FORCE 2017

Where is the blockchain for open science?

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Scientific practices in digital environments are intrinsically decentralized; researchers produce parts of the digital continuum and then assemble fragments of interest in order to build a coherent narrative in the form of a paper. The paper is, however, hardly the most viable vehicle to aggregate such continuum; most scholarly products are under represented, attribution is inaccurate, and much detail is excluded. The digital continuum that is the experimental record, is lost for practical purposes. Decentralised ledgers (DL), also referred to as distributed ledgers, are a set of decentralised and distributed data management technologies that are used to maintain data in the form of a growing list of interconnected records, and to keep track of transactions between different parties in an efficient, verifiable, persistent way using Smart Contracts. Blockchain, the tamper-resistant digital ledger software underlying cryptocurrencies such as Bitcoin, Ethereum and Hyperledger is one of the most prominent examples of technology in this space. This workshop will offer researchers and practitioners in data science and scholarly communication the opportunity to present their work, vision, and ideas around this set of technologies, and to explore the question How could DLs disrupt scholarly communication and open science?

This workshop will have an open call for ideas, demos, technology visions and ongoing projects. From the submissions we will have an open discussion and select the two best submissions. We will have Ton Li from IBM giving a tutorial as well as Oliver Ram, CEO www.chainvine.com and Jared Pereira, fathom.network sharing their experiences using this technology in disruptive start ups.

12:00-12:25

Lamber Heller, Head of Open Science Lab @ TIB Hannover (German National Library for Science and Technology)

How to hack academic recognition and other social graphs with full transparency and decentralization

12:25-12:50 Olga Labazova, University of Cologne

Blockchain in Information Systems & Healthcare

12:50-13:30 Julius Faber, consensys.net

- what is blockchain? some basics, some technical background,

- what are tokens? beyond currencies, token based social protocols

- example: Fathom

- hands on

13:30-14:30 Lunch

Second half, workshop

14:30-15:00 Julius Faber, consensys.net

- hands on: simple smart contract examples: data storage, dummy citations system

- hands on:showcasing some simple tools how to develop software for blockchains

15:00-16:30 Tong Li

Hyperledger