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The Future of Web Payments is Now... Above Ground

In Cryptography We Trust

Bitcoin may have been built on the idea that cryptography is more efficient than trust, but as the digital currency continues to grow out of enterprising startups, trust isn't displaced; it's redistributed in the cryptography itself.

By: Bailey Reutzel

Smart rings, a wearable computing jewelry, aren't likely the next big innovation in payments. But a friend of mine runs sales at a Bitcoin business. He, like many young Bitcoin entrepreneurs, has become fascinated with the payments industry since the Federal Crimes Enforcement Network issued guidance on the virtual currency tying it to the existing rules of monetary transfer. So he wanted to read the article that was behind a paywall, my company's paywall.

So I copy and pasted the article into an email and sent it along. Using his company's service, he attached \$5 (which is definitely too high) in bitcoin to a text message, which he sent to me. I replied "send" and typed in my Bitcoin wallet address and less than 10 minutes later the transaction was confirmed.

To my employer, a friend sent me bitcoin to show me how the company's service worked. To me, I had just received payment for my content—a micropayment.

I've asked my company to accept Bitcoin. I know several people who would buy thousands of dollars in subscriptions if we did.

I've asked to put a wallet address or a QR code linked to a wallet address at the end of my articles that are outside the paywall to see if we can get donations.

I haven't been met with pushback, just silence...

I've never known a payment industry that wasn't in flux. When I started writing about the payment space, mobile payments were only a download away and Bitcoin, although still underground at \$14 a pop, was steadily making headlines.

Yes, that means I'm young. But that also means that I'm not tied to the infrastructure of yesterday, I see the innovation and I'm ready to build on it, to make everyone else see that the future of payments is already here.

[Bitcoin](#) may have been built on the idea that cryptography is more efficient than trust, but as the digital currency continues to grow out of enterprising startups, trust isn't displaced; it's redistributed in the cryptography itself.

In its first several years, the digital currency may have been an underground means of transacting, but Bitcoin is now above ground.

And micropayments—there's a direct impact on my livelihood as a journalist—is one of the more intriguing cases for the new digital payments system.

In college I was pushed to learn photography and video, because "print is dying." I saw a surge of microbloggers breaking news before any professional media outlet and writing reviews more read than those in the Rolling Stone. I graduated knowing I wasn't doing this for the riches but for the love of the game. I figured the only way to make money was joining a well-known publication in hopes of getting a salary.

But this could be changing. Sure it's hard to be a freelancer but as it becomes easier to monetize content through micropayments, freelancers may find more money in their readers than they do in their employers.

Several Bitcoin-based companies, including Coinbase and BitWall are working on solutions for monetizing content with Bitcoin micropayments as we speak. The latter is even unlocking content through a social media "payment" of sorts, allowing consumers to read copy if they tweet a link to it to their followers.

And even donation-based micropayments have helped content creators survive. Let's Talk Bitcoin, a twice weekly podcast, has received 658 donations in the past six months to specific episode addresses and another 200 or so donations to the company's Coinbase account, according to Adam B. Levine, the show's founder. Let's Talk Bitcoin's biggest donation was more than eight bitcoins which at the time was worth more than \$800. While most listeners of the podcast give about \$1 in bitcoin per episode, Levine says about 20% of its donations are between \$10 and \$50.

Consumers, without demanding, are willing to pay for good content. So how do we make this easy?

"Credit cards weren't made for the internet," touts Anthony Gallippi, CEO of [BitPay](#), a Bitcoin merchant services platform, nearly every time I speak with him.

Bitcoin and other digital currency's that spring from its protocol were. The data is quickly and easily transferred between two parties no matter what country in the world they stand.

But issues still remain. Most of these issues, including securing clunky wallets with terrible user interfaces and resurrecting new online exchanges that have an acceptable amount of liquidity, will be solved as more entrants develop in the space.

But other issues should be talked about at great length by the expert in the industry and outside of it. The question of whether a

deflationary currency will be stable enough for "everyone" to use or whether it will encourage hoarding, eventually leading to a depression, is something that should be brainstormed. A couple Bitcoin clones have recently incorporated a kind of inflation and others have started pre-mining coins to mitigate the early adopter advantages. While I see plenty of defects in these systems, they must be acknowledged for their potential to give the industry new ideas to old problems.

When I recently covered Manu Sporny's talk at an Inside Bitcoins conference in New York, his idea for [building digital currencies into Web browsers](#) was a solid one. It's not necessarily going to be Bitcoin or even Litecoin or Ripple. It could be a digital currency created by a centralized authority.

But the decentralized digital currencies will continue to thrive because these are "[permissionless innovation](#)."

And while payment is where this innovation—distributed public ledgers and proof-of-work—started, cryptography will continue to build on Bitcoin in other areas, such as messaging, contracts and notary.

Digital rights management will tie pretty closely with an online payment mechanism of this sort. When a consumer purchases content from me with a digital currency, the proof of purchase would include a receipt stored in the blockchain. The receipt would be irreversible and on the blockchain forever for all to see.

The digital media is also stored on the blockchain as a type of public address. A consumer's private key could then be used to unlock the media, either for reading, watching or listening too, or to republish if that's an option.

Cryptography can protect digital media authors. Anyone that buys access to the media must provide a digital signature, which can be used to track the path of the media back to the original purchase in case of piracy.

The Monopoly

So back to why won't my company accept Bitcoin? I would guess because we're doing fine on the revenue we get from subscriptions paid in cash, check, debit and credit over the same rails that have been used for decades.

And these rails, just like the railroad in the 19th century, are under a monopoly in the U.S.

This monopoly is led by a small number of large commercial banks that continue to control the payments system. They torpedoed a vote last year for the [Expedited Processing and Settlement](#) plan created by Nacha, for one, in an effort to stay relevant.

[The Fed has stepped up recently](#), publishing a paper on the "desired outcomes" for the payments space within the next 10 years. The paper outlines a near real-time payment system that could work without the sender needing to know the recipient's bank account number.

The slow movement of funds today is outrageous in a world dominated by the internet, where people in the U.S. can send messages to people in South America, Europe, Asia, any country on any continent in seconds.

This creates hardships for the most vulnerable people, the underbanked and unbanked. [There's a lack of access to financial services in many areas of the world](#), and it's exacerbated by payment rails with morality. Visa and MasterCard put blocks on certain countries while banks and processors refuse to provide service to certain merchants.

Not to mention the regulatory hurdles especially for Bitcoin businesses. These businesses are struggling to wade through the compliance and state licensing requirements to become a money transmitter.

In the U.S. the state licensing process is a cumbersome one. Businesses must go state-by-state obtaining time-consuming and costly licenses.

[Europe took a single filing approach](#), allowing a regulated business in one country to work in other country under its existing regulation and supervision.

While most of the time the U.S. is the first to move of regulation, months later watching as other countries follow its lead. Several states have gotten together to support a single filing but we need to educate the rest. This will open up the market for serious innovation in the funds transfer space which is what we're looking to change here at the workshop.

Bailey Reutzell is a technology reporter at PaymentsSource, an online publication focusing on emerging payment technology. She has focused much of her research on digital currency and continues to present her knowledge at conferences in the States.

