## MINISTRY OF INNOVATION / BUSINESS OF TECHNOLOGY

## Crazy currency: The more I report on Bitcoin, the weirder it gets

Op-ed: Despite a year of reporting and Bitcoin's insane rise, I'm happy not to own any.

by Cyrus Farivar - Dec 24 2013, 2:40pm CET

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Cornering the Bitcoin market may be easier than cornering orange juice futures.

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The first time I ever heard the word "Bitcoin" was back in 2011, when I read about The Silk Road (like a lot of people) on Gawker. The Amazon of illegal drugs? Powered by Tor and this weird "cryptocurrency?" Huh?

At the time, I was living in Germany working for Deutsche Welle (Germany's international public radio broadcaster). I barely understood how it worked but got a bit of a taste when reporting on it. Solving cryptographic hashes? The blockchain? I was bombarded with a lot of bizarre terminology and still a little unsure. Luckily, I later learned more after listening to NPR's Planet Money explanation in August 2011.

But 2013 was a banner year for everyone's favorite digital currency, and after about 10 months of following it closely, I can definitively say two things:

- I'm glad I own zero bitcoins.
- Bitcoin is fascinating, but the more I dive into the world of Bitcoin, the sketchier it gets.

## A 35-fold increase in 2013

For me, reporting on Bitcoin started off in February, when I was asked by National Public Radio to do a story on grey-market online gambling. In order to do that I needed to get my hands on some coins—so I borrowed 1 BTC from my then-colleague, Timothy Lee. I took SatoshiDice for a spin (it was pretty boring) and tried another bitcoin-based poker site. Ultimately I wasn't too into gambling and didn't see much point in keeping the bitcoins, so I returned them.

At this point, even my non-tech friends and family started asking me: "So what is this Bitcoin business all about, anyway? How do people decide what it's worth?"

At the end of the day, here lies the fundamental problem that I have with bitcoins. It's a neat idea—a way to use math and the Internet to move money around nearly anonymously—but it's inherently bizarre. The one bitcoin that I owned back earlier this year, I sold back for around \$20.

Had I kept it, it would have been worth somewhere around \$700, or a 35-fold increase. Why the jump? Because that's what the market will bear due to the gradual difficulty of mining new bitcoins. On the other hand, Bitcoin has famously lost half of its value in mere hours at least on two occasions over the last year. Why? Again, because that's what the market will hear.



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Despite the lost potential value, I'm glad to not be involved in Bitcoin other than to report on it. While I have some modest investments in mutual funds and the like, I don't think I could stomach the roller coaster ride that Bitcoin has been on over the last year. That hasn't stopped the Bitcoin boosters that are all over various corners of the Internet with discussion threads like: "Could bitcoin soon be recognized as a mainstream asset class? implications..." or "A country that embraces bitcoin early will have a lot of rich people later."

## Play money?

"It's play money in the virtual casino," James Angel, a business professor at Georgetown University, told me earlier this year. "Everybody else is trying to outguess each other. Bitcoin has turned into a very large multiplayer online game in which everybody is trying to out speculate each other."

Bitcoiners famously like to talk about the fact that like most modern currencies (like the US dollar or the euro), it's a fiat currency. It essentially works on faith. There's nothing inherently valuable about a piece of computer code more than a piece of green paper. We know that \$1 is worth \$1 because that's what we've decided as a society. I get paid in dollars, and I can buy stuff with dollars. There are shops on the Internet and in real life that will take my physical paper dollars and my digital (debit/credit card) dollars. We have an innate sense of what things are worth because of it. By contrast, precious metals like silver and gold also have inherent worth too, but that's more due to their industrial and aesthetic properties. Bitcoins are physically just bits of code.

"Even if there is a speculative element [with traditional commodities], at the end of the day you expect the price to have a gravitational pull towards the true value," Angel added. "We have models for valuing stocks and bonds, so we can get a sense of what it's worth. But I really have no way of figuring out what a bitcoin is worth. Sure, I can go to exchanges and see what the current price is, but how do I know that that price tells me anything? If I look at the price of the euro, I know what I can buy with euros. I know how many euros it takes to get a Big Mac in Paris or a hotel room in Frankfurt. We have this idea called 'purchasing power parity' that says that sooner or later exchange rates should reflect prices across different exchanges. We don't have that with bitcoin."

Plus, he added, traditional commodities like gold, oil, wheat, and others have practical value beyond their monetary value. Gold can be used as jewelry or manipulated industrially to manufacture semiconductors. Oil can be used to power machinery or refined for gasoline. Bitcoins have zero inherent utility.

Now, you *can* take the opinion that bitcoin is more like a fiat currency like the US dollar—which isn't based on anything either (we went off the gold standard decades ago). However, the dollar has a massive infrastructure designed to regulate and safeguard its function as a currency through institutions like the Federal Reserve, the Treasury Department, the Securities and Exchange Commission, the Commodity Futures Trading Commission, and other entities. Bitcoin has none of these, which has proven to be both its greatest asset and its greatest liability.

### Mining mysteries

Moving into the summer of 2013, I learned about bitcoin-based hedge funds and sketchy Russia-

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The weirdest thing I learned of all was the existence of an entire subculture of the Bitcoin universe devoted to mining. Many folks, now that mining has moved beyond the realm of normal laptops, have gone on to more serious hardware that is designed to do one thing and one thing only: mine bitcoins.

While reporting on Bitcoin, I encountered a guy named Bryan Micon from a poker site called SealsWithClubs.eu. He turned me on to a company called Butterfly Labs, which he accused of being an outright scam.

BFL builds little boxes with specialized chips that do nothing but compute hashes in the Bitcoin blockchain—a process which can lead to real money for the miners. BFL had some experience in the Bitcoin mining business; it had previously made and sold around 2,300 slower Field-Programmable Gate Array (FPGAs) miners from September 2011 to September 2012, earning at least \$1.6 million in revenue.

In June 2012, BFL started taking orders on the ASIC-based boxes, which ranged in price and capability from \$274 for a 5GH/s (gigahashes per second) unit to \$22,484 for a 500GH/s machine. But BFL had trouble delivering on its products. Its own forums, Twitter, reddit, and other sites are filled with angry customers who are fed up with BFL's constant delays.

And as I started to look into the company in June 2013, finding out basic information about its origins and owners was even a stretch.

Sonny Chris Vleisides, who pled guilty to one count of mail fraud in 2010 (PDF) for being involved in an international lottery scam, is an executive at BFL. Jeff Ownby, vice president of marketing and e-commerce at BFL, told Ars that Vleisides is the "lead product developer—he's the guy who dreams up the projects," though Ownby declined to provide more details beyond that. By Vleisides' own account on a Bitcoin forum, he's the president of a hosting company called Webspawner.com—but it's not

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clear if he has a background in electrical engineering or hardware design.

Vleisides doesn't own the company, though. According to incorporation documents filed in Wyoming, BF Labs Inc. has two listed directors: Chris Vleisides, a Kansas City photographer who takes photographs of the Kansas City Royals baseball team for a living, and an Iranian living in France named Nasser Ghosieri, who is also a "senior IT consultant" with Société Générale, a major French

Chris Vleisides is reportedly Sonny Vleisides' stepfather, but we were unable to confirm this with BFL, and neither Vleisides responded to repeated requests for interviews. Ghosieri told Ars that the two Vleisides "aren't the same person," but when asked how exactly they were related, he said, "I hope you understand, these things are personal. I can't really answer them without strict authorizationsimply because it's not related to me. Simple or complex, it's out of my territory."

## Scam after scheme

Ghosieri also told Ars in a Skype interview that there are "under 10 owners," but "I can't really say what exact roles there are." And he could not or would not describe precisely what Chris and Sonny actually do for the company. "They are excellent at what they do, and they have certain knowledge that I don't," he said. "[They're] analyzing products, bringing things to market."

He knew that BFL rented office space from a local Kansas construction company named AL Huber, but he never visited the site or personally met any other member of the team. He said he wasn't certain how he originally met the Vleisides family, "but I think it was an OpenVPN forum." He was, he said, impressed by their "honesty and directness."

Despite BFL's own oddities, they did send us a miner to play with. Ars editor Lee Hutchinson got it working and mined hundreds of dollars in bitcoins—we donated it all to the Electronic Frontier Foundation.

The next month, the Securities and Exchange Commission charged a Texas man with running a Ponzi Scheme via his Bitcoin Savings and Trust (BTCST), a virtual bitcoin-based hedge fund that many suspected of being a scam. BTCST shut down in August 2012.

In a statement, the SEC said Shavers "raised at least 700,000 Bitcoin in BTCST investments, which amounted to more than \$4.5 million based on the average price of Bitcoin in 2011 and 2012 when the investments were offered and sold."

But that was small potatoes compared to another Texan, Ross Ulbricht, who was busted in October 2013 by the feds and was accused of being the mastermind of the Silk Road. Ulbricht's tens of millions of dollars worth of bitcoins have been seized by the FBI.

If that wasn't enough: did I mention there's a bitcoin-fueled assassination website?

I'll stick with my greenbacks, thank you very much.

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