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VIA EMAIL—dana.syracuse@dfs.ny.gov

Benjamin M. Lawsky
Superintendent
Dana V. Syracuse
Office of General Counsel
New York Department of Financial Services
One State Street
New York, NY 10004

RE: Comment on DFS-29-14-00015-P: New York State Department of Financial Services BitLicense Proposal

Dear Superintendent Lawsky and General Counsel Syracuse:

The Electronic Frontier Foundation, Internet Archive, and reddit submit this comment in response to DFS-29-14-00015-P, the New York State Department of Financial Services inquiry and proposed regulation of virtual currency businesses.[1] We believe that, as currently drafted, the "BitLicense" regulatory framework raises profound civil liberties concerns and stifles innovation.

The proposal would infringe the privacy rights of casual users and digital currency innovators, as well as fundamentally burden freedom of speech and association.

The framework would also create expensive new obligations for businesses developing new products and services in the digital currency ecosystem, likely foreclosing many of them from doing business involving New York and its residents.

Commenters

The Electronic Frontier Foundation (EFF) is a non-profit civil liberties law and technology organization. Founded in 1990, EFF champions individual privacy, free expression and innovation. With over 20,000 members around the globe, EFF uses public education campaigns, impact litigation, open source technology projects, policy analysis, and grassroots activism to ensure that civil liberties are protected even as society's use of technology increases.

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[1] 2014-29 N.Y. St. Reg. 14 (July 23, 2014) (to be codified at Part 200 to Title 23 NYCRR), http://docs.dos.ny.gov/info/register/2014/july23/pdf/rulemaking.pdf.

EFF has documented and criticized different forms of financial censorship for many years and has used its popular blog and mailing list to analyze the ramifications of decreased financial privacy. EFF also allows supporters to make donations through Bitcoin.

The Internet Archive is a public non-profit organization that was founded in 1996 to build an "Internet library," with the purpose of offering permanent access for researchers, historians, scholars, artists, and the general public to collections in digital format. Collaborating with many libraries, state agencies, and other archives, the Archive collects and receives electronic and physical data and media, including texts, audio, videos/film, software, television news, and archived web pages. The Internet Archive provides free access to these resources via its websites, including archive.org and openlibrary.org.

The Archive helped set up and provides administrative support to Internet Archive Federal Credit Union, which has had to close accounts for individuals and business associated with Bitcoin due to regulatory pressure. The Internet Archive accepts donations almost daily via Bitcoin, has paid employees modest portions of their salaries in Bitcoin (on a voluntary basis), pays for some of its catered meals in Bitcoin, and has archived a great deal of Bitcoin-related media in the normal course of its archival activities. The Archive's employees also regularly pay for lunch with Bitcoin at a nearby restaurant.

reddit was founded by Steve Huffman and Alexis Ohanian in 2005, and is an online community where users submit, vote, and comment on content, stories, and discussions. The hottest stories as determined by the community through discussions and voting rise to the top of the site, while cooler stories sink. Anyone can create a community (called a "subreddit"); each subreddit is independent and moderated by a team of volunteers. reddit is open source, and community members are constantly tinkering and contributing features and translations back to the site. In September 2014, reddit received more than 6.175 billion page views and more than 174 million unique visitors. reddit also hosts the world's largest gift exchange as listed in the Guinness Book of World Records through redditgifts.com, and features video and original programming through reddit.tv.

reddit believes block chain technology has many potential applications that may improve the experience for its users. The BitLicense framework may limit reddit's ability to leverage this technology to enhance its community and impact the privacy of reddit's users.

Introduction: Digital Currencies and Bitcoin-like Protocols

There are more than 500 digital currencies currently in existence.[2] Most of them have an underlying global peer-to-peer architecture similar to Bitcoin, an Internet

[2] See Crypto-Currency Market Capitalizations, http://coinmarketcap.com (last updated Oct. 21, 2014).

protocol that makes it possible for people to transact directly with each other without an intermediary. Every transaction is verified and recorded in a public ledger known as a block chain.

Bitcoin was originally envisioned by the pseudonymous developer Satoshi Nakamoto as a decentralized electronic payment system that would operate independently of financial institutions.[3] This payment system continues to be Bitcoin's most widely known application, and when people hear "Bitcoin," they often think of the units of value exchanged through the protocol (also known as "bitcoins").

Many different kinds of transactions can be recorded in block chain-like public ledgers, though, which means there are potential uses of block chains that are separate and independent of money transfers.

Indeed, developers are finding ways to use block chain technology to record a wide range of transactions that rely on authentication and validation, such as keeping track of property ownership; buying and selling equity in digital media; sharing storage space or processing power; recording and transferring domain names; managing public records; and casting and verifying votes.[4]

While developers are building these new applications upon systems often associated with payments, they are not financial institutions and should not be treated that way for purposes of regulation.

Whether used to transfer currency or in a wholly different capacity, Bitcoin-like systems have great potential as a civil liberties-enhancing technology. One of the benefits of Bitcoin and similar currencies is that they offer the potential for pseudonymous transactions because the block chain does not directly link a transaction to the parties' names. Furthermore, the decentralized nature of the protocol makes it naturally resistant to censorship.

As a payment system, Bitcoin-like currencies share these attributes with cash. We should consider this a feature, not a bug; it is an innovative way to import some of the civil liberties protections we already enjoy offline into the digital world.

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[3] Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (2008), https://bitcoin.org/bitcoin.pdf.

[4] *See, e.g.*, Olga Kharif, *Bitcoin 2.0 Shows Technology Evolving Beyond Use as Money*, Bloomberg (Mar. 27, 2014), http://www.bloomberg.com/news/2014-03-28/bitcoin-2-0-shows-technology-evolving-beyond-use-as-money; Ledra Capital, *Bitcoin Series 24: The Mega-Master Blockchain Master List*, http://ledracapital.com/blog/2014/3/11/bitcoin-series-24-the-mega-master-blockchain-list (last visited Oct. 20, 2014); Anil Dash, *A Bitcoin for Digital Art* (May 9, 2014), https://medium.com/message/a-bitcoin-for-digital-art-8c7db719e495; Ethereum, https://www.ethereum.org (last visited Oct. 21, 2014); Namecoin, http://namecoin.info (last visited Oct. 21, 2014).

NY DFS has proposed this regulatory framework "to protect consumers and root out illegal activity," which are important, laudable goals.[5] But as currently written, the BitLicense proposal would also undermine the unique civil liberties benefits digital currencies offer by design.

Argument

I. Key Definitions in the BitLicense Framework are Vague, Confusing, and Overly Broad, Which Makes the Scope of the Proposed Regulation Unclear.

The BitLicense proposal would require anyone who engages in any "Virtual Currency Business Activity" involving New York or a New York resident to first obtain a license from NY DFS.[6] Unfortunately, certain definitions leave a great deal of uncertainty about what would actually be subject to regulation.

A. "Virtual Currency"

The BitLicense framework uses the term "virtual currency" to describe the type of unit it aims to regulate.[7]

As an initial matter, we believe NY DFS's use of the word "virtual" may cause confusion. Some commentators use the term "virtual currency" to refer to a narrow subset of currencies associated with online games, while "digital currency" is used more broadly to refer to any currency that is electronically transferred and stored.[8] Because the BitLicense proposal would affect a far wider range of currencies than those associated with online games, we use the term "digital currency" throughout this comment, and encourage NY DFS to consider adopting this terminology for further proceedings.

Turning to the BitLicense framework, NY DFS has defined "Virtual Currency" as "any type of digital unit that is used as a medium of exchange *or* a form of digitally stored value *or* that is incorporated into payment system technology" (emphasis added).[9] The terms "digital unit," "medium of exchange," and "digitally stored value"

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[5] Press Release, New York Department of Financial Services, NY DFS Releases Proposed BitLicense Regulatory Framework for Virtual Currency Firms (July 17, 2014), http://www.dfs.ny.gov/about/press2014/pr1407171.html (hereafter "NY DFS Press Release").

[6] Section 200.3(a).

[7] Section 200.2(m).

[8] *See, i.e.*, Andrew Wagner, *Digital vs. Virtual Currencies*, Bitcoin Magazine (Aug. 22, 2014), http://bitcoinmagazine.com/15862/digital-vs-virtual-currencies; Danny Bradbury, *Is Bitcoin a Digital Currency or a Virtual One?*, Coindesk (Mar. 19, 2014), http://www.coindesk.com/bitcoin-digital-currency-virtual-one. *See also* Bitcoin Foundation Comment on NYDFS "BitLicense" Proposal at 1-2 (Oct. 8, 2014), https://bitcoinfoundation.org/resources/bitcoin-foundation-comment-on-nydfs-bitlicense-proposal.

[9] Section 200.2(m).

are vague, and NY DFS presumably believes they describe digital units independent of any payment system—otherwise, it would be unnecessary to specifically incorporate them in "Virtual Currency."

As a result of this broad definition, the framework seems to extend not just to financial institutions or money transmission services, but also more broadly to applications of the block chain that use "digital units" as a "medium of exchange" or "a form of digitally stored value."

The definition currently includes specific carve-outs for certain "digital units" used solely within online gaming platforms and customer affinity or rewards programs. NY DFS should add another exception for non-financial uses of digital currency systems, such as self-executing contracts and tracking digital assets.

B. "Virtual Currency Business Activity"

The BitLicense proposal would require a license for any "Virtual Currency Business Activity" involving the State of New York or residents of New York.[10]

First, as a practical matter, this regulation will reach many businesses that have only a tenuous connection to the state. Digital currencies rely on global internet infrastructure, and so the vast majority of businesses in the digital currency ecosystem will be likely to engage in commerce involving New York or New York residents at some point in time. Even companies based wholly outside the United States will be responsible for complying with this regulation if they only conduct occasional business with New York residents.

Second, the basic definition of "Virtual Currency Business Activity" is extremely broad. This term includes:

- receiving Virtual Currency for transmission or transmitting the same;
- securing, storing, or maintaining custody or control of Virtual Currency on behalf of customers;
- buying and selling Virtual Currency as a customer business;
- performing retail conversion services, including the conversion or exchange of Fiat Currency or other value into Virtual Currency, the conversion or exchange of Virtual Currency into Fiat Currency or other value, or the conversion or exchange of one form of Virtual Currency into another form of Virtual Currency; or
- controlling, administering, or issuing a Virtual Currency.[11]

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[10] Section 200.2(n).

[11] Section 200.2(n)(1)-(5).

This definition would certainly cover any business that hosts digital currency wallets, operates an exchange, or provides digital currency storage. It would also include people inventing new types of digital currency—even currencies not intended for use as financial instruments, given the breadth of the "Virtual Currency" definition.

Unfortunately, it is not clear what the outer limits of "Virtual Currency Business Activity" are.

For example, the definition covers anyone who "controls," "administers," or "issues" a currency. This might be read to include operators of peer-to-peer nodes, who play a key role in keeping digital currency systems up and running, and so might be considered to "administer" those currencies.

The definition could also include software developers who create programs enabling people to store and transact with digital currencies, such as makers of wallets that bitcoin holders use to keep the currency on their computers or smartphones. Because these developers create programs to "secur[e], stor[e], or maintain[] custody or control of Virtual Currency on behalf of customers," as well as to help "administer" currency, they might also fall under this regulation.

The BitLicense proposal could also cover digital currency miners, since their computing efforts are the source of digital currency. Miners could easily be said to "control[], administer[], or issu[e] a Virtual Currency." According to NY DFS's public statements, the agency does not intend to sweep up miners in this regulation[12]—and yet there is no explicit exception for miners in the text of the proposal.

Even the Bitcoin Foundation and core members of the Bitcoin development team might be subject to this regulation, since they play a fundamental role in the growth of Bitcoin and determining the rules around it. Their activities might be considered "controlling" and "administering" the currency.

C. "Transmission"

The framework's definition of "transmission" makes the picture even murkier. "Virtual Currency Business Activity" specifically includes "receiving Virtual Currency for transmission or transmitting the same." The term "transmission" is defined as "the transfer, by or through a third party, of Virtual Currency from one Person to another Person, *including the transfer from the account or storage repository of one Person to the account or storage repository of another Person*" (emphasis added).[13]

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[12] NY DFS Press Release; Nermin Hajdarbegovic, *Lawsky: Bitcoin Developers and Miners Exempt From BitLicense*, CoinDesk (Oct. 15, 2014), http://www.coindesk.com/lawsky-bitcoin-developers-miners-exempt-bitlicense.

[13] Section 200.2(l).

At first blush, NY DFS appears to intend to limit "transmission" to third-party intermediaries that conduct financial transactions between people. But then the definition goes on to explicitly include peer-to-peer transactions involving the accounts or storage repositories of the parties. It is unclear whether an individual would need a license under this proposal to merely operate a peer-to-peer node in a digital currency system, or to send digital currency directly from a wallet on her phone to another person.

We were heartened to see Superintendent Lawsky recently explain in public remarks that the BitLicense proposal is meant to cover "financial intermediaries," not people developing software or platforms.[14] He said:

> To clarify, we do not intend to regulate software or software development. For example, a software developer who creates and provides wallet software to customers for their own use will not need a license. Those who are innovating and developing the latest platforms for digital currencies will not need a license.

Unfortunately, this is not what the text of the BitLicense framework actually says. NY DFS must hone the definitions discussed above to clarify the scope of the regulation.

II. The BitLicense Proposal Intrudes Upon the Personal Privacy of Consumers Who Transact With Digital Currencies and Business People Innovating in the Digital Currency Ecosystem.

One of the most promising features of digital currency is its potential as a privacy-enhancing technology, since all transactions are linked to pseudonymous public keys rather than real-world identities. Unfortunately, the BitLicense framework would eviscerate this feature by compromising the privacy of average consumers, developers, and entrepreneurs.

First, the proposal provides that "No Licensee shall engage in, facilitate, or knowingly allow the transfer or transmission of Virtual Currency when such action will obfuscate the identity of an individual customer or counterparty."[15] This requirement has profound implications for Bitcoin-like systems that have pseudonymity built into them by design. NY DFS is effectively proposing to nullify this hallmark of digital currency protocols, along with the privacy protection it provides, by forbidding licensees to allow any non-personally identifiable transactions.

Second, the BitLicense framework would require licensees to keep detailed records of all transactions they perform for 10 years "in a condition that will allow [NY DFS]

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[14] Hajdarbegovic, *Lawsky: Bitcoin Developers and Miners Exempt From BitLicense.*

[15] Section 200.15(f).

to determine whether the Licensee is complying with all laws and regulations," including:

- the amount, date, and precise time of the transaction, and any payment instructions;
- the total amount of fees and charges received and paid to, by, or on behalf of the licensee;
- names of the parties to the transaction;
- account numbers of the parties to the transaction; and
- physical addresses of the parties to the transaction.[16]

While the framework purports to exempt "merchants or consumers that utilize Virtual Currency solely for the purchase or sale of goods or services,"[17] the proposal *would* require licensees to maintain specific details about transactions—including information about merchants who accept digital currencies and their customers.[18]

This represents an enormous expansion of the recordkeeping requirements even for financial services covered by state and federal anti-money laundering regulations[19]—although, as explained above, the wording of the current proposal appears to extend to many businesses and individuals who are not required to comply with those rules.

Forcing companies to maintain detailed records about every transaction, no matter how mundane or insignificant, is burdensome and unnecessary. But we are even more concerned that every transaction would have to be linked to the names and physical addresses of all parties, and then kept for 10 years in case NY DFS should wish to inspect that information.

This is particularly invasive for individuals who may wish to make digital currency payments for sensitive purposes. The Electronic Frontier Foundation and Internet Archive are concerned about this possibility because they are non-profit organizations that accept Bitcoin donations, and they believe there are many

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[16] Section 200.12(a)(1).

[17] Section 200.3(c)(2).

[18] Section 200.12.

[19] According to FinCEN's regulations implementing the Bank Secrecy Act, "All records that are required to be retained by this chapter shall be retained for a period of five years." 31 C.F.R. § 1010.430(d) (formerly at 31 C.F.R. § 103.38(d)). New York anti-money laundering regulations require licensees to comply with federal requirements. NY DFS Superintendent's Regulation 416.1(b)(2)(i); *see also* NY DFS General Regulations of the Banking Board § 116.2.

legitimate reasons why someone would prefer privacy in her financial transactions.[20]

Consider a Federal Bureau of Investigation or National Security Agency employee who would like to donate money to support EFF, which is in ongoing litigation against the government over warrantless surveillance activities. Or consider a teenager who wants to buy contraceptives without anyone knowing, or a grassroots political organization raising money for the legal defense of a political prisoner.

In each case, there are reasons why a person may want to spend money without having that fact linked to his or her identity for a decade.[21] This is possible with cash transactions. Given the privacy-protective nature of digital currency protocols, it should be possible for digital currency transactions, too.

Furthermore, requiring companies to maintain these records creates a massive consumer privacy risk if those records should ever be stolen by malicious actors.

The public nature of the block chain makes the privacy risk of long-term record storage far greater for digital currency-related businesses than keeping equivalent records would be for more traditional businesses. If a retail company such as Target, for example, maintains a consumer database linking individual consumers to their credit card numbers, a hacker who compromises that database cannot recreate a wide-scale financial history for each consumer unless the hacker is able to match that data with purchase records from elsewhere.

But if a business maintains a database linking pseudonymous Bitcoin public keys with personally identifying information about consumers (as would be required under the proposed regulation), a hacker who compromises the database could identify a broad swath of consumer financial transactions by cross-referencing the stolen information with the block chain. This comparison could personally identify and publicly expose an extensive amount of information about consumers' financial activities over time—not just with the hacked business, but with other parties, too.

It is also worth noting that if a business maintained customer purchase records limited to transactional information and pseudonymous Bitcoin addresses, the privacy risk to consumers would be very low, since a malicious attacker could learn nothing more than what is already publicly recorded in the block chain.

We believe it is important to allow the privacy-enhancing design of digital currency to work in favor of consumers, not against them. We encourage NY DFS not to

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[20] For a longer list of non-profit, political, activist, cultural, and other organizations that accept Bitcoin, see https://en.bitcoin.it/wiki/Donation-accepting_organizations_and_projects (last visited Oct. 21, 2014).

[21] For more observations on the privacy implications of the BitLicense proposal, see Harley Geiger, *NY's Proposed BitRegs a Threat to Privacy and Innovation*, Center for Democracy and Technology (Sept. 5, 2014), https://cdt.org/blog/nys-bitregs-a-threat-to-privacy-and-innovation.

impose record-keeping requirements beyond those already established by state and federal anti-money laundering regulations.

Finally, the BitLicense proposal would compromise the privacy of individuals who want to work in the digital currency space. The framework would require BitLicense applicants to submit an extensive amount of personal information about key officers, directors, stockholders, and beneficiaries to NY DFS, including:

- information about their personal history, experience, and qualifications;
- a background report from an independent investigative agency;
- fingerprints for submission to state and federal law enforcement;
- portrait-style photos;
- financial statements;
- "details of all banking arrangements"; and
- an affidavit detailing all actual or potential legal proceedings (apparently even those that are unrelated to business activities, such as divorce actions).[22]

The proposed regulations also provide that NY DFS will affirmatively investigate the "financial condition and responsibility, financial and business experience, and character and general fitness" of any applicant who applies for a license.[23]

The framework would force individuals building digital currency businesses to forfeit their personal privacy more than what makes sense or is necessary. As a result, people who care about their privacy might avoid working in the digital currency space altogether.

III. The BitLicense Proposal Licenses Speech, and Must Respect the Well Established Legal Limitations on Prior Restraints

Bitcoin is not just a unit of value or a way to transact payments; the protocol is a platform for other uses with expressive and associational value. The protocol can also be used to organize and express views as a group, and people already use Bitcoin to publish political commentary, make religious statements, and create art. The BitLicense proposal could chill these expressive activities because it would require prior approval from NY DFS before people can engage in a wide variety of activities using digital currency protocols—including activities that have nothing to do with payments. As drafted, the BitLicense proposal appears to impose a prior

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[22] Section 200.4(a)(3)-(5), (7), (9), (11).

[23] Section 200.6(a).

restraint on protected expression without adequate procedural safeguards, which makes it vulnerable to legal attack.

A. Digital Currency Protocols Implicate First Amendment Interests

1. Digital Currency Protocols are Code, Which is Speech For Purposes of the First Amendment

While digital currencies are most commonly thought of as means of payment, at their very essence, digital currency protocols are code. And as courts have long recognized, code is speech protected by the First Amendment. *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 445-46 (2d Cir. 2001); *Junger v. Daley*, 209 F.3d 481, 485 (6th Cir. 2000); *see also Bernstein v. Dep't of Justice*, 176 F.3d 1132, 1140-41 (9th Cir. 1999), *reh'g granted, opinion withdrawn*, 192 F.3d 1308 (9th Cir. 1999); *Karn v. Dep't of State*, 925 F. Supp. 1, 9-10 (D.D.C. 1996) (assuming, without deciding, that source code with English comments interspersed throughout is "speech").

The Second Circuit in *Corley* explained why this is so:

> Instructions such as computer code, which are intended to be executable by a computer, will often convey information capable of comprehension and assessment by a human being. A programmer reading a program learns information about instructing a computer, and might use this information to improve personal programming skills and perhaps the craft of programming. Moreover, programmers communicating ideas to one another almost inevitably communicate in code, much as musicians use notes. Limiting First Amendment protection of programmers to descriptions of computer code (but not the code itself) would impede discourse among computer scholars, just as limiting protection for musicians to descriptions of musical scores (but not sequences of notes) would impede their exchange of ideas and expression. Instructions that communicate information comprehensible to a human qualify as speech whether the instructions are designed for execution by a computer or a human (or both).

The Bitcoin software is fully open source, which means anyone can read it, understand how it works, and suggest contributions to the code.[24] Further, the protocol and its functionality is the topic of a great deal of academic research.[25]

Thus, government action triggers First Amendment protections when it regulates computer programs such as digital currency protocols—a fact that is especially true

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[24] *See, i.e.*, Bitcoin Core, https://github.com/bitcoin/bitcoin/ (last visited Oct. 21, 2014).

[25] For a list of academic research on Bitcoin, see Bitcoin Wiki, Ressearch, https://en.bitcoin.it/wiki/Research (last visited Oct. 21, 2014).

given the open source nature of these programs, which allows users to view, share, and develop ideas based upon the code itself.[26]

2. Digital Currency Systems Foster Freedom of Association

Digital currency protocols aren't just themselves speech. They also raise constitutional concerns about freedom of association, which is important because the First Amendment protects the freedom to organize and express political views as a group. *NAACP v. State of Alabama ex rel. Patterson*, 357 U.S. 449, 460-62 (1958).

Bitcoin-like systems are used for organizing and engaging with groups or communities. Both EFF and the Internet Archive accept Bitcoin donations to support their work, and appreciate the privacy-enhancing features of the system.

Others are using digital currency systems to organize in creative ways. For example:

- MyPowers is a crowdfunding service that makes it possible to create digital coins associated with a certain person, organization, or event. People can buy these custom coins to join a movement of like-minded people and support issues or individuals they care about, using the coins as keys to access goods or services provided by the coin's creator.[27]

- SolarCoin is a digital currency that aims to incentivize the production of solar energy by providing monetary rewards to solar energy generators over time.[28] An environmentally minded community of volunteers and supporters continues to grow around the project.[29]

- The online community reddit recently announced that it is exploring the possibility of issuing a digital asset backed by shares to community members using a block chain.[30] This would make it possible for reddit members to have an ownership interest in their community.

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[26] This difference is how the Second Circuit distinguished the code in *Corley* from that in *Vartuli*, where the Commodities Future Trading Commission was allowed to regulate code that was marketed as an automatically functioning trading system and was not used as a vehicle for expressive communication. *CFTC v. Vartuli*, 228 F.3d 94, 110-11 (2d Cir. 2000).

[27] MyPowers, http://mypowers.com (last visited Oct. 21, 2014).

[28] SolarCoin, http://solarcoin.org (last visited Oct. 21, 2014).

[29] SolarCoin Forum, http://solarcoin.org/forum/index.php?sid=24b41c3381c996592815948afddcfe53 (last visited Oct. 21, 2014).

[30] Liz Gaines, *Reddit Raises $50 Million, Plans to Share Stock With Community Members*, Re/code (Sept. 30, 2014), http://recode.net/2014/09/30/reddit-raises-50m-plans-to-share-stock-with-community-members.

Among other things, this technology could enable members of reddit to vote on community issues in proportion to their ownership of the digital asset in a decentralized, cryptographically auditable way. This would be an exciting development for the community. However, if reddit were required to collect members' personal information in order for them to hold and transfer this asset, it would destroy the pseudonymous nature of the reddit community. And particularly due to the expense of complying with the BitLicense proposal, reddit's best option may be to exclude citizens of New York from participating in the digital asset project.

These alternative uses of digital currency protocols have great potential to harness support for social and political causes in new, innovative ways. However, these efforts would be directly subject to BitLicensing because they involve "creating" "Virtual Currencies" as defined by the framework.

3. Block Chains Are Publishing Platforms for Protected Expression

While the Bitcoin block chain is most closely associated with publication of financial transactions, it can be used to publish other material, as well. As a publishing platform, a block chain is inherently resistant to censorship: once information is published there, it is nearly impossible to remove. Some Bitcoin users have taken advantage of this feature by encoding data into Bitcoin transactions, which are then permanently added to the block chain.

Since its very inception, the Bitcoin block chain has had a tradition of political, artistic, and even religious expression, all of which are speech protected by the First Amendment.[31] A few examples:

- *Political speech.* The very first block of data in the Bitcoin block chain contains a timestamp and message: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks." This statement, presumably from Satoshi Nakamoto, refers to a newspaper article published in the British newspaper *The Times* with the headline "Chancellor Alistair Darling on Brink of Second Bailout for Banks." The statement is political, as Bitcoin was conceived as a response to the weaknesses of centralized financial institutions.[32]

  The block chain also hosts this memorial tribute to Nelson Mandela, containing a photo and quotes from the activist and world leader. *(See next page.)*

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[31] For a colorful, varied list of examples of expressive speech published in the public ledger, see Ken Shirriff, *Hidden Surprises in the Bitcoin Blockchain and How They Are Stored, Nelson Mandela, Wikileaks, Photos, and Python Software*, Ken Shirriff's Blog (Feb. 16, 2014), http://www.righto.com/2014/02/ascii-bernanke-wikileaks-photographs.html. The images in this comment come from Mr. Shirriff's post.

[32] Bitcoin Wiki, Genesis Block, https://en.bitcoin.it/wiki/Genesis_block (last visited Oct. 21, 2014).

Nelson Mandela (1918-2013)
"I am fundamentally an optimist. Whether that comes from nature or nurture, I cannot say. Part of being optimistic is keeping one's head pointed toward the sun, one's feet moving forward. There were many dark moments when my faith in humanity was sorely tested, but I would not and could not give myself up to despair. That way lays defeat and death."
"I learned that courage was not the absence of fear, but the triumph over it. The brave man is not he who does not feel afraid, but he who conquers that fear."

- *Religious expression.* The Bitcoin mining pool Eligius has published religious prayer in the block chain.

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Benedictus Sanguis eius pretiosissimus.
Benedictus Iesus in sanctissimo altaris Sacramento.
Ave Maria, gratia plena, Dominus tecum. Benedicta tu in mulieribus, ...
...and life everlasting, through the merits of Jesus Christ, my Lord and Red
eemer.
O Heart of Jesus, burning with love for us, inflame our hearts with love for
 Thee.
Jesus, meek and humble of heart, make my heart like unto thine!
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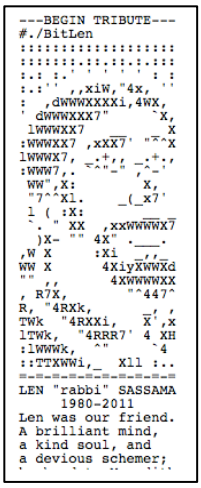
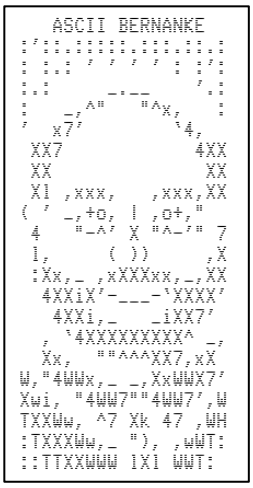
- *ASCII art.* Security researcher Dan Kaminsky added an ASCII (or plain text) memorial for cryptographer and privacy advocate Len Sassaman to the block chain after Sassaman's death.

  The block chain also contains an ASCII tribute with overtly political dimensions: a portrait of former Federal Reserve chairman Ben Bernanke. *(See next page.)*





- *Creative imagery*. The blockchain is also home to a number of logos, photographs, and other graphical works.

B. As Currently Written, the BitLicense Proposal Creates the Specter of an Unconstitutional System of Prior Restraints on Protected Speech

Because the BitLicense framework implicates expressive and associational interests, it must take into account well-established First Amendment limitations on licensing schemes and other restrictions on speech. It does not appear that NY DFS considered this issue while drafting the BitLicense framework. If implemented as currently written, the proposal would impose a system of prior restraints upon protected expression without providing adequate procedural safeguards, impermissibly undermining First Amendment values.

Any scheme that seeks to license speech raises the specter of a prior restraint. The BitLicense proposal is no different. The regulation has "a close enough nexus to expression, or to conduct commonly associated with expression, to pose a real and substantial threat of . . . censorship risks." *City of Lakewood v. Plain Dealer Pub. Co.*, 486 U.S. 750, 759 (1988).

As currently written, the proposal would forbid anyone from engaging in "Virtual Currency Business Activity" involving New York or New York residents without first obtaining a license from NY DFS.[33] The proposal explains that NY DFS will grant a license if it "belie[ves] that the applicant's business will be conducted honestly, fairly, equitably, carefully, and efficiently . . . and in a manner commanding the confidence and trust of the community[.]"[34]

The BitLicense proposal would operate as a content-based restriction: that is, the licensing requirement is squarely aimed at regulating digital currency protocols, which are themselves speech protected by the First Amendment.

NY DFS may take the position that the licensing requirement is a content-neutral restriction that could have the incidental effect of impinging on protected speech and association. If so, it is still a prior restraint: "even if the government may constitutionally impose content-neutral prohibitions on a particular manner of speech, it may not *condition* that speech on obtaining a license or permit from a government official in that official's boundless discretion." *Lakewood*, 486 U.S. at 764 (emphasis in original); *FW/PBS, Inc. v. Dallas*, 493 U.S. 215, 223 (1990) (plurality opinion).

And indeed, NY DFS's discretion is boundless under the regulation as currently written. The agency would have complete freedom to decide whether an applicant should be given a license to engage in Virtual Currency Business Activity. NY DFS can deny a license if it harbors any doubt or concern whatsoever about the applicant or its business—or constitutionally protected expression that NY DFS simply finds objectionable.

A system of prior restraints "bear[s] a heavy presumption against its constitutional validity." *Bantam Books, Inc. v. Sullivan*, 372 U.S. 58, 70 (1963). The Fourteenth Amendment requires that when a state adopts regulations for unprotected speech, it must include procedures to ensure that lawful, constitutionally protected speech is not curtailed, as well. *Id*., 372 U.S. at 66.

As the Supreme Court has explained, "[A] noncriminal process which requires the prior submission of [expression] to a censor avoids constitutional infirmity only if it takes place under procedural safeguards designed to obviate the dangers of a censorship system." *Freedman v. Maryland*, 380 U.S. 51, 58 (1965).

According to *Freedman,* the government must satisfy three requirements to ensure the validity of a licensing scheme that imposes a prior restraint on speech:

- any prior restraint of protected expression must be for a brief, specified period of time;

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[33] Section 200.3(a).

[34] Section 200.6(a).

- there must be expeditious judicial review of the censor's decision; and
- the censor must bear the burden of going to court to suppress the speech in question, as well as bear the burden of proof.

380 U.S. 58-60.

The BitLicense proposal does not satisfy any of these standards.

The framework does not include provisions to ensure that any prior restraint of protected expression will be for a short, definite amount of time, and it does not require NY DFS to seek judicial review of its decision to deny a license, much less expeditious judicial review.[35] The proposal does not even set out a process for an applicant to appeal the denial of a license. Regardless, even if there were such a procedure, *Freedman* puts the burden on the censor to seek judicial review of its decision, not the applicant.

The proposal does say that NY DFS "*may, when deemed by the superintendent to be in the public interest*, seek a preliminary injunction to restrain a Licensee from continuing to perform acts that violate any provision of" the proposed regulation or other laws (emphasis added.)[36] But *Freedman* explicitly *requires* the State of New York to go to court if it seeks to suppress expressive activity, and to do so within a specified, brief period of time. The proposal lacks these safeguards.

NY DFS should remedy these defects. Otherwise, the BitLicense proposal may not pass muster under the First Amendment.

IV. The BitLicense Proposal Includes Overly Burdensome Financial Recordkeeping, Compliance, and Reporting Requirements That Will Stifle Innovation in the Digital Currency Space.

Finally, the BitLicense framework includes myriad financial, recordkeeping, compliance, and reporting requirements that will heavily discourage digital currency innovators from doing business that might be subject to these regulations.

Financial institutions and money transmitting services are already subject to a complex system of state and federal regulation, including extensive anti-money laundering laws, regulations, and orders. Companies transmitting digital currencies as intermediaries must already comply with these rules, just as anyone else would.

But NY DFS's proposal would impose additional technology-specific demands that would make it nearly impossible for entrepreneurs and developers to be part of the digital currency ecosystem until they are established and have adequate resources to comply with New York's demands. Many will simply avoid doing business in New

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[35] Section 200.6(d).

[36] Section 200.6.

York or with New York's residents because complying with the state's regulations will be such a daunting endeavor.

A few examples:

- *Financial obligations*. Each licensee must "maintain at all times such capital as the superintendent determines is sufficient to ensure the financial integrity of the Licensee and its ongoing operations." This financial obligation may keep underfunded startups from entering the digital currency market. The proposal also imposes serious restrictions on investments, which must be denominated in U.S. dollars, regardless of where in the world the licensee is based.[37]

  Furthermore, the proposal requires each licensee to maintain a bond or trust account deemed acceptable by NY DFS.[38] It is unclear how much money a licensee will have to keep in the account to satisfy NY DFS's expectations, but again, this cost may be prohibitive for small businesses.

- *Permissions for business activities.* Every licensee must get NY DFS's written permission before offering any new product, service, or activity, or making a change to any existing product service, or activity involving New York or New York residents.[39] The proposal also requires a licensee to get NY DFS's express approval before undergoing any sort of business restructuring.[40] Thus, it appears licensees will have to get New York's permission before changing any aspect of their business activities, whether those changes involve Virtual Currency Business Activity or not.

- *Recordkeeping requirements.* The proposal imposes extensive recordkeeping requirements for 10 years.[41] Licensees also have to maintain copies of "all advertising and marketing materials, including, but not limited to print media, internet media (including websites), radio and television advertising, road show materials, presentations, and brochures."[42] This requirement does not appear to be limited to advertising involving Virtual Currency Business Activity.

- *Submission to examinations.* Licensees must submit to extensive examinations of their own or their affiliates' "books, records, accounts, documents, and other information" "whenever" NY DFS deems it "necessary

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[37] Section 200.8.

[38] Section 200.9.

[39] Section 200.10.

[40] Section 200.11.

[41] Section 200.12.

[42] Section 200.18.

or advisable." They must also allow NY DFS to inspect their facilities.[43] These are new and demanding requirements for any business not already covered by existing anti-money laundering regulations.

- *Reporting requirements.* Licensees have to send NY DFS extensive financial statements every quarter.[44] In addition, they have to submit audited annual financial statements, along with supporting documentation and assessments. Again, these demands are onerous for businesses that are not already required to comply with existing anti-money laundering programs.

- *Extensive security, business continuity, and disaster recovery mandates.* The proposal would impose a variety of security, business continuity, and disaster recovery requirements.[45] These are important objectives, but the mandates are exhaustively specific, going so far as to demand that licensees keep all their hardware "in locked cages."[46] These exacting requirements contribute to the burdensome nature of these regulations.

  We believe security of financial systems is a crucial issue, but it is unclear why digital currency businesses should be held to different standards than more traditional financial institutions. If it has not done so already, we encourage NY DFS to consider soliciting input from the information security community about how financial intermediaries can best secure their systems and data, whether they transmit digital currencies or not.

- *Heightened anti-money laundering regulations*. The framework would impose an anti-money laundering program on licensees that is more formidable than the existing requirements under state and federal law.[47] There is no reason why digital currency businesses should be treated differently than other financial businesses on a technology-specific basis. The BitLicense proposal should impose no greater burden than state or federal anti-money laundering laws regulating traditional financial institutions.

- *Disclosures*. Digital currency businesses must make heavily detailed disclosures to consumers about "[a]ll material risks associated with [the company's] products, services and activities and Virtual Currency generally"—regardless of whether the transaction with the consumer

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[43] Sections 200.12 & 200.13.

[44] Sections 200.14, 200.15, 200.16.

[45] Sections 200.16 and 200.17.

[46] Section 200.16(e)(2)(iii).

[47] Section 200.15. For a detailed comparison of NY DFS's proposed anti-money laundering program for digital currency businesses and anti-money laundering requirements under current state and federal law, see John Bliss, Strevus Comment on theBitLicense Proposal (Sept. 16, 2014), http://www.strevus.com/blognews/strevus-comment-ny-bitlicense-proposal.

actually involves digital currency.[48] No comparable disclosures are required when businesses transmit any other form of payment, including cash or credit. And if these disclosures are in the form of detailed fine-print, they risk suffering the same fate as end-user license agreements and website terms of service: nobody will read them. NY DFS should consider how to ensure any required disclosures are accessible, comprehensive, and most informative to consumers.

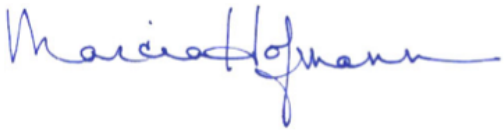
Finally, anyone engaged in Virtual Currency Business Activity would need to apply for a license within 45 days of when the regulation goes into effect.[49] Given the proposal's exhaustive requirements, very few companies will be in a position to actually comply with these regulations in such a short amount of time.

The BitLicense proposal would have the unintended consequence of pushing innovators out of the New York market. NY DFS should consider how to make these regulations less byzantine, and also less targeted at a single technology.

Conclusion

Companies and their users should be encouraged to adopt and build upon new technologies—not penalized with a crushing regulatory burden. We encourage NY DFS to go back to the drawing board and consider this proposal again in light of the impact it would have on privacy, free expression, and innovation.

Sincerely,



Marcia Hofmann
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[redacted]

On behalf of the Electronic Frontier Foundation, Internet Archive, and reddit

[48] Section 200.19.

[49] Section 200.21.