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The Rush to Coin Virtual Money With Real Value

By NATHANIEL POPPER – New York Times – November 11, 2013

If cash is king, virtual cash may be the crown prince in waiting.

Programmers around the world have been churning out new digital currencies that try to improve on the concept of bitcoin, the hot but controversial virtual money that has swept the Internet.

As questions still swirl around bitcoin's legality, many technology entrepreneurs are trying to sidestep the currency's pitfalls by devising new ways to make payments in a cashless future.

Already, dozens of ideas are jockeying for the market. At last count, a website that tracks the market, coinmarketcap.com, listed 36 so-called crypto-currencies, with names like bitbar, freicoin and cryptogenic bullion, and new ones are being added each month. Collectively, these digital moneys had a recent market value of about $4.3 billion, of which $4.1 billion was from the dominant currency, bitcoin.

The online payment system viewed by many insiders as having the best chance of supplanting bitcoin, however, is not even on the list: Ripple. Founded in San Francisco by former bitcoin developers, Ripple holds out the promise not just of a new currency, but also of a novel method to send money around the world. With that potential, it is winning something that has proved elusive for virtual currencies: involvement from more mainstream players in the financial system.

"I haven't seen anything else as interesting as Ripple," said Jesse Powell, the founder of Payward, which runs an exchange where digital currencies can be bought and sold. "As far as I'm concerned, bitcoin and Ripple are the only ones that have a real shot at being a big deal."

On Tuesday, the company overseeing Ripple's development, Ripple Labs, will announce $3.5 million in financing from six new investors. The company will also announce that it has attracted funds from Pantera Capital, which includes money from executives at the Fortress Investment Group. Chris Larsen, the co-founder of Ripple Labs, said the company had also been talking with banks large and small about joining Ripple's payment network.

"There's a lot of interest from the big banks in what's going on here," said Mr. Larsen, who previously founded two financial start-ups. "I've never seen anything like it before."

The rapidly growing industry of alternative currencies owes a lot of credit to bitcoin's surprising success.

Bitcoin has confronted a number of issues that have led to market crashes, but has recovered each time. The latest stumble came after the founder of a popular online marketplace, known as Silk Road, was arrested and accused of using bitcoin to traffic in drugs and other illegal goods. The price of an individual bitcoin initially dropped after Silk Road was shut down, but since then it has risen steadily and recently stood around $260, near a record high.

Still, the entire world of virtual currencies could be rendered irrelevant almost overnight if law enforcement agencies decided to crack down on transactions. Several state and federal authorities have said that they are looking at how to police the market, worried that the anonymous nature of the online transactions make the currencies attractive for criminals. A recent study by researchers at the University of California, San Diego found that most bitcoin transactions were being used for gambling.

Even without such legal hurdles, some critics expect that virtual currencies will eventually come to be seen as a speculative bubble with no foundation.

"It really does sound 21st century, but at the end of the day, do you really want to put your money at stake in that?" said Brian Riley, who covers payment systems for CEB TowerGroup.

Despite the questions, the concept of digital currencies has won a growing number of proponents. In the technology sector, many have been drawn to the broader possibility that virtual currencies could allow money to zip around the world without going through banks and payment processors, with all the fees they impose, not to mention onerous government regulations.

One set of competitors are the so-called centralized currencies, which are operated and overseen from a single hub. These work like the loyalty points distributed and overseen by airlines or retailers and can allow regulators to keep a closer eye on transactions. One such currency, known as ven, is tied to a basket of global currencies that keeps the price stable.

But most online entrepreneurs are dismissive of centralized currencies, saying they give too much power to the companies that run them. Prosecutors have said that one centralized currency service, Liberty Reserve, was devised solely to evade government authorities. Its co-founder, Vladimir Kats, pleaded guilty to money laundering last month in federal court in Manhattan.

In recent months, there has been much more excitement in the industry about decentralized currencies, which exist independently of any company. Such platforms have computer code that is usually open source, or available for editing by any programmer. This setup is seen as a benefit because it means that no central authority can determine things like fees, and who can and cannot have access to the currency.

One of the most popular decentralized currencies is litecoin, which was founded by a former Google programmer and intended to improve on some of the flaws in bitcoin, like the somewhat slow transaction times.

Mr. Powell of Payward and many other industry experts, though, say that litecoin and competitors are just tweaked versions of bitcoin.

Ripple is being heralded in some quarters as a more significant innovation than its competitors. Ripple maintains not only a currency, but also a system on which any currency, even bitcoin, can be moved around or traded — akin to a cross between Western Union and a currency exchange, without the hefty fees.

A person using the system can deposit any sort of money into a personal Ripple wallet through a business that is signed up as a Ripple gateway. That money can then be moved to the wallet of another Ripple user, without going through a bank or a credit card system.

People moving the same type of currency, say dollars or pounds, to another account on the Ripple system will not have to use its currency, known as ripple or xrp, pronounced letter by letter. But ripple is meant to provide the fastest and cheapest conversions, of one nation's currency to another or among various types of digital money. The hope is that once people begin using ripple they will keep some of their money in the currency and eventually use it directly to make purchases.

Stefan Thomas, an early bitcoin programmer and now the chief technology officer of Ripple Labs, said he was drawn to the company because it improved on the flaws in bitcoin. For instance, he said, users of Ripple put money into the system through so-called gateways, which should allow regulators to monitor transactions more easily. Ripple also does away with the process of “mining” bitcoins, which has eaten up enormous computing power.

“You kept running into the same criticism,” Mr. Thomas said. “Now there is a thing that has solved all these problems in a fundamental way.”

As with bitcoin, a finite number of ripple will be created — 100 billion. Ripple Labs will distribute 55 percent of those free to encourage people and companies to use the system. The 7.5 billion ripple that have been released are worth about $60 million.

The company, with 25 employees, is keeping 25 percent of the currency to sell off to fund its operations.

This setup has drawn criticism from some supporters of bitcoin, who think it gives too much power to Mr. Larsen’s company. But the company will also allow for quicker and more coordinated responses to crises and regulators.

Angela Angelovska Wilson, a lawyer at Latham & Watkins specializing in alternative payment systems, said that Ripple’s more centralized control had allowed it to benefit from some of the bad press surrounding bitcoin, while maintaining the benefits of a decentralized currency.

“Obviously bitcoin was the first mover,” Ms. Wilson said. “But Ripple was right behind it. And then there are a lot of others coming through.”

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Regulators See Value in Bitcoin, and Investors Hasten to Agree

By NATHANIEL POPPER – November 18, 2013

The virtual currency bitcoin took a big step toward the mainstream on Monday as federal authorities signaled their willingness to accept it as a legitimate payment alternative.

A number of federal officials told a Senate hearing that such financial networks offered real benefits for the financial system even as they acknowledged that new forms of digital money had provided avenues for money laundering and illegal activity.

“There are plenty of opportunities for digital currencies to operate within existing laws and regulations,” said Edward Lowery, a special agent with the Secret Service, which is tasked with protecting the integrity of the dollar.

Signs that the government would not stand in the way of bitcoin’s development, even as it has been cracking down on criminal networks that use the digital money, stoked a strong rally in the price of the crypto-currency.

By Monday evening, the value of a bitcoin unit soared past $700 on some exchanges. The total outstanding pool of bitcoin — which is created by a network of users who solve complex mathematical problems — is now worth more than $7 billion.

The Senate hearing Monday afternoon was the clearest indication yet of the government's desire to grapple with the consequences of this growth, and the recognition that bitcoin and other similar networks could become more lasting and significant parts of the financial landscape.

"The decision to bring virtual currency within the scope of our regulatory framework should be viewed by those who respect and obey the basic rule of law as a positive development for this sector," said Jennifer Shasky Calvery, the director of the Treasury Department's Financial Crimes Enforcement Network. "It recognizes the innovation virtual currencies provide, and the benefits they might offer."

Ms. Shasky Calvery and the other officials at the hearing did say that basic questions still had to be answered about virtual currencies, including whether they can actually be considered currencies or whether they are more properly categorized as commodities or securities. The distinction will determine which agencies regulate the networks and how they are treated under tax law.

Ms. Shasky Calvery said that the Internal Revenue Service was "actively working" on its own rules for bitcoin.

The hearing followed other less visible steps taken by regulators and lawmakers to bring digital money into the mainstream.

New York State's top financial regulator, Benjamin M. Lawsky, said last week that he would hold a hearing to consider the creation of a BitLicense to provide more oversight for transactions. Earlier, the Federal Election Commission put out an advisory indicating that bitcoin could be legally accepted as political donations.

The general counsel of the Bitcoin Foundation, a nonprofit advocating the currency, said in his testimony on Monday that he was receiving a much more friendly response from both government and the financial industry.

"We have recently perceived a marked improvement in the tone and tenor taken by both state officials and bank executives," the general counsel, Patrick Murck, said.

Bitcoin has experienced a remarkable ascent since it was created in 2009 by an anonymous programmer or collective known as Satoshi Nakamoto. The money, which is not tied to any national currency, has been popular with technophiles who are skeptical of the world's central banks. Only a finite amount of bitcoin will ever be created — 21 million units. Users have bid up the price on Internet exchanges, betting that the currency will be more widely used in the future.

There are significant questions about the wisdom of the digital money as an investment, given that bitcoin has no intrinsic value and has proved to be vulnerable to hackers. Many money managers have recommended that unsophisticated investors stay away.

Recently, though, bitcoin has been catching fire around the world, with exchanges in China particularly active. A growing number of prominent American investors have also bought stakes, including Michael Novogratz, a principal at the private equity and hedge fund giant Fortress Investment Group, as well as the Winklevoss twins, Cameron and Tyler.

The increasingly widespread ownership of bitcoin has shifted attention away from the criminal enterprises that have used digital money, but it was a focus at the Senate hearing.

Last month, the online marketplace Silk Road, where bitcoin was the primary form of payment, was shut down and its founder arrested after authorities accused it of being used to buy and sell drugs, weapons and pornography. The chairman of the Senate committee, Thomas R. Carper, Democrat of Delaware, said that a few days after the arrest, a similar site sprang up.

It can be harder to track criminals who use bitcoin, law enforcement officials said at the hearing, because they operate across international borders and often do not use established financial institutions that report transactions.

But Mythili Raman, an assistant attorney general at the Justice Department, also said that because every bitcoin transaction was recorded on a public ledger, it was possible for investigators to trace the movement of money between accounts.

“It is not in fact anonymous. It is not immune from investigation,” Ms. Raman said.

All the officials at the hearing said that crime had been an issue during the early days of credit cards and online payment systems like PayPal, and should not be a reason to limit innovation.

“It is our duty as law enforcement to stay vigilant while recognizing that there are many legitimate users of those services,” Ms. Raman said.

The bitcoin supporters who testified at the hearing said bitcoin could bring major changes to the financial system by cutting out the middle men needed to move money around the world.

“I am here to testify because I believe that global digital currency represents one of the most important technical and economic innovations of our time,” said Jeremy Allaire, the chief executive of Circle Internet Financial, which is seeking to promote more widespread use of the currency.

Given bitcoin’s appeal to skeptics of government, many aficionados have been wary of involvement by Washington. But advocates at the hearing said that the increasing cooperation with regulators could lay the groundwork for further growth.

“As this technology moves from early adopters into mainstream acceptance, it is critical in my view that federal and state governments establish policies surrounding digital currency,” Mr. Allaire said.

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In Bitcoin’s Orbit: Rival Virtual Currencies Vie for Acceptance

By NATHANIEL POPPER – November 24, 2013

For many people, bitcoin seems like something from the day after tomorrow.

For Lawrence Blankenship, it’s already a thing of the past.

A software engineer from Springfield, Mo., Mr. Blankenship is putting his money on PeerCoin, one of the biggest of the virtual currencies that are being promoted as alternatives to bitcoin.

With mounting interest from prominent investors and growing acceptance from regulators, bitcoin — either the new gold or the next Dutch tulip craze, depending on who is being asked — is at the center of the virtual money universe. Yet there are dozens of digital alternatives, like PeerCoin, Litecoin and anoncoin, whose backers point to advantages they say their currency has over bitcoin.

PeerCoin, according to Mr. Blankenship, is closer than bitcoin to the perfect, communal money. Mr. Blankenship, who is 34, has arranged to accept PeerCoin as the virtual currency of choice at a Star Trek convention he is organizing in his hometown.

"Looking down the road 10 years from now, I definitely see bitcoin being ousted," he said. "Everyone's going to start switching to other coins, and hopefully PeerCoin comes out ahead in that."

In the alternative galaxy of virtual currencies, newly created money can become worth millions of real dollars in a few months. All the PeerCoin in existence, for example, was worth nearly $40 million last week. Programmers and mathematicians release new entrants into the field almost every week. On one popular exchange, Cryptsy, 60 different coins can now be traded.

Almost all of these altcoins, as they are known, have fed on the stratospheric rise of bitcoin. Since the beginning of the month, the value of bitcoin rose to more than $900 at one point, from $200, and it is up 6,000 percent since the beginning of the year.

Many of the altcoins have risen at the same clip, driven by bets that the Internet has room for more than one form of virtual money, or that bitcoin can be overtaken. The constant innovation opens the door to new opportunities for fraud and illegal activities.

Thanks to a lack of regulation, pump-and-dump schemes have become common. But the thousands of hours being poured into these projects underscore the degree to which a small but growing community believes that it has found the future of money.

"It's a very intriguing thing, because in principle, you can have a kind of money with some advantages that have never been possessed by any past forms of money," said George Selgin, an economics professor at the University of Georgia at Athens.

If this is a contest, bitcoin is still light-years ahead of any of its competitors — the value of all bitcoin is measured in the billions of dollars, while only a few others have even cracked a hundred million. And bitcoin has the basic attributes that most other coins are trying to imitate: an open-source computer code with no central authority and a mathematically determined rate of expansion, not relying on a central bank.

What's more, most altcoins share the biggest weakness of bitcoin: a violently fluctuating value. Most people are willing to use real currencies because they have stable values that make them good units of exchange. Virtual currencies, these days, are more like speculative commodities.

But this is not stopping the ascent of things like Litecoin, which is generally viewed as the second-most-popular digital money, with a total value of about $250 million last week. Unlike bitcoin, which was invented by a shadowy creator known only as Satoshi Nakamoto, Litecoin was created by Charles Lee, a 36-year-old former programmer at Google who lives with his wife and two children in Silicon Valley.

Mr. Lee said he wrote the original code for Litecoin in the hours after his children had gone to sleep. At the time, he said, many of the new currencies were being created by people who kept large hoards of the money they created, and then cashed out as soon as it rose in value. Mr. Lee, by contrast, gave advance notice of Litecoin's release, and on that day he began with no coins himself.

Like bitcoin, new Litecoin is created through a so-called mining process in which computers compete to solve math problems, with coins going to the first computer that succeeds.

The goal with Litecoin, Mr. Lee said, was not to replace bitcoin. Instead, it was to be "silver to bitcoin's gold," with faster-moving transactions and a more democratic mining process.

"People like choices," said Mr. Lee, who now works for Coinbase, a company that provides virtual currency wallets. "You want to diversify your crypto-currency investments."

Another virtual currency viewed as being in the top ranks is Ripple, which is at the center of a new online payment system also called Ripple. This has won some mainstream following because it has big Silicon Valley backers and promises to be more transparent and easier to regulate than bitcoin.

Bitcoin has been criticized for the anonymity of its transactions, which have made it attractive for buying drugs and guns online. But many altcoin fans are more bothered by how easily governments can follow bitcoin, because the transactions are all recorded on a public ledger. This was the motivation for the creators of anoncoin, which has been rising in value.

Not surprisingly, the person behind anoncoin's email address did not want to share his or her identity.

But the person, going by the name Meeh, said the team behind anoncoin was "just people trying to help people become anonymous in this over-surveillanced world."

PeerCoin, Mr. Blankenship's money of choice, also has a creator who refuses to be identified, going by the name Sunny King. In an Internet chat, Sunny King said one of the goals with PeerCoin was to create money that did not require the same computer resources to mine — making it more environmentally sustainable. More recently, Sunny King released a second new currency, Primecoin, that forces miners to find new strings of prime numbers — a potentially valuable task for the mathematical world.

"We are not greedy," Sunny King said. "We think crypto-currency also needs moral character behind it."

Mr. Blankenship is pushing for Sunny King's currencies and so are some friends in Springfield. One of those friends, John Manglaviti, said he dedicated 30 hours a week to promoting PeerCoin, after his day job, and thinks it could be "right there as an alternative to bitcoin."

First, though, he said, the "challenge is to take this out of the geek world and make it something my mom could use."

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Much Ado About Bitcoin

By ADRIAN CHEN – November 26, 2013

FOR the obsessive followers of the volatile virtual currency bitcoin, the price of a single bitcoin at the time their fixation began holds undue significance. I know one bitcoin cost around $9 when I first stumbled on it in the summer of 2011. That was before I single-handedly sent the price of bitcoin soaring.

I wasn't trying to manipulate an underground economy. I was just doing my job as a blogger for the website Gawker when I broke the story of the online underground illegal drug market Silk Road, on which bitcoin was the only accepted currency because of its relative anonymity. The article went viral and introduced hundreds of thousands to bitcoin.

Senator Charles E. Schumer, Democrat of New York, helped, too. During a news conference a couple of days after my article was published, he called bitcoin "an online form of money laundering." I suppose a lot of people thought that sounded pretty cool. The price of bitcoin surged to $14.

Huh, I thought, maybe I should buy some bitcoin.

But I didn't, and as of this writing, one bitcoin is worth around $880. Senate hearings held to discuss regulating bitcoin earlier this month were "lovefests," according to The Washington Post. Abroad, Chinese investors are flocking. Bitcoin seems on the brink of respectability.

Still, there's a zaniness about the currency. Bitcoin is built on a weird mix of the most old-fashioned kind of speculative greed, bolstered by a contemporary utopian cyberlibertarian ideology. Boosters say that bitcoin is the currency of the future. I'd argue that the phenomenon is a digital gold rush perfectly emblematic of the present.

Some of bitcoin's appeal comes from the fact that it does not physically exist. Each bitcoin is just a string of numbers. Instead of a bank, a decentralized network of computers ensures the authenticity of bitcoin and issues new ones by doing complex calculations. This allows bitcoin to be traded peer to peer, bypassing credit card companies and payment processors. It's digital cash, offering the same relative anonymity and freedom as a paper sack of bills. WikiLeaks began accepting bitcoin donations in 2011 in order to bypass PayPal and credit card companies, which had frozen payments to the organization.

The WikiLeaks episode hints at the utopian promise built into bitcoin by its creator, a mysterious programmer called Satoshi Nakamoto, whose identity is a subject of dispute and intrigue. The ideas behind bitcoin can be traced to a 1988 tract called theCrypto Anarchist Manifesto, which loftily predicted a future where anonymity-protecting technology made state control of the market impossible. Everything would be for sale to anyone all the time, 100 percent tax-free. Many of bitcoin's hard-core fans see the currency as a revolutionary step toward this anarchocapitalist wonderland.

I'm skeptical. I don't think we'll all be paying in bitcoin for tickets to Kanye West's 2024 presidential victory tour. You can't use bitcoin for much today besides gambling in online casinos and reserving seats on Virgin Galactic spaceflights, and a vast majority of it is held by speculators. Even with the imprimatur of government regulation, the promise of bitcoin seems to end with helping online retailers avoid credit-card processing fees. Bitcoin is mainly innovative in the way of credit default swaps: new ways to gamble with money.

Bitcoin is most interesting on an emotional level. Its sheen of technomagic has let uber-rational geeks treat the casino-floor frenzy as a serious technological story. Tech blogs breathlessly track the price of bitcoin. Each new business that accepts bitcoin is heralded with the fanfare of a despot opening his country's borders to a new, previously outlawed luxury. The drumbeat suggests that getting rich is as simple as being an early adopter.

So many have bought in because the Internet is very good at stoking the fear of missing out. There's even a trendy acronym, FOMO, to describe the anxiety inspired by scrolling through the social media accounts of people having more fun than you. Bitcoin fosters a particularly potent brand of FOMO. Recently there was the story of the Norwegian 20-something who discovered that his long-forgotten bitcoin, bought for basically nothing, was worth so much that he traded some of it to buy an apartment. Bitcoin holders have taken to posting screenshots of their swollen accounts. I know a guy who bought a few hundred dollars' worth of bitcoin as a sort of joke years ago. Now he's made enough to buy a nice car.

All I can say is that the crash is going to be great. Bitcoin is too dependent on speculative mania to be of practical use as a currency. But as a symbol of the misguided dream that one can tap into the global data stream and download riches like a pop song, it's gold.

Adrian Chen is a freelance journalist and an editor at The New Inquiry.

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All these selections are from the New York Times.