

Journal of the Association for Information Systems

Call for Papers for Special Issue

Opportunities and Challenges of Blockchain Technology

Deadline for submissions: 01 March 2018

Guest editors

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Background

Blockchain represents a new class of distributed, transactional database technologies with potential to change the foundations of information based markets and organizations.

Blockchain is a reliable, secure, distributed, transactional database technology well-suited for supporting exchanges in decentralized environments. Blockchain enables smart contracts, which encode the rules for completing transactions in software and autonomously enforce these rules by making contract breaches prohibitively expensive. Smart contracts can be embedded in digital goods or digital representations of physical goods, automatically and autonomously triggering actions such as payments if certain conditions are met or if certain events occur.

These properties, of automaticity, autonomy, and enforcement, enable applications of blockchain that create “smart property” in which case the database inventories and tracks hard assets such as diamonds or cars, and also enables buy-sell mechanisms for these assets. These properties can enable transactional mechanisms central to the “sharing economy” as automatically recording and enabling transactions mitigates the risks and uncertainties inherent to large-scale peer-to-peer transactions. Similarly, these properties could enable coordination of transactions and information exchanges within the emerging “Internet of things”, where an increasing number of physical devices connect and coordinate activities via the Internet.

Due to the blockchain’s ability to enforce contracts, advocates argue its application is relevant to any problem domain where actors must reliably record decentralized transactions, in particular in environments where not all parties, whether humans or machines, can be fully trusted. For example, financial instruments like payments and trading records can be supported by blockchain technology, which can be designed to prevent double spending, forgeries, or disputes. Beyond financial markets, blockchain is well-suited for recording public information such as titles, birth certificates, votes, or court records. By

profoundly altering the back-end of how Information Systems (IS) support and store transactions, blockchain technologies may also alter the organizing logic of firms and society.

Due to blockchain's potential to alter sociotechnical systems, there is an urgent need for systematic inquiry to study blockchain from an Information Systems perspective. Hence, for the Special Issue on ***Opportunities and Challenges of Blockchain Technology***, we seek studies employing all IS research traditions, such as design science, behavioural, or economics as well as qualitative, quantitative, or mixed methods. Studies should be theory-driven or theory-building, offering novel insights with clear implications for research and practice on blockchain's potential to transform the lives of individuals and the relationships among individuals, organizations, and society.

Relevant topics for this Special Issue include (but are not limited to):

- Blockchain and its impact on organizational strategy
- Blockchain and its impact on the digitization of firm processes
- Blockchain as an infrastructure to facilitate the interplay between sectors, to enable global commerce and revenue collection
- Institutional and social implications of blockchain
- Actors in blockchain value chains and value networks
- Standards and interfaces related to blockchain
- Blockchain developers and communities
- Business model destruction/creation caused by blockchain
- Business value of blockchain
- Blockchain and how it is different from other technologies
- Blockchain as a trust enabling or trust-free technology
- Acceptance of blockchain among individual users
- Privacy and security issues related to blockchain
- Assimilation of blockchain into internal firm processes or across markets

Important dates (the review deadlines are preliminary targets):

01 Mar 2018	Deadline for submission of papers to the Special Issue
20 Mar 2018	Authors advised regarding paper acceptance for review
10 May 2018	First round of reviews completed and authors advised regarding review outcomes
10 Aug 2018	Deadline for revised papers
01 Oct 2018	Second round of reviews completed and authors advised regarding review outcomes
15 Nov 2018	Deadline for revised papers
01 Dec 2018	Final editorial decision on papers acceptance for the Special Issue
15 Dec 2018	Special Issue papers submitted to JAIS for publications

All papers will be peer reviewed and must follow the standard guidelines for manuscript preparation and submission posted on the JAIS website (<http://aisel.aisnet.org/jais/>).