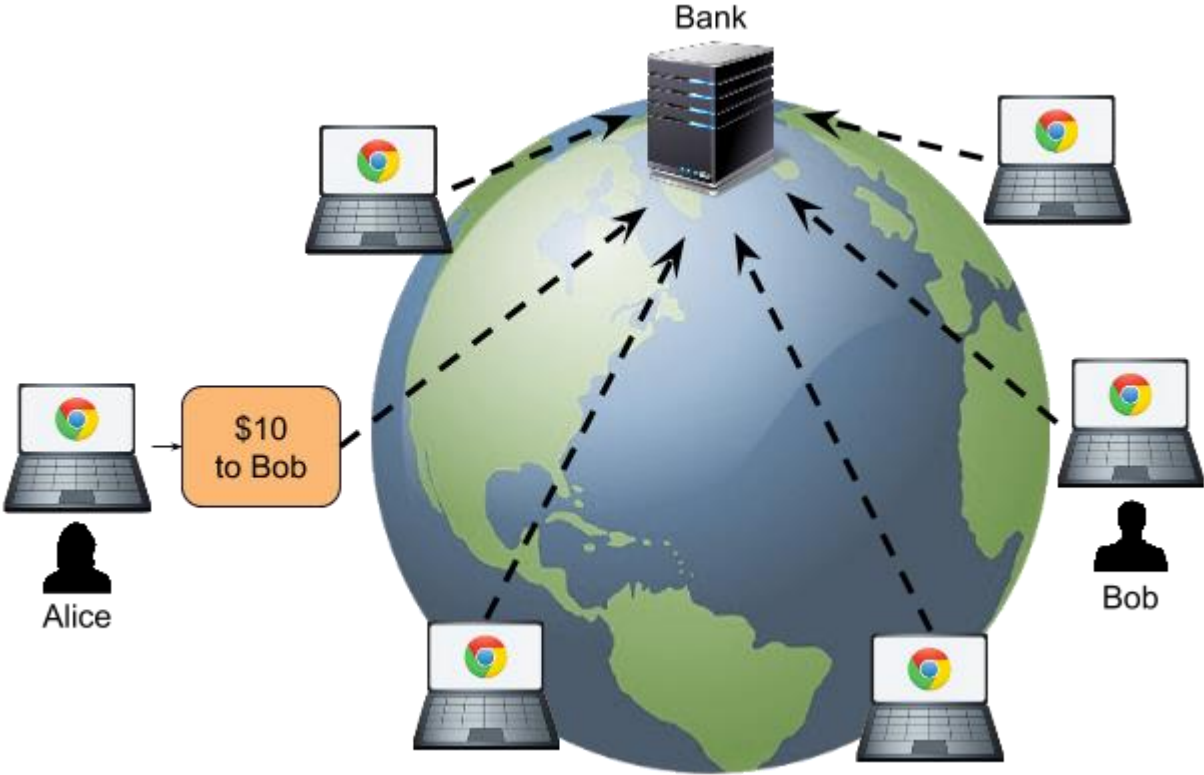


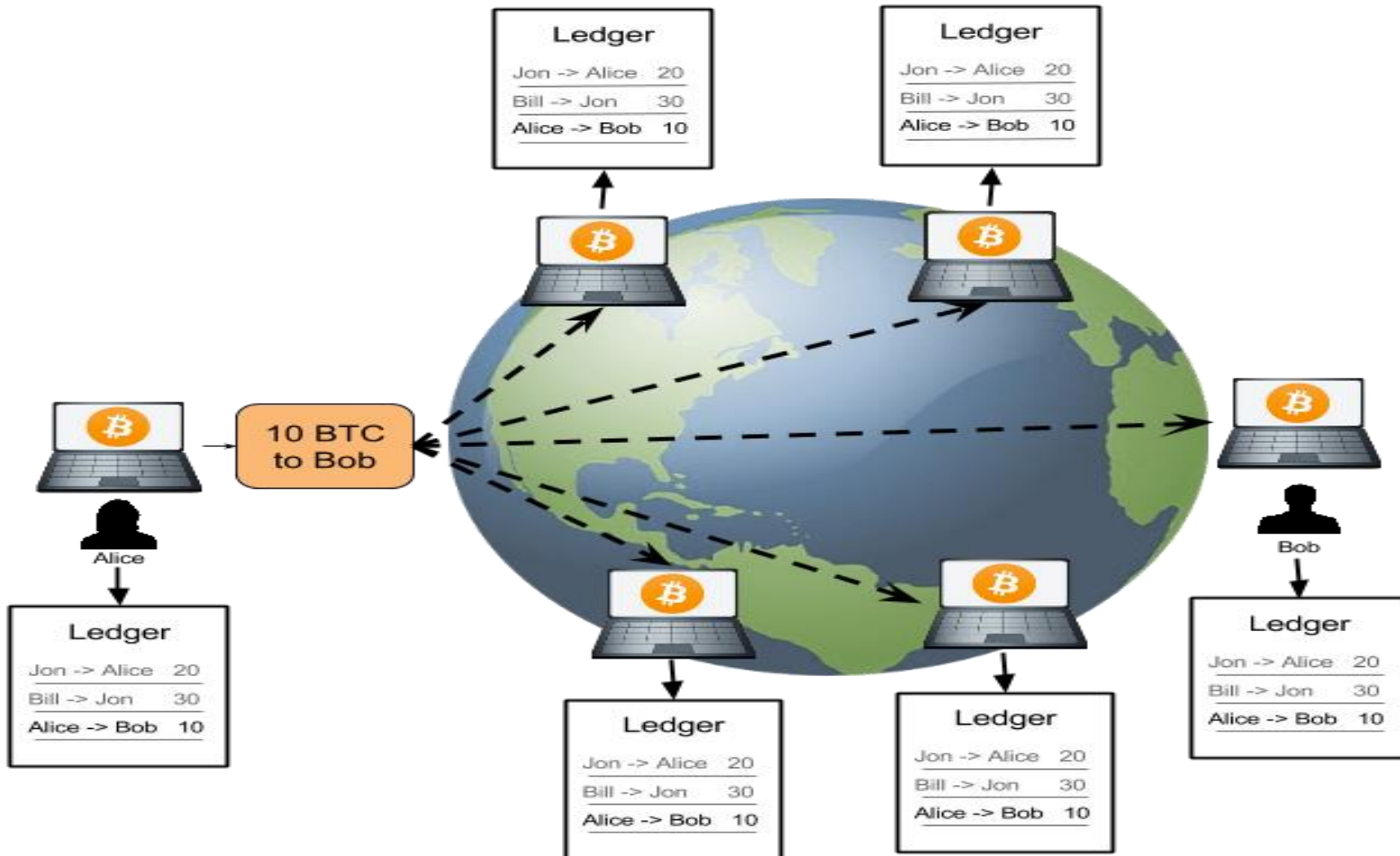
# What Is Bitcoin?



This is what we're used to



# This is Bitcoin



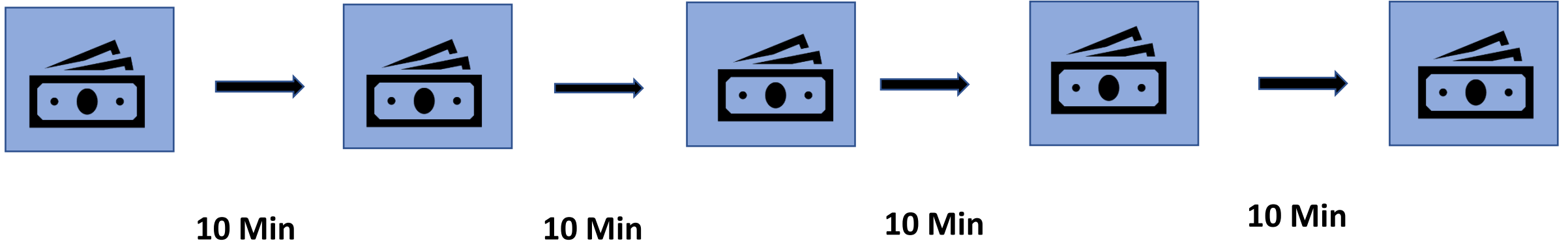
## BANK:

- Centralized ledger
- Centralized payment processing
- Username & Password authentication

## BITCOIN/BLOCKCHAIN

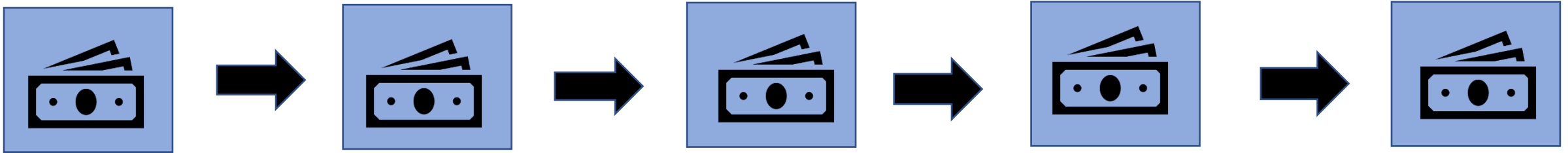
- Distributed ledger
- Strong cryptographic authentication of users

# The Blockchain



Every 10 minutes a new block in the ledger is added, made up of transactions transmitted over the Bitcoin peer-to-peer network

# Who adds new blocks to the blockchain? Miners!



10 Min

10 Min

10 Min

10 Min

Miners check new transactions against historical ones. They check the validity of signatures. And the work they do ensure the irreversibility of the blockchain. They are very important!!!

↑  
Miner adds  
new block

↓  
Gets new  
Bitcoin \$\$\$

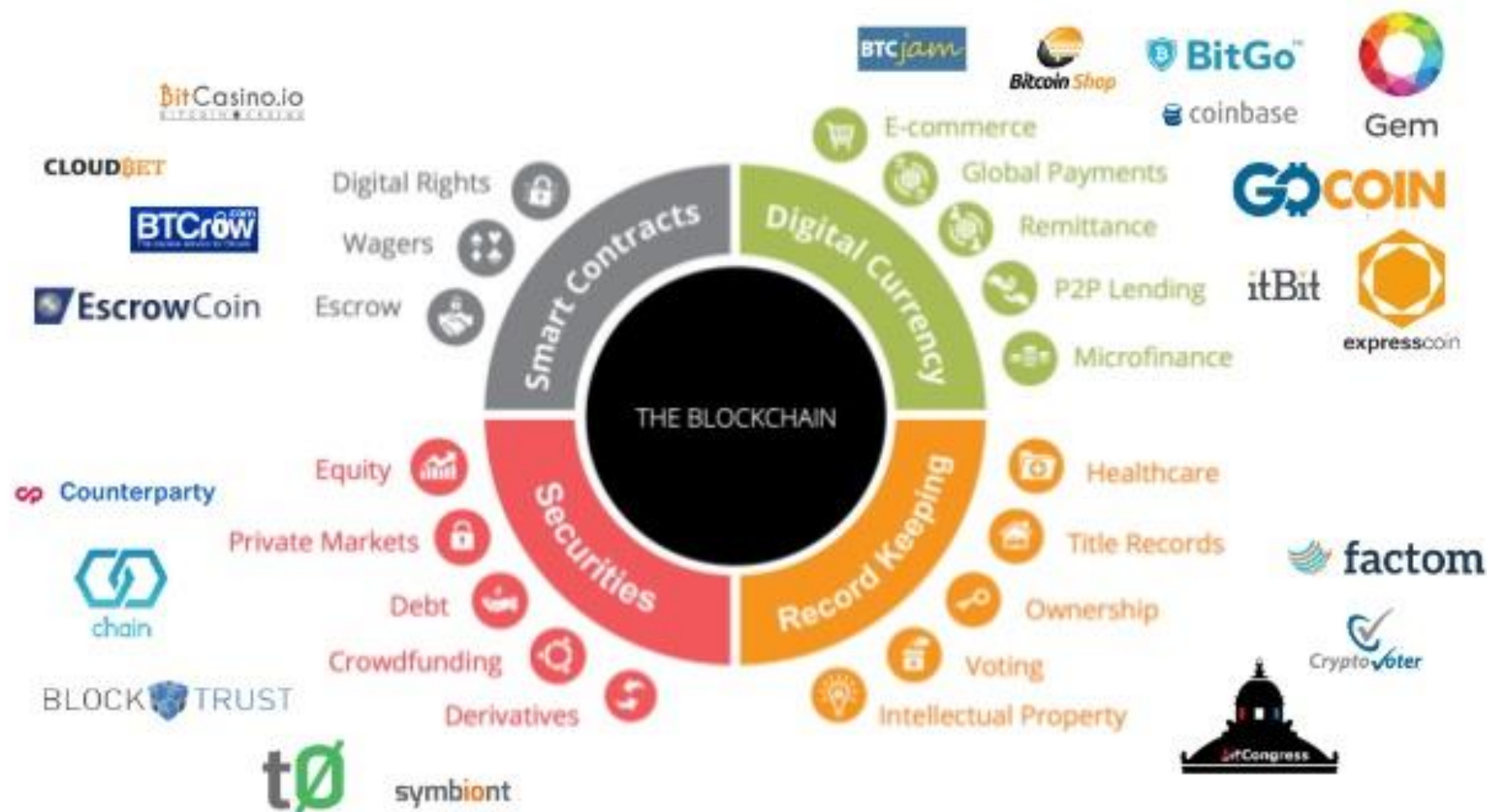
# **Abstracting Bitcoin away: What is “Blockchain Technology”?**

**A blockchain is a shared data structure that grows by append only, provides authentication of users with strong cryptography, and leverages economic incentives to encourage non-trusting, unaffiliated participants to manage and secure updates**

# Blockchain Potential Applications & Disruption

The blockchain is radically changing the future of transaction based industries

**BTCS powers the ecosystem and touches every blockchain transaction**



# Blockchain

## What's it good for?

- **A single, public version of history that is:**
  - Universally available (24/7, wherever there is Internet)
  - Tamperproof
  - Redundant
  - Timestamped
- **User authentication**
  - Every transaction is digitally signed with a cryptographic key which protects against theft. But it also means that identity is built right into the system.
- **Potential for miners to validate more complex financial agreements**
  - Smart contracts



# What are the costs and limitations?

Mining is VERY expensive:

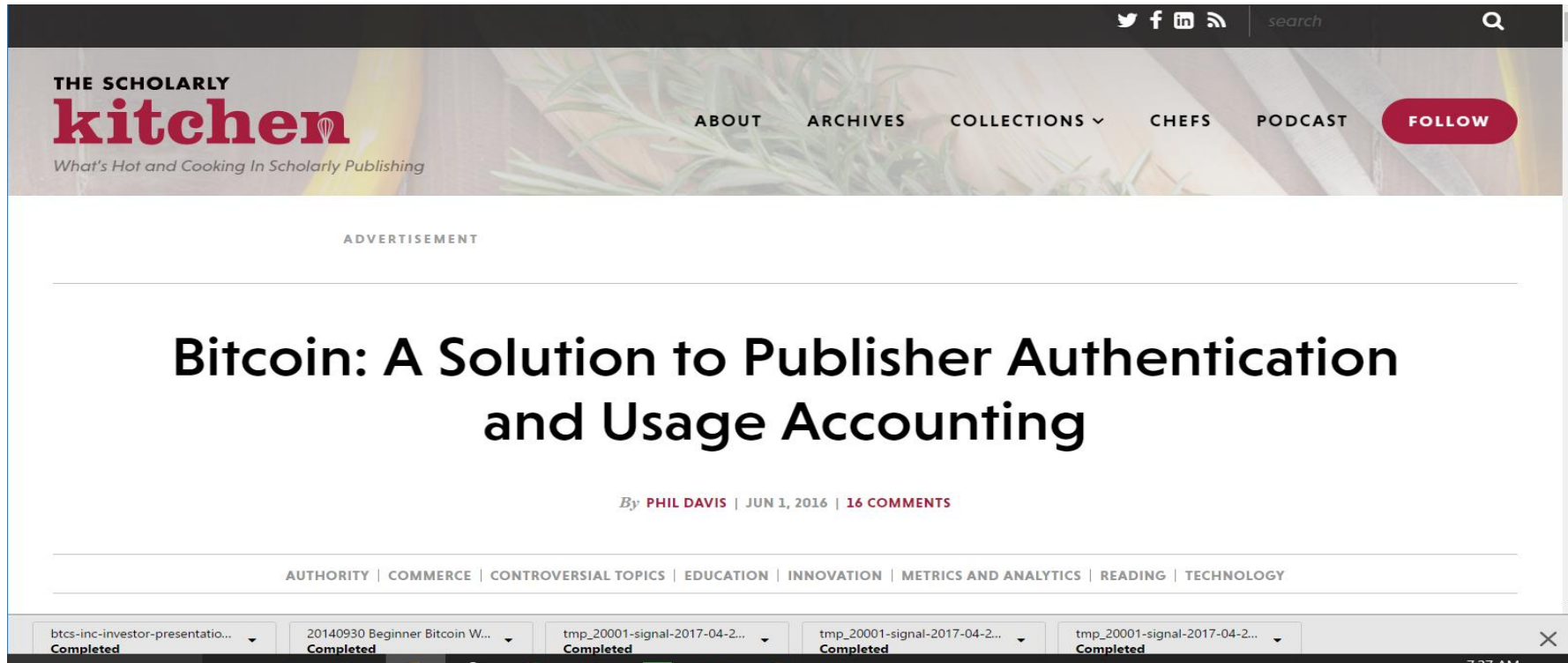
- It gobbles up oodles of computational resources and requires specialized computer chips

Mining is SLOW:

- In Bitcoin it takes 10 minutes for new blocks to be added. Some blockchain systems have reduced this, but always with tradeoffs

Data storage is limited:

- Bitcoin allows for 40 bytes of extraneous data to be loaded into each transactions. Currently this is a major restriction on what applications it will facilitate



The Problem: Piracy of scholarly articles is not only robbing the industry of money, but of valuable data about content distribution rates

The Solution: Authenticate reader access with digital signatures recorded on the blockchain giving access that is not geographically determined. Actual payment for access may or may not be mediated by the blockchain.

# Is Bitcoin/Blockchain the solution?

- Does your problem require untrusting, unaffiliated parties to secure a continuously updating database and broadcast it to everyone on the planet?
- If not, then you may not need the elaborate scheme of competing, resource guzzling, economically motivated players, and the currency component that comes with a blockchain.

**In other words, it's complicated! Come talk to us. Or feel free to get in touch.**

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