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Book-Smart, Not Street-Smart: Blockchain-Based Smart Contracts and The Social Workings of Law

Karen E. C. Levy

Abstract

This paper critiques blockchain-based "smart contracts," which aim to automatically and securely execute obligations without reliance on a centralized enforcement authority. Though smart contracts do have some features that might serve the goals of social justice and fairness, I suggest that they are based on a thin conception of what law does, and how it does it. Smart contracts focus on the technical form of contract to the exclusion of the social contexts within which contracts operate, and the complex ways in which people use them. In the real world, contractual obligations are enforced through all kinds of social mechanisms other than formal adjudication—and contracts serve many functions that are not explicitly legal in nature, or even designed to be formally enforced. I describe three categories of contracting practices in which people engage (the inclusion of facially unenforceable terms, the inclusion of purposefully underspecified terms, and willful nonenforcement of enforceable terms) to illustrate how contracts actually "work." The technology of smart contracts neglects the fact that people use contracts as social resources to manage their relations. The inflexibility that they introduce, by design, might short-circuit a number of social uses to which law is routinely put. Therefore, I suggest that attention to the social and relational contexts of contracting are essential considerations for the discussion, development, and deployment of smart contracts.

Keywords

law; contracts; blockchain; sociolegal studies

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Asset tracking using smart contracts and IoT. Blockchains have recently attracted the interest of stakeholders across a wide span of industries: from finance [1] and healthcare [2], [3], to utilities [4], real estate [5], [6], and the government sector [7]. The reason for this explosion of interest: With a blockchain in place, applications that could previously run only through a trusted intermediary, can now operate in a decentralized fashion, without the need for a central

authority, and achieve the same functionality with the same amount of certainty. This was simply not possible before. Authors. Figures. Smart contracts can mitigate informational asymmetry and improve welfare and consumer surplus through enhanced entry and competition, yet the irreducible distribution of information during consensus generation may encourage greater collusion. In general, blockchains can sustain market equilibria with a wider range of economic outcomes. We further discuss the implications for anti-trust policies targeted at blockchain applications, such as separating consensus record-keepers from users. Cong, Lin and He, Zhiguo, Blockchain Disruption and Smart Contracts (December 27, 2018). Available at SSRN: <https://ssrn.com/abstract=2985764> or <http://dx.doi.org/10.2139/ssrn.2985764>. Lin Cong (Contact Author). 17 Karen Levy, 'Book-Smart, Not Street-Smart: Blockchain-Based Smart Contracts and The Social Workings of Law' (2017) Engaging Science, Technology, and Society 1-15. 18 European Commission, 'Ethics Guidelines for Trustworthy AI' (2019). Recommend this journal. Email your librarian or administrator to recommend adding this journal to your organisation's collection. Legal Information Management. ISSN: 1472-6696. EISSN: 1741-2021.



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