block/supply/chain

Julian Murphet

WHETHER OR NOT CRAIG WRIGHT IS OR WAS 'SATOSHI NAKAMOTO', IT IS AT LEAST poetically apt that that pseudonym should have been compounded of two names snatched from either end of the Japanese cultural lexicon: Tominaga Nakamoto, iconoclastic 18th-century rationalist merchant-philosopher; and Satoshi, gung-ho anime boy in a red peak cap going by 'Ash Ketchum' in English circles and inseparable from his Pikachu companion in the Pokémon universe (created by Satoshi Tajiri). For somewhere between arch-rationalist objectivism and juvenile gamification lie the blockchain and its elusive treasure the Bitcoin: gotta catch 'em all, but only if the peer-to-peer network agrees!

The value of that treasure is slumping again under the shadow of COVID-19, just as it did after the 2017 bubble burst, proving just how inseparable it is from the commodities market in general, with which it has been compounded for a good time. The ultimate 'noncorrelated asset class' commodity is correlated after all, and all of the smug claims for it as the 'new gold' for our times are exposed to the secret schizophrenia of its genetic constitution—safe haven for rationalist investors, speculative risk asset for the gamers, all at once.

In time, all discussion of Bitcoin *per se* will resolve itself into a discussion about markets in commodities and derivates (Golumbia). Its monetary aspect is, as Hayes points out (Hayes), inessential to the genesis of this technology, and is arguably its least interesting, least philosophically significant quality. What is interesting, and will remain so, is its underpinning in the blockchain. For that software model is of world historical significance, promising to reinvent the very social ground of trust, security, and identity in a global marketplace of flows and ever-accelerating liquidity.

First, I want to say some things about cash money, not as currency, but as a form of social relationship. It was reported recently that some merchants today are refusing cash due to COVID-19 contagion, the US Federal Reserve is quarantining all cash coming from Europe and Asia for 10 days, and certain heads of state are advising citizens to refrain from using 'tainted' physical currency in a time of viral transmission. Cash money is irredeemably dirty as a medium, bearing unseen but always suspect traces of all the hands it has passed through on the endless chain of transactions that is the open market. It is part of the mystique of money that *you do not know where it has been*; even laundered, it carries with it the imaginary aroma of sweaty palms, under-the-counter deals, secret payoffs, and extortion.

The very physicality of cash money, even the higher denomination bills, is a logistical matter of major importance in the international drug trade, where cash is king. As the cocaine-trafficking narrator of Luca Rastello's *I Am the Market* (2010) writes, 'it takes up a lot of space. It's big, bulky. Four hundred thousand dollars in wads of no more than twenty bills will fill four suitcases—imagine the bulk of twenty million. […] Of course, the illegal money produced by weapons, and by cocaine, isn't only used by the narcos. It travels around the world paying for the dirtiest kinds of business. But also the cleanest. The totalitarianism of capital' (Rastello 179). Money is a form of social relationship that, occupying the physical space we all occupy, as an object among objects, allows me *to erase who it is I am*, my past and my very identity, in order to enter into a transaction with you for *anything whatever*. And insofar as this relationship is underwritten by the perfect alibi of the universal medium of exchange, it is dirty. The cleanliness of an abstract encounter, where we know nothing of one another but that cash relates us, is immediately a filthy encounter; and vice versa—because capitalism.

Capitalism, however, has a fitful and uneasy relationship with the cash that accelerated its progress for so long. If money rises up spontaneously from the nexus of exchange—'Circulation sweats money from every pore' (Marx 208), as Marx wrote—it constantly threatens to usurp that nexus with wild swings in valuation, unless it is underwritten by the violence of the state. Cash can provide its structural alibi for every user thanks to the promissory note inscribed on it: 'The United States will pay the bearer One Dollar at the Treasury in New York'. With that purely legal fiction in place, cash's 'functional existence so to speak absorbs its material existence. Since it is a transiently objectified reflection of the prices of commodities, it serves only as a symbol of itself, and can therefore be replaced by another symbol' (226). And yet, even so, that material existence persists; cash is prey to all the inherent vices of matter: it is hoarded, degrades, burns, is alienable, indeed expropriable, and ends up in the strangest places. A symbol of itself, cash is also recalcitrantly thinglike, and that materiality matters in a moral sense.

Cash marks an important inner-limit contradiction of capitalism. This perfect symbol is also, in its manifest imperfection, its physical proportions and textures, something of an aesthetic substance capable of all the caprices and deviances of a work of art. To the degree that it becomes capital, precipitated into the great motor of investment and return, money loses those material qualities, that grubby aesthetic *Schein*, and becomes social power as such. But in its state as cash, the grease and oil of the system at ground level, it is mired in an altogether distinct social economy, of *sub rosa* deals and wagers, untaxed payments and gifts, illicit trades, and so on; in other words, cash is a social cement between powerless social actors and shadow organisations, not sanctioned by the state but functioning in its official hinterlands under the disguise of its social uniformity.

Which is why, for some time now, capital has been hard at work phasing cash out of existence. Electronic money transfers are only the thin edge of what will be a world-conquering wedge, whose purest form is the blockchain and all the cryptocurrencies it supports. Again, what matters is not to think of these currencies as money, but as forms of social relation. And here we are truly seeing something like a puritanical and totalitarian backlash against the promiscuous anonymity of cash.

Cashlessness is a condition devoutly to be wished by banks, regulators, multinational corporations, tax offices, and governments, but a disaster for poor and working people the world over, as the Indian state realised when in late 2017, in an attempt to expose the 'black market', banks withdrew certain denominational notes from circulation overnight and the population woke to discover that 86 percent of its cash holdings was no longer legal tender (Chakravorti). In a society where 90 percent of transactions are still effected with cash, the chaotic results should have been politically disastrous, but such is the degree of popular docility before the law, Modi's BJP was returned to power in the subsequent mid-term elections. Closer to home, the Coalition's designs for a 'cashless welfare card' for the Northern Territory indigenous population signals a truly draconian anti-popular set of constraints on 'free market' principles for the poor and rural Aboriginal peoples of the Northern Territory and Cape York. As Ngaanyatjarra, Pitjantjatjara, Yankunytjatjara (NPY) Women's Council chairperson Maimie Butler has said, 'If we do, you know, if we do get on this card, our little ones, our grandchildren and our other families, our families, extended families, we know, we always put our hands in the pocket and got $1 out and give it to them. That'll be gone, the card will just put it right out' (Heaney).

It is that messy distributive freedom of cash, alienable in unpredictable directions, and thereby occasionally subject to variable community standards, that threatens the regulation of monetary policy. Cashless transactions tighten the net through which money can flow, stabilizing the world market and ensuring both stock health and capital accumulation in ways that cash cannot. The 'unbanked' population of the world currently numbers 1.7 billion persons of adult age; cash is their traditional staple. The shift to digital currencies like India's Aadhar scheme, Kenya's M-Pesa, and China's Alipay signify aggressive efforts to integrate that massive supply into the 'formal market' as such and 'generate incremental global annual revenue of US$200billion', or 20 percent of emerging market banks' annual revenue (Bellens).

One way of putting this is to say that cash is inherently porous and leaky as a medium of exchange; and digital currency—the blockchain—is not. The blockchain has one merit above all according to its acolytes and proselytisers: it is impermeable, a perfect, water-tight reification of the event of each exchange, its *nominalisation*, if you like. Frances Ferguson writes, 'The name, that string of numbers, is a time-and-date stamp, and the exchange of something—information, a currency, a service, real estate—at a particular moment constitutes its baptism' (Ferguson 144). This non-negotiable stamp or brand, the searing of a transaction-occurrence into the very identity of the chain stored in the public ledger, is the polar opposite of cash money's dangerous anonymity—despite its original framing as a 'peer-to-peer electronic cash system' (Nakamoto). There is no ontological relationship between myself and the cash I bring to the market; but with the blockchain, the medium of exchange is intimately entwined with my very being, my name, IP address, password, etc.—'someone needs to be able to remember how to collect one's identity' (Ferguson 153). Cash, left lying around, is anybody's for the taking. Bitcoin dies with its owner, because it *is* its owner, in some as yet undetermined way.

This immense exercise in 'cleaning up' capitalism's chief medium of exchange goes hand-in-hand with other efforts in the sanitation of capital—above all the conversion of the world's great ports into one seamless pneumatic tube of circulation and 'just-in-time' production in the global supply chain. Whereas the seething panoramic port cities of yesterday had been Biblical pits of vice, theft, corruption, and leakage, today's mega-ports like Rotterdam, Singapore, and Barcelona have undergone such a hyper-rationalisation in their production of space—scarcely any workers, containers in great stacks, gantry cranes, electronic tagging and tracking, and so on—that all of that earlier porosity and dirt, the human scale both morally and spatially, has been sterilised by a new hygiene of the techno-sublime. As with money so with the ports.

It is worth a few moments reflecting on this coincidence, which is not a coincidence, and concluding with some observations on the vanishing available mechanisms for popular interruption and dissent in the era of the block/supply chain. It will come as no surprise to learn that a great deal of intellectual and technical effort is being directed at the integration of the blockchain and the supply chain. Initial efforts tend to show that 'blockchain technology is a convenient instrument to overcome collaboration and trust issues in a supply chain, to increase the supply chain overall performance, to minimize the negative consequences of information asymmetry over the echelons of a supply chain but also to discourage companies from any misconduct' (Longo et al.). There is ample 'evidence linking the use of blockchain in supply chain activities to increase transparency and accountability' (Kshetri), and that 'blockchain technology can be applied to facilitate the implementation of mean-variance risk analysis for global supply chain operations' (Choi). Extensive hearings in the US House of Representatives have been held to explore the claim that blockchain has 'the potential to make our economy more efficient, reliable, and safe' (*Leveraging* 15). By 'easing paperwork in ocean freight', 'identifying counterfeit products', 'facilitating origin tracking', and 'operating the internet of things', blockchain has the boundless potential of perfecting the logistics revolution for capital (Hackius and Petersen).

For a technology offered as a democratising leveller for the libertarian self, free to trade without the mediation of the state, blockchain looks far more likely to proceed in lockstep with the negotiated peace of state and capital. Or whatever this new mode of production is. McKenzie Wark's newest provocation, *Capital is Dead: Is This Something Worse?* (2019) speculates that the new regime accumulates value through the agency of the 'vectoralist class' in the domain of information. In thinking about the supposedly democratic digital revolution of the late twentieth century, he remarks, 'If you can use a computer to calculate the positions of ten thousand atoms in a protein, you can use it to calculate a global production system that routes around the power of militant labor in a factory in Detroit' (Wark loc. 1720). So it is, on steroids, for the blockchain: if you can use a distributed public ledger to enable anarchic purchases of drugs on the dark web, then you can use it to manage a global supply chain that obliterates the power of labour altogether. There is little doubt that 'the crypto-current is a nightmare for the left', pumping enough anthropogenic CO_2e emissions into the atmosphere to raise global temperatures by 2°C, depending on massive inequalities of access to digital technology, and functioning 'as a centralized and concentrated locus of financial power' (Land §3.1; Mora et al. 932; Golumbia 52). The truly radical thought today is the same as it has always been: a world without money.

JULIAN MURPHET is Jury Chair of English Language and Literature at the University of Adelaide.

Works Cited

Bellens, Jan. 'Why the Potential End of Cash is about More than Money. *EY*, 7 January 2020. <https://www.ey.com/en_gl/banking-capital-markets/why-the-potential-end-of-cash-is-about-more-than-money>.

Chakravorti, Bhaskar. 'Early Lessons from India's Demonetization Experiment.' Harvard Business Review 14 March 2017 <https://hbr.org/2017/03/early-lessons-from-indias-demonetization-experiment>.

Choi, Tsan-Ming, Xin Wen, Xuting Sun, Sai-Ho Chung, 'The Mean-variance Approach for Global Supply Chain Risk Analysis with Air Logistics in the Blockchain Technology Era.' *Transportation Research Part E* 127 (2019) 178-91.

Ferguson, Frances. 'Bitcoin: A Reader's Guide (The Beauty of the Very Idea).' *Critical Inquiry* 46 (Autumn 2019).

Golumbia, David. *The Politics of Bitcoin: Software as Rightwing Extremism*. Minneapolis: U of Minnesota P, 2016.

Hackius, Niels, and Moritz Petersen. 'Blockchain in Logistics and Supply Chain: Trick or Treat?' *Digitalization in Supply Chain Management and Logistics: Smart and Digital Solutions for an Industry 4.0 Environment. Proceedings of the Hamburg International Conference of Logistics (HICL)*, Volume 23. Ed. Wolfgang Kersten, Thorsten Blecker and Christian M. Ringle. Epubli GmbH, Berlin, pp. 3-18, <http://dx.doi.org/10.15480/882.1444>.

Hayes, Adam. 'The Socio-Technologoical Lives of Bitcoin.' *Theory, Culture, and Society* 36.4 (2019): 49-72.

Heaney, Chelsea. 'Cashless Welfare Card Could Unfairly Target Thousands of Aboriginal People in the NT, Senate Committee Hears.' *ABC News*, 2 November 2019. <https://www.abc.net.au/news/2019-11-01/cashless-welfare-card-committee-hearing-northern-territory/11662892>.

Kshetri, Nir. 'Blockchain's Roles in Meeting Key Supply Chain Management Objectives.' *International Journal of Information Management* 39 (2018) 80-9

Land, Nick. 'Crypto-current: An Introduction to Bitcoin and Philosophy.' *Šum* 10.2. <http://sumrevija.si/en/sum10-2-nick-land-crypto-current-an-introduction-to-bitcoin-and-philosophy/>.

Leveraging Blockchain Technology to Improve Supply Chain Management and Combat Counterfeit Goods, Joint Hearing Before the Subcommittee on Oversight and the Subcommittee on Research and Technology, Committee on Science, Space, and Technology, U.S. House of Representatives, 150th Congress, 2nd Session, May 8, 2018, Serial No. 115-57. Washington: U.S. Government Publishing Office, 2018.

Longo, Francesco, Letizia Nicoletti, Antonio Padovano, Gianfranco d'Atri, Marco Forte, 'Blockchain-enabled Supply Chain: An Experimental Study.' *Computers and Industrial Engineering* 136 (2019) 57-69.

Marx, Karl. *Capital: Volume 1*. Trans. Ben Fowkes. London: Penguin, 1990.

Mora, Camiloa, et al. 'Bitcoin Emissions Alone Could Push Global Warming Above 2°C.' *Nature Climate Change* 8 (November 2018): 931-3.

Nakamoto, Satoshi. Bitcoin: A Peer-to-Peer Electronic Cash System. <https://bitcoin.org/bitcoin.pdf>. Originally published in 2008.

Rastello, Luca. *I Am the Market: How to Smuggle Cocaine by the Ton and Live Happily*. London: Granta, 2010.

Wark, McKenzie. *Capital Is Dead: Is This Something Worse?* Ebook edition. Verso, 2019.