



â??Blockchain for architectsâ??• revisited

Description

In 2017 the editors of *arq (Architectural Research Quarterly)* approached some of us to contribute articles for an anniversary issue to celebrate the journalâ??s twenty-first year. The invitation was to reflect on the past, or future, 21 years of architectural research. With co-author Tolu Onabolu I decided to beat the drum for blockchain and the sharing economy. Volume 21 issue 4 came out in April 2018.

I think we were the first to publish anything aligning architecture and blockchain (filtering out â??computer architectureâ?? as a branch of computer engineering). We called our article â??Blockchain for architects: Challenges from the sharing economy.â?? To date it has the modest citation count of 16 (excluding one self-citation).

Coming early to the publication game means that we get to see the extent to which our ideas about the relevance of blockchain technology for architecture have been developed, critiqued, ignored, bi-passed, paralleled or that share the same sources as us.

From the citation list below it appears that researchers interested in blockchain technology in architecture align with the construction industry (AEC) in general rather than architecture specifically. Building Information Modelling (BIM) is in there, as is urban planning.

A Masters Thesis

- Martinez, Evan. *aBlock: a Distributed Design Platform: Master of Architecture Thesis*. NY: Graduate School of the University of Buffalo, SUNY, 2019.

develops the sharing theme as a key aspect of professional architectural practice and how design proceeds as a collaborative architectural enterprise. Martinez argues that blockchain tech â??has the potential to open up the design process and redistribute agency in design to the individuals or stakeholders directly involvedâ?? (47).

â??This thesis speculates that the adoption of blockchain technology into the design profession would enable an open-design process, and investigates what those relationships would look like through the design of a decentralized application (dApp) that operates on a blockchain networkâ?• (47).

Our idea that blockchain technology provides a series of metaphors that inform how we might think about cities and buildings is yet to gain traction. So too, the idea that the blockchain idea provides a particular lens that reveals new aspects of the city, or that it disrupts, provokes and renders alien some aspects of the city we take for granted.

I like to think of the blockchain as a technology that draws on digital encryption, a technology of secrets, hidden places, obtuse codings and codebreaking. Blockchains, smart contracts, cryptocurrencies and [NFTs](#) are major exemplars of the cryptographic city, a theme I have been developing in blog posts and a major publication to appear early 2023. See posts related to [blockchain](#).

Articles that cite â??Blockchain for architectsâ?• (Google Scholar)

1. Blockchain technology: Is it hype or real in the construction industry? (S Perera, S Nanayakkara, MNN Rodrigoâ?i)
2. Blockchain and building information modeling (BIM): Review and applications in post-disaster recovery (NO Nawari, S Ravindran)
3. Building information management (BIM) and blockchain (BC) for sustainable building design information management framework (Z Liu, L Jiang, M Osmani, P Demian)
4. Blockchain adoption in construction supply chain: A review of studies across multiple sectors (AA Hijazi, S Perera, A Alashwalâ?i)
5. Blockchain in construction logistics: state-of-art, constructability, and the advent of a new digital business model in Sweden (D Kifokeris, C Koch â?? â?i)
6. Blockchain and smart contracts: A solution for payment issues in construction supply chains (S Nanayakkara, S Perera, S Senaratneâ?i)
7. Decentralized Autonomous Organizations and Network Design in AEC: a conceptual framework (M Sreckovic, J Windsperger)
8. Exploratory literature review of blockchain in the construction industry (DJ Scott, T Broyd, L Ma)
9. aBlock: A Distributed Design Platform (E Martinez)
10. Digital traceability for planning processes (D Breiffuss, G Å ibenik, M SreÄ?koviÄ?)
11. Potential Applications of Blockchain Technology in the Construction Sector (M Stoyanova)
12. BIM For Facilities Management on a Blockchain platform. (M Salama, O Salama)
13. Transactions in virtual places: Sharing and excess in blockchain worlds (R Coyne)
14. Blockchain Ecosystems in the Sharing Economy: An Evaluation for the Health Services Industry (NK Oflaz)
15. Novi Horizonti Urbanog Planiranja: Internet [New horizons in urban planning] (Kao Participativni Prostor, G Segedinac)
16. Smart Contracts f¼r den Planungsprozess [Smart contracts for the planning process] (PDIG Sibenik, D BreiffuÄ?)

17. Blokzinciri (blockchain) teknolojisinin inÅ?aat sektÃ¼rÃ¼nde kullanÄ±mÄ± [Use of blockchain technology in the construction industry] (A Kandiye)

Reference

- Coyne, Richard, and Tolulope Onabolu. â??Blockchain for architects: Challenges from the sharing economy.â?• *Architectural Research Quarterly* 21, no. 4 (2017): 369-374.



Category

1. Architecture

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