

# Blockchain: The 5 missing necessities



Blockchain Today: Less than 0.2% Global Penetration

Over 99.8% are still excluded

*Founded ACM / AiDecentralized  
Global Chair ACM Practitioners Board CC,  
Elected Co-Chair United Nations Blockchain & AI Global Initiative*

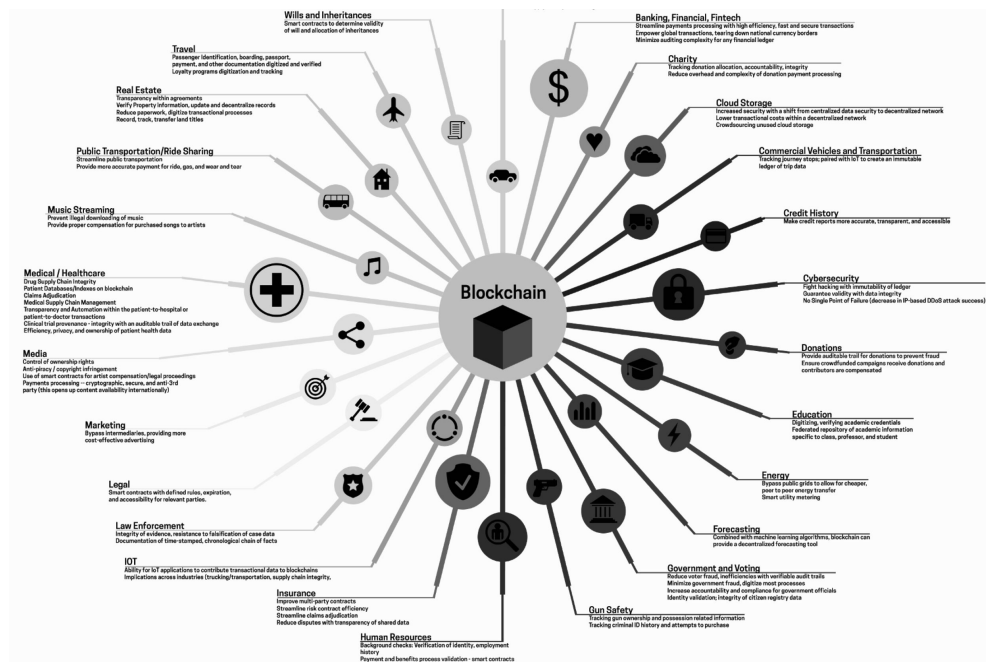
***TODA CEO Toufi Saliba***  
*toufi@toda.network / 650-227-4473*



# WHY??

## The Promises Of The Blockchain Are Too Good To Pass On

Medical/Healthcare  
Legal  
Law Enforcement  
IoT  
Insurance  
HR  
Automotive  
Wills & Inheritance  
Travel  
Real estate  
Music Streaming



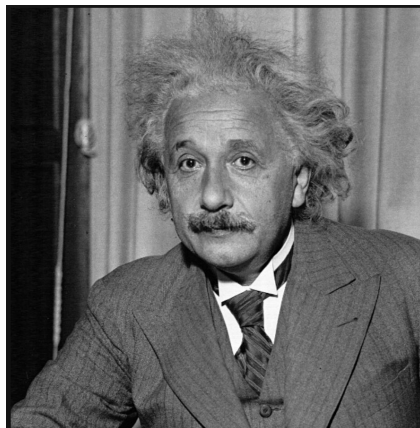
Banking / Fintech  
Cloud storage  
Transportation  
Credit History  
Cybersecurity  
Donations / Charity  
Government f)  
Voting  
Land Registry  
AML  
ATF



# Problem: Constraining Researchers

Are researchers free?

Historically, free researchers were able to create solutions that are good for everyone



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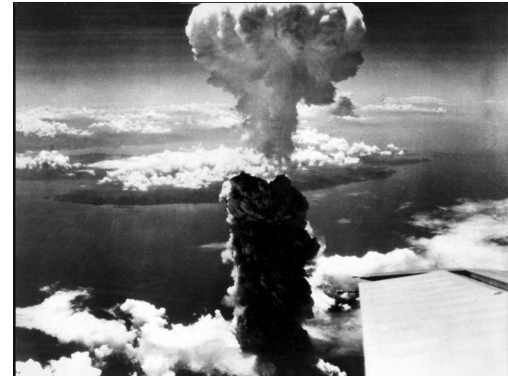
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# Problem: Constraining Researchers

Are researchers free?

**Constrained researchers were able to create solutions that could destroy everyone**



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# Problem: Let's pick Fintech

## **Beware** of Current **Electronic** Money Offerings

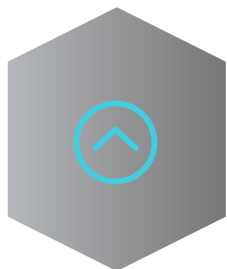
- **Cost:** Leaks money out of your region through every transaction
- **Governance:** Centralized financial control will be used against the holders, even if the current centralization is well under control, the future may not be
- **Centralized Exchanges:** Additional friction and control by Centralized Currency Exchanges

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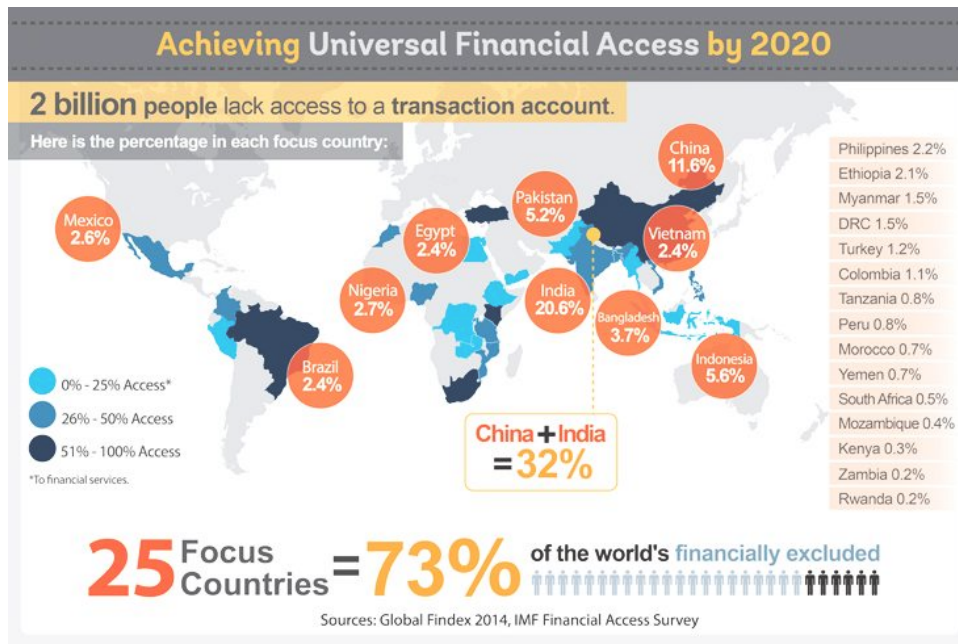


# Global Prosperity Can Be An Opportunity for every business and everyone



## Requirements

Processing 3 million  
secure transactions per  
second at 0.1% tx fee  
powering 8 billion devices



## Market Size \$9T

Estimated unbanked  
emerging market size for  
financial services

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# Cars came first, then roads

They can't be solved without further innovation

Cars Needed  
Roads To  
Perform Better  
than Older  
Vehicles



# THE FIVE PROBLEMS



## Little Security

Ledger based blockchains fall short in providing true decentralization of power resulting in network forks or increased risks of 51% attacks.



## No Efficiency

In ledger blockchains, each transaction is broadcasted to the entire network making it an incredibly inefficient way to achieve transaction finality.



## No Confidentiality

Privacy is difficult to achieve for applications that require it and difficult to implement while being compliant with national jurisdictions.



## No Scalability

The more the network is used, the less scalable and more expensive it becomes to use.



## No Interoperability

Currently no matter what and how powerful a blockchain is, users still need to depend on third party for exchange of value.

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# THE FIVE PROBLEMS



Security

Efficiency

Confidentiality

Scalability

Interoperability

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# ALL FIVE ARE NECESSARY



Security

Efficiency

Confidentiality

Scalability

**Interoperability**

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# How **SECSI** is your blockchain?

- **S**ecurity &
- **E**fficiency &
- **C**onfidentiality &
- **S**calability &
- **I**nteroperability

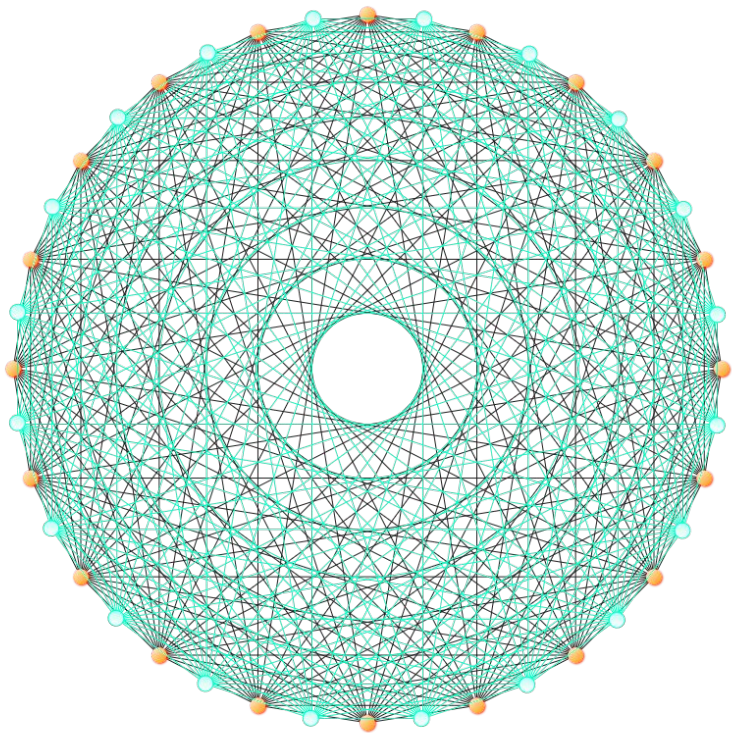
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## Network Communication Layer

Network Packet



Same  
Level as  
TCP/IP

But  
Security  
First

Maximum Decentralization: No External Dependencies

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# The Evolution of TCP/IP

*Extending Information Exchange To Value Exchange*

No Servers, No Cloud  
No Database, No Miners  
**all machines same class**



# Why do we care about the 5 global standard bodies?

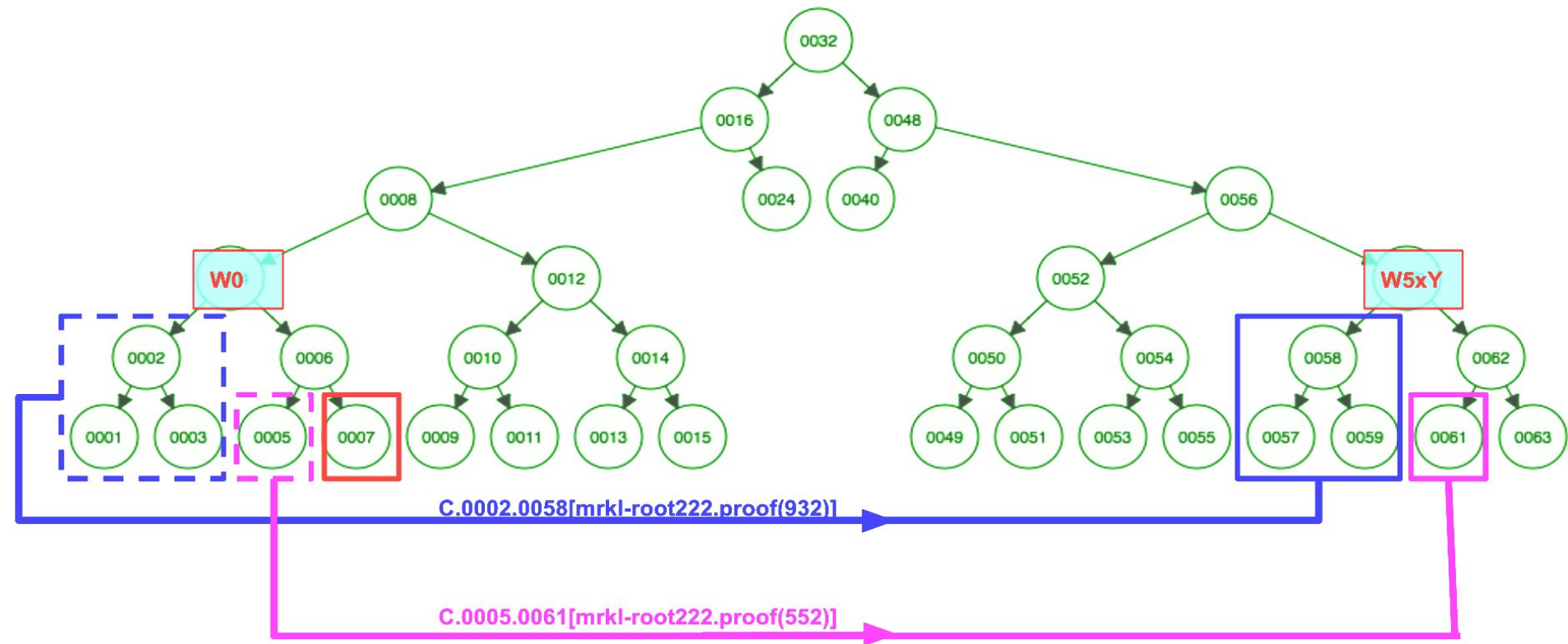


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# How?





# SECSI

*Security & Efficiency & Confidentiality & Scalability & Interoperability*

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