

# Money Nutters

By Bill Maurer

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It began, as all good things do, with a drumming circle. The two young women walking with me toward Long Beach, California's first ever "Really Really Free Day" from their church were discussing how the pastor had "mixed it up" at the service that morning, with new music and a sermon that mentioned this event. Their interest piqued, they decided to see what it was all about. We heard the drums as we approached. About fifty people had occupied a short city block. Regulation-issue wooden saw-horse barricades blocking the traffic indicated to me that the proper permits had been applied for and received. So these were not anarchists, or, at least, they were very well behaved anarchists who had successfully secured the city's permission for this event. The drummers were in the center of the block. Most of their instruments were made from repurposed and recycled items – wooden crates, plastic tubs, and such. In front of them, some women in wispy homemade-looking sundresses were dancing in a manner I had only ever seen on television and in news footage from the late 1960s. I was born in 1968, and felt fortunate to be witnessing people younger than I embodying the habitus of that era in a way that they and I have come to share through the multiple mediations of those who were there, then, and who have spent considerable time and money for all of our own lives repackaging their memories for us to emulate. A flashback to a time and place I had never known, except, here it is again. Much like the money nutting that occupies me in this essay.

I am taking liberties with the expression, "money nutter," turning in into a verb to capture the frenetic activity around money, currency, payment, value storage, and exchange that chases after and possesses an anthropologist of money like myself, especially in times such as these. And I really, truly do not mean the expression in a pejorative sense. A "nut" is an "eccentric," the OED tells us, and in geometry eccentricity is a measure of how far something deviates from a perfect circle defined by a central focus. One might imagine that central focus, for our purposes, to be a central bank. The first person to use the expression to me was none other than Keith Hart. In 2008, I had noticed a guerilla art project cropping up on telephone poles

throughout Long Beach: anonymous artist(s) were stapling banknote-shaped placards labeled "MONEY" and "CURRENCY" and inviting viewers to visit a website where they would learn about "bringing an end to the New World War-Bank Order, i.e., the World Bank, the International Money Fund, and America's Central Bank, THE FEDERAL RESERVE." I emailed Keith. He replied, "Well I have checked them out. They are pretty eclectic American money nutters. Liberty dollar. Money as debt. Some funny ideas that haven't got very far yet" (email, 2 July 2008). I had never heard the expression before – maybe "nutter" is an *English* English term? – but I liked it.

Back to the dancers and the drummers. Around them, people were in the process of setting up stalls. Some had arts-and-crafts supplies available for anyone who felt the urge to make something beautiful while they listened to the drums. There were informational brochures and sign-up sheets for a handful of interrelated community organizations. Other stalls displayed used clothing, live plants, grapefruits and cookies, and other random items, all being offered for free. And this was the point of the event. Trying to instantiate a "gift culture," Long Beach's Really Really Free Day provided an occasion to "give it all away" in order to build something new.

*As the global economic system flutters and fails, leaving many without jobs and dependent on government assistance, a new type of economy is emerging.*

*This system, known by social theorists as a "gift economy," or gift culture, holds a radically different set of values.*

*Instead of stressing independence and competition with a currency based on debt, a gift culture is one that incorporates interdependence and cooperation.<sup>1</sup>*

As I walked with one of the founders of this movement locally, he explained that the event was connected to the Long Beach Time Bankers, a new time exchange community founded about a year ago according to the principles of time banking as set out by Edgar Cahn, the visionary and author. His nonprofit, Time Banks USA, promotes labor time as currency and helps community organizers set up time banking schemes with the aid of computer software called Community Weaver. Community Weaver al-

lows time bankers to post their availability and the services or skills they are willing to share, and to seek other time bankers whose services they might need. It keeps track of everyone's account, measured in units of time. Every person's hour is equal to everyone else's. Time itself is envisioned as a "new currency" which in turn is helping to "evolve" a new society.

It is a crazy time for money, not just money's conceptual status or constitution but its very materiality. Tufts University held a conference titled, "Killing Cash" in April, 2011. The conceit of the conference was that mobile phone-enabled money transfer and payment services could replace cash and provide benefits to the world's poor. Cash is expensive to count, store and transport; it can be lost or stolen; it leaves no record of its movements. The conference posed the question, is cash the "enemy of the poor?" Separately but around the same time, a consultancy firm interviewed yours truly for a promotional video touting a cashless payment service. They wanted an academic talking head speaking in general terms about the history of money. When I saw the first cut of the video, however, I refused to allow them to use my voice or image: rats crawling over filthy bills on the ground (who leaves banknotes on the ground?), a baby about to eat a US quarter dollar coin (who gives babies coins to eat?), the voiceover ominously intoning, "It's covered in bacteria and carries disease... it's killing our children..."<sup>2</sup> And Bitcoin adherents – about which, more below – debate the physicality of their creation, analogizing the computational power and electricity needed to generate this virtual currency to the engraver's work in designing a new banknote. An internet rumor circulated in late May that at least one Bitcoin "miner" had been raided by the police; his excessive electricity usage had raised suspicion that he was running an indoor marijuana farm.

Keith Hart argues that we are witnessing the "unraveling of the social organization of money" (2011:4). Spend some time online, or at a Really Really Free Market event, and you will soon agree. At the same time, there are important differences among people experimenting with novel currency forms. And there are efforts to extend the reach and enhance the stability of finance that are trying to reweave the social organization of money, but not necessarily according to the same old patterns of national capitalism. I'd like to dwell on these differences, on the varieties of money nutting rather than the elementary structures discussed by Hart in these pages in March, 2011, not just to create a typology but to track a move-

ment or a trajectory I see taking place in the orbits of contemporary money nutting. Eccentricity in geometry is a quality of conic sections like parabolas and hyperbolas. I imagine experiments with money taking the form of conic sections with an eccentricity greater than zero. The more eccentric experiments mark hyperbolic functions in two senses: in the sense of generating two curves that never meet but are mirror images of each other (hyperbola); and in the rhetorical sense of exaggerating the import of the experiment, the crisis in money, or both (hyperbole).

So, consider Really Really Free Day and Bitcoin as defining the two arms of a hyperbola. Some participants in each may be aware of the other, but so far in my experience it has mainly been my own circle of academics (and a few artists) who note the parallels. Really Really Free Day and its associated time bankers have created a self-described "peer to peer" (P2P) currency, one that is denominated in terms of, and, indeed, is units of time. They differentiate what they are doing from barter. In barter, the parties to a transaction seek an equivalence point outside of the transaction, an imaginary factor that will allow for a conversion between unlike items or services (three pairs of pants for two bushels of grapefruits; one hour of babysitting for 15 minutes of word processing assistance). Time banking cannot be used for goods, only for services, and services are denominated in equivalent units of time, always (one hour of babysitting for one hour of word processing assistance). Paraphrasing a conversation with a time banker, one person's hour should be equivalent to any other person's hour, even if people feel strange about it because they sense that their hour is maybe "worth" more or less than someone else's. Still, every person has only a limited amount of time on this earth, and so there is no justification for valuing any one person's hour over any other's. Community Weaver allows participants to see each other's contributions as well as their own current savings or debts in hours. It is not an anonymous system, but only participants who register can view the other participants' status. Time banking creates new and sometimes unlikely friendships and relationships – this is one of its key virtues. In weaving community, it is imagined to provide a bulwark against societal degeneration. It is also meant to be an alternative to both the welfare state and the unfettered market. Dependency on government support is as anathema as dependency on "debt-based" currency.

On the other arm of the hyperbola is Bitcoin. Bitcoin's adherents also decry dependency on governments and their debt-based currencies. Rather than being pegged to

lifetimes, it hinges on the cycle-times of computer central processing units (CPUs) and graphics cards (which are much faster, and can handle many more computations per unit time). Like time banking, Bitcoin (BTC) is also a P2P currency. Bitcoin is an experiment in creating a cryptographic online money system. The brainchild of Satoshi Nakamoto (which may or may not be a pseudonym), it went viral in May, 2011, and its value has grown dramatically from around US\$8/BTC to US\$31/BTC as I have been writing this essay (see where it is now, and available at <https://mtgox.com/>, the Bitcoin exchange).<sup>\*</sup> Bitcoins are bits of programming that reside on participants' computers. They can be exchanged with others using a P2P file transfer program, like the file sharing protocol BitTorrent (banned by most university campus networks because it takes up so much server time and may be used to evade copyright restrictions on digital content). An algorithm creates new Bitcoins at an ever-decreasing rate, to an upper limit of 21 million BTC. Its adherents explicitly reference gold: as there is a limited amount of gold in the universe, so there will be a limited number of Bitcoins. Like gold, Bitcoins are created by a process called "mining," whereby some adherents devote processing time to solving complex cryptographic puzzles in order to win new Bitcoins (again, at an ever-decreasing rate). There are people who are daisy-chaining multiple graphics cards together, running them constantly, and running up huge electricity bills in the process in the race to mine new Bitcoins. In addition, every Bitcoin contains a record of its transactions, and all transactions are stored in a public transaction log distributed throughout the network of Bitcoin users. Although it has been touted as an anonymous P2P currency, it is not entirely so: a clever and determined user could probably trace back a transaction to an individual address, and from that address to an actual person. As of June, 2011, one can use Bitcoins to purchase from a limited number of online merchants offering digital and design services, server hosting, educational and gaming software, and also for "real world" goods (which the Bitcoin Trade wiki dubs "Material Products," available at the website <https://en.bitcoin.it/wiki/Trade>) like books, clothing and coffee. At least two people are offering real estate for BTC, in Tokyo, Japan and Tijuana, Mexico.

Why would anyone accept Bitcoins? Each transaction is verified by the programming and a "proof of work" chain of numbers to demonstrate the authenticity of the coin and its transactional history, authenticated in real time (or, actually, in about 10 minutes) by every other node in the network. So, the utopian answer is that one need not have

trust in another person or a central authority like a reserve bank for the system to work.<sup>3</sup> The algorithm takes care of ensuring that no Bitcoin is double-spent, and the public log of transactions verifies for every Bitcoin user the sanctity of the transaction chain. The practical answer is because they can be traded for various national currencies (as of June 5, 2011: US dollars, Euros, Japanese Yen, British pounds, Russian rubles, Australian dollars, Swiss Francs, Polish zloty, Israeli shekels, Thai bhat), a virtual currency (Second Life Linden dollars), and other payment instruments (British postal orders) on a number of online exchanges. The other practical answer is: because there is a Bitcoin bubble, and early adopters are hoping to cash in on their mining and trading. That said, some miners are beginning to take seriously the cost of their activity in terms of high electricity bills (hence, some take advantage of current "freely" supplied in workplaces or college campuses!).

Like time banking, Bitcoins do not depend on any central authority. There is no central bank. There is no debt and new money cannot be created by debt. Time bankers trade in the limited amount of lifetime available in the world; Bitcoin traders in the limited amount of Bitcoins. There are anarchist, libertarian, "privacy" and "liberty" tendencies here. A Bitcoin critic nicely draws together the diverse motivations for using the currency:

*Maybe you hate the US government, or all governments. Maybe you want to avoid bank interchange fees, or perhaps avoid tracking altogether because your payment is for something illegal, or because you're a particular [sic] private person. Or perhaps you just think that the world currency regime is going to collapse and you see Bitcoin as a technological salvation (Cohen 2011).*

The sense of impending (or already extant) collapse unifies Really Really Free and Bitcoin as two arms of the same hyperbolic function. These money nutters truck in "prophetic time" (Guyer 2010:414) and the "evaporation of the near future" (p. 410) for an end-times to come or already here. But their eccentricity has a certain regularity to it. Fixed money supply based on scarcity, no debt, no government or central authority, no fractional reserve banking... and, for Bitcoin, built-in deflation. Not a few critics of Bitcoin have noted the irony of the current Bitcoin bubble, which may have been sparked by an online post about the (unverified) use of the currency to buy illegal drugs in an anonymous online market.<sup>4</sup> Time banking and Really Really Free are a kind of "quiet" end-of-the-worldism: we sit in our drum circle and give things away,

we use Community Weaver and face-to-face monthly meetings to create new relationships and support one another as the world falls apart around us, growing organic vegetables in each others' backyards... Bitcoin is "loud:" boosters declare it to be "the most dangerous project we've ever seen" which "could topple governments, destabilize economies and create uncontrollable global bazaars for contraband" (Calacanis and LAUNCH 2011). While deflators tweet: "@me\_irl: explaining Bitcoin to girl, who is not enough of a nerd to intuitively understand: 'well it's basically MonetizeMyAspergers.Net'."5 And a regulator friend/informant of mine writes, "Tell me this is a bad joke for a late Friday afternoon!"

The distance of any point (P) on a hyperbolic curve to a focus (F) and any point (N) on line called a directrix always has the same ratio. This ratio (PF/PN) is called the eccentricity (e) of the hyperbola, and is always greater than 1. Increasing eccentricity opens the curve so that it becomes closer and closer to the directrix (which has an eccentricity of infinity). The arms of the hyperbola themselves move outward toward infinity, creating an ever-widening space between the arms but maintaining the curve defined by the focus, directrix and eccentricity ratio. A hyperbola also always consists of two mirror-image, separate curves on either side of the directrix. We can consider Bitcoin and time banking as two curves of a hyperbola defined by the ratio of the distance between the curve and a focus – say, central banking – and a directrix – say, apocalypse. Increasing eccentricity gets you closer and closer to that apocalypse...

Let's take one more cut through the cone of money and finance and define another hyperbola. This one is less eccentric. But one of my intuitions is that the e of this hyperbola is shifting toward the e of the one I have just sketched.

While Really Really Free Day was taking place and the Bitcoin bubble was inflating, May, 2011 also witnessed the widely publicized launch of Google Wallet and Square Card Case, two salvos into the card-dominated payments industry by the information technology sector. Despite the fact that Google Wallet almost immediately became embroiled in an intellectual property squabble with PayPal, and that Square Card Case is only available in very limited areas, these announcements heightened what was already a frenzy of activity around the rethinking of money in the payments industry, itself a vast and underappreciated sector of the world economy.

Also in May, also in the mobile space,<sup>6</sup> the World Economic Forum – the organizer of the yearly Davos conclaves for the rich and powerful – released a report on the potential of mobile phone-enabled financial services for the "financial inclusion" of the world's poor. Viewing mobile phone money transfer and storage applications ("mobile money") as an onramp to conventional financial services for the millions without access to banking institutions and infrastructure, the WEF provided a rubric for assessing "country readiness" for mobile financial services (WEF 2011).

I'd like to consider new mobile payment services like Google Wallet and Square Card Case, and mobile money for the world's poor, as two arms of another hyperbola. The focus point is still central banking and the directrix is still apocalyptic predictions of the end of ... whatever (money, the state, world society, etc.). But the e of this curve is smaller and the curve more closely hugs that focus point. Yet there is a growing tension within the communities that create payment and mobile money systems, one that pulls them toward the directrix in search of greater profitability. As they draw closer to the directrix, they also start to get, well, a little nuttier. Dreams of increased profit and increasing capabilities of the technology itself pull some technologies and communities away from that focus point and toward a vision of peer-to-peer money, the disintermediation of central banks, an end to fractional reserve banking and debt-based money, and an end to government (and/or public) infrastructures for payment like cash. The idea of mobile money for the unbanked – to provide greater access to banking for poor people, and greater access for banks to poor people's money – presents a countervailing tendency. It reduces the e and pulls folks and their devices back toward that focus point. But, perhaps, only until the opposing forces from the payments industry pull it back toward the directrix.

Mobile money for the world's poor began with the observation that many people in the global South had discovered that they could use airtime minutes as a form of alternative currency. A person could buy airtime from a local vendor, and either send the secret code that "loads" the phone with airtime to a friend via text message, or load up the airtime directly into her phone and send it to another person's phone using the mobile network service (if the service permits airtime sharing). In either case, "minutes" have been sent. But if one can back-convert the minutes into money, or one can trade the minutes for some other commodity or service, then "money" has been sent. Services like M-PESA in Kenya, a money transfer via cellphone

service offered by Kenya's largest mobile network operator, Safaricom, follow this basic model. M-PESA is now used by over 14 million Kenyans, about a third of the population. Here, however, rather than airtime, customers of M-PESA are loading and sending money, specifically, "e-money." E-money is a representation of value, essentially an electronic coupon, backed in a one-to-one ratio with funds held in a trust account by Safaricom that represents the ever-changing sum total of all the value in the M-PESA system as people "cash in" and "cash out" between cash and e-money (see Maurer 2011, Zerzan 2010).

Mobile money services like M-PESA leverage existing mobile communications networks, which have far greater reach than banks or other financial infrastructures, and people's existing "informal" practices involving those networks, for payment and money transfer functions. My colleagues and I have been exploring the transformation of M-PESA itself into a platform for other payment, savings, and insurance functions developed by third parties (see Kendall et al. 2011). An emerging issue, however, is whether mobile money services start and stop at payment and transfer functions, or can be transformed into "real" means of value storage. And in this context, this means whether the funds stored in mobile accounts can be intermediated and earn interest for a new class of "depositor," who currently does not have bank accounts but does have access to mobile phones (see Ehrbeck and Tarazi 2011). The arms of the hyperbola pull toward that focus point, fractional reserve central banking, money as debt, and poor people's money, in particular, as poverty capital (Roy 2010).

Regulators worry about this possibility, of course, since mobile network operators are not regulated to the extent that banks are – the current financial crisis notwithstanding, banks operate according to certain prudential standards, while mobile operators do not, at least not yet. If a network operator wants to intermediate the funds held to back its issuance of e-money, should it have to apply for a banking license? What level of reserves should it hold? There are no capital adequacy norms for mobile telecommunications companies. Those promoting the idea that mobile money should earn interest – framed as a benefit to the world's poor, the same benefit first-world "banked" people supposedly earn from having access to financial services – want regulators to stop treating mobile money as a payment service. This would, probably, mean opening the door to intermediation and fractional reserve mobile banking. A good idea? A bad idea? Forestall your cynicism for just a moment, and let's move further north.

Rather than mobile money services like M-PESA, which run on low-end phones and rely on text-messaging, mobile payment services like Google Wallet often seek to complement or replace credit and debit cards as the means of payment at the point of sale. Google Wallet will run on Android phones enhanced with a special Near Field Communication (NFC) chip which can communicate with a special point of sale device. Instead of swiping your credit card or offering cash, you tap or wave your phone over the device and the Google Wallet application directs the account from which the payment is to be charged. Square's Card Case goes a step further: by registering an existing account, shopping at merchants who have signed up to accept the service, and registering with the merchant (all done with a smartphone or tablet device and Square's plug-in card reader) you can pay simply by providing your name: the merchant receives a picture of you at his terminal, and you receive a text message confirmation that a payment has taken place.<sup>7</sup>

Google Wallet is currently mired in an IP dispute with PayPal. Square Card Case is currently in a very limited rollout (six cafes in San Francisco, six in New York, and between one and three other establishments each in St. Louis, Los Angeles, and Washington, D.C.). But both represent new developments in the payments industry that seek to mine value from the act of payment. Payment – the act of value transfer – has been largely ignored by economic sociology and anthropology. Yet it is an enormous source of value. By 2006, as Adam Levitin notes, interchange fees levied on non-cash and check payments made the payments industry "larger than the entire biotech industry, the music industry, the microprocessor industry, the electronic game industry, Hollywood box office sales, and worldwide venture capital investments" (Levitin 2007:2). By 2009, it had also surpassed the airline and lodging industries (Brown 2009:130).

It is an often overlooked fact that the exchange of goods or services for money in today's world often does not occur at par. Merchants bear the cost of accepting all alternative forms of payment besides cash or checks. For the US\$100 I offer a merchant, he receives a net of around \$97 after paying the merchant discount, a fee comprised of a number of parts, the largest of which is usually interchange, with an additional ad valorem component based on the purchase price. Merchants pay the merchant discount in exchange for enhanced sales and convenience.

Par clearance during exchange was, in earlier days, a monumental technical and political achievement. With the centralization of Federal Reserve Banks throughout the United States, the costs of transporting currency and paper were diminished and were absorbed by the Federal Reserve banks themselves. The Federal Reserve – here operating as a public institution creating a public infrastructure for check clearance and currency reserves – eliminated the justification of exchange fees. Regional and local banks, remember, *fought* the Fed, even if today, as many argue, the Fed has largely been captured by private financial entities. That capture may be more apparent in the financial rather than the regulatory functions, however. I can hear the complaints from my colleagues on this point, but, as social scientists have learned about the state, stock markets, corporations, and other organizations of national capitalism and industrial society, these are always many-headed and many-tentacled creatures, often working at cross-purposes to each other and to divisions within themselves. I want to hold onto the public function of par clearance and payment infrastructures.<sup>8</sup> Par clearance was instituted by the political decision and the technical operations involved in asserting the non-ownership of the means of value transfer. *No one would own payments*; the value chain in payment was cut when checks had to be cleared at par. Even today, payments industry professionals refer to cash and check as “virtual” payment systems because no one “owns” them.

Corporate entities and banks very quickly found new ways to mine value in the act of payment: credit cards were born, followed by debit and now mobile payments, each seeking to profit from the act of value transfer. Credit, debit and mobile payments do not occur at par. For all new entrants into the payments industry, it is the promise of non-par settlement that generates the value proposition. The card companies still dominate. The fact that most new entrants leverage existing card accounts and, sometimes, card network infrastructure means they will continue to do so for some time yet. But competitors are challenging the card networks almost every week.<sup>9</sup>

Challenges are also coming to the financial intermediaries. As more and more information technology and other non-finance professionals get into the business of payments, they are starting to pry open the black boxes of banking and money, unraveling its social and sociotechnical organization. The Institute for the Future, a Silicon Valley think-tank, has included in its Ten Year Forecast, “the future of money.” Put new means of payment together with virtual

world currencies or Bitcoin, and you start to feel the ground shaking a bit, or the arms of the hyperbola pulling toward greater and greater eccentricity.

I had just given a lecture on mobile money to a group of about 100 design and information technology professionals in a trendy studio in San Francisco. During the question and answer period, a member of the audience asked whether I thought the “intangibility” of mobile money would be a problem in its adoption, “because it can’t be held, like cash.” I responded that a little history lesson might be in order. Paper cash has long been the target of political agitators, artists and “sound money” advocates precisely because of its “insubstantial” quality – it is “mere paper,” as Thomas Nast’s nineteenth-century political cartoons remind us – and yet it has been on balance phenomenally successful. Her reply caught me off guard: “Yes, but that had the *government* behind it!” The word government was uttered with that tone of contempt that I am used to hearing from television commentators on the far right of the American political spectrum, not young, hipster kids working for a cool design firm. Now, of course, she was correct, and a national government can do things that a private enterprise sometimes cannot do, or cannot do as easily. Yet at the same time, we have entire international payment infrastructures created by private entities that are nearly ubiquitous in the global North and much of the rest of the world, and gigantic multinational corporate actors vying with one another to create, from whole cloth, such infrastructures for entire regions in one fell swoop (see: central Africa). The invective is reserved for government money, for government in general, for the central authority imagined to emanate from reserve banks and especially the “evil” of fractional reserve banking that generates debt, debt and more debt and keeps these governments afloat. Afterwards, during the reception, I was surrounded by people wanting to talk about abolishing the Federal Reserve, and also people devising new payment systems and devices that have since become “real,” or at least piloted in a few cities around the country.

One of my regulator buddies once accused me of being a “Fedophile.” Yet I think one can defend the virtue of a public payments infrastructure, owned by no-one, operating in the public good, without also buying lock, stock and barrel every element of central banking and the national capitalism described by Hart in the last issue of this Newsletter. Certainly, one can at least document the existence of public infrastructures before they are enclosed, and reflect analytically on the quality of public goods or of



publicness as an aspect of infrastructures.<sup>10</sup> Further, if nothing else, I would exhort members of our scholarly community to pay some attention to payment. It is ironic that both Marx and Weber wrote of bills of exchange and the credit system without noting that the non-par clearance of such bills created a huge source of non-exchange and non-debt based profit. We may need a better vocabulary for fees, rents, taxes, tribute – not everything, as the Islamic bankers remind us, is usury. In the *Wealth of Nations*, Adam Smith took a short digression on the topic of fees charged by the city of Amsterdam at Amsterdam banks for opening accounts, transferring funds and other services. He noted that the amounts collected through such fees had become considerable, but that this was an “accidental” revenue stream incidental to the operations of the bank itself. The levying of such fees, he wrote, was supposed to serve the interests of “public utility.” And, to underscore, this was revenue that accrued to the public coffer, not the bank (Smith 1776, IV.3.29).

Keith Hart writes that pluralism in money is “rapidly becoming the case again” (2011:8). He also observes that “there will have to be as many monies as there are communities. The digital revolution has begun to make that technically feasible” (p.9). He is correct. But there are patterns, similarities, reconfigurations of “elements that are well known already” (Guyer 2010:416; see Maurer 2005). One can’t help but to feel that we have seen this dance before, even if we were not yet born when its moves were last performed.<sup>11</sup>

A gravitational slingshot is when an object falls toward another object exerting a heavier gravitational pull and whips around that object, accelerating in the process and hurtling out into space along a hyperbolic curve. Astronomers can use the gravitational slingshot effect to send space probes to new regions of the solar system. In the tension back and forth between the focus of central banking and the directrix of apocalyptic time the monetary experiments I have described here may also be hurtling us toward uncharted territories. Call me a Fedophile, call me nutter! Let’s join in the drumming and see where it takes us!

*Acknowledgements:* I would like to thank Nigel Dodd for inviting me to contribute this essay, and Keith Hart, Tom Boellstorff, Julia Elyachar, Stefan Helmreich, Taylor Nelms, Lana Swartz, Jenny Fan and Scott Mainwaring for their comments and suggestions on earlier versions. All errors remain my responsibility alone. I owe particular thanks to Scott and Lana for accompanying me into the world of

Bitcoin, and for forwarding blogs and tweets along the way, and to my informants in the money worlds this essay tries to describe. Research on mobile financial services has been supported by the National Science Foundation, Law and Social Sciences Program (SES 0960423). The author is the director of the Institute for Money, Technology and Financial Inclusion, which has received support from the Bill and Melinda Gates Foundation. Any opinions, findings, and conclusions or recommendations expressed in this article are those of the author and do not necessarily reflect the views of the National Science Foundation or any other organization.

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## Endnotes

1 Available at <http://www.meetup.com/LBTimeExchange/events/18162791/>, last accessed June 6, 2011.

2 I have slightly altered the exact wording to protect the guilty.

3 There is also a “radical privacy” utopia here, for those that believe in that kind of thing.

4 Less than a week after the rumor circulated, US Senator Charles Schumer of New York called for an investigation of the alleged online drug market, and said of the use of BTC on this market, “It’s an online form of money laundering used to disguise the source of money, and to disguise who’s both selling and buying the drug.”

(<http://www.nbcnewyork.com/news/local/123187958.html>). The story ran on June 6, 2011. The original story about the drug market appeared on the online site, Gawker, on June 1

(<http://gawker.com/5805928/the-underground-website-where-you-can-buy-any-drug-imaginable>). Apropos of this essay, in response to the Schumer story, one commentator wrote, “Cryptocurrency being used to peddle drugs? Shut it down! I heard drug dealers also accept cash. Ban cash!” (see link above).

5 The disparaging yet self-deprecating nod to gender and neurodiversity is par for the course in the communities of interest around Bitcoin.

6I adopt “industry” jargon here, where fields of inquiry and activity are “spaces,” thus, the mobile space, the IT space, the payments space.

7Use of Square before Card Case was and remains widespread among small-scale merchants like food truck owners who need a low-cost alternative to a full-fledged POS terminal.

8Lana Swartz reminds me that here, I sound like a “network neutrality nutter.” Indeed.

9Challenges are also coming from the regulators: Europe’s Single Euro Payment Area (SEPA) reduces interchange on debit card transactions to the amount required to maintain the networks, in effect, compelling debit network providers to act more and more like a public utility. In the US, Congress continues to debate new rules on interchange proposed in the Durbin Amendment to the Dodd-Frank Wall Street Reform and Consumer Protection Act, passed in response to the financial crisis.

10Julia Elyachar is exploring this aspect of publicness and has described the communicative pathways of one kind of public infrastructure (Elyachar 2010).

11In email messages two days apart from one another, Keith Hart and Jane Guyer asserted the near-ubiquity of money nutting, in response to my sending them a website of Biblically inspired money conspiracies: “Isn’t everyone a money nutter these days?” asked Guyer; “Maybe I am a money nutter, too” mused Hart.

\*This endnote was added after publication of the *Newsletter*: As this article was going to press, Mt. Gox was hacked and a huge sell-off began, bilking Mt. Gox users of at least US\$9 million and leading to a suspension of trading and a collapse of Bitcoin’s value. By 2 July, 2011, Bitcoin’s value had stabilized somewhat at around US\$15. Mt. Gox and the currency appear to have survived this assault.

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