decentralized
Marketplace**

Financing/Payment

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