Enterprise Blockchains minitrack

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1. Introduction

Among other promising technologies, Distributed Ledger Technologies (DLTs), often referred to as Blockchain, promise to be one of the most disruptive technologies since the invention of the internet's TCP/IP protocol. The combination of DLT characteristics such as accountability, pseudonymity, or distributed network topology, as well as the first cryptocurrency Bitcoin, drew enormous attention given the ubiquitous amount of possibilities for which this technology can be used since its invention in 2008 by Satoshi Nakamoto. Whereas TCP/IP lowered the cost of transferring data between two parties dramatically, DLTs have the potential to reduce the cost of transactions (i.e., transfer of assets and value) dramatically. DLTs can enable the secure transfer of any asset worldwide with nearly instant accountability by specifically cutting out intermediary trust holders due to the capabilities of the network's proof-of-X trust-building processes, e.g., the Bitcoin proof-of-work mining concept. More recent developments built on top of DLTs, like smart contracts and Decentralized Autonomous Organizations (DAOs), take the possibilities of programmable secure transactions even further.

However, during the peak of inflated expectations, most DLT applications remained on a conceptual level. Now, reaching the trough of disillusionment in the Gartner Hype Cycle, DLT applications need to be put to the test to show the promised effects. Hence, this minitrack welcomes research regarding methods and techniques, issues and critical challenges, as well as organizational approaches for understanding the potential of DLTs for business models, value chains, organizations, governance mechanisms, emerging competitive landscapes, and new start-ups. Besides, submissions should address specific industry or organizational applications and focus on the technology layer, strategic organizational challenges, social implications about core values, and the socio-technical perspective on governing organizations that use DLT. By opening this track to the IT, economic/management science, and IS community, we foster the interdisciplinarity needed to grasp the phenomenon from different perspectives.

In particular, we selected three manuscripts for publication in this minitrack:

(1) The first manuscript, "DLT-based Regulatory Systems Dynamics," by Roman Beck and Geetika Jain focuses on blockchain regulatory systems from the systems' thinking perspective. In particular, the authors conduct a structured literature review to analyze how agents (as parts of soft systems) are regulated through DLT (as part of hard systems). The study proposes the trifecta between DLT design, DLT protocol, and DLT use, and explains the relationships between them.

(2) The second manuscript, "Blockchain: Exploring its impact on the business models of Australian Accounting firms," by Ravi Seethamraju and Maria Dyball is an interview study with 26 professionals of accounting firms and their ecosystem. The authors discovered that this ecosystem is characterized by clients' reluctance to use blockchain platforms for financial reporting systems, a lack of direction on applicable accounting standards, no consensus on blockchain standards and absence of appropriate governance structures.

(3) The third manuscript, "Blockchain-based Governance, Risk Management, and Compliance for Fractional Ownership: Design and Implementation of A Decentralized Autonomous Agent System," by Mina Cu, Gabrielle Peko, Johnny Chan, and David Sundaram investigates how fractional ownership real estate transaction (FORET) could be improved in terms of governance, risk management, and compliance (GRC) by implementing a decentralized system that would eliminate the principal-agent problem present in the current centralized system,

URI: https://hdl.handle.net/10125/103101
978-0-9981331-6-4

causing transaction failures and an ineffective market.