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## BITCOIN ATM: A CRIMINAL'S LAUNDROMAT FOR CLEANING MONEY

MITCHELL HYMAN<sup>1</sup>

### I. INTRODUCTION

Bitcoin and other “virtual currencies” are becoming more popular with each passing day.<sup>2</sup> Most recently, Bitcoin Automated Teller Machines (“Bitcoin ATM”) have been gaining publicity as the machines become more popular with Bitcoin users.<sup>3</sup> Prior to the advent of the Bitcoin ATM, Bitcoin already had an increased potential for money laundering because the area in which it operates is semi self-regulated.<sup>4</sup> With the addition of Bitcoin ATMs, there is an even higher risk of money laundering because users can exchange cash for Bitcoins and, in some cases, vice versa via the Bitcoin ATM.<sup>5</sup> For example, Drug Dealer Dan, who just completed a cash for drugs transaction, takes his “hard earned” cash and deposits it into a

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1. Juris Doctor Candidate 2016, St. Thomas University School of Law; *St. Thomas Law Review*, Member; Bachelor of Business Administration in International Business, University of North Florida, 2012. Thank you to all my friends and family for their continued support...R4L.

2. See, e.g., David Sutta, *Breaking Down The Bits Of Bitcoin*, CBS MIAMI (Feb. 19, 2014, 11:34 PM), <http://miami.cbslocal.com/2014/02/19/breaking-down-the-bits-of-bitcoin/> (stating that the Clevelander, a popular South Beach destination, is among the many Miami businesses accepting Bitcoin as payment). See *Frequently Asked Questions: Is Bitcoin Really Used by People?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#is-bitcoin-really-used-by-people> (last visited Nov. 24, 2014); *What Can You Buy with Bitcoin?*, COINDESK.COM, <http://www.coindesk.com/information/what-can-you-buy-with-bitcoins/> (last updated Feb. 17, 2015).

3. Nathaniel Popper, *Makers of Bitcoin A.T.M.'s See a Not-Quite-Cashless Future*, DEALBOOK: N.Y. TIMES (Mar. 31, 2014, 5:49 PM), [http://dealbook.nytimes.com/2014/03/31/makers-of-bitcoin-a-t-m-s-see-a-not-quite-cashless-future/?\\_php=true&\\_type=blogs&\\_r=0](http://dealbook.nytimes.com/2014/03/31/makers-of-bitcoin-a-t-m-s-see-a-not-quite-cashless-future/?_php=true&_type=blogs&_r=0).

4. See *United States v. Ulbricht*, 31 F. Supp. 3d 540, 570 (S.D.N.Y. 2014) (holding that “[t]he money laundering statute is broad enough to encompass use of Bitcoins in financial transactions . . . [o]ne can money launder using Bitcoin.”); Sydney Ember, *New York Proposes First State Regulations for Bitcoin*, DEALBOOK: N.Y. TIMES (July 17, 2014 3:01PM), <http://dealbook.nytimes.com/2014/07/17/lawsky-proposes-first-state-regulations-for-bitcoin/>.

5. Sydney Ember, *On To-Do List: Deposit Cash in Bitcoin A.T.M.*, DEALBOOK: N.Y. TIMES (Aug. 25, 2014, 8:14 PM), [http://dealbook.nytimes.com/2014/08/25/on-to-do-list-deposit-cash-in-bitcoin-a-t-m/?\\_php=true&\\_type=blogs&\\_r=0](http://dealbook.nytimes.com/2014/08/25/on-to-do-list-deposit-cash-in-bitcoin-a-t-m/?_php=true&_type=blogs&_r=0). See BITACCESS INC., BITCOIN TELLER MACHINE, <http://www.bitaccess.co> (last visited Nov. 24, 2014).

Bitcoin ATM.<sup>6</sup> Once the cash is deposited, the Bitcoin ATM exchanges the cash for Bitcoins at the going rate.<sup>7</sup> With little to no personal information necessary for the exchange, Drug Dealer Dan is now free to purchase items using his Bitcoin Wallet or exchange the Bitcoins for cash at another Bitcoin ATM.<sup>8</sup> Voila! His “dirty” cash has been cleaned.<sup>9</sup>

This comment discusses how *solely* applying current Bank Secrecy Act<sup>10</sup> (“BSA”) and Department of Treasury Financial Crime Enforcement Network<sup>11</sup> (“FinCEN”) regulations to virtual currency—specifically Bitcoin ATMs—will put a strain on Bitcoin ATM owners and the industry, but *will not* reduce the risk of money laundering.<sup>12</sup> Part II of this comment discusses the characteristics of Bitcoin, explains the environment in which it exists, and how individuals use Bitcoin.<sup>13</sup> In Part III, this comment discusses how BSA regulations apply to virtual currency.<sup>14</sup> Additionally, Part III analyzes how Bitcoin ATM owners and operators would be classified under FinCEN’s 2013 guidance.<sup>15</sup> Part IV shifts focus to the potential BSA requirements for Bitcoin ATM owners and operators, and

6. See discussion *infra* notes 67–69 and accompanying text.

7. See *Bitcoin Exchange News*, COINDESK.COM, <http://www.coindesk.com/companies/exchanges/> (last visited Nov. 24, 2014). As of November 24, 2014, the price of one Bitcoin is \$378.02. *Id.*

8. See discussion *infra* Part II.A.

9. See LEGAL INFO. INST., CORNELL UNIV. LAW SCH., MONEY LAUNDERING: AN OVERVIEW, [http://www.law.cornell.edu/wex/money\\_laundering](http://www.law.cornell.edu/wex/money_laundering) (last visited Nov. 24, 2014) (explaining money laundering as a process involving concealing the identity and source of money obtained illegally).

10. 31 C.F.R. § 1010.100(e) (2015) (“The Currency and Foreign Transaction Reporting Act . . . have come to be referred to as the Bank Secrecy Act [and has been] codified at 12 U.S.C. 1829b, 12 U.S.C. 1951–1959, 18 U.S.C. 1956[–57] . . . , 18 U.S.C. 1960, and 31 U.S.C. 5311–5314 and 5316–5332 . . .”); FINCEN, U.S. DEP’T OF THE TREASURY, HISTORY OF ANTI-MONEY LAUNDERING LAWS, [http://www.fincen.gov/news\\_room/aml\\_history.html](http://www.fincen.gov/news_room/aml_history.html) (last visited Nov. 24, 2014). The Bank Secrecy Act “[e]stablished requirements for recordkeeping, and reporting by private individuals, banks and other financial institutions” in order to help prevent money laundering. HISTORY OF ANTI-MONEY LAUNDERING LAWS, *supra*.

11. FINCEN, U.S. DEP’T OF THE TREASURY, ABOUT FINCEN: WHAT WE DO, [http://www.fincen.gov/about\\_fincen/wwd/](http://www.fincen.gov/about_fincen/wwd/) (last visited Nov. 24, 2014). FinCEN is a bureau within the Department of Treasury charged with the task of preventing, among other financial crimes, money-laundering. *Id.* Some of the responsibilities of FinCEN include: issuing and interpreting “regulations authorized by statute”; enforcing “compliance of those regulations”; “[managing] the collection, processing, storage, dissemination, and protecting of data filed under FinCEN’s reporting requirements”; and sharing “information . . . with foreign financial intelligence unit[s] . . . on [anti-money-laundering] efforts.” *Id.*

12. See discussion *infra* Parts III.–V.

13. See discussion *infra* Part II.

14. See discussion *infra* Part III.

15. See discussion *infra* Parts III.A–B.

discusses the potential for criminal and civil sanctions for disregarding BSA regulations.<sup>16</sup> Lastly, Part V discusses how the current identification requirements under the BSA are not conducive for Bitcoin ATMs to properly identify their customers.<sup>17</sup> Part V additionally suggests FinCEN implement regulations that will create a balance between the need to identify customers and Bitcoin's focus of anonymity.<sup>18</sup> The focus of the suggested regulation is to equip Bitcoin ATMs with (1) a passport or government issued identification ("ID") scanner; (2) software that matches the information gathered from the ID with state and national databases; (3) a camera that takes a picture of the Bitcoin ATM user in real-time<sup>19</sup>; and (4) facial recognition software that matches the scanned ID with the picture taken in real-time and with the picture on file with the issuing authority.<sup>20</sup> This proposed regulation would make it easier to fight money laundering at Bitcoin ATMs while balancing the privacy concerns held by Bitcoin users.<sup>21</sup>

## II. BACKGROUND

In 2008, the concept of Bitcoin—"a peer-to-peer electronic cash system"—was originally proposed on the Cryptography Mailing List by someone named Satoshi Nakamoto.<sup>22</sup> Nakamoto's true identity is somewhat of a folklore among the various sectors of the computer industry.<sup>23</sup> Although no one may know the true identity of the creator of

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16. See discussion *infra* Part IV.

17. See discussion *infra* Part V.

18. See discussion *infra* Parts V.A–B.

19. See *Real Time*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/real%20time> (last visited Nov. 24, 2014) ("the actual time during which something takes place.").

20. See discussion *infra* Part V.

21. *Id.*

22. *Who is Satoshi Nakamoto?*, COINDESK.COM (last updated May 20, 2015), <http://www.coindesk.com/information/who-is-satoshi-nakamoto/>; Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG, <https://bitcoin.org/bitcoin.pdf> (last visited Nov. 24, 2014). See *Cryptography – The Cryptography and Cryptography Policy Mailing List*, METZDOWD.COM, <http://www.metzdowd.com/mailman/listinfo/cryptography> (last visited Nov. 24, 2014) ("'Cryptography' is a low-noise moderated mailing list devoted to cryptographic technology and its political impact.").

23. See Joshua Davis, *The Crypto-Currency: Bitcoin and Its Mysterious Inventor*, THE NEW YORKER, Oct. 10, 2011, at 62–70, available at <http://www.newyorker.com/magazine/2011/10/10/the-crypto-currency>; *Who is Satoshi Nakamoto?*, *supra* note 22; Christoph Marckx, *Who is Satoshi Nakamoto?*, CRYPTOCOINSNEWS.COM, <https://www.cryptocoinsnews.com/tutorial-satoshi-nakamoto/> (last updated Sept. 22, 2014, 9:17 AM). The suggested identities range from a Japanese mathematician, to an Irish graduate student who studied cryptography, to someone associated with the Central Intelligence Agency, to a

Bitcoin, one thing is certain—Bitcoin and other virtual currencies are becoming more popular.<sup>24</sup>

Even with its increased popularity, most people still have no idea what a Bitcoin is or how it works.<sup>25</sup> In March 2013, FinCEN issued a guidance which defined “virtual” currency as “a medium of exchange that operates like [real] currency<sup>26</sup> in some environments, but . . . does not have legal tender status in any jurisdiction.”<sup>27</sup> As a virtual currency, Bitcoin is decentralized and is based solely on the Internet.<sup>28</sup> Because Bitcoin is decentralized, it is not backed by any country’s government and no single individual controls it.<sup>29</sup> Furthermore, every transaction (or exchange)—whether it be “mined”<sup>30</sup> Bitcoins, individuals and businesses using them to

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group of individuals working together. Marckx, *supra*. Whatever the theory, the mystery has added to the Bitcoin community’s overall trust in the decentralized system. Davis, *supra* at 70.

24. See *supra* text accompanying note 23 (describing the different theories of the true identity of Satoshi Nakamoto); *supra* note 2 and accompanying text.

25. Paul Vigna, *Most People Still Don’t Know What Bitcoin Is, and Don’t Care to Know*, WALL STREET J. (Feb. 5, 2014, 5:13 PM), <http://blogs.wsj.com/moneybeat/2014/02/05/most-people-still-dont-know-what-bitcoin-is-and-dont-care-to-know/>.

26. 31 C.F.R. § 1010.100(m) (2014). The Code of Federal Regulations distinguishes “real currency” from other currencies. *Id.*

[Real currency is] the coin and paper money of the United States or of any other country that is designated as legal tender and that circulates and is customarily used and accepted as a medium of exchange in the country of issuance . . . [real c]urrency also includes official foreign bank notes that are customarily used and accepted as a medium of exchange in a foreign country.

*Id.*

27. FINCEN, U.S. DEP’T OF THE TREASURY, APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES I (Mar. 18, 2013), available at [http://fincen.gov/statutes\\_regs/guidance/pdf/FIN-2013-G001.pdf](http://fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf). See discussion *infra* Part III.

28. See *FAQ: What is Bitcoin?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#what-is-bitcoin> (last visited Nov. 24, 2014).

29. Nakamoto, *supra* note 22; *FAQ: How are Bitcoins Created?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#how-are-bitcoins-created> (last visited Nov. 24, 2014) (“No central authority or developer has any power to control or manipulate the system to increase their profits”); *FAQ: Who Controls the Bitcoin Network?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#who-controls-the-bitcoin-network> (last visited October 27, 2014) (stating that each computer on the network must be in complete consensus with the other computers in order to change any of the Bitcoin protocols, therefore, no one person or company can control the network). No individual or company has control over Bitcoin because each transaction is independently confirmed by a network of computers called nodes. *FAQ: Who Controls the Bitcoin Network?*, *supra*. As long as a majority of “honest” nodes cooperate to confirm the transactions, the network will remain secure from fraudulent transactions. Nakamoto, *supra*.

30. *Bitcoin Glossary: Mining*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#m> (last visited Oct. 27, 2014) (defining “mining”—as it pertains to Bitcoin—as “[t]he act of generating new bitcoins by solving cryptographic problems using computing hardware”); *How Bitcoin Mining Works*, COINDESK.COM,

purchase goods and services, or exchanges for investment purposes—is recorded and confirmed<sup>31</sup> in an online public ledger (“Blockchain” or “General Ledger”) which is available for the world to see.<sup>32</sup> What puzzles people even more is that Bitcoin is not backed by any precious metals, such as gold or silver.<sup>33</sup> Rather, Bitcoin derives its value—much like currencies of the world today—from trust and use of the virtual currency.<sup>34</sup> Rather

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<http://www.coindesk.com/information/how-bitcoin-mining-works/> (last updated Dec. 22, 2014). See *infra* text accompanying note 31. When a transaction is requested, it gets sent out to a network of computers. *How Bitcoin Mining Works, supra*. The transactions are confirmed by solving mathematical equations. *Id.*; *infra* text accompanying note 31. When a string of transactions is confirmed, a Bitcoin is generated and released into circulation. *How Bitcoin Mining Works, supra*; *infra* text accompanying note 31.

31. *Bitcoin Glossary: Confirmation*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#c> (last visited Nov. 24, 2014) (defining confirmation as “[t]he act of hashing a bitcoin transaction successfully into a transaction block, and cementing its validity”); *How Bitcoin Mining Works, supra* note 30. Confirming a Bitcoin transaction into the block chain requires mathematical proof so that the Bitcoin can be traced back to its origin. *How Bitcoin Mining Works, supra*. “Each time another block is added to the blockchain after the transaction’s block, the transaction is confirmed again.” *Bitcoin Glossary: Confirmation, supra*. Because each Bitcoin is hashed to a particular alphanumeric code, a computer on the Bitcoin network must try billions of calculations in order to provide the mathematical proof that is required to confirm the transaction into the general ledger. *How Bitcoin Mining Works, supra*.

32. See *How Bitcoin Mining Works, supra* note 30 (“This general ledger is a long list of blocks, known as the ‘blockchain’”); *Bitcoin Glossary: Blockchain*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#b> (last visited Nov. 24, 2014) (defining “Blockchain” as “[t]he full list of blocks that have been mined since the beginning of the bitcoin cryptocurrency”).

33. *FAQ: Why do Bitcoins Have Value?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#why-do-bitcoins-have-value> (last visited Nov. 24, 2014).

34. *Is U.S. Currency Still Backed by Gold?*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., [http://www.federalreserve.gov/faqs/currency\\_12770.htm](http://www.federalreserve.gov/faqs/currency_12770.htm) (last updated Aug. 2, 2013) (“Federal Reserve notes are not redeemable in gold, silver, or any other commodity. . . Federal Reserve notes have not been redeemable in gold since January 30, 1934 . . .”). See Nathaniel Vargas Gallegos, *International Agricultural Pragmatics: An Inquiry of the Orthodox Economic Breakdowns and an Evaluation of Solutions with the Food Sovereignty Movement*, 16 DRAKE J. AGRIC. L. 429, 436–37 (2011) (discussing the relationship between the U.S. dollar and gold under the Bretton Woods System and after the system was suspended); *The Day Gold Died: Understanding The Nixon Shock*, STAT SPOTTING (May 15, 2011 8:49 PM), <http://statspotting.com/the-day-gold-died-understanding-the-nixon-shock/> (explaining that the Bretton Woods agreement is the last event at which the U.S. dollar was pegged to a specific weight of gold); *FAQ: Why do Bitcoins Have Value?*, *supra* note 33 (noting that Bitcoin has the same characteristics as currency backed by governments because Bitcoin is not backed by anything but “trust and adoption”). The last of U.S. policies to peg the U.S. Dollar to a specific weight in gold was the Bretton Woods Agreement. *The Day Gold Died: Understanding The Nixon Shock, supra*. However, due to rising inflation, President Nixon suspended convertibility of the dollar to gold. Gallegos, *supra* at 436–37. President Nixon’s move ultimately led to a monetary system that is based solely on trust of government policies stating a willingness to accept a particular currency. *The Day Gold Died: Understanding The Nixon Shock, supra*.

than a government policy stating it is willing to accept fiat money<sup>35</sup> (in this case Bitcoin) as legal tender, it is people around the globe who are willing to accept payment in Bitcoins that gives Bitcoin its value.<sup>36</sup> In other words, supply and demand control the value of Bitcoin.<sup>37</sup> As of November 24, 2014, the value of one Bitcoin was approximately \$378.02.<sup>38</sup>

#### A. STORING AND OBTAINING BITCOINS

In order for Drug Dealer Dan to “clean” his cash using a Bitcoin ATM, the first step he (or anyone looking to use Bitcoins) must take is to create a Bitcoin Wallet.<sup>39</sup> A Bitcoin Wallet must be created to store the Bitcoins that will eventually be accumulated.<sup>40</sup> In most cases, a Bitcoin Wallet is a computer software program that allows Bitcoins to be stored.<sup>41</sup> Depending on the user’s preference, a Bitcoin Wallet can be kept via a mobile device, a desktop computer, or on the web.<sup>42</sup> Moreover, users may opt for a paper wallet or an actual minted coin; however, these forms of storage are not used very often.<sup>43</sup>

Bitcoin Wallets are very easily created and in most cases require almost no personal information.<sup>44</sup> For Example, Drug Dealer Dan can use

35. BLACK’S LAW DICTIONARY 1096 (9th ed. 2009) (defining fiat money as “[p]aper currency not backed by gold or silver”).

36. *FAQ: Why do Bitcoins Have Value?*, *supra* note 33.

37. *See supra* text accompanying notes 33–36.

38. *Bitcoin Exchange News*, *supra* note 7. Price of one Bitcoin obtained from the CoinDesk website. *Id.*

39. *See generally FAQ Bitcoin*, BITCOIN.ORG, <https://bitcoin.org/en/faq> (last visited Nov. 24, 2014) (explaining how Bitcoin works).

40. *Id.*

41. *See* Kadhim Shubber, *Bitcoin Mint Casascius Shut Down By US Regulators*, COINDESK.COM (Dec. 13, 2013 11:00 PM), <http://www.coindesk.com/us-regulators-bitcoin-mint-casascius-shut/>; *How to Store Your Bitcoins*, COINDESK.COM, <http://www.coindesk.com/information/how-to-store-your-bitcoins/> (last updated Dec. 22, 2014) (explaining the different types of Bitcoin wallets, including paper wallets).

42. *See generally Choose your Bitcoin Wallet*, BITCOIN.ORG, <https://bitcoin.org/en/choose-your-wallet> (last visited Nov. 24, 2014) (listing the devices where a person can have his or her Bitcoin Wallet).

43. *See generally* Shubber, *supra* note 41; *How to Store Your Bitcoins*, *supra* note 41.

44. *See, e.g., Blockchain for the iPhone: About the Blockchain iPhone App.*, BLOCKCHAIN.INFO, <https://blockchain.info/wallet/iphone-app> (last visited Nov. 24, 2014) (answering frequently asked questions regarding Blockchain’s Bitcoin Wallet iPhone application); *Secure Bitcoin Storage*, COINBASE, <https://www.coinbase.com/security> (last visited Apr. 15, 2015) (requiring a two step verification process). All that is needed to create a Blockchain.info Bitcoin Wallet is an email address and a PIN number. *Blockchain for the iPhone: About the Blockchain iPhone App.*, *supra*. However, other companies’ Bitcoin Wallets require a two-step verification that requires the individual creating the Bitcoin Wallet to enter his

an email address he recently created—obviously using a fake name—to create a Bitcoin Wallet.<sup>45</sup> If he chooses a Bitcoin Wallet that needs only an email address to create, then once he has done so, he can send and receive Bitcoins to his Bitcoin Wallet.<sup>46</sup>

Once created, the Bitcoin Wallet is given two addresses—or “access keys”: (1) a public key<sup>47</sup> (which also has a Quick-Response code<sup>48</sup> (“QR code”)); and (2) a private key<sup>49</sup> that is only available to the individual who created the Bitcoin Wallet.<sup>50</sup> Once a Bitcoin Wallet has been set up, there are a few different ways to obtain Bitcoins: the typical user can either purchase them on a Bitcoin Exchange, collect them as payment for goods and services, or purchase them using cash at a Bitcoin ATM.<sup>51</sup>

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or her mobile phone number to which a confirmation code is sent and then keyed into the application by the individual. *Secure Bitcoin Storage, supra*. Once the Bitcoin Wallet is created, the user can send and receive Bitcoins into the newly created wallet. *Blockchain for the iPhone: About the Blockchain iPhone App., supra*.

45. See *Blockchain for the iPhone: About the Blockchain iPhone App., supra* note 44.

46. *Id.*

47. *Bitcoin Glossary: Public Key*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#p> (last visited Nov. 24, 2014) (defining public key as “[a]n alphanumeric string which is publicly known, and which is hashed with another, privately held string to sign a digital communication”).

48. James E. Cabral et al., *Using Technology to Enhance Access to Justice*, 26 HARV. J. L. & TECH. 241, 273 (2012); Memo Cordova, *QR Codes: What is a QR Code?*, BOISE STATE UNIV., <http://guides.boisestate.edu/QRcodes> (last updated July 23, 2015 9:50 AM) (defining a QR code as “a barcode that contains data that can be read by a phone’s camera [or any device that has a QR scanner]”); *Encyclopedia: Definition of: QR Code*, PCMAG.COM, <http://www.pcmag.com/encyclopedia/term/61424/qr-code> (last visited Oct. 27, 2014). A QR code is a two-dimensional bar code graphic that, when scanned, will give the user the information stored on that bar code. *Encyclopedia: Definition of: QR Code, supra*. Software used to scan the QR code will automatically send the user the designated information. Cordova, *supra*. Because QR codes are graphic designs, they can be displayed on almost anything, such as newspapers, magazines, billboards, and even the display screen of a mobile device. *Id.*; *Encyclopedia: Definition of: QR Code, supra*; Cabral et al., *supra* at 273. A variety of information can be stored using a QR code. *Encyclopedia: Definition of: QR Code, supra*. Information that is typically stored on a QR code includes phone numbers, website addresses, business card contact information, and promotion materials. *Id.* For example, if the QR code contains a company’s website information, once the QR code is scanned using a camera phone or a scanner, it will automatically send the user to the designated website. *Id.*; Cordova, *supra*.

49. *Bitcoin Glossary: Private Key*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#p> (last visited Nov. 24, 2014) (defining private key as “[a]n alphanumeric string kept secret by the user, and designed to sign a digital communication when hashed to with a public key”).

50. See *How to Store Your Bitcoins, supra* note 41.

51. *FAQ: How Does One Acquire Bitcoins?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#how-does-one-acquire-bitcoins> (last visited Nov. 24, 2014); *How to Buy Bitcoins with Bitcoin ATM*, COIN ATM RADAR (Oct. 31, 2014), <http://coinatmradar.com/blog/how-to-buy-bitcoins-with-bitcoin-atm/>.



## 1. Bitcoin Exchanges and Consumer Transactions

Bitcoin Exchanges<sup>52</sup> allow users to buy and sell Bitcoins over the Exchange's website.<sup>53</sup> On most Bitcoin Exchange websites, real currency is deposited into the user's account with the Bitcoin Exchange through the user's account at a traditional bank or by depositing cash directly into the Exchange's bank account.<sup>54</sup> Once the user has money in his or her Bitcoin Exchange account, the user is able to buy and sell Bitcoins.<sup>55</sup> Bitcoin Exchanges typically hold both parties' funds and once an order is placed (to either buy or sell Bitcoins), the Bitcoin Exchange website sends the respective amounts to each party's account.<sup>56</sup> Furthermore, the Bitcoin Exchange accounts are generally tied to a user's real account at a traditional bank.<sup>57</sup> Having the Bitcoin Exchange account linked to the user's actual bank account adds a layer of protection to help trace suspected criminal activity to an identifiable person.<sup>58</sup>

Additionally, users can obtain Bitcoins by accepting them as payment

52. *Bitcoin Glossary: Exchange*, COINDESK.COM, <http://www.coindesk.com/information/bitcoin-glossary/#e> (last visited Nov. 24, 2014) (defining exchange as “[a] resource for exchanging different forms of money and other assets. . . typically used to exchange the cryptocurrency for other, typically fiat, currencies.”).

53. *How Can I Buy Bitcoins?*, COINDESK.COM (July 24, 2014), <http://www.coindesk.com/information/how-can-i-buy-bitcoins/>.

54. *See id.* (naming the variety of ways a person can pay for Bitcoins); *Buy Bitcoin... with Cash at a Bank*, COINCAFE.COM, <https://coincafe.com/buybitcoinswithcash.php> (last visited Nov. 24, 2014) (giving directions on how an individual can deposit cash directly into the Exchange's bank account by visiting a local bank branch); *How to Buy Bitcoin*, COINBASE.COM, <https://coinbase.com/buy-bitcoin> (last visited Nov. 24, 2014) (explaining the steps required in order to be able to buy and sell Bitcoin).

55. *See Buy Bitcoin... with Cash at a Bank*, *supra* note 54 (stating once the deposit is verified the individual will receive the Bitcoins the next business day); COINBASE.COM, *supra* note 54 (noting once the bank account is set up the person will be able to make their first purchase).

56. *See How to Sell Bitcoin*, COINDESK.COM, <http://www.coindesk.com/information/sell-bitcoin/> (last visited Nov. 24, 2014) (stating the exchange acts as an intermediary).

57. *See generally id.* (noting once the order is placed the money is credited to the person's account); *How Can I Buy Bitcoins?*, *supra* note 53 (explaining how the term wallet in the “Bitcoin world” can be thought of as a bank account).

58. Telephone Interview with Anonymous Interviewee, Customer Service Representative, Bank of America (Oct. 23, 2014) (interviewee requested not to be identified by name). A bank's identification requirements are used in order to comply with anti-money laundering regulations. *Id.* When an individual signs up for a new bank account, the identification requirements are, generally, to provide two forms of identification and a current bill with a matching name and address. *Id.* The identification typically given is a combination of either a state issued driver's license, a passport, or a Social Security Card. *Id.* Moreover, a credit check is typically conducted and used as a way to properly verify the customer's identity as required by federal regulations. *Id.*

for goods and services.<sup>59</sup> All that is necessary to receive Bitcoins as payment is the recipient's public Bitcoin address.<sup>60</sup> For instance, if Drug Dealer Dan decides he will only accept Bitcoins (as opposed to cash) in exchange for drugs, his customer will send the agreed amount of Bitcoins to Drug Dealer Dan's Bitcoin Wallet using his Wallet's public key.<sup>61</sup>

## 2. The Bitcoin ATM

The increased popularity of Bitcoin has led companies to find a way to make it easier for individuals—specifically the underbanked<sup>62</sup>—to buy and sell Bitcoins.<sup>63</sup> This led companies to create a Bitcoin ATM.<sup>64</sup> In addition to buying and selling Bitcoins at an online exchange website, individuals now have the option to buy and sell Bitcoin in person using only cash.<sup>65</sup> In some cases, almost no personal or banking information is needed to complete a Bitcoin ATM transaction.<sup>66</sup> Three companies together control a majority of the market for Bitcoin ATMs: Lamassu<sup>67</sup>,

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59. See *FAQ: How Does One Acquire Bitcoins?*, *supra* note 51 (listing the different ways a person can obtain Bitcoins).

60. See *FAQ: How Difficult is it to Make a Bitcoin Payment?*, BITCOIN.ORG <https://bitcoin.org/en/faq#how-difficult-is-it-to-make-a-bitcoin-payment> (last visited Nov. 24, 2014) (“Bitcoin payments are easier to make than debit or credit card purchases.”).

61. See *supra* text accompanying notes 47–49, 54–57.

62. See Saabira Chaudhuri, *Lenders Target ‘Underbanked’ Customers*, WALL STREET J. (July 28, 2014, 12:00 AM), <http://online.wsj.com/articles/lenders-target-underbanked-customers-1406520002> (explaining that traditional banks are also attempting to provide for individuals and areas that are considered underbanked); *Households Unbanked or Underbanked – No Checking or Savings Accounts*, CREDIT INFOCENTER, <http://www.creditinfocenter.com/budgeting/no-bank-account.shtml> (last updated Jan. 20, 2015) [hereinafter *Households Unbanked or Underbanked*] (noting the underbanked are typically individuals, or businesses, with minimal access, if none at all, to banking services such as savings and checking accounts); *Underbanked*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Underbanked> (last updated Feb. 1, 2015, 5:24 PM) (stating the reasons why people or businesses may be underbanked). A main factor contributing to underbanked individuals is the lack of proper documentation typically required by banking institutions (i.e., Social Security numbers). *Households Unbanked or Underbanked, supra*.

63. See Popper, *supra* note 3 (stating there is a demand for easier ways to purchase Bitcoins).

64. See generally Joon Ian Wong, *The ATM and the Battle for Bitcoin’s Physical Interface*, COINDESK.COM (Sept. 13, 2014, 11:30 AM), <http://www.coindesk.com/atm-battle-bitcoins-physical-interface/> (stating the ATM was made in order to solve the problem of buying Bitcoins).

65. See generally *User and Operators FAQ*, BITACCESS: BITCOIN TELLER MACHINE, <http://www.bitaccess.co/#features> (last visited Nov. 24, 2014) (stating the BTMs only accept and dispense cash).

66. See *infra* notes 67–69 and accompanying text (explaining the ranging identification processes used by different Bitcoin ATM manufacturers).

67. See Carrie Kirby, *Lamassu CEO: Our ATMs Will Soon Become Portals for Bitcoin Services*, COINDESK.COM (April 3, 2014 2:58PM), <http://www.coindesk.com/lamassu-ceo-atms-will-soon-become-portals-bitcoin-services/>; Wong, *supra* note 64; Stan Higgins, *New Lamassu*

Robocoin<sup>68</sup>, and BitAccess.<sup>69</sup>

*Product Upgrades Bitcoin ATMs for Two-Way Transactions*, COINDESK.COM (May 12, 2014 9:26PM), <http://www.coindesk.com/new-lamassu-product-upgrades-bitcoin-atms-two-way-transactions/>; Eric Calouro, *Lamassu Announces a Modular Two-Way Bitcoin ATM System*, NEWSBTC: BITCOIN NEWS SERVICE (May 12, 2014), <http://newsbtc.com/2014/05/12/lamassu-announces-modular-two-way-bitcoin-atm-system/>; *FAQ: Who owns the bitcoins on the machine?*, LAMASSU: BITCOIN VENTURES, <https://lamassu.is/#faqs> (last visited Nov. 24, 2014); *FAQ: Who sets the commission and Bitcoin ticker price?*, LAMASSU: BITCOIN VENTURES, <https://lamassu.is/#faqs> (last visited Nov. 24, 2014). See generally LAMASSU: BITCOIN VENTURES, <https://lamassu.is> (last visited Nov. 24, 2014). Lamassu currently has approximately thirty-nine percent of the world's Bitcoin ATM market. Kirby, *supra*; Wong, *supra*. Originally, people using the Lamassu machines were only able to buy Bitcoins and not sell them for cash. LAMASSU: BITCOIN VENTURES, *supra*. However, the company has created a modular stand for its ATMs, which allows cash to be dispensed. Higgins, *supra*; Calouro, *supra*; LAMASSU: BITCOIN VENTURES, *supra*. Lamassu's website does not reflect the addition of the modular stand used for dispensing cash, however, many websites have confirmed this separate unit. LAMASSU: BITCOIN VENTURES, *supra*; Calouro, *supra*; Higgins, *supra*. According to the company's website, all anyone needs is a Bitcoin QR code to tell the ATM where to send the Bitcoins and cash. LAMASSU: BITCOIN VENTURES, *supra*. The Bitcoins in the machine are bought by the owner or distributor, who then loads the Bitcoins onto the machine. *FAQ: Who owns the bitcoins on the machine?*, *supra*. The owner or distributor can set the exchange rate and transaction fees to any number he or she feels is reasonable. *Id.*; *FAQ: Who sets the commission and Bitcoin ticker price?*, *supra*. Once a user scans the QR code and inserts cash, the machine sends the specified amount of Bitcoins to the user's Bitcoin Wallet. *How Can I Buy Bitcoins?*, *supra*; LAMASSU: BITCOIN VENTURES, *supra*.

68. See Robert McMillan, *Bitcoin ATMs: Handy Vending Machines or Money-Laundering Nightmares?*, WIRED.COM (May 22, 2013, 6:00AM), <http://www.wired.com/2013/05/robocoin/>; Michael J. Casey, Paul Vigna & Melissa Korn, *BitBeat: Robocoin ATMs Becoming a 'Bank,'* WALL STREET J.—MONEY BEAT (May 1, 2014 6:09PM), <http://blogs.wsj.com/moneybeat/2014/05/01/bitbeat-robocoin-atms-becoming-a-bank/?KEYWORDS=robocoin>; Dan Palmer, *Robocoin 2.0 Arrives With Bank-Like Features and New Hardware*, COINDESK.COM (June 10, 2014 1:00PM), <http://www.coindesk.com/robocoin-2-0-arrives-bank-like-features-new-hardware/>; David Ferrara, *Robocoin, First Bitcoin ATM in a Casino, Launches at The D*, LAS VEGAS REV.-J. (May 22, 2014), <http://www.reviewjournal.com/business/casinos-gaming/robocoin-first-bitcoin-atm-casino-launches-d>; Emily Parkhurst, *America's First Licensed Bitcoin ATM Opens in Seattle; Privacy Concerns Could Keep People Away*, PUGET SOUND BUS. J. (Apr. 30, 2014, 5:12PM), <http://www.bizjournals.com/seattle/blog/techflash/2014/04/americas-first-bitcoin-atm-opens-in-seattle.html?page=all>; Wong, *supra* note 64; *Bitcoin ATM Map*, COINDESK.COM, <http://www.coindesk.com/bitcoin-atm-map/> (last visited Nov. 24, 2014); Grant Ammons, *My Experience Using a Bitcoin ATM*, GRANT AMMONS BLOG (Mar. 20, 2014), <http://grantammons.me/bitcoin/my-experience-using-a-bitcoin-atm/>. See generally *Buy Bitcoin*, ROBOCOIN.COM, <http://robocoin.com/operators/#intro> (last visited Nov. 24, 2014); *Compliance*, ROBOCOIN.COM, <http://robocoin.com/operators/#portfolio> (last visited Nov. 24, 2014); *Security*, ROBOCOIN.COM, <http://robocoin.com/operators/#portfolio> (last visited Nov. 24, 2014). Robocoin was started by Mark and John Russell, of Las Vegas, Nevada. McMillan, *supra*. Mark was already buying and selling Bitcoins for cash, "over-the-counter," but he and John wanted to automate the process. McMillan, *supra*. In January 2013, the two came up with the Bitcoin ATM. McMillan, *supra*. Robocoin's Bitcoin ATMs currently hold a market share of approximately twenty percent of the world's Bitcoin ATMs. Wong, *supra*; *Bitcoin ATM Map*,

Once an individual obtains Bitcoins in his or her Bitcoin Wallet, the user can make purchases, (online or in person) anywhere that accepts Bitcoin as a method of payment, or exchange them for cash at a Bitcoin ATM.<sup>70</sup> With Bitcoin's increasing popularity, more and more companies are accepting Bitcoins as a method of payment.<sup>71</sup>

### III. ANALYZING FINCEN'S EXPLANATION OF BSA REQUIREMENTS AS IT APPLIES TO VIRTUAL CURRENCIES

Due to Bitcoin's increased popularity and its potential for money laundering, FinCEN issued a March 2013 guidance on the application of FinCEN's regulations to virtual currencies titled "Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual

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*supra*. Robocoin has rebranded itself as a "bank," using its Bitcoin ATMs as bank "branches." Casey, Vigna, & Korn, *supra*; Palmer, *supra*. Customers must create a Robocoin account at one of Robocoin's Bitcoin ATMs in order to make cash deposits and withdrawals. Ferrara, *supra*. The creation of an account eliminates the need for a Bitcoin Wallet. *Buy Bitcoin, supra*; Casey, Vigna, & Korn, *supra*; Palmer, *supra*. Robocoin's requirement that customers must create an account with the company is aided by hardware and software to help comply with Anti-Money-Laundering ("AML") regulations. Palmer, *supra*; *Compliance, supra*; *Security, supra*. To create an account, the customer needs a phone number, a government issued identification card, and a scan of the customer's palm vein pattern. *Compliance, supra*; Parkhurst, *supra*. To start, customers type in their phone number and receive a verification text message with a code they must then key into the machine. Ferrara, *supra*; Ammons, *supra*. Customers are then required to have their picture taken, scan their driver's license, and have their palm vein pattern scanned. Ferrara, *supra*; Ammons, *supra*. Once a customer's new account has been approved, the customer can then make cash deposits and withdrawals. Ferrara, *supra*; Ammons, *supra*. However, before the customer can make a cash withdrawal, the Robocoin account must have Bitcoins, which can be transferred from an existing Bitcoin Wallet or bought via Robocoin's ATM. Ammons, *supra*.

69. See Wong, *supra* note 64; *Bitcoin ATM Map, supra* note 68; *On To-Do List: Deposit Cash in Bitcoin A.T.M., supra* note 5; *Sell Bitcoin*, BITACCESS: BITCOIN TELLER MACHINE, <http://www.bitaccess.co> (last visited Nov. 24, 2014). The Bitcoin ATM that the company BitAccess produces currently makes up about twelve percent of the worldwide Bitcoin ATM market. Wong, *supra*. The security features on the BitAccess Bitcoin ATM are vastly different from Robocoin's security features. *Bitcoin ATM Map, supra*. Where Robocoin requires an individual's palm print in addition to a scan of the person's ID, BitAccess allows an individual to buy and sell Bitcoins with almost no personal information. *Sell Bitcoin, supra*; *Bitcoin ATM Map, supra*. To sell Bitcoins, a user must: (1) enter a mobile phone number; (2) scan a passport; (3) scan a QR code to pull Bitcoins from; and (4) receive a redemption code in order to have the machine disperse cash once the transaction has been fully verified—no other information is needed. *Id.* This leaves Bitcoin ATMs open to an increased potential for money laundering. *On To-Do List: Deposit Cash in Bitcoin A.T.M., supra*.

70. See *FAQ: Is Bitcoin Fully Virtual and Immaterial?*, BITCOIN.ORG, <https://bitcoin.org/en/faq#is-bitcoin-fully-virtual-and-immaterial> (last visited Nov. 24, 2014); *supra* notes 67–69 and accompanying text.

71. *FAQ: Is Bitcoin Really Used by People?*, *supra* note 2; *What Can You Buy with Bitcoin?*, *supra* note 2.

Currencies.”<sup>72</sup> The guidance was issued to help clarify the application of the BSA to virtual currencies.<sup>73</sup> Moreover, the guidance distinguishes between “real currency” and virtual currencies.<sup>74</sup> The guidance also classifies the different users of virtual currencies and explains which type of user would be considered a “money transmitter.”<sup>75</sup> The classification of an individual or business is determined on a case-by-case basis.<sup>76</sup> Moreover, because the “definition of a money transmitter does not differentiate between [the transmission and acceptance of] real currencies and virtual currencies[,]” an owner of a Bitcoin ATM will likely be considered a “money transmitter” for purposes of FinCEN regulations.<sup>77</sup> However, there is some ambiguity regarding the status.<sup>78</sup>

#### A. “USERS”

FinCEN defines a typical consumer using Bitcoin to purchase goods and services as a “user.”<sup>79</sup> These types of consumers are not considered “money service businesses”<sup>80</sup> (“MSBs”).<sup>81</sup> Thus, “users” are not subject to the reporting, registration, and recordkeeping regulations required for MSBs.<sup>82</sup>

72. *Application of FinCen’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, *supra* note 27.

73. *Id.*

74. *Id.*; *see supra* note 26 and accompanying text.

75. APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27 at 2; *see* 31 C.F.R. § 1010.100(ff)(5)(i)(A) (2014).

76. 31 C.F.R. § 1010.100(ff)(5)(B)(ii) (2014).

77. *Id.*

78. *See infra* Parts III.B.1–2.

79. *Id.*

80. 31 C.F.R. § 1010.100(ff) (2014). The Code of Federal Regulations defines MSB as “[a] person wherever located doing business, whether or not on a regular basis or as an organized or licensed business concern, wholly or in substantial part within the United States, in one or more of the capacities listed in paragraphs (ff)(1) through (ff)(7) of this section.” *Id.*

81. 31 C.F.R. § 1010.100(ff)(1–8) (2014); APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27 at 2. The guidance states that the activity a “user” engages in—using Bitcoins to purchase goods and services—“does not fit within the definition of ‘money transmission services’ and therefore is not subject to FinCEN’s registration, reporting, and recordkeeping regulations for MSBs.” APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra*. A “Money Transmitter” is defined as “[a] person that provides money transmission services.” 31 C.F.R. § 1010.100(ff)(5)(i)(A). The term “money transmission services” is defined as the acceptance and transmission of any type of currency or currency substitute, from one person “to another location or person by any means.” *Id.*

82. APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING,

## B. “EXCHANGERS” AND “ADMINISTRATORS”

The current state of FinCEN’s interpretation regarding “exchangers” and “administrators,” and the BSA’s application to the two categories, is ambiguous when applied to Bitcoin ATMs.<sup>83</sup> Therefore, how an owner of a Bitcoin ATM stocks the machine with Bitcoins will likely determine whether he will be considered either an “Exchanger” or an “Administrator.”<sup>84</sup> In general, “[a]n *administrator* or *exchanger* that (1) accepts and transmits a convertible virtual currency or (2) buys or sells convertible virtual currency for any reason is a *money transmitter* under FinCEN’s regulations, unless a limitation or exemption from the definition applies to the person.”<sup>85</sup>

### 1. Exchanger

An “exchanger” is defined as “a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency.”<sup>86</sup> However, an individual or business that converts Bitcoins (or other virtual currencies) into real currency in order to operate the business—even though the process involves the “accepting and transmission” of real and virtual currency—is not considered an “exchanger,” and therefore, does not fall within the definition of “money transmitter.”<sup>87</sup> If the Bitcoin ATM owner uses an online Bitcoin Exchange to load Bitcoins onto the machine, the Bitcoin ATM process of exchanging Bitcoins for “real currency” for a transaction fee clearly falls within FinCEN’s definition of “exchanger,” and therefore subjects the owner to FinCEN’s reporting regulations for MSBs.<sup>88</sup>

### 2. Administrator

Furthermore, the guidance defines a person or company as an

OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2.

83. See *infra* Parts III.B.1–2.

84. See discussion *infra* Parts III.B.1–2.

85. APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 3.

86. *Id.* at 2.

87. See FINCEN, U.S. DEP’T OF THE TREASURY, APPLICATION OF FINCEN’S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS (Jan. 30, 2014), available at [http://www.fincen.gov/news\\_room/rp/rulings/pdf/FIN-2014-R001.pdf](http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R001.pdf).

88. See *id.*; APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2.

“administrator” if they are “engaged as a business in issuing (putting into circulation) a virtual currency, and [have] the authority to redeem (to withdraw from circulation) such virtual currency.”<sup>89</sup> This definition is most likely aimed at companies that mine Bitcoins.<sup>90</sup> Although a company engaged in the process of mining Bitcoins would fall within this category, it is not considered an MSB under FinCEN regulations “[t]o the extent that the [business] mines and uses the Bitcoin solely for the [business’s] own purpose and not for the benefit of another . . . .”<sup>91</sup> In other words, an individual or business that obtains Bitcoins from mining and uses the Bitcoins to either purchase goods or services, pay debts incurred from the operation of the business, distribute money to shareholders, or convert (sell) virtual currency into real currency for the business’s own purposes, will not fall within the definition of a “money transmission service,” and is not subject to FinCEN’s registration, reporting, and recordkeeping regulations for MSBs.<sup>92</sup>

The manner in which a Bitcoin ATM owner operates the business will determine whether the lines are blurred between an “exchanger” and an “administrator.”<sup>93</sup> For example, imagine a Bitcoin ATM owner uses only his own mined Bitcoins in the machine and solely makes money off of the transaction fees (how most Bitcoin ATM owners make their money).<sup>94</sup> Because selling the mined Bitcoins to individuals using the Bitcoin ATM would be “putting [Bitcoins] into circulation” and benefiting a third party, the Bitcoin ATM owner will most likely fall within the “administrator” category, thus subjecting the owner to FinCEN’s MSB regulations.<sup>95</sup> In contrast, if the Bitcoin ATM owner only uses the machine to convert (sell) the Bitcoins it mined into real currency in order to operate the business, then the Bitcoin ATM owner would likely not be considered an

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89. APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2.

90. See APPLICATION OF FINCEN’S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS, *supra* note 87 (inferring that FinCEN’s definition is aimed at Bitcoin mining); APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2.

91. APPLICATION OF FINCEN’S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS, *supra* note 87.

92. *Id.*

93. See *infra* text accompanying notes 94–97.

94. See Ember, *supra* note 5 (stating that the ATM’s owner determines the transaction fee to be charged for each withdrawal).

95. See APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2; APPLICATION OF FINCEN’S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS, *supra* note 87.

“administrator” (or an “exchanger,” for that matter).<sup>96</sup> In this scenario, the owner would not be subjected to FinCEN’s MSB reporting regulations and could thus allow individuals to use the Bitcoin ATM without the need to show identification.<sup>97</sup>

For the most part, Bitcoin ATM owners do not use their own stock of Bitcoins mined on their own.<sup>98</sup> In most cases, a Bitcoin ATM owner will be classified as an “exchanger” because the Bitcoin ATM either “accepts and transmits a convertible virtual currency or buys and sells convertible virtual currency”—whether it is tied directly to an online exchange or is loaded with already purchased Bitcoins.<sup>99</sup> Thus, the “exchanger” classification subjects the owner to MSB reporting requirements under FinCEN regulations.<sup>100</sup> However, the above-mentioned hypothetical examples show that there is an exploitable loop-hole that companies can use to circumvent the reporting requirements, thus leaving the Bitcoin ATM open to money-laundering and allowing Bitcoin’s coveted anonymity to remain intact.<sup>101</sup>

#### IV. BSA REQUIREMENTS FOR MONEY SERVICES BUSINESSES AND THE CONSEQUENCES OF FAILING TO FOLLOW THEM

The Currency and Foreign Transactions Reporting Act, better known as the Bank Secrecy Act of 1970, was enacted to help prevent money laundering in the United States.<sup>102</sup> The Act requires financial institutions to file various reports that may be useful to “criminal, tax, or regulatory investigations or proceedings.”<sup>103</sup> The term “financial institution” is broadly defined in the BSA, however, included in the definition are traditional banks and MSBs.<sup>104</sup> As discussed earlier, Bitcoin ATMs will

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96. *See id.*

97. *Id.*

98. *See* Ember, *supra* note 5.

99. APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 3.

100. *See* APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES, *supra* note 27, at 2; APPLICATION OF FINCEN’S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS, *supra* note 87; *supra* text accompanying notes 98–99.

101. *See supra* text accompanying notes 94–97.

102. 31 C.F.R. § 1010.100(c) (2014) (“The Currency and Foreign Transactions Reporting Act, its amendments, and other statutes relating to the subject matter of that Act, have come to be referred to as the Bank Secrecy Act.”); *see* 12 U.S.C. § 1951 (2014).

103. 12 U.S.C. § 1951 (2014).

104. *See* 31 U.S.C. § 5312 (2014). The Code provides twenty-six different definitions of a “financial institution.” *Id.* Although it does not define MSBs specifically, it can be inferred that



most likely fall under the category of MSB.<sup>105</sup>

#### A. MSB REPORTING REQUIREMENTS

MSBs are part of a list of financial institutions subject to recordkeeping requirements of the BSA.<sup>106</sup> For transactions of \$10,000 or more, an MSB is required to file a Currency Transaction Report.<sup>107</sup> The \$10,000 transaction threshold can be met either by a single transaction or by a series of transactions within a single business day.<sup>108</sup> No matter what type of currency transaction, as long as it meets the \$10,000 threshold, a Currency Transaction Report is required to be filed.<sup>109</sup> Applying the current state of virtual currency regulation, if an individual using the Bitcoin ATM either buys or sells Bitcoins totaling \$10,000 or more, the Bitcoin ATM owner will be required to verify the individual's identity.<sup>110</sup> The Currency Transaction Report requires MSBs to "record the name and address of the individual presenting a transaction, as well as record the identity, account number, and the social security or taxpayer identification number, if any, of any person . . . on whose behalf such transaction is to be effected."<sup>111</sup> Furthermore, MSBs are required to file a Suspicious Activity Report<sup>112</sup> ("SAR") when a customer transaction—or attempted

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MSBs fall under "any business or agency which engages in any activity which the Secretary or the Treasury determines, by regulation, to be an activity which is similar to . . . any activity in which any business described in this paragraph is authorized to engage[.]" 31 U.S.C. § 5312 (a)(2)(Y).

105. See discussion *supra* Part III.

106. 12 U.S.C. § 1953 (b); 31 U.S.C. § 5312(a)(2); 31 C.F.R. § 1022.210(a) (2014).

107. Reports Required to Be Made by Money Services Businesses, 31 C.F.R. § 1022.311 (2014) ("Refer to § 1010.311 of this chapter for reports of transactions in currency filing obligations for money services businesses."); Filing obligations for reports of transactions in currency, 31 C.F.R. § 1010.311 (2014) ("Each financial institution . . . shall file a report of each deposit, withdrawal, exchange of currency or other payment of transfer, by, through, or to such financial institution which involves a transaction in currency of more than \$10,000 . . .").

108. Aggregation, 31 C.F.R. § 1010.313(b) (2011) ("[M]ultiple currency transactions shall be treated as a single transaction if the financial institution has knowledge that they are by or on behalf of any person and result in either cash in or cash out totaling more than \$10,000 during any one business day . . ."); FINCEN, U.S. DEPT OF THE TREASURY, NOTICE TO CUSTOMERS: A CTR REFERENCE GUIDE, available at <http://www.fincen.gov/whatsnew/pdf/CTRPamphletBW.pdf> (last visited Nov. 24, 2014).

109. NOTICE TO CUSTOMERS: A CTR REFERENCE GUIDE, *supra* note 108; see 31 C.F.R. § 1022.311 (2011); 31 C.F.R. § 1010.311 (2011).

110. Identification required, 31 C.F.R. § 1022.312 (2011) ("Refer to § 1010.312 of this chapter for identification requirements for [Currency Transaction Reports] filed by money services businesses."); Identification required, 31 C.F.R. § 1010.312 (2011).

111. See 31 C.F.R. § 1010.312.

112. See Reports by money services businesses of suspicious transactions, 31 C.F.R. §

transaction—aggregates \$2,000 or more and shows any signs of fraudulent activity.<sup>113</sup> At a traditional bank, recording all the information needed for a Currency Transaction Report is relatively easy.<sup>114</sup> However, people using Bitcoin typically do not want their personal information out in the open or they do not have the required documents needed at traditional banks.<sup>115</sup> Therefore, Bitcoin ATM owners are at odds between an industry that values anonymity and FinCEN's need to identify potential criminals.<sup>116</sup>

## B. CRIMINAL SANCTIONS AND FINES FOR MSBS AND INDIVIDUALS

The ambiguity that the guidance creates is a problem because there are hefty criminal sanctions for companies and individuals who violate Anti-Money Laundering (“AML”) and BSA requirements.<sup>117</sup> With such heavy sanctions, if Bitcoin ATM owners are not given leeway to identify their customers in a less restrictive way, the virtual currency industry will

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1022.320 (“[A SAR is] a report of any suspicious transaction[s] relevant to a possible violation of law or regulation.”).

113. See 31 C.F.R. § 1022.320; 31 C.F.R. § 1022.320(d)(1)(i); FINCEN, U.S. DEP'T OF THE TREASURY, FINCEN SUSPICIOUS ACTIVITY REPORT (FINCEN SAR) ELECTRONIC FILING INSTRUCTIONS 78–80 (Oct. 2012), available at <http://www.fincen.gov/forms/files/FinCEN%20SAR%20ElectronicFilingInstructions-%20Stand%20Alone%20doc.pdf>; *Bank Secrecy Act Anti-Money Laundering Examination Manual*, FED. FIN. INST. EXAMINATION COUNCIL BANK SECRECY ACT/ANTI-MONEY LAUNDERING INFOBASE, [https://www.ffiec.gov/bsa\\_aml\\_infobase/pages\\_manual/OLM\\_015.htm](https://www.ffiec.gov/bsa_aml_infobase/pages_manual/OLM_015.htm) (last visited Nov. 24, 2014). The SAR is considered one of the most important documents to help battle money laundering, terrorist financing, and other financial crimes. *Bank Secrecy Act Anti-Money Laundering Examination Manual*, *supra*. The suspicious activity a company is required to report is broad. 31 C.F.R. § 1022.320(a)(2)(i)–(iv). A SAR must be filed within thirty days after an MSB believes a transaction either:

- (i) Involves funds derived from illegal activity or is intended or conducted in order to hide or disguise funds or assets derived from illegal activity . . . as part of a plan to violate or evade any Federal law or regulation or to avoid any transaction reporting requirement under Federal law or regulation;
- (ii) Is designed, whether through structuring or other means, to evade any requirements of this chapter or any other regulation promulgated under the Bank Secrecy Act; or
- (iii) Serves no business or apparent lawful purpose, and the reporting money services business knows of no reasonable explanation for the transaction after examining the available facts, including the background and possible purpose of the transaction.

31 C.F.R. § 1022.320(a)(2)(i)–(iii), (b)(3). Furthermore, financial institutions are prohibited from notifying an individual or business that it is the subject of a SAR. 31 C.F.R. § 1022.320(d)(1)(i).

114. See *supra* note 58 and accompanying text.

115. Clay Michael Gillespie, *Circle Allows Prepaid Visa Cards to Purchase Bitcoin*, CRYPTOCOINSNEWS.COM, <https://www.cryptocoinsnews.com/circle-allows-prepaid-visa-cards-purchase-bitcoin/> (last updated Sept. 30, 2014).

116. See 31 C.F.R. § 1022.311; Gillespie, *supra* note 115.

117. 31 C.F.R. § 1010.810(c)(2), (d); see *infra* notes 122–26 and accompanying text.

most likely cease to exist.<sup>118</sup>

To oversee compliance with reporting requirements, the Commissioner of the Internal Revenue Service (“IRS”), along with the Director of FinCEN are given authority to examine financial institutions’ implementation of BSA and FinCEN regulations.<sup>119</sup> Moreover, the authority to investigate criminal violations rests with the Commissioner of the IRS and authority to investigate civil violations is vested solely in the Director of FinCEN.<sup>120</sup>

As an MSB, a Bitcoin ATM owner must comply with every reporting regulation set out by FinCEN or face stiff penalties.<sup>121</sup> In the civil arena, a Bitcoin ATM owner, or any individual working for the company, who *willfully* violates a reporting regulation can be liable for fines ranging from \$25,000 to \$100,000.<sup>122</sup> In addition to civil penalties, if there is evidence of *willful* violations, an individual working for the MSB (whether it is a director or an employee) can be charged criminally.<sup>123</sup> In criminal proceedings, an individual can be fined up to \$250,000 and can be imprisoned for up to five years.<sup>124</sup> If the violations are part of a pattern of illegal activity, then the individual can be fined up to \$500,000 and imprisoned for up to ten years.<sup>125</sup> Moreover, if an individual knowingly makes a false representation on either the Currency Transaction Report or SAR, he or she can be fined up to \$10,000 and imprisoned up to five years.<sup>126</sup>

In the current state of Bitcoin and Bitcoin ATMs, any Bitcoin ATM owner that willfully decides not to include information that identifies its customers on the Currency Transaction Report—such as the customer’s Social Security number—will have violated the regulations.<sup>127</sup> This puts

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118. See McMillan, *supra* note 68; Tanaya Macheel, *Regulation Takes Center Stage at Bloomberg Bitcoin Event*, COINDESK.COM (Nov. 18, 2014, 1:28 PM), <http://www.coindesk.com/regulation-takes-center-stage-bloomberg-bitcoin-event/>; *infra* text accompanying notes 122, 124–26 (describing the sanctions that accompany violations of BSA regulations).

119. 31 C.F.R. § 1010.810(a), (b)(8) (2011).

120. *Id.* § 1010.810(c)(2), (d).

121. *Id.* § 1010.820; § 1010.840. Any person who violates the reporting requirements set out in Chapter 10 of Title 31 of the Code of Federal Regulations is subject to criminal and civil actions, with different penalties set out in each. *Id.*

122. *Id.* § 1010.820(f).

123. *Id.* § 1010.840.

124. *Id.* § 1010.840(b).

125. *Id.* § 1010.840(c)(2).

126. *Id.* § 1010.840(d).

127. *Id.* § 1010.820, .840; *see supra* Part IV.A.

the owner between a rock and a hard place because the industry is averse to giving certain personal information.<sup>128</sup> Thus, a Bitcoin ATM owner must choose between displeasing customers or violating FinCEN regulations.<sup>129</sup>

## V. APPLICATION OF BSA REGULATIONS TO BITCOIN ATMS AND THE SOLUTION TO FIX IT

The need to increase the availability of Bitcoin (and other virtual currencies) to the masses, especially the underbanked, is said to be the driving force behind the need for Bitcoin ATMs.<sup>130</sup> Because the underbanked often do not have the necessary documentation required by traditional banks, the need to balance the strict identification requirements of the BSA is very important.<sup>131</sup> Moreover, Bitcoin's anonymity is another important aspect that must be considered in the regulations because many of Bitcoin's users originally turned to virtual currencies in an effort to protect their personal information.<sup>132</sup> The current landscape for MSBs allows Bitcoin ATM owners to circumvent BSA customer reporting requirements by self-imposing \$2,000 daily limits on transactions, thus, defeating the purpose AML regulations.<sup>133</sup> Moreover, in cases of transactions of more than \$2,000, individuals using the Bitcoin ATM can simply use stolen or fake identification to complete the transaction.<sup>134</sup> Without an employee essentially running a "human" facial recognition, there is nothing stopping our friend Drug Dealer Dan from using fake identification.<sup>135</sup> Therefore, FinCEN must allow for alternative identification verification when customers use Bitcoin ATMs.<sup>136</sup>

To solve this problem, FinCEN needs to implement the following requirements for Bitcoin ATMs: (1) a passport or government issued identification ("ID") scanner; (2) software that matches the information gathered from the ID with state and national databases; (3) a camera that takes a picture of the user in real-time; and (4) facial recognition software that matches the scanned ID with the picture taken in real-time and

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128. See Macheel, *supra* note 118.

129. See *supra* notes 115, 121 and accompanying text.

130. See generally Popper, *supra* note 3 (discussing Bitcoin ATMs and noting that even virtual currency users need cash in some instances).

131. See *supra* notes 62–63 and accompanying text.

132. See *supra* note 115 and accompanying text.

133. See 31 C.F.R. § 1022.320(a)(2) (2011); *supra* text accompanying notes 102–05; discussion *supra* Part IV.A.

134. See *infra* note 138 and accompanying text.

135. See *supra* note 58 and accompanying text; *infra* note 138 and accompanying text.

136. See *supra* text accompanying notes 130–35; discussion *supra* Part IV.A.

government databases.<sup>137</sup>

#### A. ID SCANNER AND DATABASE SEARCHES

In an attempt to satisfy BSA reporting requirements, many Bitcoin ATM manufacturers have integrated scanners into their machines that simply take pictures of the information on the user's ID.<sup>138</sup> However, taking a picture of an ID is hardly what FinCEN had in mind to help fight money laundering.<sup>139</sup> At its current state, anyone can walk up with an ID (fake or not) and use it at the Bitcoin ATM.<sup>140</sup> Thus, in addition to taking a photo of the user's ID, FinCEN should require each machine to have a software program that matches the information on the user's ID with state and national (or issuing authority) databases to help verify its authenticity.<sup>141</sup> This software program would not allow a transaction to be completed if the user's ID did not match a valid ID on record with the respective issuing authority.<sup>142</sup> To illustrate, imagine Drug Dealer Dan has his friend print him up a driver's license using all fictitious information (i.e., name, address, driver's license number, etc.).<sup>143</sup> The software program verifying the information on his fake driver's license will come back as invalid because the information does not match an actual person on record with the issuing state.<sup>144</sup> Implementing this requirement will have the same effect as a bank running a credit check to verify the customer's

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137. See *supra* Part IV; *supra* text accompanying notes 130–36.

138. See *supra* notes 67–69 and accompanying text.

139. See 12 U.S.C. §1951; discussion *supra* Part IV.

140. See *supra* notes 67–69 and accompanying text.

141. See 31 C.F.R. § 1022.300 (2011); 31 C.F.R. §1010.312 (2011); discussion *supra* Part IV; *Strong ID*, IDCHECKER.COM, <http://www.idchecker.com/strongid/> (last visited Nov. 24, 2014) (explaining that the Company cross-references information gathered from a customer's ID with documents from around the world); *Easy Onboard*, IDCHECKER.COM, <http://www.idchecker.com/easy-onboard/> (last visited Nov. 24, 2014) (explaining the process of extracting and processing the personal information gathered from the customer's ID). IDchecker.com provides online identification document verification. *Strong ID*, *supra*. When customers upload their documents, special software compares the information gathered from the ID with over "3,500 types of passports, driver's licenses, and identity cards from various countries around the world." *Id.* The Company boasts that the personal data and photo from any type of ID are processed in real-time. *Easy Onboard*, *supra*.

142. See *supra* note 141 and accompanying text.

143. See *supra* notes 139–42 and accompanying text; Thomas Zambito, *Brains Behind \$30 Million Counterfeit Card Scheme Based in N.J. Pleads Guilty*, NJ.COM (Sept. 25, 2014, 6:10 PM), [http://www.nj.com/news/index.ssf/2014/09/brains\\_behind\\_30\\_million\\_counterfeit\\_card\\_scheme\\_based\\_in\\_nj\\_pleads\\_guilty.html](http://www.nj.com/news/index.ssf/2014/09/brains_behind_30_million_counterfeit_card_scheme_based_in_nj_pleads_guilty.html) (describing how easily people can get stolen and counterfeit driver's licenses).

144. See *supra* notes 139–42 and accompanying text.

identification.<sup>145</sup> Additionally, it will allow Bitcoin ATM owners and FinCEN to sufficiently identify the customer for the necessary reporting regulations.<sup>146</sup>

## B. REAL-TIME PICTURES AND FACIAL RECOGNITION SOFTWARE

Furthermore, in order to combat the concern of the use of a valid—but stolen—ID, each Bitcoin ATM should be equipped with a camera and facial recognition software.<sup>147</sup> The camera will be used to take a picture of the user in real-time and the facial recognition software will be used to match the picture with the picture on the user's ID and with the issuing state or national database.<sup>148</sup> The facial recognition would essentially add the “human” element seen at a traditional bank, where the employee checks to see if the person presenting the ID matches the picture on the ID.<sup>149</sup> If the facial recognition software determines that the three images do not match, the user will not be allowed to complete the transaction.<sup>150</sup> Therefore, if Drug Dealer Dan's real-time picture does not match the picture presented on the ID (which he could easily do with access to fake IDs) and the picture on file with the state (which would be non-existent), he would not be able to complete his “dirty” transaction without being properly identified.<sup>151</sup> Additionally, if Drug Dealer Dan used a stolen ID (where the picture and information provided on the ID can be matched to an actual person on file with the issuing authority) the facial recognition software would not allow him to complete the transaction because his face would not match the pictures on file.<sup>152</sup> The proposed regulation will most certainly curb the use of stolen identification credentials and, more

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145. See *supra* notes 58, 139–42 and accompanying text.

146. See 31 C.F.R. § 1022.300; 31 C.F.R. § 1010.312; *supra* notes 139–45 and accompanying text.

147. See *supra* text accompanying notes 67–69; see also Zambito, *supra* note 143 (explaining the operation of a thirty-million dollar counterfeit card scheme).

148. See *Easy Onboard*, *supra* note 141 (explaining that photos extracted from an ID are processed in real-time); *Strong ID*, *supra* note 141; *Face Link*, IDCHECKER.COM, <http://www.idchecker.com/face/face-link/> (last visited Nov. 24, 2014) (explaining the facial recognition process used by IDchecker). IDchecker uses a special biometric software to authenticate a picture taken in real-time with other pictures. *Easy Onboard*, *supra*. The facial recognition is based on mathematical equations comparing the customer's different picture. *Face Link*, *supra*. When the facial recognition is combined with the cross document verification, the result is an almost perfect customer verification. *Strong ID*, *supra*.

149. See *supra* notes 58, 148 and accompanying text.

150. See *id.*

151. See *supra* notes 143, 147–50 and accompanying text.

152. See discussion *supra* Part V.A.; *supra* notes 147–50 and accompanying text.

importantly, allow FinCEN and Bitcoin ATM owners to properly verify the Bitcoin ATM's user.<sup>153</sup>

## VI. CONCLUSION

When new technology emerges, it is often met with significant skepticism.<sup>154</sup> Therefore, when virtual currencies turned from a concept to a useable form of currency, it was met with premature regulations.<sup>155</sup> In the case of Bitcoin, government agencies cannot simply apply old regulations to an entirely new concept.<sup>156</sup> When agencies do this, it creates ambiguity that can unintentionally subject its users to meet unattainable requirements.<sup>157</sup> For Bitcoin ATM owners, FinCEN's application of BSA requirements to virtual currency has put them in a difficult position that is not conducive to the industry. On one hand, their customers want to give as little personal information as possible.<sup>158</sup> On the other hand, FinCEN requires the owners to obtain information that directly conflicts with Bitcoin's anonymity characteristics.<sup>159</sup> By implementing the regulations suggested in this comment, FinCEN will be able to create a happy medium that will foster the virtual currency industry while limiting the potential for money laundering.<sup>160</sup>

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153. See discussion *supra* Part V.A.; *supra* notes 147–52 and accompanying text.

154. See Denver Nicks, *Bitcoin ATM Comes to Capitol Hill*, TIME MAGAZINE.COM (Apr. 9, 2014), <http://time.com/56738/bitcoin-atm-comes-to-capitol-hill/>; Vigna, *supra* note 25; discussion *supra* Part II.

155. See discussion *supra* Part III.

156. See *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, *supra* note 27 (explaining the ways virtual currency differs from real currency, which shows why the same regulations cannot realistically apply to both); discussion *supra* Part III.

157. See discussion *supra* Part IV.

158. See *supra* note 132 and accompanying text.

159. See discussion *supra* Part II (showing Bitcoin's anonymity characteristics); discussion *supra* Part IV.A (discussing FinCEN's requirements currently in place to identify potential criminals, which tend to be at odds with Bitcoin's anonymity).

160. See discussion *supra* Part V.