

# BLOCKCHAIN 2.0 SUMMIT

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Topic Name: BLOCKCHAIN FOR ENTERPRISES  
Presented by: ASHISH BHATIA



# **BLOCKCHAIN FOR ENTERPRISES OR ENTERPRISE BLOCKCHAIN ?**

## **PUBLIC BLOCKCHAIN**

Multiple participants

Open read and write

Consensus by proof-of-work

Eg: Bitcoin, Ethereum

## **ENTERPRISE BLOCKCHAIN**

Known participants from trusted organizations

Role and consensus based read and write

Multiple algorithms for consensus

Eg: Ripple, Ethereum Enterprise

Permissioning and private transactions differentiate public and enterprise blockchains

# TYPES OF ENTERPRISE BLOCKCHAINS



## Private

Think Internal organization

Anyone can't run a full node

Anyone can't make transactions

Anyone can't review/audit the blockchain

Eg: Bankchain

## Consortium

Think Supply Chain

Selected members of the consortium  
can run a full node

Selected members of the consortium  
can make transactions

Selected members of the consortium can  
review/audit the blockchain

Eg: r3, EWF

By 2021, at least 25% of Global 2000 will be using blockchain services as a foundation for digital trust at scale

(IDC, Oct 2017)

# WHY DO WE NEED SO MANY DIFFERENT TYPES OF BLOCKCHAINS?



Computing Power

Speed

PRIVACY + CONTROL = PRIVATE/ CONSORTIUM

Smart Contract execution

OPENNESS + CENSORSHIP = PUBLIC

Access Management

Reduces redundant work

# WHY ENTERPRISE BLOCKCHAIN



Operational Simplification

Reduce the role of intermediaries

Development of new business models

Find and reduce fraud/counterfeiting

Improve product and system security

Amongst the companies that can benefit most from blockchain are those with a current dependence on paper-based legacy storage systems and/or high volume of transmitted information

(Juniper research)

## **HORIZONTAL APPLICATIONS**

Supply Chain Management

Product provenance and authenticity

Process verification and audit

System interoperability and data sharing

Product lifecycle and data store

## **VERTICAL APPLICATIONS**

Transaction settlement

Cross border trades

Personal health records

Virtual clinical trials

Food provenance and authenticity



# INDUSTRIES THAT WILL BE DISRUPTED

Financial

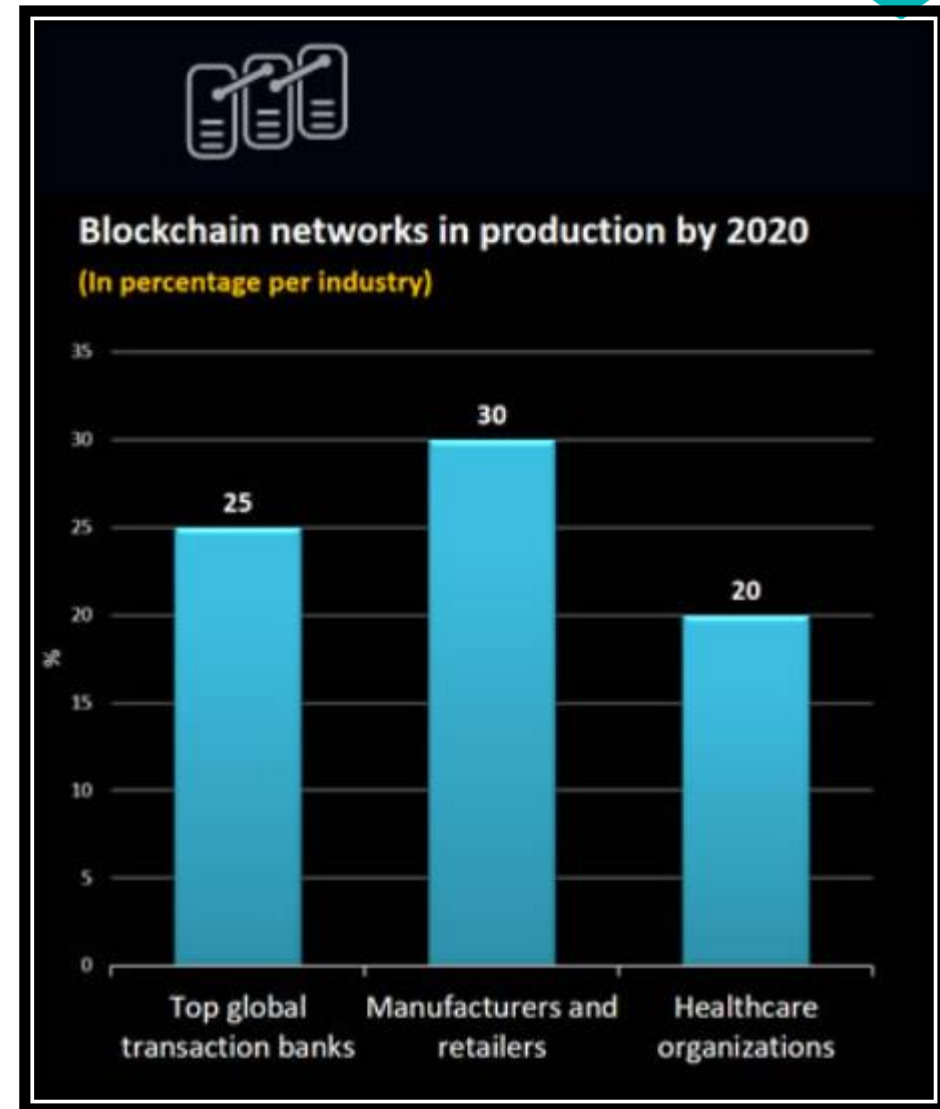
Government

Real Estate

Supply Chain Management

Media Distribution

Healthcare



## INDUSTRY USE CASES HEALTHCARE RECORDS



Blockchain may offer a way to get the healthcare industry to commit to an information sharing platform in which pointers to personal health data could be stored on a secure, permissioned chain and shared back and forth quickly like email.



## INDUSTRY USE CASES SEAFOOD SUPPLY CHAIN



Blockchain technologies are being used in the fishing industry to drive fish catch towards more ethical practices, obstructing pirate fisherman and fish that are caught outside of legal fishing areas from being sold.



## INDUSTRY USE CASES DIAMOND SUPPLY CHAIN

In 2003, the Kimberley Process Certification Scheme (KPCS) was established to prevent conflict diamonds. Purchased diamonds now come with a certificate to prove the distributor did not obtain the diamond from rebels, that the mine has been audited, etc. The idea is that paperwork can confirm provenance; however, the process is lengthy and there is a history of fraud from missing paperwork.

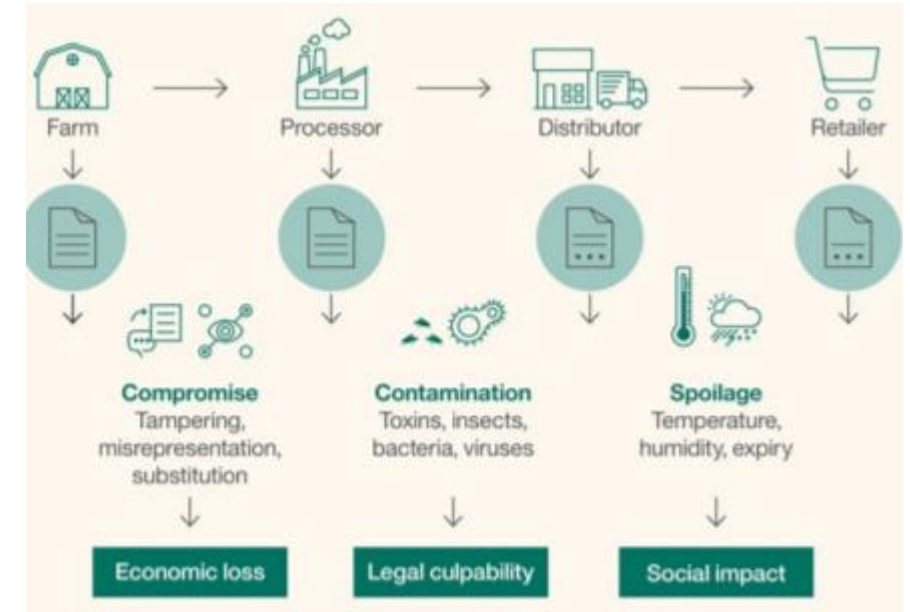


## INDUSTRY USE CASES

### FOOD TRUST



Blockchain technologies can provide a trusted source of information and traceability across the food network, a complex distribution and processing ecosystem involving farms, distributors, retailers and consumers, which make it difficult to assure food provenance.

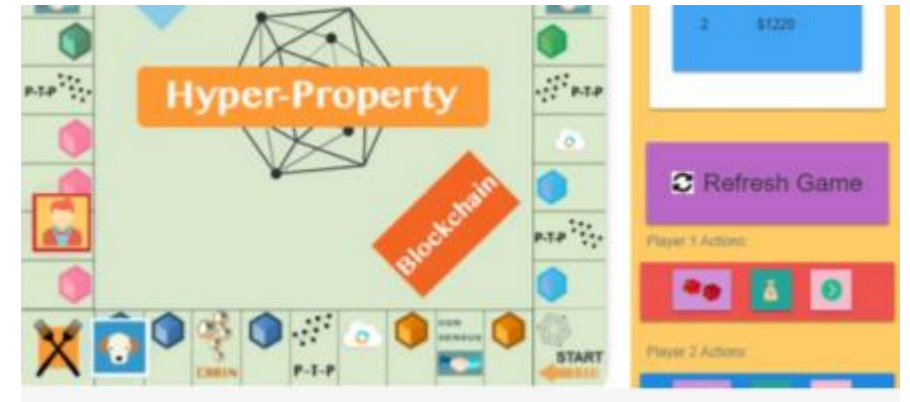


## INDUSTRY USE CASES

### REAL ESTATE TRANSACTIONS



Decentralizing databases and turning to distributed ledger technologies to keep track of land titles could keep governments accountable and create a more trustworthy system, even in instances where the individual actors may not be trusted.



## EMBARKING ON THE JOURNEY



Do multiple parties share data?

Do multiple parties update data?

Is there a requirement for verification

Can intermediaries be removed to reduce cost and complexity?

# CHALLENGES



Complex Technology

Regulatory implications

Implementation Challenges

Competing platforms



**ENTERPRISE BLOCKCHAIN HAS ARRIVED**

# THANK YOU!

CONNECT WITH ME ON LINKEDIN:  
ASHISHIBHATIA  
[ASHISHIBHATIA@YAHOO.COM](mailto:ASHISHIBHATIA@YAHOO.COM)