

Blockchain for Librarians Working Group

September 17, 2019



Agenda

- Working Group Updates
- Project Charter
- Blockchain Definitions
- Next Meeting – Current Issues in Information Science

Working Group Updates

- **Added to Slack Channel**
 - Nabi Hassan, Librarian & Head, Central Library, Indian Institute of Technology Delhi
 - Lesley Ellen Harris, CEO of Copyrightlaws.com
 - Katherine Scott, SLA Toronto
- **Lost Members**
 - Sarah Lin

Project Charter

- Issues?
- Upon Approval, will upload to SLA Toronto website
- Project Charter & Meeting Notes will be public

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- With Project Charter, need to include we are building on the existing work of other (e.g. SJSU)

Definitions - Why We Need a Definition

"No doubt there will still be nuances that this definition misses, but that is part of the problem of the industry: large claims of potential benefits are made, without defining the tool. And if we don't define the tool, how can we say that it's right or wrong?"

Angus Champion de Crespigny

<https://www.coindesk.com/how-i-lost-my-faith-in-private-blockchains>

"I can't tell you exactly what the essence of bitcoin is, but to limit it to a chain of blocks is reductionist in the extreme. The soul of bitcoin is not the blockchain. But if you pull the blockchain out of bitcoin, you get something rather empty."

Nic Carter

<https://medium.com/s/story/blockchain-is-a-semantic-wasteland-9450b6e5012>

Why We Need a Definition

“There has been a great deal of hype around blockchains and distributed ledgers, with even iced tea manufacturers claiming to be blockchain companies. This creates a lot of confusion— both for those who want to develop blockchain systems and consumers of such systems. It’s important for everyone— developers and consumers— to understand what a blockchain is and, equally importantly, what it’s not. For example, there has been some discussion about an “editable” blockchain. This is not really a blockchain, because blockchains are designed to be unalterable and permanent. Clear international definitions of terms helps establish that the property of “editability” falls outside the definition of the term.”

– Victoria Lemieux

<https://news.ubc.ca/2018/05/14/what-is-blockchain-ubc-expert-breaks-it-down/>

Definitions of Blockchain

InterPARES Definition

n. ~ An open-source technology that supports trusted, immutable records of transactions stored in publicly accessible, decentralized, distributed, automated ledgers.

<http://arstweb.clayton.edu/interlex/blockchain/term.php?term=blockchain>

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- This is a good definition, covering essential characteristics
- Instead of open source, it could say 'open to inspection'



Bitcoin Core Developer

<https://twitter.com/peterktodd/status/877580303279079424?lang=en>

- Group agrees this is too reductionist of a definition

Blockchain and The Law

“At their core, blockchains are decentralized databases, maintained by a distributed network of computers. They blend together a variety of different technologies - including peer-to-peer networks, public-private key cryptography, and consensus mechanisms - to create a novel type of database.”

- Primavera De Filippi and Aaron Wright

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- There is debate as to whether a blockchain is a new type of database
- A blockchain does more than process/read data, it has a consensus mechanism

Blockchain Revolution

“The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value.”

– Don & Alex Tapscott

Business of Blockchain

“At its core, the blockchain is a technology that permanently records transactions in a way that cannot be later erased but can only be sequentially updated, in essence keeping a never-ending historical trail.... It is deceptive to view the blockchain primarily as a distributed ledger, because it represents only one of its dimensions. It’s like describing the Internet as a network only, or as a publishing platform. These are necessary but not sufficient conditions or properties; blockchains are also greater than the sum of their parts.”

- William Mougayar

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- Important part of this definition is it highlights blockchain's value is multidimensional, similar to the internet

Victoria Lemieux

“Blockchain is a distributed digital ledger. Think about traditional ledgers— books used for keeping accounting records. Instead of just having one ledger book, in a distributed digital ledger there are tens of thousands of copies of the same ledger, all running on different computers. Why do this? The reason is security. If someone changes one copy of the ledger, it will be immediately noticeable because it doesn’t match with all the other copies.”

- Victoria Lemieux, associate professor in UBC’s [iSchool](#) and co-leader of [Blockchain@UBC](#)
<https://news.ubc.ca/2018/05/14/what-is-blockchain-ubc-expert-breaks-it-down/>

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- This is more of a description/explanation to highlight an aspect of blockchain rather than a definition

Kris' Definition

Blockchain:

1. A secure ledger
2. Can be distributed among any number of peers
3. Can be updated without *requiring* a central/single validator

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- Secure through cryptography

IBM Hyperledger

"In order to really understand where IBM's blockchain fails to satisfy, we need to look at the very definition of a blockchain itself. A blockchain is a decentralized and distributed database, an immutable ledger of events or transactions where truth is determined by a consensus mechanism — such as participants voting to agree on what gets written — so that no central authority arbitrates what is true.

IBM's [definition of blockchain](#) captures the distributed and immutable elements of blockchain but conveniently leaves out decentralized consensus — that's because IBM Hyperledger Fabric doesn't require a true consensus mechanism at all."

Stuart Popejoy

<https://thenextweb.com/podium/2019/05/05/ibms-hyperledger-isnt-a-real-blockchain-heres-why/>

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- Mentioned during group discussion that decentralized consensus is an essential component of a blockchain and is required.

Requirements vs Associated Terms

REQUIREMENTS

- Digital Ledger
- Sequenced Transactions
- Hash Functions
- Timestamp

ASSOCIATED TERMS

- Decentralization
- Peer to Peer (no intermediaries)
- Public/Private Key Cryptography
- Consensus Mechanisms
- Immutable / Permanent
- Distributed Ledger/Database
- Open / Publicly Accessible / Transparent
- Secure
- Transfer of Value

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Ran out time to reach agreement of what are requirements to a blockchain vs often associated features/terms

For Next Meeting

1. Continue Developing Blockchain Definitions
2. Review research that's already done in the information profession
3. Detail challenges faced in the Information Profession
 - Regardless of Blockchain