

## A Note from the Editors

2019 has been another year of growth for Ledger. We are happy, once again, to have provided a space for high-quality blockchain research as the quality of research in the field itself continues to improve.

This year, we published a lengthy and comprehensive "taxonomy of blockchain" article, by Paolo Tasca and Claudio J. Tessone, that ambitiously attempts to categorize the myriad ways in which people have created things that they refer to as "blockchains." We also had several articles that looked at the applications of blockchain technology in publicly-traded companies, via a succinct letter on the future of credit risk modeling written by Hans Byström, and the work of Evangelos Benos, Rodney Garratt, and Pedro Gurrola-Perez on securities settlement implications. Not surprisingly, game theory continues to play a leading role in blockchain research, with excellent analyses by Nicola Dimitri on Bitcoin miners, and Michael R. Mainelli, Matthew Leitch, and Dionysios Demetis with an agent-based model simulating the evolution of a new cryptocurrency. A few articles ventured into decidedly new territory within blockchain research, such as Adam J. Bennet and Shakib Daryanoosh, who wrote about energy-efficient mining that leverages light-based processing of quantum information, and a view into the local economics of Venezuela using Bitcoin as a tool by Jackie Johnson. Closing out our issue this year were two articles that focus on the use of blockchains to store and utilize non-financial information, with an article on decentralized knowledge oracles by Austin K. Williams and Jack Peterson, and a token-curated registry system described by Kensuke Ito and Hideyuki Tanaka.

This year we also published our first special edition from the "Proceedings of the First Symposium on Blockchain and Robotics" organized by the MIT Media Lab and guest-edited by Eduardo Castelló Ferrer, Thomas Hardjono, and Alex Pentland. As we continue to connect with communities in disparate academic disciplines, with their correspondingly highly-varied scholarly publishing norms, we anticipate publishing more special issues that meet the expectations of our diverse authorship and readership.

Once again we are deeply grateful that our authors have chosen Ledger as a home for their work. As in previous years, we would like to thank our authors, our tireless volunteer editors, and our distinguished editorial board. Furthermore our open-access (free to read) and authorfee-free (free to publish) journal would not be possible without the generous support of our publisher, the University Library System of the University of Pittsburgh, and our sponsors, the Bitcoin Unlimited Community Organization and the Institute for Cyber Law, Policy, and Security at the University of Pittsburgh, without whose generosity our work would not be possible.

Lastly, we would like to thank you, the readers and researchers for whom this work is done. Without you to provide a demand for well-reasoned and well-reviewed scholarship, we wouldn't have a reason to provide it. Here's to another year done and a better one to come.

Sincerely,

Christopher E. Wilmer, Co-Managing Editor

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