

Blockchain Regulation and Governance in Europe by Michèle Finck, Cambridge University Press, 2019, ISBN: 9781108465458, 214 PP, £

The Blockchain and the New Architecture of Trust by Kevin Werbach, MIT Press, 2019, ISBN: 9780262038935, 344 pp, £22

Reviewer: J Savirimuthu

[Accepted date: 17th July 2019]

Imagine a spreadsheet that creates a permanent record of information while functioning as a distributed ledger enabling users to engage in a wide range of activities without the aid of a trusted intermediary. We now know what that entails – blockchains! Satoshi Nakamoto’s quest to find a pragmatic engineering solution to what he regarded as the problem of institutional mediation is merely the first iteration of that vision - “electronic payment system based on cryptographic proof instead of trust”.¹ The idea that human or institutional agency can now be replaced by entrusting responsibility with machines has attracted considerable policy and scholarly interest, particularly during the past two decades. Just as the world wide web with its hypertext protocols integrated into the Internet infrastructure facilitated the flow of information from disparate directories, blockchain technologies not only build on these foundations but hold out the promise of decentralized space for interaction, participation and innovation. Can a system of cryptographic proof deployed within a peer-to-peer network provide a much needed solution to the dominant role of trusted third parties in economic transactions? The books by Michèle Finck and Kevin Werbach provide a welcome addition to the current literature examining the architecture for value creation and understanding of its processes for knowledge production in the global digital economy. Even though the subject matter is the same - blockchain technologies – each offers a compelling and well-research conception of the challenges its decentralized architecture for automated decision making pose for established institutional and regulatory frameworks.

As the title to Michèle Finck’s book indicates, the governance of blockchain is approached from the perspective of European Union law. The opening chapters introduce readers to the technology and the new modalities of governance that have been the staple of regulatory and technology theorists (Chapters 1 to 3). Michèle evokes Lessig’s well-known trope to highlight some of the ways blockchain technology provides first mover advantages in terms of standardizing norms and

¹ Satoshi Nakamoto, ‘Bitcoin : A Peer-to-Peer Electronic Cash System’ (2008) White Paper.

practices (pp. 70-72). The decentralized network and infrastructures which enable blockchain technologies to function provide the context for discussion on the scope and limits of code as an agent of regulation. Concerns about balancing innovation potential offered by blockchains with the European Union's General Data Protection Regulation builds on the theme of automating law and developing a new vision of data sovereignty, and in particular that:

“[i]n the future, however, they could be compatible on a meta-level, as, if properly designed, blockchains could pursue the GDPR's underlying goal of giving a data subject more control over data.” (p.113)

Of course, there must be a degree of adaptation to the disruptions this technology poses but what is not entirely clear is how do we as a society make those choices involving the imaginary spreadsheet recording and retaining every transaction on the blockchain (pp. 113-114). It is here perhaps close investigation of who writes the software program and the values embedded in the blockchain become material for the blurring of the boundaries between public policy and corporate strategic rule making. Chapters 4 and 5 investigate the range of public policy concerns that will need to be addressed if existing substantive rules and safeguards are to keep pace with the considerable potential offered by distributed ledger technologies. Underlying Finck's critique of the General Data Protection Regulation 2016 is her understanding and awareness of the limits of technological solutionism as a regulatory response to the dual policy objective of data protection law. If blockchain technology can be seen as an example of the wealth of networks, in the sense envisaged by Yochai Benkler, might the emergence of distributed ledger technologies, crypto-based interactions and activities and applications hint at a move away from existing neoliberal institutional ideologies and structures. Chapter 5 provides space for exploring the idle data economy as an imaginary – an area of public policy that has led to a resurgence in interest about a global information commons, property rights in data and data trusts. By its very nature, the breadth and complexity of the topic makes it impossible for a detailed examination of the alternatives to the current frameworks for a data marketplace (p. 136). It may very well be that blockchain technology can help reduce barriers created by data silos and help optimise idle capacity.

If blockchains are to facilitate the creation of value and new forms of interactions it does open up an interesting set of inquiries with regard to the applicable benchmarks, access points for regulatory intervention; and assessing impact and outcomes against the background of existing organizational and institutional rule making. What are the implications of blockchain technologies for law and strategies for promoting innovation in society? Chapters 6 and 7 explore the regulatory dilemmas

faced. The discussions on the various forms of regulation and rejection of a value free blockchain technology contain some important insights on the production and evolution of structural power that cannot go unheeded (pp. 182-187). It is important to note that even though the processes of regulation are accompanied by familiar labels such as “co-regulation” and “command and control” regulation, that the rule of law is critical to her view of the functioning of a participatory democracy (pp. 208-209). The outcome of the thesis is very much alert to the dynamics of a global political economy and the fragility of trust in providing the necessary cohesion and stability. It is a theme that clearly resonates in the next book.

Kevin Werbach’s critique of blockchains can be inferred from this observation with regard to the growing democratic crisis “when trust in centralized power structures is waning, the blockchain’s trustless trust offers a compelling alternative” (p. 246). The architecture of trust narrative is used to confront the hidden assumptions, values, interests and power dynamics that come into play with blockchains, all of which should be familiar – “freedom from corporate power, government power, and the legal system that reinforces both...” “to empower criminals and a new group of shady insiders...” and “it is just the way that all organizations eventually will do what they more efficiently.” (p.3) Understanding the concept of trust and the complex role it plays in ordering societies, institutions and activities is seen as critical if the potential offered by blockchains is to be realised and not subverted to embedding existing power imbalances. The account of the normative and instrumental role of trust as mechanisms for participation, consensus and innovation is set out in three parts. To ensure that readers are attuned to dangers of technological solutionism – the mantra of Silicon Valley – Part I situates the origins and development of blockchain technology within the narrative of trust. Chapters 1 to 4 aim to go beyond binary views of trust in terms of centralized/decentralized and permissioned/permissionless forms of blockchain systems by offering what he describes as “value propositions” – transparency, auditability, immutability, efficiency and tokens of value. These chapters lay the foundation for Part II for the discussion on how the functioning of blockchains can produce the anticipated benefits as well as the negative externalities that might be created: what could possibly be go wrong? Chapters 5 and 6 signal the regulatory alarms. Even though technocrats may play down the problems, Werbach astutely observes that “the trustworthiness of the system still depends on the trustworthiness of the components” (p. 97) Cryptographic security, algorithms, immutability and decentralization creates a potential for an accountability deficit when humans are taken out of the decision making process (p. 109). Chapters 7 to 9 explain why, as with any computing technology and innovation, we can never remove human or institutional agency. Equally true, from the examples he provides of the distinction to be made between automation and enforcement (p. 160-163), Delaware Blockchain

Initiative (pp. 166-167), Uber ride-sharing transactions (p. 172) and the Virtual Currency Association (p. 198) of the contingency of trust and avenues for addressing what Luhmann regards the problematic relationship with time.² How blockchains and its paradigmatic trend will evolve against the background of existing hierarchical forms of institutional policymaking and rule making is forms the basis for the concluding chapters in Part III. Werbach's insights share much with Berners-Lee, Benkler and Lessig's vision of an democratic system designed to create a vibrant commons communication infrastructure. Given the current state of health of the Internet, with its silos and proprietary models, it is not surprising to find that Werbach prognosis is measured – hopeful but not blind to the influence of structures and institutions in society in reconstructing

Kevin Werbach and Michèle Finck provide an important contribution to the challenges blockchains pose for regulators. Both books can be seen as a challenge to both scholars and policymakers for fresh thinking that enables blockchain technology to empower individuals and enhance the potential for democracy. The arguments, extensive research and lucid prose is underpinned by scholarly rigor. The contributions do (and rightly so) not provide prescriptions to the “lifeworld universality of the phenomenon of power”.³ Lessig's ‘code is law’ thesis may now seem be nothing more than a rhetoric of a bygone era. Finck and Werbach provide us with the resources and tools to think about gone astray in the way that managerial and financial executives viewed their role in the modern economy, and that weakened fiduciary standards might have some bearing on the problem.

² Niklas Luhmann, *Trust and Power* (English edition, Polity 2017) pp. 12-18

³ *Ibid.* p. 202