Why Bitcoin Fails as Money: An Operational Risk Analysis

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After a slow beginning in 2009, the digital currency Bitcoin has edged closer to the mainstream, and regulators are scrambling to determine what to do with it. So far, they have focused on harms that its use creates, such as easy money laundering and sales of illicit goods. But Bitcoin's ability to grease the wheels of crime is not the only risk we should worry about. Rather, due to its status as decentralized, open-source software, Bitcoin poses a risk that money has not historically been subject to – the risk that the money will just stop working one day due to a technology or basic governance problem.

Illuminating the importance of reliable money to our society, this paper unpacks the operational risks generated by Bitcoin's very structure, such as the inherent vulnerabilities of software to bugs and attacks, the governance problems spawned by its decentralized structure and open-source nature, and the lack of monetary expertise of the coders who run the currency. Explicitly considering how each operational risk impacts Bitcoin's status as money, I conclude that the aggregation of Bitcoin's operational risks means that it is simply not durable enough to serve as money – even if it becomes widely accepted and achieves a stable value.

With hundreds of millions of dollars in investments now pouring into Bitcoin and the larger virtual currency ecosystem, and with more and more prominent individuals jumping daily on the Bitcoin bandwagon, this paper urges regulators and policy-makers to specifically address Bitcoin's critical operational risks as they design the soon-to-come regulations for virtual currencies.