

Real-time visualization tool reveals behavioral patterns in Bitcoin transactions

July 5 2016



Credit: Mary Ann Liebert, Inc., publishers

A novel visualization method for exploring dynamic patterns in real-time Bitcoin transactional data can zoom in on individual transactions in large blocks of data and also detect meaningful associations between large numbers of transactions and recurring patterns such as money laundering. The information and insights made possible by this top-down

visualization of Bitcoin cryptocurrency transactions are described in an article in *Big Data*.

In the article "Visualizing Dynamic Bitcoin Transaction Patterns," Dan McGinn, David Birch, David Akroyd, Miguel Molina-Solana, Yike Guo, and William Knottenbelt, Imperial College London, U.K., compare their visualization approach to previous bottom-up methods, which examine data from single-source transactions. Top-down system-wide visualization enables pattern detection, and it is then possible to drill down into any particular transaction for more detailed information. The researchers describe the successful deployment of their [visualization tool](#) in a high-resolution 64-screen data observatory facility.

"This is a bold attempt at a comprehensive [visualization of bitcoin transactions](#) for a lay audience," says *Big Data* Editor-in-Chief Vasant Dhar, Professor at the Stern School of Business and the Center for Data Science at New York University, "but should also be of great interest to regulators and bankers who are trying to make sense of blockchain and related methods that can work without a central trusted intermediary. There is a lot of confusion about these emerging methods and a real need for articles that cut through the clutter and explain them in simple terms. Visualization is a key to understanding them."

More information: Dan McGinn et al, Visualizing Dynamic Bitcoin Transaction Patterns, *Big Data* (2016). [DOI: 10.1089/big.2015.0056](https://doi.org/10.1089/big.2015.0056)

Provided by Mary Ann Liebert, Inc

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