

## **BIG DATA AND SOCIAL NETBANKS: ARE YOU READY TO REPLACE YOUR BANK?**

Nizan Geslevich-Packin & Yafit Lev-Aretz\*

This Article directs scholarly and regulatory attention to an overlooked sub-category within online and mobile entities that offer financial services – big data and social netbanks. Recently, big data companies like Google, Amazon and Apple, as well as social networks like Facebook and Twitter, have been making forays into the financial services market, capitalizing on their massive troves of user data and social information. Providing the first in-depth study of big data and social netbanks, this Article analyzes these players' entry into the financial services market and surveys the current regulatory framework for those new bank-like entities.

Despite the large numbers of technology companies offering financial services and their massive pool of subscribers, regulation of online nonbanks currently consists of a hodgepodge of statutes and regulations. In particular, as this Article shows, existing regulation does not differentiate between this recently emerging form of bank-like services and other online/mobile nonbanks. As big data and social netbanks increasingly eat at the edges of the traditional banking market, this Article makes a key descriptive contribution by presenting a comprehensive analysis of the new entrants. This Article also makes a significant normative contribution by listing the distinctive characteristics of big data and social netbanks and other issues that regulators should be mindful of when designing an appropriate regulatory scheme. These characteristics and issues include consumers' access to financial services, social consequences, competition in the financial market, cybersecurity, privacy, and specific consumers' rights.

## TABLE OF CONTENTS

- I. INTRODUCTION
- II. WHEN BIG DATA AND SOCIAL GO FINANCIAL
  - a. Show Me the Money
    - a. *Big Data and Finance – A Never-Ending Reciprocity*
    - b. *Social Netbanks*
  - b. The Mobile Market and the Financially Underserved Community
  - c. Modern Day Banking Services – A Brave New World
- III. DIGITAL NONBANKS
  - a. Statutory Financial Regulation of Nonbanks
    - i. *The Dodd-Frank Act*
    - ii. *Bank Secrecy Act and Money Transmitting*
    - iii. *Electronic Fund Transfer Act*
    - iv. *Commercial Firms Owning Banks*
    - v. *Truth in Lending Act*
    - vi. *The Equal Credit Opportunity Act*
    - vii. *Gramm-Leach-Bliley Act and the Fair Credit Reporting Act*
    - viii. *International Aspects of Payment Systems and Cards Law*
  - b. Regulatory Overlap
- IV. REGULATING BIG DATA AND SOCIAL NETBANKING
  - a. Regulatory Considerations for Big Data and Social Netbanks
    - i. *An Enhanced Access to Financial Services via Big Data and Social Netbanks*
    - ii. *Privacy Concerns*
    - iii. *When Big Data and Social Goes Financial: Potential for Abuse*
    - iv. *Competing with Banks*
    - v. *Conspicuous Disclosure and Informed Consent*
  - b. General Regulatory Considerations
    - i. *Clear Regulation*
    - ii. *Size Does Matter*
  - c. Cost-Benefit Analysis
- V. CONCLUSION

## I. Introduction

Despite what most people may think, what makes a business entity a “bank” is not self-evident but depends on whether a statute defines it as such.<sup>1</sup> Historically, the Banking Act of 1933 defined a “bank” as an institution that takes “deposits” and is examined and regulated by state or federal banking authority.<sup>2</sup> While much of the Banking Act of 1933 was repealed,<sup>3</sup> the law currently still makes it illegal for an entity to take “deposits” without being regulated and examined by a state or federal banking authority.<sup>4</sup> Consequently, the legal power to receive deposits is still considered to be the essence of a bank,<sup>5</sup> and courts have also followed this approach.<sup>6</sup>

Attempting to avoid acceptance of traditional deposits, and hence getting classified as a bank, new forms of bank-like service providers have emerged over the years, gradually biting

---

\* Nizan Geslevich Packin is a Visiting Scholar at the University of Pennsylvania, Center for Global Communication Studies, and an Assistant Professor of Law at City University of New York; Yafit Lev-Aretz is an Intellectual Property Fellow at The Kernochan Center for Law, Media, and the Arts at Columbia Law School. We are grateful to Gideon Parchomovsky, David Skill, and Jane Ginsburg for invaluable contribution and encouragement. We further thank Jake Branchaud-Linsk for great comments. The opinions addressed in this Article are solely those of the authors.

<sup>1</sup> See generally Saule T. Omarova & Margaret E. Tahyar, *That Which We Call A Bank: Revisiting the History of Bank Holding Company Regulation in the United States*, 31 REV. BANKING & FIN. L. 113 (2011).

<sup>2</sup> See Banking Act of 1933, Pub. L. No. 73-66, 48 Stat. 162.

<sup>3</sup> In 1956, the Bank Holding Company Act (“BHCA”) defined bank holding companies – companies that own or control a U.S. bank, and often also nonbank subsidiaries. The BHCA defined “bank” as an institution that “accepts deposits that the depositor has a legal right to withdraw on demand, and engages in the business of making commercial loans.” 12 U.S.C. § 1841(c) (1982). “The loss of an ability to own a significant ownership stake in non-financial and even many nonbanking financial business is the most significant consequence of becoming a BHC.” See Omarova & Tahyar, *supra* note 1 All functionally regulated nonbank BHC subsidiaries are regulated and examined by the applicable primary regulatory agency, as well as the Federal Reserve Bank (“Fed”), which now has further expanded powers to supervise and examine. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 605(a), 124 Stat. 1376, 1604 (2010) (codified at 12 U.S.C. 5301 *et seq.*), hereinafter: *Dodd-Frank Act*. The 1999 passage of the Gramm-Leach-Bliley Financial Modernization Act of 1999, Pub. L. No. 106-102, 113 Stat. 1338 (the “GLBA”) repealed much of the Banking Act of 1933 and enabled the grouping of insurance, investment banking and commercial banking into one company, see, e.g., Gramm-Leach-Bliley Financial Modernization Act of 1999, Pub. L. No. 106-102, § 101(a), 113 Stat. 1338, 1341 (“Section 20 of the Banking Act of 1933 . . . (commonly referred to as the ‘Glass-Steagall Act’) is repealed.”).

<sup>4</sup> 12 U.S.C. § 378(a)(2) (2006).

<sup>5</sup> Cynthia Crawford Lichtenstein, *Defining our Terms Carefully and In Context: Thoughts on Reading (And in One Case, Rereading) Three Books*, 31 REV. BANKING & FIN. L. 695, 696-97 (2012).

<sup>6</sup> “By reason of the development and expansion of the banking business, the term “bank” does not lend itself to an exact definition.” Brenham Production Credit Ass’n v. Zeiss, 153 Tex. 132, 264 S.W.2d 95 (1953). In general, a bank is a person doing a banking business, see Heritage Bank and Trust Co. v. Harris, 478 N.E.2d 526 (1st Dist. 1985). Historically, the term “bank” referred to a place for the deposit of money, see State Tax Com’n v. Yavapai County Sav. Bank, 52 Ariz. 374, 81 P.2d 86 (1938). Indeed, accepting deposits has been mentioned as the most obvious purpose and the main function of a banking institution. See e.g. Brenham Production Credit Ass’n v. Zeiss, 153 Tex. 132, 264 S.W.2d 95 (1953); Smith v. Kansas City Title & Trust Co., 255 U.S. 180, 210 (1921) (finding that a “bank” is a moneyed institution meant to facilitate the borrowing, lending, and caring for money); Engel v. O’Malley, 219 U.S. 128 (1911) (stating that the business of receiving deposits of money in small sums from time to time until they reach an amount sufficient to be sent to other states or foreign countries is banking); In re Central Mortg. & Trust, Inc., 50 B.R. 1010 (S.D. Tex. 1985) (determining that the legal power to receive deposits is the essence of a “bank”); U.S. v. Papworth, 156 F. Supp. 842, 844 (N.D. Tex. 1957), judgment aff’d, 256 F.2d 125 (5th Cir. 1958) (deciding that a “bank” is an institution empowered to receive deposits of money, to make loans, to issue its promissory notes, or to perform any one or more of those functions).

into the previously dominant market share of traditional banks.<sup>7</sup> Referred to as ‘nonbanks,’ such entities offer a variety of financial functions.<sup>8</sup> Since the legal definition of a nonbank is neither unified nor clear, they are commonly viewed as the mirror image of banks – entities providing financial services that *do not include* the legal power to receive deposits.<sup>9</sup>

When nonbanks first entered the traditional banking market, both banks and nonbanks were competing in a physical playfield – they conducted their business at a physical venue, where existing and potential customers were able to come and interact with their service providers. Since then, nonbanks have started capitalizing on digital technology and the exposure to a broad audience provided by the Internet, significantly reducing their operation costs by relocating from offline to online.<sup>10</sup> The mobile revolution further facilitated access to nonbanks and allowed the unbanked and underbanked, who cannot or opt not to use banks for a variety of reasons, to enjoy the use of bank-like services.

---

<sup>7</sup> See *infra* part II(a.).

<sup>8</sup> “There are currently thousands of nonbank businesses that offer consumer financial products and services, and consumers interact with them all the time . . . While banks, thrifts, and credit unions historically have been examined by various federal regulators, nonbanks generally have not.” See Peggy Twohig & Steve Antonakes, *The CFPB launches its nonbank supervision program*, CFPB (Jan. 5, 2012), <http://www.consumerfinance.gov/blog/the-cfpb-launches-its-nonbank-supervision-program/>.

<sup>9</sup> There is no unified definition for “nonbanks” in the legal literature. Historically, nonbanks were considered to be institutions that voluntarily restrict their operations so that they either do not accept demand deposits, or do not make commercial loans, thus avoiding inclusion under the BHCA’s definition of “bank.” See generally Arthur Wilmarth, *Why Fed has failed to cope with the nonbank bank dilemma*, AMERICAN BANKER (June 29, 1984) at 4; Davis Turner, *Nonbank Banks: Congressional Options*, 39 VAND. L. REV. 1735, 1736, 1744 (1986); 4A Fed. Proc. L. Ed. § 8:798 (2002). That loophole has permitted nondepository institutions like Sears to engage in bank-like services. Luis G. Fortuno, *Non-Bank Banks: Present Status and Prospects for the Future*, 20 REV. JUR. U.I.P.R. 305 (1986). While this definition of nonbanks is very vague, other definitions have also been offered. For example, the Consumer Financial Protection Bureau (‘CFPB’) has recently stated that “for the CFPB’s purposes, a nonbank is a company that offers consumer financial products or services, but does not have a bank, thrift, or credit union charter and does not take deposits.” See *Explainer: What Is A Nonbank, And What Makes One “Larger”?* CFPB (June 23, 2011), <http://www.consumerfinance.gov/blog/explainer-what-is-a-nonbank-and-what-makes-one-larger/>. Differently, according to the Financial Stability Oversight Council (‘FSOC’), any domestic or foreign company that is “predominately engaged in financial activities,” with certain limited exceptions, is a nonbank financial company. See 12 U.S.C. § 5311(a)(4). The definition exempts a bank holding company, national securities exchange (or parent thereof), clearing agency (or parent thereof), swap (or security-based swap) execution facility, registered swap (or security-based swap) data repository, board of trade designated as a contract maker (or parent thereof), or a derivatives clearing organization (or parent thereof). According to the definition, a company is “predominately engaged in financial activities” if 85 percent or more of the company’s consolidated (i) revenues, or (ii) assets are related to activities that are defined as financial in nature under section 4(k) of the BHCA. *Id.* § 102(a)(6). Additionally, the FSOC may issue recommendations for primary financial regulatory agencies to apply new or heightened standards to a financial activity or practice conducted by companies that are predominantly engaged in financial activities. See 12 U.S.C. § 5311(a)(6). The Fed is the one to decide what exactly constitutes as a “financial activity.” A copy of the Definitions of “Predominantly Engaged In Financial Activities” and “Significant” Nonbank Financial Company and Bank Holding Company: Final Rule, which became effective on May 6, 2013, is available at: <http://www.federalreserve.gov/newsevents/press/bcreg/20130403a.htm>.

<sup>10</sup> See e.g. Gary S. Corner, *The Changing Landscape of Community Banking*, CENTRAL BANKER - FEDERAL RESERVE BANK OF ST. LOUIS (Fall 2010), <http://www.stlouisfed.org/publications/cb/articles/?id=1997> (“[f]inancial innovation over the last 30 years has changed the complexion of banking. Made possible by advances in technology, innovations. . . the development of a shadow banking system, have provided a greater array of nonbank alternatives to consumers. . . However, for some community banks, the costs and risks to adapt to these changes were too high.”).

Plenty of ink has been spilled over the growth of shadow banks and nonbanks, the regulation that should cover them, and the appropriate regulatory authority.<sup>11</sup> Moreover, while traditionally regulators focused mainly on banks as entities that could pose risk to the financial system, and especially the biggest banks, which are classified as systemically important financial institutions (“SIFIs”),<sup>12</sup> following the 2008 financial crisis it has become common knowledge that nonbanks could pose risks to the financial system too<sup>13</sup> and thus should be better monitored.<sup>14</sup> Accordingly, in recent years nonbanks have been somewhat regulated, and by the end of 2014, regulators went as far as designating several nonbanks as SIFIs.<sup>15</sup> In this Article, we trace the global evolution of a recently emerging type of nonbanks: big data and social netbanks. By this term we refer to big data companies and social networks offering bank-like services to their users. The big data tech sector includes massively scaled companies like Google, Apple, and Amazon that collect and analyze great amounts of information generated from exchanges over their networks. Due to their enormous user base and advanced technological capabilities, the data those companies use ascends to new heights, streams in quicker, and springs from an expanding ambit of sources and formats.<sup>16</sup> Carefully gleaned insights unlock new understandings of consumer behavior that guide and inform business strategy in three aspects: first, improving the service those platforms provide to their users, e.g., better search results or a more accurate recommendation set for future purchases;<sup>17</sup> second, monetizing the data by facilitating targeted

---

<sup>11</sup> See e.g. David Skeel, *THE NEW FINANCIAL DEAL: UNDERSTANDING THE DODD-FRANK ACT AND ITS (UNINTENDED) CONSEQUENCES* (2010); Dan Awrey, *Complexity, Innovation and the Regulation of Modern Financial Markets*, 2:2 HARVARD BUS. LAW REV. 235, (2012); Morgan Ricks, *Money and (Shadow) Banking: A Thought Experiment*, 31 REV. OF BANKING AND FIN. LAW, 731 (2012); William M. Isaac & Melanie L. Fein, *Facing the Future: Life Without Glass-Steagall*, 27 CATH. U. L. REV. 281, 291-96 (1988) (discussing the rise of nonbanks and analyzing the “technological, economic, and competitive forces [that shifted] financial markets away from traditional banking channels toward increased use of the securities markets for financial intermediation.”); Catherine England, *Cato Institute Policy Analysis No. 85: Nonbank Banks Are Not The Problem*, CATO INST, 4-5 (1987) (analyzing the economic and technological changes that took place in the financial services industry).

<sup>12</sup> Congress determined that any bank holding company with \$50 billion or more in assets should be viewed as a SIFI, as would any foreign bank with U.S. banking operations that has worldwide assets of \$50 billion or more.

<sup>13</sup> “The growing influence of nonbank companies poses a risk to the financial system, and perhaps a national security threat. . . bankers should recognize the potential dangers posed by nonbank players, particularly in the payments industry.” Kristin Broughton, *Apple Pay a Systemic Risk? Banker Warns About Nonbank Players*, AMERICAN BANKER (Nov. 21, 2014), <http://www.americanbanker.com/news/bank-technology/apple-pay-a-systemic-risk-banker-warns-about-nonbank-players-1071357-1.html>. Hereinafter *Broughton on Apple Pay*.

<sup>14</sup> In the case of nonbanks, under Section 113 of the *Dodd-Frank Act*, Congress left the question of designation as to which entities qualify as SIFIs to the FSOC. Nonbanks that are identified as SIFIs are subject to consolidated supervision by the Federal Reserve and enhanced prudential standards, in a manner similar to the BHCA model of regulation and supervision. *Dodd-Frank Act*, §§ 115(b), 165(i), and 165(j). Indeed, similarly to BHCs, under the *Dodd-Frank Act*, all SIFIs, regardless of whether or not they own a commercial bank, must register with and become subject to consolidated supervision by the Federal Reserve.

<sup>15</sup> Thus far such entities include American International Group (“AIG”), Prudential Financial, GE Capital, and Metlife. See *Financial Stability Oversight Council*, THE U.S. DEPARTMENT OF THE TREASURY, <http://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx>. Following up on that, the FSOC recently stated that transparency with nonbanks and the public is a primary focus of its work to resolve concerns about how it determines who would be classified as a SIFI. John Heltman, *FSOC Meeting Centers on Transparency in Nonbank 'Systemic' Designations*, AMERICAN BANKER (Nov. 13, 2014), <http://www.americanbanker.com/news/regulation-reform/fsoc-meeting-centers-on-transparency-in-nonbank-systemic-designations-1071218-1.html>.

<sup>16</sup> James Kobielus, *When big data is truly better*, INFO WORLD (Sep. 4, 2014), <http://www.infoworld.com/article/2608957/big-data/big-data-when-big-data-is-truly-better.html>.

<sup>17</sup> See e.g. Dennis D. Hirsch, *The Glass House Effect: Big Data, the New Oil, and the Power of Analogy*, 66 ME. L. REV. 373 (2014) (discussing the many benefits of Big Data).

marketing of products and services, particularly customized for individual users;<sup>18</sup> and third, selling the raw unstructured data to interested parties to analyze, employ, and even sell for various purposes.<sup>19</sup> Also making use of big data, social network platforms offer their users a platform to build social relationships based on shared interests, activities, backgrounds or real-life connections.<sup>20</sup> Social networks merge big data with personal data, and use that fusion for even more refined insights.<sup>21</sup>

With its mobile payment service Google Wallet linked to users' Gmail accounts and to their profile at Google's social network, Google+, Google offers a good example for big data and social netbanking. Also exemplifying the trend is social networking giant Facebook, which has reportedly attempted to get licensed as an e-money institution in Ireland,<sup>22</sup> has been generally eyeing the payment industry,<sup>23</sup> and in spring 2015 has officially become a major payment system.<sup>24</sup> Similarly, corporate entities affiliated with Chinese social networks Sina Weibo and WeChat have been providing financial services like loans and credit cards to their members based on a massive store of years of customer-behavior records.<sup>25</sup> With additional big data dominators and social media outlets entering deeper and deeper into the financial services market, big data and social netbanks represent the latest stage in the evolution of nonbanks, a stage that has thus far been overlooked in legal commentary. This oversight is concerning for various reasons including the three following ones. First, the move of certain big data and social

---

<sup>18</sup> See e.g. Lior Jacob Strahilevitz, *Toward a Positive Theory of Privacy Law*, 126 HARV. L. REV. 2010 (2013) (describing the firms that rely on big data and use it "to tease out the individual personality characteristics that will affect the firms' strategies about how to price products and deliver services to particular consumers"); Astrid Bohé, Montgomery Hong, Craig Macdonald and Nigel Paice, *Data Monetization in the Age of Big Data*, ACCENTUR (Aug. 15, 2013), <http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Data-Monetization-in-the-Age-of-Big-Data.pdf> (describing how harnessing and monetizing the potential of big data seems to be on the agenda of everyone out there).

<sup>19</sup> See e.g. Edith Ramirez & Julie Brill, Et Al., *Data Brokers - A Call for Transparency and Accountability*, FTC, (May 2014), <http://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf> (discussing how in today's economy, data brokers collect consumers' personal information and resell or share that information with others.); Olga Kharif & Scott Moritz, *Carriers Sell Users' Tracking Data in \$5.5 Billion Market*, BLOOMBERG (June 6, 2013), <http://www.bloomberg.com/news/articles/2013-06-06/carriers-sell-users-tracking-data-in-5-5-billion-market> (describing, for example, how in exchange for allowing Sprint to sell the anonymous user data, customers get more specific ads sent to their phones.); Steve Kroft, *The Data Brokers: Selling your personal information*, CBS NEWS (March 9, 2014), <http://www.cbsnews.com/news/the-data-brokers-selling-your-personal-information/>.

<sup>20</sup> *Social Network Definition*, DICTIONARY.COM, at <http://dictionary.reference.com/browse/social+network>.

<sup>21</sup> Antonio Regalado, *The Data Made Me Do It*, MIT TECHNOLOGY REVIEW (May 3, 2013), <http://www.technologyreview.com/news/514346/the-data-made-me-do-it/>.

<sup>22</sup> Sally Davies, Duncan Robinson, & Hannah Kuchler, *Facebook targets financial services*, FINANCIAL TIMES (Apr. 13, 2014), <http://www.ft.com/intl/cms/s/0/0e0ef050-c16a-11e3-97b2-00144feabdc0.html#axzz3CGkxtAO1>.

<sup>23</sup> Alistair Charlton, *Facebook 'Sell Something' button lets group users buy goods from each other*, INTERNATIONAL BUSINESS TIMES (Dec. 17, 2014), [http://www.ibtimes.co.uk/facebook-sell-something-button-lets-group-users-buy-goods-each-other-1479929\(sic\)](http://www.ibtimes.co.uk/facebook-sell-something-button-lets-group-users-buy-goods-each-other-1479929(sic)) (the authorization from Ireland's central bank to become an "e-money" institution would allow Facebook to issue units of stored monetary value that represent a claim against the company. This e-money would be valid throughout Europe via a process known as "passporting.").

<sup>24</sup> See e.g. Vindu Goelmarch, *Facebook Announces a Payments Feature for Its Messenger App*, N.Y. TIMES, (March 17, 2015) [http://www.nytimes.com/2015/03/18/technology/facebook-announces-a-payments-feature-for-its-messenger-app.html?\\_r=0](http://www.nytimes.com/2015/03/18/technology/facebook-announces-a-payments-feature-for-its-messenger-app.html?_r=0) ("American users of its Messenger app would be able to link their debit cards to the service and use it to message money to one another just as easily as they send a snapshot or text . . . The company's Messenger app is one of the largest platforms in the world, with more than 500 million monthly users.")

<sup>25</sup> Dinny McMahon and Paul Mozur, *Is Alibaba's Big Data Big Enough?*, WALL ST. J. (Nov. 7, 2013), <http://blogs.wsj.com/chinarealtime/2013/11/07/is-alibabas-big-data-big-enough/>.

netbanks to become financial service providers goes beyond acting as traditional financial intermediaries – some of the world’s web companies are transforming themselves into operations that behave much like banks. Companies from Square, which built its business on the simplicity of its plug-in payment device, to Alibaba, the leading Chinese e-commerce firm, are not only helping customers handle money, they are also helping customers store it and borrow it,<sup>26</sup> and some have not been shy about wanting to do so without ever being regulated as banks.<sup>27</sup> Second, while many of these new globally reaching nonbanks, at least in the United States, have been cooperating to various extents with regulated banks, not all do,<sup>28</sup> and the ones that independently offer banking services are extremely concerning as they operate in a regulatory vacuum. Third, even if all big data and social netbanks really did just facilitate financial intermediation, they still create new risks to our financial system, the most relevant one being the exposure to “runs” and premature liquidation of projects when the suppliers of funds pull out en masse. Therefore, financial intermediation activity is fragile, and carries a major social externality, demonstrated by the risk of systemic disruptions in the case of contagion of run events.<sup>29</sup>

After providing a detailed account of the big data and social netbanks trend, we move to discuss the regulatory framework under which nonbanks, and thus big data and social netbanks,

---

<sup>26</sup> See Marcus Wohlsen, *Square’s Found a Way to Beat Banks at the Loan Business*, *Wired* (May 28, 2014), <http://www.wired.com/2014/05/square-wants-to-give-your-business-money-before-you-even-ask-for-it/> (discussing Square’s ambition and how it “is diversifying in a dramatic way: Instead of merely processing payments, Square also will provide a way for merchants to inject extra cash into their businesses—no loan application required”); Square Launches *Ingrid Lunden, Payroll Product For Small Businesses, Pricing Starts At \$25/Month*, *Techcrunch* (June 30, 2015), <http://techcrunch.com/2015/06/30/square-launches-payroll-product-for-small-businesses-pricing-starts-at-25month/> (discussing how Square “has been gradually building out the products it offers to small businesses to position itself as a one-stop shop for their various front-of-house and back-office needs,” and has added direct payroll services, and capital for financing).

<sup>27</sup> Moven, a major new nonbank spelled out why it and companies similar to it do not want a banking license. “We don’t have a charter because it gets incredibly complicated and expensive, which is the reason hardly any new banks have launched globally in the last few decades. . . [Y]ou have to start with lots of capital to comply with regulations; you have to have even more upfront money to get FDIC insurance licenses; you then need to jump through another bunch of hoops to get approval to start up; and once you get going, you have to heap another layer of cost into the process to ensure compliance with all the regulatory controls. . . You only need a charter if you are going to keep deposits, which we will not, to start off with. That part may come later, but to begin with we just want to make it easy to save, spend and live smarter. See e.g. *When is a bank not a bank?*, November 20, 2012, <http://blog.moven.com/when-is-a-bank-not-a-bank/>; Mary Wisniewski, *Mobile-First Bank Gets U.K. Charter — Could It Happen Here?*, *AMERICAN BANKER* (July 7, 2015), <http://www.americanbanker.com/news/bank-technology/mobile-first-bank-gets-uk-charter-could-it-happen-here-1075265-1.html>.

<sup>28</sup> See e.g. Murithi Mutiga, *Kenya’s Banking Revolution Lights a Fire*, *N.Y. TIMES*, (Jan. 20, 2014), [http://www.nytimes.com/2014/01/21/opinion/kenyas-banking-revolution-lights-a-fire.html?\\_r=0](http://www.nytimes.com/2014/01/21/opinion/kenyas-banking-revolution-lights-a-fire.html?_r=0) (discussing success stories in the developing world in addition to the explosion in the use of mobile phone money transfers, which brought millions into the formal financial system. The article explains that the countries with the least amount of regulation are where nonbanks are launching the most interesting types of banking services. The most extreme example is Africa, where mobile payment platforms such as the telecom-based Kenya’s M-Pesa and Zimbabwe’s EcoCash are constantly expanding their banking activities.); Phil Levin, *Big ambition meets effective execution: How EcoCash is altering Zimbabwe’s financial landscape*, <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/EcoCash-Zimbabwe.pdf>; Sarah Todd, *Banks’ Real Fight with Fintech: Who Owns the Customer?*, *AMERICAN BANKER*, (June 19, 2015) <http://www.americanbanker.com/news/bank-technology/banks-real-fight-with-fintech-who-owns-the-customer-1074988-1.html> (discussing the American bankers that are worried about major web companies taking all their customers.).

<sup>29</sup> Tobias Adrian, Adam B. Ashcraft & Nicola Cetorelli, *Shadow Bank Monitoring*, Federal Reserve Bank of New York, September 2013, [http://www.newyorkfed.org/research/staff\\_reports/sr638.pdf](http://www.newyorkfed.org/research/staff_reports/sr638.pdf)

are currently scrutinized. First we point to different statutes that have been used in conjunction to regulate nonbanks' financial services and products, such as *The Dodd-Frank Act*, *Bank Secrecy Act and Money Transmitting*, and *the Electronic Fund Transfer Act*. Then, we move to discuss the historic fragmentation of nonbanks regulation, as well as the current regulatory overlap between the Consumer Financial Protection Bureau ("CFPB"), the Federal Trade Commission ("FTC"), and the Federal Communication Commission ("FCC"). Last, this Article offers a significant normative contribution by compiling a list of issues that regulators should consider when deciding on a suitable regulatory regime for this emerging financial creature.

## II. When Big Data and Social Go Financial

Propelled by the constantly decreasing costs of information storage and delivery coupled with a growing ability to instantly capture, manage, process and analyze unstructured data – big data is nothing short of a revolution.<sup>30</sup> Data is collected online from transactions, web-data trails, emails exchanges, videos, photos, search queries, health records, and social networking activities.<sup>31</sup> Furthermore, as the physical world becomes an Internet of Things<sup>32</sup> that is increasingly connected to data networks, data can be communicated through embedded sensors and collected from appliances, machinery, train tracks, shipping containers, power stations and more.<sup>33</sup> The idea behind big data is fairly simple – at its core, big data is all about prediction.<sup>34</sup> When enough details about the past are gathered and intelligently analyzed, unforeseen links and correlations surface, and those connections can then prompt highly accurate predictions about the future.<sup>35</sup> Those tools have been used in virtually every field, from shopping patterns to flu outbreaks<sup>36</sup> and students' grades;<sup>37</sup> from predicting when employees might be getting ready to quit<sup>38</sup> to accurately identifying the prevalence of a heart disease.<sup>39</sup>

---

<sup>30</sup> Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239, 1 (2013); Ira S. Rubinstein, *Big Data: The End of Privacy or a New Beginning?* 3 INT'L DATA PRIV. L. 74, 78 (2012). See also Steve Lohr, *How Big Data Became So Big*, N.Y. TIMES, (Aug. 11, 2012) <http://www.nytimes.com/2012/08/12/business/how-big-data-became-so-big-unboxed.html?pagewanted=all>.

<sup>31</sup> Tene & Polonetsky, *supra* note 25.

<sup>32</sup> For more on the connection see e.g. Menchie Mendoza, *Cisco Unveils Big Data Software to Boost Internet of Things Strategy*, TECH TIMES, (Dec. 13, 2014), <http://www.techtimes.com/articles/22063/20141213/cisco-unveils-big-data-software-to-boost-internet-of-things-strategy.htm> (discussing the creation of "a software that not only runs in commercial data centers but also on the company's own networking equipment. This way, the data stream can be winnowed from distributed devices, which can come in handy when such data become too large to handle"); Gil Press, *It's Official: The Internet Of Things Takes Over Big Data As The Most Hyped Technology*, FORBES (Aug. 8, 2014), <http://www.forbes.com/sites/gilpress/2014/08/18/its-official-the-internet-of-things-takes-over-big-data-as-the-most-hyped-technology/>; Howard Baldwin, *A Match Made Somewhere: Big Data and the Internet of Things*, FORBES (Nov. 24, 2014), <http://www.forbes.com/sites/howardbaldwin/2014/11/24/a-match-made-somewhere-big-data-and-the-internet-of-things/> (describing the connection between the two and specifically explaining how "once the Internet of Things gets rolling. . . We're going to have data spewing at us from all directions").

<sup>33</sup> Nicolas P. Terry, *Protecting Patient Privacy in the Age of Big Data*, 81 UMKC L. REV. 385, 390 (2012). See also Howard Baldwin, *A Match Made Somewhere: Big Data and the Internet of Things*, FORBES (Nov. 24, 2014), <http://www.forbes.com/sites/howardbaldwin/2014/11/24/a-match-made-somewhere-big-data-and-the-internet-of-things/2/>.

<sup>34</sup> Viktor Mayer-Schönberger & Kenneth Cukier, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK*, pp. 11-12 (2013).

<sup>35</sup> Jonas Lerman, *Big Data and Its Exclusions*, 66 STAN. L. REV. ONLINE 55, 57 (2013).

<sup>36</sup> Mayer-Schönberger & Cukier, *supra* note 29, at 244. One of the most cited examples of big data in action is Google Flu Trends, a program directed at globally monitoring flu cases based on Google searches of terms related to flu activity. See <https://www.google.org/flutrends/us/#US>. Nevertheless, Google Flu Trends was criticized for being

Big data underpins the new Internet economy with companies like Amazon, Apple, Facebook, Google and Twitter ascending to a dominant position by gathering, analyzing, using and selling data.<sup>40</sup> Starting with big data platforms and then zeroing in on social networks, in the next subsection we present a comprehensive description of big data and social netbanks.

### a. Show Me the Money

#### i. Big-Data and Finance – A Never-Ending Reciprocity

The relationship between big data and finance is strengthening. A recent study found that 60% of financial institutions' executives in North America think that big data analytics offer a vital competitive advantage, and 90% believe that effective big data strategies will determine the industry leaders in the future.<sup>41</sup> Indeed, smart banks can use big data to create a 360-degree view on each customer based on how she uses her mobile or online financial services, ATMs, branch banking and more.<sup>42</sup> Examples of existing uses of big data include analysis of information about economic conditions, competitors' rates, and individual customer behavior to determine rates that institutions should pay for deposits<sup>43</sup> as well as processing big data to understand how customers use the different bank channels.<sup>44</sup> Big data also carries a significant potential to generate new income streams and business partnerships for banks.<sup>45</sup> Nevertheless, while 63% of banks globally recognize the competitive advantage that big data provides,<sup>46</sup> the category of "Big data analysis tools" received the highest level of dissatisfaction in a recent report on global large bank

---

highly inaccurate. See e.g., Bryan Walsh, *Google's Flu Project Shows the Failings of Big Data*, TIME (Mar. 13, 2014) <http://time.com/23782/google-flu-trends-big-data-problems/>.

<sup>37</sup> Jon Marcus/Dallas, *Here's the New Way Colleges Are Predicting Student Grades*, TIME (Dec. 10, 2014), <http://time.com/3621228/college-data-tracking-graduation-rates/>.

<sup>38</sup> Jack Clark, *Big Data Knows When You're Going to Quit Your Job Before You Do*, BLOOMBERG (Dec. 30, 2014), <http://www.bloomberg.com/news/2014-12-29/big-data-knows-when-you-re-going-to-quit-your-job-before-you-do.html>.

<sup>39</sup> Elahe Izadi, *Tweets can better predict heart disease rates than income, smoking and diabetes, study finds*, THE WASHINGTON POST (Jan. 21, 2015) <http://www.washingtonpost.com/news/to-your-health/wp/2015/01/21/tweets-can-better-predict-heart-disease-rates-than-income-smoking-and-diabetes-study-finds/>.

<sup>40</sup> Phil Simon, TOO BIG TO IGNORE: THE BUSINESS CASE FOR BIG DATA, Chapter 3 (2013). See also Dorie Clark, *Four Things You Need To Know In The Big Data Era*, FORBES (Aug. 8, 2013), <http://www.forbes.com/sites/dorieclark/2013/08/08/four-things-you-need-to-know-in-the-big-data-era/>.

<sup>41</sup> *Big Data: Profitability, Potential and Problems in Banking*, THE FINANCIAL BRAND (Apr. 21, 2014), <http://thefinancialbrand.com/38801/big-data-profitability-strategy-analytics-banking/>, hereinafter *The Financial Brand on Big Data*.

<sup>42</sup> IBM Smarter Planet Contributor, *How Big Data Helps Banks Personalize Customer Service*, FORBES (Jun. 16, 2014), <http://www.forbes.com/sites/ibm/2014/06/16/how-big-data-helps-banks-personalize-customer-service/>.

<sup>43</sup> Penny Crosman, *How Banks Are Using Big Data to Set Deposit Rates*, AMERICAN BANKER (Sep. 4, 2014), [http://www.americanbanker.com/issues/179\\_171/how-banks-are-using-big-data-to-set-deposit-rates-1069760-1.html](http://www.americanbanker.com/issues/179_171/how-banks-are-using-big-data-to-set-deposit-rates-1069760-1.html).

<sup>44</sup> Tom Groenfeldt, *Banks Use Big Data To Understand Customers Across Channels*, FORBES (Nov. 6, 2013), <http://www.forbes.com/sites/tomgroenfeldt/2013/06/11/banks-use-big-data-to-understand-customers-across-channels/>.

<sup>45</sup> Anthony Duffy, *Unlocking the potential of Big Data*, BANKING TECHNOLOGY, <http://www.bankingtech.com/58812/unlocking-the-potential-of-big-data/>.

<sup>46</sup> Yudhvir Seetharam, *Is Big Data making its way to the banking sector?* IT NEWS AFRICA (Dec. 3, 2014), <http://www.itnewsafrika.com/2014/12/is-big-data-making-its-way-to-the-banking-sector/>.

IT strategy and spending.<sup>47</sup> As the use of big data is perceived not as a technology issue, but rather as a change in the mind-set of how banks operate, banks are moving cautiously, and adopting technology with much hesitation.<sup>48</sup>

The use of big data by traditional banks raises a variety of concerns including cybersecurity and privacy-related issues. As the financial industry is one of the most heavily-regulated sectors, discussions about those concerns have been increasingly surfacing and will likely be followed by more regulatory attention. In this Article, however, we wish to report a different, perhaps more attention worthy phenomenon, which is related to the combination of big data and financial entities: big data platforms that are eyeing and in some cases gradually moving into the financial services market. As opposed to banks, which have dominated the financial services market and have now started to capitalize on the promise of big data, leading data-centric companies now are attempting to integrate bank-like services into their bundle of functions. This reverse move has yet to be identified by regulators notwithstanding its far-reaching consequences and importance. Below we provide a list of examples to demonstrate the move of big data platforms into the financial services market.

*PayPal (eBay)*: PayPal occupies a unique place in the list. To begin with, it has been around since 1998 and cannot be claimed to be a new player in the financial sector.<sup>49</sup> It was also founded to facilitate online transactions and by such exemplifies more of a bank than a big-data platform.<sup>50</sup> Nonetheless, PayPal is not considered a bank from a regulatory perspective, as according to its founder, PayPal does not engage in [fractional-reserve banking](#), as its funds that have not been disbursed are kept in commercial interest-bearing checking accounts.<sup>51</sup> Therefore, in the [United States](#), PayPal is licensed as a [money transmitter](#), on a state-by-state basis, based on the different state laws' definitions, and the CFPB started to look into PayPal's business only in 2012.<sup>52</sup> Furthermore, as opposed to banks belated acknowledgment of big data, PayPal has been using data analytics to help guide business strategy since 2012.<sup>53</sup> Back then, PayPal launched a

---

<sup>47</sup> David O'Connell, *Global Large-Bank IT Strategy and Spending Report, 2014*, AITE (Sep. 11, 2014), <http://www.aitegroup.com/report/global-large-bank-it-strategy-and-spending-report-2014>. See also Becca Lipman, *Banks to Increase IT Spend on Big Data Challenges, Finds Aite Report*, INFORMATION WEEK (Sep. 17, 2014), <http://www.wallstreetandtech.com/infrastructure/banks-to-increase-it-spend-on-big-data-challenges-finds-aite-report/a/d-id/1315827>.

<sup>48</sup> Kristin Broughton, *Training Bankers to Be Data Scientists*, AMERICAN BANKER (Oct. 30, 2014), [http://www.americanbanker.com/issues/179\\_210/training-bankers-to-be-data-scientists-1070958-1.html](http://www.americanbanker.com/issues/179_210/training-bankers-to-be-data-scientists-1070958-1.html).

<sup>49</sup> *PayPal Information Center*, PAYPAL, <https://www.paypal-media.com/history>.

<sup>50</sup> In fact, in Europe PayPal operates under a Luxembourg banking license, which enables it to conduct banking business throughout the EU. See Article 23 of the EU's Banking Directive (Directive 2006/48/EC). See also *PayPal Obtains Bank Charter for European Union*, Payment News (May 15, 2007), [http://www.paymentsnews.com/2007/05/paypal\\_obtains\\_.html](http://www.paymentsnews.com/2007/05/paypal_obtains_.html).

<sup>51</sup> See Peter Thiel's speech, *PayPal Is Not A Bank*, Stanford University's Entrepreneurship Corner (January 21, 2004), <http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1036>. Differently, however since 2007, PayPal Europe operates under a Luxembourg banking license. Catherine Holahan, *The Bank of PayPal*, Bloomberg (June 15, 2007), <http://www.bloomberg.com/bw/stories/2007-06-15/the-bank-of-paypalbusinessweek-business-news-stock-market-and-financial-advice> similarly, in Australia, PayPal is licensed as an Authorized Deposit-taking Institution and is thus subject to Australian banking laws and regulations. See Authority to carry on banking business, *Banking Act 1959*, at <http://www.apra.gov.au/adi/Documents/cfdocs/PayPal-auth-and-conditions-2006.pdf>.

<sup>52</sup> See *Twohig and Antonakes*, *supra* note 8. Since then PayPal was investigated by the CFPB for its Bill Me Later program. See Carter Dougherty, *EBay Probed by Regulator Over Loans Pioneered by Payday Lenders*, BLOOMBERG (Oct. 22, 2013), <http://www.bloomberg.com/news/2013-10-22/ebay-probed-by-regulator-over-loans-pioneered-by-payday-lenders.html>.

<sup>53</sup> Renee Boucher Ferguson, *Mining Data at PayPal to Guide Business Strategy*, MIT SLOAN MANAGEMENT REVIEW (Sep. 25, 2012), <http://sloanreview.mit.edu/article/mining-data-at-paypal-to-guide-business-strategy/>.

new data-mining program for the interest of its then parent company, eBay, and also to enable smaller merchants to connect more successfully with their customers.<sup>54</sup> PayPal's connection to eBay has positioned the former at the crossroads of e-commerce, and granted it a unique outlook on online buying habits.<sup>55</sup> Each of PayPal's users is given a customer genome sequence and grouped with similar peers to inform the company's business strategy and to offer a better user experience.<sup>56</sup> Based on the aggregated transactional data, predictions as to customers' spending are reportedly moving between 69%-93% accuracy.<sup>57</sup>

Today, PayPal is one of the leading online money transfer services available in more than 200 markets, and serving over 152 million active registered users<sup>58</sup> with a checking account and/or credit card information.<sup>59</sup> In late 2014, it was widely reported that the successful payment platform is to split from eBay.<sup>60</sup> Importantly, the link between eBay and PayPal is currently still evident in the operation of both platforms notwithstanding the reported future split: eBay offers its members to easily pay and get paid through PayPal,<sup>61</sup> and PayPal discloses its connection and obligation to its holding company, by, for example, stating in its privacy policy that it could share a user's personal information with members of the eBay Inc. corporate family.<sup>62</sup>

*Amazon:* Amazon is an e-commerce site with 237 million active users worldwide.<sup>63</sup> On top of pioneering e-commerce, Amazon illustrates how the amalgamation of sophisticated analytics and big data can be applied to gain a competitive edge by affording a higher level of service and prompting the development of additional revenue streams. Since 2003, when Amazon employed item-to-item collaborative filtering methods to customize a returning customers' shopping experience,<sup>64</sup> the company has evolved and improved its recommender engine to be cited by observers as a "killer feature."<sup>65</sup> The insights that Amazon can glean from the troves of data points generated on its site are far-reaching and apparently sufficiently accurate for it to consider delegating its customers' shopping list with an algorithm by offering "anticipatory shipping."<sup>66</sup> Amazon patented the process of shipping an item to a customer in anticipation that the customer will order that product, based on previous orders, product searches,

---

<sup>54</sup> Alex Woodie, *How PayPal Makes Merchants Smarter through Data Mining*, DATANAMI (Mar. 10, 2014), [http://www.datanami.com/2014/03/10/how\\_paypal\\_makes\\_merchants\\_smarter\\_through\\_data\\_mining/](http://www.datanami.com/2014/03/10/how_paypal_makes_merchants_smarter_through_data_mining/).

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *PayPal Financials*, PAYPAL available at <https://www.paypal-media.com/about>.

<sup>59</sup> Alexander Eule, *eBay and PayPal: The Split Could Be a Loser for Both Companies*, BARRONS (Oct. 4, 2014), <http://online.barrons.com/articles/ebay-and-paypal-the-split-could-be-a-loser-for-both-companies-1412399064>

<sup>60</sup> <http://www.ebay.com/>. See also Steven Bertoni, *eBay And PayPal To Split: Carl Icahn And Elon Musk Wish Comes True* (Sept. 30, 2014), <http://www.forbes.com/sites/stevenbertoni/2014/09/30/ebay-and-paypal-to-split-carl-icahn-and-elon-musk-wish-comes-true/>.

<sup>61</sup> *How eBay and PayPal work together*, EBAY, at <http://pages.ebay.com/help/pay/paypal-and-ebay.html>.

<sup>62</sup> *PayPal Privacy Policy*, PAYPAL, (Feb. 20, 2013), <https://www.paypal.com/webapps/mpp/ua/privacy-full>.

<sup>63</sup> David Streitfeld, *Amazon to Raise Fees as Revenue Disappoints*, N.Y. TIMES (Jan. 30, 2014), [http://www.nytimes.com/2014/01/31/technology/amazons-shares-fall-as-revenue-disappoints.html?\\_r=0](http://www.nytimes.com/2014/01/31/technology/amazons-shares-fall-as-revenue-disappoints.html?_r=0).

<sup>64</sup> Greg Linden, Brent Smith, & Jeremy York, *Amazon.com Recommendations, Item-to-Item Collaborative Filtering*, IEEE INTERNET COMPUTING 7 (2003), 76–80.

<sup>65</sup> JP Mangalindan, *Amazon's recommendation secret*, FORTUNE (Jul. 30, 2012), <http://fortune.com/2012/07/30/amazons-recommendation-secret/>.

<sup>66</sup> Bernard Marr, *Amazon: Using Big Data Analytics to Read Your Mind*, SMART DATA COLLECTIVE (Feb. 4, 2014), <http://smartdatacollective.com/bernardmarr/182796/amazon-using-big-data-analytics-read-your-mind>.

wish lists, shopping-cart contents, returns and how long a cursor hovers over an item.<sup>67</sup> Amazon also owns Amazon Web Services, a cloud-based computing and big data analysis resource that offers companies to cheaply rent computing time instead of setting up their own data processing centers.<sup>68</sup>

Amazon first ventured into the financial services market in 2012, when it started offering business loans to its sellers,<sup>69</sup> and rumors speculate that it is about to expand into individual lending as well.<sup>70</sup> In 2013, Amazon launched the Amazon Payment service,<sup>71</sup> which streamlines online purchases by enabling customers to go from browsing to buying in just a few clicks using their Amazon account information.<sup>72</sup> Recently, the system further expanded to include recurring payments like monthly subscription fees or phone bills.<sup>73</sup>

*Apple:* Over 85 billion applications were downloaded at Apple's app store by October 2014;<sup>74</sup> every Apple product communicates with the Apple data warehouse on a continuous basis;<sup>75</sup> and information collected from Siri, Apple's iPhone intelligent personal assistant and knowledge navigator, is stored on Apple's servers for 2 years.<sup>76</sup> Apple holds a massive bank of data, and while it has been slower than its competitors in unlocking the vast potential of its informational assets,<sup>77</sup> it seems to be safely moving in that direction.<sup>78</sup> A few relatively recent

---

<sup>67</sup> Greg Bensinger, *Amazon Wants to Ship Your Package Before You Buy It*, WALL ST. J. (Jan. 17, 2014), <http://blogs.wsj.com/digits/2014/01/17/amazon-wants-to-ship-your-package-before-you-buy-it/>.

<sup>68</sup> <http://aws.amazon.com/>. See also Marr, *supra* note 60.

<sup>69</sup> *Amazon Lending - Amazon starts loaning capital to sellers to help them scale*, CHANNEL ADVISOR BLOG (Sept. 27, 2012), <http://www.amazonstrategies.com/2012/09/amazon-lending-amazon-starts-loaning-capital-to-sellers-to-help-them-scale.html>.

<sup>70</sup> Jason Del Rey, *Amazon Quietly Hires Visa Credit Card Boss to Expand Little-Known Lending Business*, RECODE (August 28, 2014), <http://recode.net/2014/08/28/amazon-quietly-hires-visa-credit-card-boss-to-expand-little-known-lending-business/>.

<sup>71</sup> Back in 2007, Amazon presented its first payment service "Amazon Flexible Payments Service," to provide everything developers need to set up payments on their sites. Jeff Barr, *Ka-Ching!*, AMAZON WEB SERVICES OFFICIAL BLOG (Aug. 3, 2007), <https://aws.amazon.com/blogs/aws/pay-me-now-or-p/>. The Amazon Payment service launched in 2013, however, is a completely different product. See *Amazon Launches 'Login and Pay with Amazon' for a Seamless Buying Experience*, AMAZON (Oct. 8, 2013), <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1862641>. See also Amazon Payments, <http://www.amazon.com/b?ie=UTF8&node=2856403011>.

<sup>72</sup> *Id.* The service is proven to be highly successful, as on Cyber Monday of 2014, orders processed by businesses using Amazon Payments grew by more than 60 percent year-over-year, see *Amazon Sellers Sold Record-Setting More Than 2 Billion Items Worldwide in 2014*, BUSINESS WIRE (Jan. 5, 2015), [http://www.businesswire.com/news/home/20150105005186/en/Amazon-Sellers-Sold-Record-Setting-2-Billion-Items#.VKrzI2TF\\_pW](http://www.businesswire.com/news/home/20150105005186/en/Amazon-Sellers-Sold-Record-Setting-2-Billion-Items#.VKrzI2TF_pW).

<sup>73</sup> Deepa Seetharaman, *Amazon expands middleman role in latest online payments push*, REUTERS (Jun. 9, 2014), <http://www.reuters.com/article/2014/06/09/us-amazon-com-payment-idUSKBN0EK0HW20140609>.

<sup>74</sup> *Cumulative number of apps downloaded from the Apple App Store from July 2008 to October 2014 (in billions)*, STATISTA, <http://www.statista.com/statistics/263794/number-of-downloads-from-the-apple-app-store/>.

<sup>75</sup> Mark van Rijmenam, *Will Apple Re-Invent Big Data?*, DATA FLOQ (Jan. 5, 2015), <https://datafloq.com/read/apple-re-invent-big-data/452>.

<sup>76</sup> Robert McMillan, *Apple Finally Reveals How Long Siri Keeps Your Data*, WIRED (Apr. 19, 2013), <http://www.wired.com/2013/04/siri-two-years/>.

<sup>77</sup> Dave Einstein, *Google vs. Apple Maps: Big-Data Battle, Cloudy Clash*, FORBES (Mar. 10, 2012), <http://www.forbes.com/sites/netapp/2012/10/03/google-apple-maps-big-data-cloud/> ("The battleground can be described in just two words: *Big Data*. Google has it; Apple is scrambling to catch up"). See also Derrick Harris, *So Apple doesn't collect as much data as Google. Maybe it should*, GIGAOM (Sep. 19, 2014), <https://gigaom.com/2014/09/19/so-apple-doesnt-collect-as-much-data-as-google-maybe-it-should/>.

investments demonstrates Apple's intention to become more data-centric: in July, 2014, Apple announced a partnership with IBM to create simple-to-use business apps,<sup>79</sup> which will grant Apple access to IBM's customers and data analytics capabilities to power enterprise apps;<sup>80</sup> Apple has also boosted its music analytics by acquiring Semetric, an analytics service that tracks music sales, illegal downloads and social-networking mentions,<sup>81</sup> and the recent acquisition of Topsy Labs, a social analytics startup specializing in identifying trending topics on Twitter and other social media networks, also signals Apple's intention to make sense of its big data trove.<sup>82</sup>

Reported to aggressively enter the financial services market, Apple has turned its newest iPhone into a mobile wallet, thanks to a partnership with major payment networks, banks and retailers.<sup>83</sup> Apple joined other smartphones manufacturers and included in its new iPhone a new near-field communication ('NFC') chip.<sup>84</sup> NFC is a form of contactless communication, which allows compatible devices to establish communication and send information by bringing them into proximity without undergoing multiple steps to set up a connection.<sup>85</sup> Together with a new chip called the Secure Element that keeps payment information in encrypted, secure system<sup>86</sup> and along with Apple's fingertip recognition reader launched on its latest iPhone, the NFC chip makes mobile payments not only easier, but also more secure.<sup>87</sup> With over 800 million credit cards stored on existing iTunes/AppStore accounts, Apple is able to make the transition into a digital wallet easier for its customers, and ironically for its competitors' customers as well.<sup>88</sup>

A recent report indicates that Apple Pay could significantly transform the mobile payment space, considering that in the month following its launch Apple's new platform was

---

<sup>78</sup> Jordan Novet, *Big data could be a sweet business for Apple, analysts say*, VENTURE BEATS (Apr. 11, 2014), <http://venturebeat.com/2014/04/11/big-data-could-be-a-sweet-business-for-apple-analysts-say/>.

<sup>79</sup> Daisuke Wakabayashi, *Apple, IBM in Deal to Create Apps, Sell Phones*, WALL ST. J. (Jul. 15, 2014), <http://www.wsj.com/articles/apple-ibm-in-deal-to-create-apps-sell-phones-1405456933>. Three months later, the companies introduced a set of 10 apps designed to exploit the push by businesses to adapt to the mobile era, see Don Clark, *IBM, Apple Reveal First Fruits of Partnership*, WALL ST. J. (Dec. 10, 2014), <http://www.wsj.com/articles/ibm-apple-reveal-first-fruits-of-partnership-1418218201>.

<sup>80</sup> Anthony Wing Kosner, *Apple's Partnership With IBM Is About The Victory Of Design Over Data*, FORBES, Jul. 16, 2014 at <http://www.forbes.com/sites/anthonykosner/2014/07/16/apples-partnership-with-ibm-is-about-the-victory-of-design-over-data/>.

<sup>81</sup> Lisa Fleisher, *Apple Buys Semetric, Gearing Up to Take On Spotify*, WALL ST. J. (Jan. 21, 2015), [http://blogs.wsj.com/digits/2015/01/21/apple-buys-semetric-gearing-up-to-take-on-spotify/?mod=rss\\_Technology](http://blogs.wsj.com/digits/2015/01/21/apple-buys-semetric-gearing-up-to-take-on-spotify/?mod=rss_Technology).

<sup>82</sup> Daisuke Wakabayashi & Douglas Macmillan, *Apple Taps Into Twitter, Buying Social Analytics Firm Topsy*, WALL ST. J. (December 2, 2013), <http://online.wsj.com/news/articles/SB10001424052702304854804579234450633315742>.

<sup>83</sup> Matt Townsend, *Apple Teaming Up With Visa, MasterCard on iPhone Wallet*, BLOOMBERG (Sept. 1, 2014), <http://www.bloomberg.com/news/2014-08-31/apple-said-to-team-with-visa-mastercard-on-iphone-wallet.html>.

<sup>84</sup> *Id.*

<sup>85</sup> *About Near Field Communication*, NFC.ORG at <http://www.nearfieldcommunication.org/about-nfc.html>, and *Near field communication*, WIKIPEDIA, at [http://en.wikipedia.org/wiki/Near\\_field\\_communication](http://en.wikipedia.org/wiki/Near_field_communication).

<sup>86</sup> Sam Machkovech, *Apple unveils Apple Pay mobile payment platform*, ARSTECHNICA (Sep. 9, 2014), <http://arstechnica.com/apple/2014/09/apple-announces-apple-pay-mobile-payment-platform/>.

<sup>87</sup> Townsend, *supra* note 77.

<sup>88</sup> Mark Rogowsky, *'Nobody Freaking Cares'? With iPhone 6, Apple Makes NFC A Must-Have Mobile Payments Feature*, FORBES (Sept. 1, 2014), <http://www.forbes.com/sites/markrogowsky/2014/09/01/the-tech-once-called-nobody-freaking-cares-is-on-its-way-to-must-have-status-with-the-iphone-6/>, and Greg Sterling, *Will Apple Payments Resurrect Google Wallet?*, MARKETING LAND (Sep. 2, 2014), <http://marketingland.com/will-apple-payments-give-new-life-google-wallet-98327>.

responsible for 1% of digital payment dollars.<sup>89</sup> This is a strong showing in light of the service's limited availability – only Apple users with the newest hardware can make use of Apple Pay in a growing but yet relatively limited list of merchants.<sup>90</sup>

While Apple guarantees that personal shopping information would not be transferred to Apple,<sup>91</sup> non-personal information is surely to be collected, not only from the transactions but also from partnerships with retailers<sup>92</sup> and banks<sup>93</sup> to ensure the use of ApplePay at both ends. Consequently, some English banks expressed concerns about the amount of personal and financial information Apple is collecting about the banks' customers, fearing that that same data “could serve as a beachhead for an invasion of the banking industry.”<sup>94</sup>

## ii. Social Netbanks

Social networking sites are gradually becoming the main channel by which individuals all over the world build and maintain their personal network online.<sup>95</sup> The penetration numbers are impressively high – according to a recent study, 58 percent of Americans 12 years or older hold a Facebook account; 19 percent have a personal LinkedIn page; 19 percent own an Instagram account; and 16 percent have a personal Twitter account.<sup>96</sup> With over 5,700 tweets posted every second and 2.5 billion pieces of content shared daily on Facebook, the use of social networks is undoubtedly central to the life of many.<sup>97</sup>

Social networking outlets are defined as web-based services that enable users to establish a public or semi-public representation of themselves within a confined system, construct a list of connections, and follow their list and similar lists created by others within the system.<sup>98</sup> When joining a social networking service, the user provides information to generate a unique personal profile.<sup>99</sup> Then, she identifies others within the system as her social links via either bi-

---

<sup>89</sup> *ITG Investment Research Report Finds Strong Apple Pay Momentum*, ITG (Dec. 19, 2014), [http://investor.itg.com/phoenix.zhtml?c=100516&p=RssLanding\\_pf&cat=news&id=2001056](http://investor.itg.com/phoenix.zhtml?c=100516&p=RssLanding_pf&cat=news&id=2001056).

<sup>90</sup> *Id.*

<sup>91</sup> “All transactions will be conducted with a one-time code that doesn't transfer personal shopping information to Apple (or credit card information to individual cashiers), and payments can also be immediately suspended by using Find My iPhone” Sam Machkovech, *Apple unveils Apple Pay mobile payment platform*, ARS TECHNICA (Sep. 9, 2014), <http://arstechnica.com/apple/2014/09/apple-announces-apple-pay-mobile-payment-platform/>.

<sup>92</sup> H.O. Maycotte, *Sorry Walmart -- NFC and Apple Pay Have Already Won*, FORBES (Nov. 4, 2014), <http://www.forbes.com/sites/homaycotte/2014/11/04/nfc-apple-pay-already-won/2/>.

<sup>93</sup> Christopher Williams, *UK banks in talks over Apple 'wave and pay,'* THE TELEGRAPH (Dec. 27, 2014), <http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/telecoms/11312574/UK-banks-in-talks-over-Apple-wave-and-pay.html>.

<sup>94</sup> *Id.*

<sup>95</sup> Kuan-Yu Lin & Hsi-Peng Lu, *Why people use social networking sites: An empirical study integrating network externalities and motivation theory*, COMPUTERS IN HUMAN BEHAVIOR, Volume 27, Issue 3, 1152, 1152 (2011).

<sup>96</sup> Tom Webster, *American Usage of Leading Social Platforms, by Age*, EDISON RESEARCH BLOG (May 22, 2014), [http://www.edisonresearch.com/home/archives/2014/05/american-usage-of-leading-social-platforms-by-age.php#.U4yo\\_uZdXnI](http://www.edisonresearch.com/home/archives/2014/05/american-usage-of-leading-social-platforms-by-age.php#.U4yo_uZdXnI).

<sup>97</sup> Shea Bennett, *Pinterest, Twitter, Facebook, Instagram, Google+, LinkedIn – Social Media Stats 2014*, ALL TWITTER (Jan. 20, 2014), [http://www.mediabistro.com/alltwitter/social-media-stats-2014\\_b54243](http://www.mediabistro.com/alltwitter/social-media-stats-2014_b54243).

<sup>98</sup> danah m. boyd & Nicole B. Ellison, *Social Network Sites: Definition, History, and Scholarship*, 13 JOURNAL OF COMPUTER-MEDIATED COMMUNICATION, 210, 211 (2008). For a narrower definition see David Beer, *Social network(ing) sites...revisiting the story so far: A response to danah boyd & Nicole Ellison*, 13 JOURNAL OF COMPUTER-MEDIATED COMMUNICATION, 516 (2008).

<sup>99</sup> *Boyd & Ellison, id.*, at 213.

directional connection (e.g., Facebook friends) or one directional tie (e.g., Twitter follower).<sup>100</sup> Other than the aggregation of profiles, the body of social connections and the ability to interact through comments and private messaging, social networks differ in their features and user base.<sup>101</sup> Most of them do not charge their users subscription fees, and revenue is typically gained through capitalizing on their large membership count for monetization via advertising.<sup>102</sup>

Social networks collect and store an exceptional amount of data, most of which is spontaneously generated and hard to capture and classify.<sup>103</sup> Advances in artificial intelligence research known as “deep learning” are helping social networks and their advertisers to glean insights from the enormous amount of unstructured data.<sup>104</sup> Retailers then carefully analyze the generated information and use it to proactively design targeted advertising and individually tailored offers. As data-driven strategy has proved to be highly effective, advertising has turned into a key source of income for social networks.<sup>105</sup>

The advertising model revolves around users’ engagement – the more members a social network has, the more effective the advertisement strategy is. Social channels demonstrate constant growth in penetration numbers, with over 135 million new members joining top networks in the course of 2013.<sup>106</sup> Nearly 75 percent of Internet users are actively participating in social networks,<sup>107</sup> and the global social network audience is expected to total 2.55 billion by 2017.<sup>108</sup> Users around the globe also devote a significant part of their day to online social activity: Argentinian users lead the chart with an average of 4.3 hours a day spent in social channels, while Canadian and U.S. users normally allocate 2.3 hours a day for virtual social networking.<sup>109</sup>

The dominance of the mobile market is instrumental in both the rising numbers of social networks members and the amount of time set aside for online social engagement.<sup>110</sup> Over three

---

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

<sup>102</sup> Michael Trusov, Anand V. Bodapati, & Randolph E. Bucklin, *Determining Influential Users in Internet Social Networks*, at 3, available at SSRN: <http://ssrn.com/abstract=1479689> (2009) (Explaining that “The most popular SN site business model is based on advertising.”)

<sup>103</sup> Cooper Smith, *Reinventing Social Media: Deep Learning, Predictive Marketing, And Image Recognition Will Change Everything*, BUSINESS INSIDER (Mar. 20, 2014), <http://www.businessinsider.com/social-medias-big-data-future-2014-3>.

<sup>104</sup> *Id.*

<sup>105</sup> *The Paid Social Media Advertising Report 2013*, NIELSEN,

<http://www.nielsen.com/apac/en/insights/reports/2013/the-paid-social-media-advertising-report-2013.html>

(“advertisers increasingly view paid social media advertising as an integrated, cross-platform tactic and run it in conjunction with other online and offline media”). See also Sanjukta Pookulangara & Kristian Koesler, *Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions*, JOURNAL OF RETAILING AND CONSUMER SERVICES 01/2011,18(4) 348. Social networks also use other business models such as products, services and referrals model, content sales, freemium and more. See *Social Network Business Models*, HOW TO START A SOCIAL NETWORK (Jun. 24, 2014), <http://howtostartasocialnetwork.com/social-network-business-models/>. For the purpose of the social networks discussed in this Article, however, we will focus our attention on the advertisement model.

<sup>106</sup> Simon Kemp, *Social, Digital & Mobile Worldwide in 2014*, WE ARE SOCIAL (Jan. 9, 2014), <http://wearesocial.net/blog/2014/01/social-digital-mobile-worldwide-2014/>.

<sup>107</sup> *Id.*

<sup>108</sup> *Social Networking Reaches Nearly One in Four Around the World*, EMARKETER (June 18, 2013), <http://www.emarketer.com/Article/Social-Networking-Reaches-Nearly-One-Four-Around-World/1009976>.

<sup>109</sup> Kemp, *supra* note 100.

<sup>110</sup> *Id.*

quarters of Facebook users access the platform through their mobile device,<sup>111</sup> and many social networks are either mobile-dominated (e.g., Twitter), or completely mobile-dependent (e.g., Instagram and WhatsApp).<sup>112</sup> In the words of one reporter: “In villages in the remote Brazilian state of Para, deep in the Amazon rainforest, running water is a luxury and paved roads are few and far between. But there is Facebook.”<sup>113</sup>

Becoming more and more powerful, major social networks began looking for new ways to expand their business and generate more revenue. Some of them, like Facebook and Twitter, moved away from venture capitalist, or other forms of private funding, and went public.<sup>114</sup> Those networks and others also adopted another common strategy for keeping up with the ever-changing technological scene and started buying other companies to boost the networks’ offering of services or build upon their existing user base. A few noteworthy examples include Google purchasing Waze, a mapping service, to offer a better navigating experience;<sup>115</sup> Facebook buying Instagram, a photo sharing application, to bolster its grip in the mobile market,<sup>116</sup> as well as WhatsApp, a cross-platform mobile messaging application;<sup>117</sup> and Twitter buying more than a dozen mobile advertising companies since the beginning of 2013, to augment and solidify its mobile footprint.<sup>118</sup>

Against this backdrop, it is not surprising that major social network outlets around the world are now eyeing the financial services market. Social networks are constantly challenged to keep up with big market changes, new technologies, and rising competitors. The more sizable a social network gets, the greater the risk of it losing its users’ attention. The ability to easily use data to generate insights about customers has already been in use for years to provide contextual solutions for targeted marketing. The next logical step is to utilize this same insight, combined with transaction behavioral data, to deliver highly personalized financial advice and solutions.<sup>119</sup> Similarly to what other technology competitors have been doing in the past, social netbanks can eliminate inefficiencies and transactional friction by ‘eating away at the edges,’ penetrating some segments of traditional banking like payments and checking accounts via prepaid cards.<sup>120</sup> For

---

<sup>111</sup> *Statistics* (updated June 2014), FACEBOOK NEWSROOM at <http://newsroom.fb.com/company-info/>.

<sup>112</sup> *Kemp, supra* note 100.

<sup>113</sup> Ryan Holmes, *The Future Of Social Media? Forget About The U.S., Look To Brazil*, FORBES (Sept. 12, 2013), <http://www.forbes.com/sites/ciocentral/2013/09/12/the-future-of-social-media-forget-about-the-u-s-look-to-brazil/>.

<sup>114</sup> Shayndi Raice, Anupreeta Das, & John Letzing, *Facebook Prices IPO at Record Value*, WALL ST. J. (May 17, 2012), <http://online.wsj.com/news/articles/SB10001424052702303448404577409923406193162>; Julianne Pepitone, *Twitter sets IPO price at \$26 a share*, CNN (Nov. 6, 2013), <http://money.cnn.com/2013/11/06/technology/social/twitter-ipo-price/>.

<sup>115</sup> Peter Cohan, *Four Reasons Google Bought Waze*, FORBES (Jun. 11, 2013), <http://www.forbes.com/sites/petercohan/2013/06/11/four-reasons-for-google-to-buy-waze/>.

<sup>116</sup> Evelyn M. Rusli, *Facebook Buys Instagram for \$1 Billion*, NY TIMES (Apr. 9, 2014), [http://dealbook.nytimes.com/2012/04/09/facebook-buys-instagram-for-1-billion/?\\_php=true&\\_type=blogs&\\_r=0](http://dealbook.nytimes.com/2012/04/09/facebook-buys-instagram-for-1-billion/?_php=true&_type=blogs&_r=0). Purchasing Instagram also allowed Facebook to indirectly operate in China, the world’s largest Internet market, where Facebook is currently blocked but Instagram isn’t. See Brad Stone, *Facebook Buys WhatsApp for \$19 Billion*, BLOOMBERG BUSINESSWEEK (Feb. 19, 2014), <http://www.businessweek.com/articles/2014-02-19/facebook-acquires-whatsapp-for-19-billion>.

<sup>117</sup> Shel Israel, *Facebook Buys WhatsApp: Boneheaded or Brilliant?*, FORBES (Feb. 25, 2014), <http://www.forbes.com/sites/shelisrael/2014/02/25/2329/>

<sup>118</sup> Richard Byrne Reilly, *Twitter’s mobile acquisition strategy pays off*, VENTURE BEAT NEWS (Jul. 29, 2014), <http://venturebeat.com/2014/07/29/twitters-mobile-acquisition-strategy-pays-off/>.

<sup>119</sup> Jim Marous, *Google, Apple, Facebook and Amazon Should Terrify Banking*, THE FINANCIAL BRAND (Aug. 6, 2014), <http://thefinancialbrand.com/41484/google-apple-facebook-amazon-banking-payments-big-data/>.

<sup>120</sup> *Id.*

many of those services, social netbanks could offer a more attractive alternative up to the point of relegating traditional banks to merely processing transactions.<sup>121</sup>

And while the variety of available services and the way those are offered and conducted differ, the motivation and general direction of this recent trend are the same: keeping an existing user community, maintaining a strong relationship with it by offering vital services, and expanding current user base by opening up to additional markets. As the list of examples in the following subsection shows, by offering financial services, social networks can turn themselves from a discretionary pastime to a necessity, prompting reliance and dependency.

*Google:*<sup>122</sup> Google is ranked first amongst the most visited multi-platform websites with 236 million U.S. unique visitors and a market share of 67.4 percent among U.S search engines.<sup>123</sup> Google also owns successful social networking outlets like YouTube, the social networking service Google Plus, and the blog-publishing platform Blogger. Since purchased by Google in 2006 for \$1.65 billion,<sup>124</sup> YouTube was crowned the most popular video platform in the world, with more than 1 billion unique visitors per month.<sup>125</sup> While not as successful as other leading social networks, Google's social networking service, Google Plus, has 1.15 billion registered users<sup>126</sup> and invaluable access to users' digital life and personal information.<sup>127</sup> Google's Blogger is the leading blog site in the U.S., with 46 million unique monthly users.<sup>128</sup>

Crowned as "the web's emperor" in the big data realm, Google is more than anything - a data collection refinery.<sup>129</sup> According to a 2010 statement by Eric Schmidt, Google's executive chairman, the amount of information created in two days equals the amount of information the world produced from the dawn of civilization until 2003.<sup>130</sup> All that information, the breadth of which exceeds that of any single entity, government or corporation, is amassed in the Google ecosystem and used to build persistent user profiles for precise micro-targeted marketing.<sup>131</sup> In addition to search and social information, data is also collected from Google's communication and storage tools (e.g., Google Hangouts and Google Drive), map-related products (Google

---

<sup>121</sup> *Id.*

<sup>122</sup> While Google is mostly associated with its search engine, products like Google Plus and YouTube keeps Google within the definition of a social network in terms of social connectivity and data collection. Thus, we regard it as a social network for the purpose of this Article.

<sup>123</sup> *Google Statistics and Facts*, STATISTA (Apr. 2014), <http://www.statista.com/topics/1001/google/>.

<sup>124</sup> *Google To Acquire YouTube for \$1.65 Billion in Stock*, GOOGLEPRESS (Oct. 9, 2006), [http://googlepress.blogspot.com/2006/10/google-to-acquire-youtube-for-165\\_09.html](http://googlepress.blogspot.com/2006/10/google-to-acquire-youtube-for-165_09.html).

<sup>125</sup> *Top 15 Most Popular Video Websites*, EBIZ (Dec. 2014), <http://www.ebizmba.com/articles/video-websites>. See also *Statistics*, YOUTUBE, at <https://www.youtube.com/yt/press/statistics.html>

<sup>126</sup> But only 359 million monthly active users, see *The State of Google+*, WE ARE SOCIAL (Feb. 12, 2014), <http://wearesocial.net/blog/2014/02/state-google/>.

<sup>127</sup> Google Plus is said to be "central to Google's future — a lens that allows the company to peer more broadly into people's digital life, and to gather an ever-richer trove of the personal information that advertisers covet. Some analysts even say that Google understands more about people's social activity than Facebook does." Claire Cain Miller, *The Plus in Google Plus? It's Mostly for Google*, N.Y. TIMES (Feb 14, 2014), [http://www.nytimes.com/2014/02/15/technology/the-plus-in-google-plus-its-mostly-for-google.html?\\_r=0](http://www.nytimes.com/2014/02/15/technology/the-plus-in-google-plus-its-mostly-for-google.html?_r=0)

<sup>128</sup> *Buzz in the Blogosphere: Millions More Bloggers and Blog Readers*, NIELSEN (Mar. 8, 2012), <http://www.nielsen.com/us/en/insights/news/2012/buzz-in-the-blogosphere-millions-more-bloggers-and-blog-readers.html>.

<sup>129</sup> Pamela Jones Harbour, *The Emperor of All Identities*, N.Y. TIMES (Dec. 18, 2012), <http://www.nytimes.com/2012/12/19/opinion/why-google-has-too-much-power-over-your-private-life.html>.

<sup>130</sup> MG Siegler, Eric Schmidt: Every 2 Days We Create As Much Information As We Did Up To 2003, TECH CRUNCH (Aug 4, 2010), <http://techcrunch.com/2010/08/04/schmidt-data/>.

<sup>131</sup> Jones Harbour, *supra* note 123.

Maps), streaming entertainment through its Google Play store and YouTube, statistical tools (Google Analytics), translation queries (Google Translate), operating systems (Android, Chrome OS), desktop and mobile Web applications (like Gmail), hardware (Galaxy Nexus),<sup>132</sup> and even a wireless service.<sup>133</sup> By acquiring smart thermostat maker Nest Labs in a much talked-about deal in early 2014, Google also made its first significant step into the analysis and the management of data from web-connected household appliances.<sup>134</sup>

In May 2011, the tech giant unveiled its mobile payments platform, Google Wallet, intending to replace the physical items in one's wallet.<sup>135</sup> Google Wallet is now used to deposit money for use through the application, make purchases in-store and online, and transfer money to other recipients.<sup>136</sup> The Wallet's debit card is accepted at millions of MasterCard locations and can even be used to withdraw at ATMs.<sup>137</sup> Admittedly, Google Wallet has not yet gone mainstream, but Google links it to its other extremely successful products to help further the technology acceptance.<sup>138</sup> This is why, for example, money can now be sent and received as an attachment on Gmail.<sup>139</sup> Google also connected its payment service to YouTube, processing donations to content creators through Google Wallet only.<sup>140</sup> Additionally, the recent launch of Apple's new payment platform 'ApplePay' has reportedly boosted Google Wallet's use with weekly transactions growing by nearly 50 percent and a dramatic increase in the number of new users.<sup>141</sup>

*Facebook*: Launched in 2004 as a social network for students only,<sup>142</sup> social networking giant Facebook has now over 829 million active users.<sup>143</sup> With 10 billion Facebook messages exchanged daily, 4.5 billion 'like' clicks per day, 17 billion total location-tagged posts and 250

---

<sup>132</sup> David Hughes, *Big Data Is the Only Way to Compete With Google*, ALL THINGS D (Jul. 18, 2013), <http://allthingsd.com/20130718/big-data-is-the-only-way-to-compete-with-google/>.

<sup>133</sup> Ryan Knutson and Alistair Barr, *Google to Sell Wireless Service in Deals With Sprint, T-Mobile*, WALL ST. J. (Jan. 21, 2015), <http://www.wsj.com/articles/google-to-sell-wireless-service-in-deals-with-sprint-t-mobile-1421887967>.

<sup>134</sup> Rolfe Winkler & Daisuke Wakabayashi, *Google to Buy Nest Labs for \$3.2 Billion*, WALL ST. J. (Jan 13, 2014), <http://www.wsj.com/articles/SB10001424052702303595404579318952802236612>.

<sup>135</sup> Rob von Behren & Jonathan Wall, *Coming soon: make your phone your wallet*, GOOGLE OFFICIAL BLOG (May 26, 2011), [http://googleblog.blogspot.com/2011/05/coming-soon-make-your-phone-your-wallet.html?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+blogspot%2FMKuf+%28Official+Google+Blog%29](http://googleblog.blogspot.com/2011/05/coming-soon-make-your-phone-your-wallet.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+blogspot%2FMKuf+%28Official+Google+Blog%29).

<sup>136</sup> <https://www.google.com/wallet/index.html>. See also Kyli Singh, *The Beginner's Guide to Google Wallet*, MASHABLE (Jul. 14, 2014), <http://mashable.com/2014/07/14/google-wallet-for-beginners/>.

<sup>137</sup> *What is the Google Wallet Card?*, GOOGLE WALLET, <http://www.google.com/wallet/faq.html>.

<sup>138</sup> Todd Waserman, *You Can Now Send Money Via Gmail*, MASHABLE (May 15, 2014), <http://mashable.com/2013/05/15/gmail-money-wallet/>.

<sup>139</sup> *Send & request money with Gmail*, GOOGLE HELP FORUM, <https://support.google.com/mail/answer/3141103?hl=en>. See also Travis Green, *Send money to friends with Gmail and Google Wallet* (May 15, 2013), <http://gmailblog.blogspot.com/2013/05/send-money-to-friends-with-gmail-and.html>.

<sup>140</sup> *About Fan Funding*, YOUTUBE HELP FORUM, <https://support.google.com/youtube/answer/6052077>. See also Bertel King, Jr., *YouTube Now Offers Fan Funding In Four Countries - Here's A Look At How It Works*, ANDROID POLICE (Sep. 1, 2014), <http://www.androidpolice.com/2014/09/01/youtube-now-offers-fan-funding-heres-look-works/>.

<sup>141</sup> Megan Geuss, *Google Wallet use grows after Apple Pay launch*, ARSTECHNICA (Nov. 5, 2014), <http://arstechnica.com/business/2014/11/google-wallet-grows-after-apple-pay-launch/>.

<sup>142</sup> *History of Facebook*, WIKIPEDIA, [http://en.wikipedia.org/wiki/History\\_of\\_Facebook](http://en.wikipedia.org/wiki/History_of_Facebook).

<sup>143</sup> *Facebook Quarterly Earnings Slides, Q2 2014*, 3, <http://files.shareholder.com/downloads/AMDA-NJ5DZ/3349478089x0x770377/abc6b6d4-df03-44e1-bb4d-7877f01c41e0/FB%20Q2>.

billion total photos - Facebook is a big data paradise.<sup>144</sup> Facebook has accumulated information on its members' gender, age, marital and parental status, location, job, Pages they like, education, political stands, pets, interests, hobbies<sup>145</sup> and even the time a user's cursor hovers over a certain part of a page.<sup>146</sup> Information is collected not only when members are using the social network but also when they surf the Web or use other apps on their smartphones.<sup>147</sup> By partnering with other data collectors, Facebook has gained access to additional information, such as data extracted from store loyalty cards, mailing lists, and public records.<sup>148</sup> In fact, it may well be the case that Facebook has currently enough detailed insights about its members to exploit for years even if all its users quit Facebook today.<sup>149</sup> The collected data is analyzed and used for an unending range of purposes - from keeping the network's members engaged by making their "Facebooking" specifically tailored to them,<sup>150</sup> to product development and targeting of advertising.<sup>151</sup>

Facebook is already authorized to facilitate certain forms of money transfer in the US, like payments within applications that totaled \$2.1 billion during 2013.<sup>152</sup> Reportedly, in the last few years Facebook has been eyeing a possible extension into the financial services market, as the company sought regulatory approval in Ireland to provide money transfer and electronic money services to its members across Europe.<sup>153</sup> Shortly after Facebook allegedly submitted its application, Credit Suisse upgraded Facebook's stock from "neutral" to "outperform."<sup>154</sup> The expectations for higher growth, Credit Suisse said in a note to its clients, were to "layer in monetization from the company's upcoming product releases."<sup>155</sup> Additionally, and more importantly, the hiring of David Marcus, former president of online payment processor PayPal, to lead Facebook's effort on mobile messaging paid off in spring 2015, when Facebook

---

<sup>144</sup> Bernard Marr, *Facebook's Big Data: Equal Parts Exciting and Terrifying?*, SMART DATA COLLECTIVE (Feb. 18, 2014), <http://smartdatacollective.com/bernardmarr/185086/facebook-s-big-data-equal-parts-exciting-and-terrifying> (hereinafter *Marr, Facebook*)

<sup>145</sup> Laura Donovan, *Big Data, Facebook and You, Business to Community* (Jan. 6, 2015), <http://www.business2community.com/facebook/big-data-facebook-01115678>.

<sup>146</sup> Steve Reosenbush, *Facebook Tests Software to Track Your Cursor on Screen*, WALL ST. J. (Oct. 30, 2013), <http://blogs.wsj.com/cio/2013/10/30/facebook-considers-vast-increase-in-data-collection/>.

<sup>147</sup> Geoffrey A. Fowler, *What You Can Do About Facebook Tracking*, WALL ST. J. (Aug. 5, 2014), <http://www.wsj.com/articles/what-you-can-do-about-facebook-tracking-1407263246>.

<sup>148</sup> *Donovan, supra* note 139.

<sup>149</sup> *Marr, Facebook, supra* note 138.

<sup>150</sup> *Facebook Is About To Launch A Huge Play In 'Big Data' Analytics*, BUSINESS INSIDER (May 10, 2013), <http://www.businessinsider.com/facebook-is-about-to-launch-a-huge-play-in-big-data-analytics-2013-5>.

<sup>151</sup> Steve Reosenbush, *Facebook Ad Surge Reflects Impact of Big Data*, WALL ST. J. (Jan. 29, 2014), <http://blogs.wsj.com/cio/2014/01/29/facebook-ad-surge-reflects-impact-of-big-data/>.

<sup>152</sup> See, e.g., Samuel Gibbs, *Facebook prepares to launch e-money transfer service in Europe*, THE GUARDIAN (Apr. 14, 2014), <http://www.theguardian.com/technology/2014/apr/14/facebook-e-money-transfer-service-europe>; Brittany Darwell, *Facebook Obtains Money Transmitter Licenses in 15 States*, INSIDE FACEBOOK (Feb. 22, 2012), <http://www.insidefacebook.com/2012/02/22/facebook-obtains-money-transmitter-licenses-in-15-states/>; Sean Sposito, *Facebook Fast-Tracks Its Payments Business*, AMERICAN BANKER (Feb. 21, 2012), [http://www.americanbanker.com/issues/177\\_35/facebook-credits-money-transmitter-license-bank-regulation-1046825-1.html](http://www.americanbanker.com/issues/177_35/facebook-credits-money-transmitter-license-bank-regulation-1046825-1.html) (noting Facebook's election to become licensed under state money transmitter laws in anticipation of potential regulation of a developing payment product).

<sup>153</sup> *Davies, Robinson & Kuchler, supra* note 22.

<sup>154</sup> Ryan Vlastelica, *Social media shares rally after Credit Suisse upgrades Facebook*, REUTERS (Apr. 22, 2014), <http://www.reuters.com/article/2014/04/22/us-trading-facebookupgrade-idUSBREA3L14X20140422>.

<sup>155</sup> *Id.*

has officially become a major payment system.<sup>156</sup> This entering into the payment markets Facebook is now enabling the American users of its Messenger app to link their cards to the service and use it to message money to one another just as easily as sending a text.<sup>157</sup>

*Twitter*: The prevalent microblogging platform has nearly 284 million active users, tweeting 500 million Tweets per day, in more than 35 languages.<sup>158</sup> Over one hundred terabytes of raw data are ingested into Twitter's data warehouse daily, and Twitter's data scientists process this data for a variety of uses.<sup>159</sup> Such uses include building data-powered products, training machine-learned models for promoted products, spam detection, follower recommendation, and more.<sup>160</sup> Twitter also peers into the apps installed on their members' mobile devices, to have a better understanding of their users and to customize their timeline with relevant content.<sup>161</sup> Such information is also expected to upgrade the interest-based ad targeting capabilities Twitter currently masters, allowing advertisers to narrowcast to very specific groups of users based on a well-aimed understanding of their social and personal profiles.<sup>162</sup> Tracking its users' cookie ID, Twitter also matches browser-related information with a Twitter account, to push tailored, promoted items into its users' feed.<sup>163</sup> In addition to collecting and analyzing data for its own interests, Twitter has also capitalized on data licensing, providing a number of certified data resellers access to the networks' masses of data.<sup>164</sup> Its collaboration with IBM, for example, allows the latter to build analytics products and services around Twitter data and sell them to businesses for incorporation of data-driven insights into their corporate decision-making processes.<sup>165</sup>

Now, Twitter appears to be considering a coming into the financial services market as well. In a recent regulatory filing Twitter made, it cautioned that risks related to "credit card processing" might impose legal liability on the network.<sup>166</sup> That statement, together with the Twitter's acquisition of CardSpring, a payment infrastructure company, grounded speculations about Twitter's plan to become an e-commerce center.<sup>167</sup> Those speculations were recently confirmed when Twitter introduced a "buy" button alongside some tweets to allow an entire

---

<sup>156</sup> See e.g. Vindu Goelmarch, *Facebook Announces a Payments Feature for Its Messenger App*, N.Y. TIMES, (March 17, 2015) [http://www.nytimes.com/2015/03/18/technology/facebook-announces-a-payments-feature-for-its-messenger-app.html?\\_r=0](http://www.nytimes.com/2015/03/18/technology/facebook-announces-a-payments-feature-for-its-messenger-app.html?_r=0).

<sup>157</sup> *Id.*

<sup>158</sup> *Twitter Usage*, TWITTER, <https://about.twitter.com/company>.

<sup>159</sup> Jimmy Lin & Dmitriy Ryaboy, *Scaling Big Data Mining Infrastructure: The Twitter Experience*, ACM SIGKDD Explorations Newsletter, Volume 14 Issue 2, December 2012, at 6-19.

<sup>160</sup> *Id.*

<sup>161</sup> *What is app graph on Twitter?*, TWITTER HELP CENTER, <https://support.twitter.com/articles/20172069>.

<sup>162</sup> Sarah Perez, *Twitter's New App Tracking Capabilities To Help Personalize User Experience, Benefit Advertisers*, TECH CRUNCH (Nov. 26, 2014), <http://techcrunch.com/2014/11/26/twitter-app-graph/>.

<sup>163</sup> Abhishek Shrivastava, *More relevant ads with tailored audiences*, TWITTER ADVERTISING BLOG (Dec. 5, 2013), <https://blog.twitter.com/2013/more-relevant-ads-with-tailored-audiences>.

<sup>164</sup> Jim Edwards, *Twitter Is Quietly Building A \$100 Million Business In Big Data*, BUSINESS INSIDER (Apr. 15, 2014), <http://www.businessinsider.com/twitter-100-million-big-data-business-2014-4>.

<sup>165</sup> *Twitter and IBM Form Global Partnership to Transform Enterprise Decisions*, IBM (Oct. 29, 2014), <http://www-03.ibm.com/press/us/en/pressrelease/45265.wss>. See also Chris Moody, *Changing the way business decisions are made*, TWITTER BLOG (Oct. 29, 2014), <https://blog.twitter.com/ibm>.

<sup>166</sup> Sarah Frier, *Twitter Says Gnip Cost \$134.1 Million, Warns of Credit Card Risk*, BLOOMBERG (Aug. 12, 2014), <http://www.bloomberg.com/news/2014-08-11/twitter-says-gnip-cost-134-1-million-warns-of-credit-card-risk.html>.

<sup>167</sup> Nathan Hubbard, *Welcoming CardSpring to the Twitter team*, THE TWITTER ADVERTISING BLOG (Jul. 16, 2014), <https://blog.twitter.com/2014/welcoming-cardspring-to-the-twitter-team>.

purchase to be completed in just a few taps.<sup>168</sup> Shortly after, Twitter announced a new commerce feature called ‘Offers,’ which builds on CardSpring’s card integration technology.<sup>169</sup> Through Twitter Offers businesses advertising on Twitter offer cashback rewards in their tweets, and those rewards are tied directly into users’ credit and debit cards.<sup>170</sup>

Furthermore, Groupe BPCE, the second-largest banking group in France recently launched a new application called S-Money, with which users with a French credit card and phone number can link their card information to Twitter to tweet payments to other individuals or organizations and companies.<sup>171</sup> While this is not another twitter product and the French bank simply developed the service using Twitter’s publicly available API documentation, this unique strategy may herald future attempts by other players to tap into similar data through Internet giant’s API.<sup>172</sup>

*Chinese Sina, Alibaba, and Tenchet:* In China the link between financial services and social networks seems even stronger than the one perceived in the U.S., as products that tie the two together keep emerging at a phenomenal pace.<sup>173</sup> Importantly, the use of social media for market research prior to purchase of products and services is highly dominant in commercial life.<sup>174</sup> Against the backdrop of news and advertisements that are oftentimes perceived to be manipulated, Chinese consumers are more inclined to purchase a product or service that is recommended in social media.<sup>175</sup>

Weibo, a Twitter-like service with over 156 million monthly users,<sup>176</sup> is owned by Sina, a Chinese online media giant. In 2013, the leading Chinese e-commerce firm, Alibaba, acquired an 18 percent stake in Sina Weibo,<sup>177</sup> reportedly to acquire social big data, to further enrich

---

<sup>168</sup> Tarun Jain, *Testing a way for you to make purchases on Twitter*, TWITTER BLOG (Sep. 8, 2014), <https://blog.twitter.com/2014/testing-a-way-for-you-to-make-purchases-on-twitter>.

<sup>169</sup> Stefan Larson, *Will CardSpring Make a Difference to Twitter Inc.’s E-Commerce Figures?* STOKS.ORG (Nov. 4, 2014), <http://stocks.org/social-media/will-cardspring-make-a-difference-to-twitter-inc-s-nysetwtr-e-commerce-figures/27280/>

<sup>170</sup> Tarun Jain, *Introducing Twitter Offers*, TWITTER BLOG (Nov. 25, 2014), <https://blog.twitter.com/2014/introducing-twitter-offers>.

<sup>171</sup> Laura Stampler, *People Can Now Pay Each Other Via Twitter in France*, TIME (Oct. 14, 2014), <http://time.com/3506047/twitter-payment-france-app/>. See also Hannah Kuchler, *Twitter users in France can now tweet money*, FINANCIAL TIMES (Oct. 12, 2014), <http://www.ft.com/intl/cms/s/0/6f6c273c-525b-11e4-b55e-00144feab7de.html#axzz3Ny1JiW97>.

<sup>172</sup> Chris O’Brien, *Ready to pay by tweet? Here’s how new Twitter-powered payment service works in France*, VENTURE BEAT (Oct. 14, 2014), <http://venturebeat.com/2014/10/14/heres-how-twitters-new-pay-by-tweet-service-works-in-france/>.

<sup>173</sup> Leesa Shrader, *Microfinance, E-Commerce, Big Data and China: The Alibaba Story*, CGAP (Oct. 11, 2013), <http://www.cgap.org/blog/microfinance-e-commerce-big-data-and-china-alibaba-story>.

<sup>174</sup> *Id.*

<sup>175</sup> *Id.*

<sup>176</sup> *Weibo Monthly Active Users Reached 156.5M in Q2 2014*, CHINA INTERNET WATCH (Aug. 15, 2014), <http://www.chinainternetwatch.com/tag/sina-weibo/>.

<sup>177</sup> Sayantani Ghosh and Sruthi Ramakrishnan, *Alibaba pushes into social networking with Weibo investment*, REUTERS (Apr. 29, 2013), <http://www.reuters.com/article/2013/04/29/net-us-sinaweibo-alibaba-stake-idUSBRE93S0DA20130429>. On top of its direct involvement in Weibo, Alibaba also came up with its own messaging application, Laiwang, which has over 10 million users but is not considered successful when compared to WeChat, the most popular messaging application in China: Jillian D’onfro, *Alibaba Chairman Jack Ma Forced Employees To Get 100 People To Use Its New App, Or They Wouldn’t Get Their Bonuses*, BUSINESS INSIDER (Apr. 16, 2014), <http://www.businessinsider.com/alibaba-messaging-app-laiwang-2014-4>.

Alibaba's transaction and credit data, and consolidate its risk control.<sup>178</sup> The two companies produce a wealth of cross-used data about their users, their behavior, and the content they generate.<sup>179</sup>

Sina announced recently the launch of a new banking platform, Weibank, allowing users to access web-based banking services, such as investment management, bank transfers, remittances, credit card repayment, and expense management.<sup>180</sup> Supported by its payment service - Sina Payment, Sina also introduced a platform for selling high quality financial assets to individual investors directly.<sup>181</sup> Furthermore, Sina is also partaking in the initiation of China's First Real Estate Financial Services Platform Fang Jin Suo, aimed at the mortgage-based person-to-person market.<sup>182</sup>

Alibaba has already moved into microfinance through its online payment platform Alipay, which is linked with 108 partner banks in China and companies like VISA and Western Union around the world.<sup>183</sup> After processing \$519 billion worth of digital payments in 2013, Alipay successfully presents a bundle of mobile financial offerings, including a savings bank, wire service, and investment house,<sup>184</sup> and it is moving steadily toward occupying the economic position of a bank.<sup>185</sup> Importantly, Alibaba has already been using advanced data-analyzing technologies to establish a credit-scoring model based on its users' cash flows, names, business growth and additional criteria.<sup>186</sup> The coming Alibaba bank is expected to use the same credit rating system.<sup>187</sup> Furthermore, Alibaba launched a stock market index based on its collected data.<sup>188</sup> The index ranks industries based on the growth in their Alipay transactions and accordingly calculates individual stock positions.<sup>189</sup>

Another software and gaming giant, Tencent, owns the popular social network WeChat.<sup>190</sup> WeChat has 438 monthly active users worldwide<sup>191</sup> that during peak hours

---

<sup>178</sup> Jianping Li & Wei Zhang, Et al, *Impacts of Big Data in the Chinese Financial Industry*, THE BRIDGE, volume 44, p. 4, (2014) at <http://www.nae.edu/Publications/Bridge/128772/129193.aspx>.

<sup>179</sup> IChinaStock, *What's Next for Sina Weibo?* ADVERTISING, BUSINESS INSIDER (Dec. 25, 2011), <http://www.businessinsider.com/whats-next-for-sina-weibo-advertising-2011-12>.

<sup>180</sup> C. Custer, *Looking to China's Personal Finance Market, Sina Gets Into Online Banking*, TECH IN ASIA (Jul. 19, 2013), <http://www.techinasia.com/inspired-paypal-sina-weibo-online-banking/>.

<sup>181</sup> Trefis Team, *Weibo Drives Another Quarter Of Strong Growth For Sina*, FORBES (Aug. 19, 2014), <http://www.forbes.com/sites/greatspeculations/2014/08/19/weibo-drives-another-quarter-of-strong-growth-for-sina/>.

<sup>182</sup> *Id.*

<sup>183</sup> Leesa Shrader, *Microfinance, E-Commerce, Big Data and China: The Alibaba Story*, CCAP, (Oct. 11, 2013), <http://www.cgap.org/blog/microfinance-e-commerce-big-data-and-china-alibaba-story>.

<sup>184</sup> Steven Bertoni, *Why Alibaba's Alipay And PayPal Will, And Should, Destroy Physical Banks*, FORBES (May 8, 2014), <http://www.forbes.com/sites/stevenbertoni/2014/05/08/why-alibabas-alipay-and-paypal-will-and-should-destroy-physical-banks/>.

<sup>185</sup> Tim Worstall, *Alibaba's Threat To China's System Of Financial Repression*, FORBES (April 16, 2014), <http://www.forbes.com/sites/timworstall/2014/04/16/alibabas-threat-to-chinas-system-of-financial-repression/>.

<sup>186</sup> Shrader, *supra* note 178, and McMahon and Mozur, *supra* note 24.

<sup>187</sup> Doug Young, *Alibaba Bank Nears, As Piracy Scandal Grows*, FORBES (Jan. 29, 2015), <http://www.forbes.com/sites/dougyoung/2015/01/29/alibaba-bank-nears-as-piracy-scandal-grows/>.

<sup>188</sup> Steve Johnson, *Alibaba pushes into investment world*, FINANCIAL TIMES (Jan. 18, 2015), <http://www.ft.com/intl/cms/s/0/ba0c3184-9d6e-11e4-8946-00144feabdc0.html#axzz3QEcdwGI>.

<sup>189</sup> *Id.*

<sup>190</sup> Also known as "Weixin" (微信).

<sup>191</sup> *Number of monthly active WeChat users from 2nd quarter 2010 to 2nd quarter 2014 (in millions)*, STATISTA, <http://www.statista.com/statistics/255778/number-of-active-wechat-messenger-accounts/>.

exchange more than 10 million messages per minute.<sup>192</sup> On top of providing a well-attended platform for online social interactions, WeChat offers a self-advertising system for brands, where they can not only promote their products by directly communicating with users, but also collect information about those users and classify them by “value.”<sup>193</sup> Users are marked with an “OpenID,” which follows them through their future interactions with the brand.<sup>194</sup>

Since 2013, when Tencent linked Tenpay, its online payment tool to WeChat, enabling its users to conduct a variety of financial activities such as transferring payments and withdrawing money, more than 20 million users made purchases through Tenpay and the numbers keep rising.<sup>195</sup> In January 2014, Tencent launched an investment platform called Li Cai Tong, that allows WeChat users to send money directly to a fund run by China Asset Management, a mutual fund manager.<sup>196</sup> A year later, Tencent introduced China’s first online-only bank, Webank.<sup>197</sup> Similarly to Alibaba, Tencent also intend to use its big data advantage to evaluate credit risk of small borrowers.<sup>198</sup>

## **b. The Mobile Market and the Financially Underserved Community**

The expansion of big data companies and social networks into the financial services market may prove to be a smart strategic move if it increases the companies’ existing user base. The possibility of substituting the outdated traditional banking system with modern and effortless big data and social netbanks is likely to attract new members. Those members would not only be users who already receive some form of financial services from a legitimate financial entity, but also individuals who currently do not. In other words, underserved population, both unbanked and underbanked, will likely use the networks’ services: unbanked are individuals with no official relationship with a bank, and underbanked are individuals who maintain some form of formal connection with a traditional bank, but chiefly rely on fringe financial institutions like payday lenders or payroll cards for their financial needs.<sup>199</sup> The financially underserved community is a well-known global issue. According to a 2012 report by the World Bank’s Global Financial Inclusion Database three-quarters of the world’s poor do not have a bank account for a variety of reasons, such as poverty, costs, travel distances and other difficulties associated with opening an account.<sup>200</sup> In the U.S. the numbers are fairly high as well, with

---

<sup>192</sup> Peter Fuhrman, *Tencent Stalks Alibaba - China's Number 2 Takes Lethal Aim at Number 1*, LINKEDIN PULSE (Jan. 7, 2015), <http://nl.linkedin.com/pulse/tencent-stalks-alibaba-chinas-number-2-takes-lethal-peter-fuhrman>.

<sup>193</sup> Sabrina, *WeChat To Launch Self-Serve Advertising System In Weeks*, CHINA INTERNET WATCH (Apr. 24, 2014), <http://www.chinainternetwatch.com/7151/wechat-to-launch-self-serve-advertising-system/>.

<sup>194</sup> Buck Webb, *China Marketing: Is WeChat Really a Viable Platform for Marketers?*, MERKLE (Oct. 8, 2014), <http://www.merkleinc.com/blog/marketing-technology/china-marketing-wechat-really-viable-platform-marketers#.VMumH2R4rRo>.

<sup>195</sup> *Shrader, supra* note 178.

<sup>196</sup> Ana Swanson, *Internet Finance in China: Will it Disrupt Traditional Banking?*, CHINA BUSINESS REVIEW (Jul. 21, 2014), <http://www.chinabusinessreview.com/internet-finance-in-china-will-it-disrupt-traditional-banking/>.

<sup>197</sup> Gabriel Wildau, *Tencent launches China’s first online-only bank*, FINANCIAL TIMES (Jan. 5, 2015), <http://www.ft.com/intl/cms/s/0/cc5a6dc-9488-11e4-82c7-00144feabdc0.html#axzz3QEcdwGl>.

<sup>198</sup> *Id.*

<sup>199</sup> See KPMG, *Serving the Underserved Market 2-3* (2011), <http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/serving-underserved-market.pdf>.

<sup>200</sup> *Use of Financial Services by the Unbanked and Underbanked and the Potential for Mobile Financial Services Adoption*, FEDERAL RESERVE BULLETIN (Sep. 2012) Vol 98, No. 4, at 1,

roughly 10.5 percent of the American population considered unbanked and about 16.9 percent being underbanked.<sup>201</sup> This means that in 2013 a relatively large number of households lived at least partially outside the financial mainstream.<sup>202</sup>

Thanks to the growing use of mobile phones and the emergence of new technologies that facilitate mobile financial transactions, big data conglomerates and social networks are now able to successfully set their foot on the market for unbanked and underbanked. The underserved community makes significant use of mobile phones and smartphones: 69 percent of the unbanked have access to a mobile phone, 49 percent of which are smartphones, and 88 percent of the underbanked use mobile phones, 64 percent of which are smartphones.<sup>203</sup> Some of this mobile use is channeled to financial activities with nearly 40 percent of underbanked with mobile phones report using mobile banking in 2013.<sup>204</sup> Mobile technology, therefore, has not only revolutionized access to broadband connectivity,<sup>205</sup> it has also facilitated and may as well transform access to financial services for the underserved community, whether provided by traditional banks or by nonbanks, among which are big data giants and the major social networks.

Interestingly, Twitter recently acquired ZipDial, an Indian mobile platform designed to bridge users from offline to online by allowing them to interact with content via SMS, voice, mobile Web, and access to mobile apps.<sup>206</sup> According to Twitter, this partnership “can make great content more accessible to everyone.”<sup>207</sup> Facebook and Google have already added to their list of services some form of Internet access. Google is pursuing “Project Loon,” a network of balloons traveling on the edge of space with the mission of providing Internet access to rural and remote areas.<sup>208</sup> Similarly, Facebook and six phone companies announced in August 2013 the launch of internet.org, a global partnership to make Internet access available to those around the world who lack broadband connectivity.<sup>209</sup> Both companies acquired drone startups to promote their Internet delivery projects,<sup>210</sup> and Facebook’s Internet.org app was recently launched in

---

[http://www.federalreserve.gov/pubs/bulletin/2012/pdf/mobile\\_financial\\_services\\_201209.pdf](http://www.federalreserve.gov/pubs/bulletin/2012/pdf/mobile_financial_services_201209.pdf). See also Asli Demirguc-Kunt & Leora Klapper, *Measuring Financial Inclusion: The Global Findex Database*, WORLD BANK POLICY RESEARCH WORKING PAPER 6025 11-18, (2012), <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-6025>.

<sup>201</sup> *Consumers and Mobile Financial Services*, A FEDERAL RESERVE BOARD REPORT, DIVISION OF CONSUMER AND COMMUNITY AFFAIRS, 5, (March 2014), <http://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201403.pdf>.

<sup>202</sup> *Id.*

<sup>203</sup> *Id.*

<sup>204</sup> *Id.*

<sup>205</sup> *Kemp, supra* note 100 (“With reference to the continued growth in internet penetration, it seems clear that mobile connections will account for the vast majority of new sign-ups in the coming months... the distribution of mobile penetration matches much more closely to the distribution of the world’s population, meaning most people around the world now have a realistic opportunity to access the internet.”)

<sup>206</sup> Christian Oestlien, *Bringing Twitter to more people around the world*, TWITTER BLOG (Jan. 20, 2015), <https://blog.twitter.com/2015/bringing-twitter-to-more-people-around-the-world>.

<sup>207</sup> *Id.*

<sup>208</sup> Google, *Project Loon*, at <http://www.google.com/loon/>.

<sup>209</sup> *Technology Leaders Launch Partnership to Make Internet Access Available to All*, FACEBOOK NEWSROOM (Aug. 21, 2013), <http://newsroom.fb.com/news/2013/08/technology-leaders-launch-partnership-to-make-internet-access-available-to-all/>

<sup>210</sup> Darrell Etherington, *Google Acquires Titan Aerospace, The Drone Company Pursued By Facebook*, TECHCRUNCH (April 14, 2014), <http://techcrunch.com/2014/04/14/google-acquires-titan-aerospace-the-drone-company-pursued-by-facebook/> (“Both Ascenta and Titan Aerospace are in the business of high altitude drones, which cruise nearer the edge of the earth’s atmosphere and provide tech that could be integral to blanketing the

Zambia with free data access to a small number of services including Facebook, Messenger, Wikipedia, and Google Search.<sup>211</sup> While providing Internet connectivity to those who are currently offline is socially desirable, it crowns those big data and social platforms as gatekeepers and clearly serves their interests. Take for example the Internet.org app – it is designed to assist those who lack Internet connection because they cannot afford data plans, and as such is magnanimous. Nonetheless, if and when Facebook starts offering substantial financial services and products, that application would be the only online banking service recently-connected users would know and be able to use.

### c. Modern Day Banking Services – A Brave New World

The expansion of big data goliaths and social networks into the financial services market could not have come at a better timing as the type of banking known today as modern banking is apparently not sufficiently modern. Traditional banks have been using out-of-date technology and competition from alternative financial institutions and fintech startups are driving change in the financial services industry.<sup>212</sup> Additionally, while historically banks did dominate financial services, recent scandals, such as the Libor rate rigging,<sup>213</sup> harmed banks' reputations. And, it has even been suggested that these scandals might have pushed some existing and potential customers towards innovative technology that has opened up the financial market.<sup>214</sup>

A recent study revealed that American Millennials increasingly regard banks as irrelevant and on a brink of disruption.<sup>215</sup> Half of those surveyed believe startups will overhaul the way banks work, and that innovation would come from outside the banking industry.<sup>216</sup> Importantly, 73 percent would reportedly be more excited to have their financial services provided by Google, Amazon, Apple, PayPal, or Square than by their own mainstream banks.<sup>217</sup> Another study found that 72 percent of consumers at the age of 18 to 34 would be likely to bank with major technology players if they offered financial services.<sup>218</sup> The same response was given by 55 percent of consumers age 35 to 54, and by 27 percent of those ages 55 and older.<sup>219</sup>

---

globe in cheap, omnipresent Internet connectivity to help bring remote areas online.”); Josh Constine, *Facebook Will Deliver Internet Via Drones With “Connectivity Lab” Project Powered By Acquires From Ascenta*, TECHCRUNCH (Mar. 27, 2014), <http://techcrunch.com/2014/03/27/facebook-drones/>.

<sup>211</sup> Josh Constine, *Internet.Org’s App With Free Access To Facebook, Google, Wikipedia, Local Info Launches In Zambia*, TECHCRUNCH (Jul. 31, 2014), <http://techcrunch.com/2014/07/31/internet-org-app/>.

<sup>212</sup> Tim Simon, *Trial by technology for banks’ archaic IT*, BOBS GUIDE (Jul. 18, 2014), <http://www.bobsguide.com/guide/news/2014/Jul/18/trial-by-technology-for-banks-archaic-it.html>.

<sup>213</sup> See e.g., Jesse Colombo, *This New Libor ‘Scandal’ Will Cause A Terrifying Financial Crisis*, FORBES (June 3, 2014), <http://www.forbes.com/sites/jessecolombo/2014/06/03/this-new-libor-scandal-will-cause-a-terrifying-financial-crisis/>.

<sup>214</sup> Emma Simon, *Free banking: what are the alternatives to the high street banks?*, THE TELEGRAPH (Aug. 21, 2012), <http://www.telegraph.co.uk/finance/personalfinance/bank-accounts/9489118/Free-banking-what-are-the-alternatives-to-the-high-street-banks.html>.

<sup>215</sup> *The Millennial Disruption Index*, SCRATCH (VIACOM MEDIA NETWORK) (Mar. 6, 2014), [http://www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI\\_Final.pdf](http://www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI_Final.pdf).

<sup>216</sup> *Id.*

<sup>217</sup> *Id.*

<sup>218</sup> *The Digital Disruption in Banking, 2014 North America Consumer Digital Banking Survey*, ACCENTURE, 5 (May 27, 2014), <http://newsroom.accenture.com/news/younger-generations-far-more-open-to-branchless-and-alternative-banks-accenture-survey-finds.htm>, hereinafter *Accenture on Digital Disruption*.

<sup>219</sup> *Id.*

In addition to hanging back with the utilization of big data, nationwide banks are struggling to engage and inspire their consumers. Introducing consumers to a digital version of traditional banking is not enough to effectively overcome future challenges.<sup>220</sup> Internet and retail companies like Amazon and Google, who utilize highly targeted marketing, have raised customers' expectations,<sup>221</sup> while traditional banks appear to lag behind adapting to the new fast paced online world, on the business as well as the regulation side of things.<sup>222</sup> The Federal Financial Institutions Examination Council ('FFIEC') has just recently finalized its guidelines for financial institutions on approved uses of social media,<sup>223</sup> and banks are now gradually starting to communicate with their customers in social networks.<sup>224</sup> Fearful of violating the new rules, banks treat online interactions with extra caution, and sometimes as a result often appear distant and even robotic.<sup>225</sup> The failure to meet their customers' expectations and to quickly adapt to new technology entrants could be disruptive for banks.<sup>226</sup> Technology companies are well aware of this reality and are progressively moving into the digital financial products and services market.<sup>227</sup> Many in the mainstream banking industry are watching this trend with great concern, considering those tech platforms to be the banks' new competition.<sup>228</sup> Indeed, as nonbanks use digital innovation to aggressively set their foot deeper into the banking value chain, studies estimate that by 2020 nonbanks could potentially erode one-third of traditional bank revenues.<sup>229</sup>

### III. Digital Nonbanks

#### a. Statutory Financial Regulation of Nonbanks

---

<sup>220</sup> *Younger Generations Far More Open to Branchless and Alternative Banks*, ACCENTURE SURVEY FINDS, ACCENTURE, (May 27, 2014), <http://newsroom.accenture.com/news/younger-generations-far-more-open-to-branchless-and-alternative-banks-accenture-survey-finds.htm>.

<sup>221</sup> Bryan Yurcan, *Big Data Innovation in Banking*, INFORMATION WEEK, INFORMATION WEEK (Oct. 7, 2013), <http://www.banktech.com/infrastructure/big-data-innovation-in-banking/d/d-id/1296465?>.

<sup>222</sup> John Salmon, *Tesco, Twitter or Facebook – which will be the next big bank?*, OUT-LAW.COM (Jun. 24, 2014), <http://www.out-law.com/en/articles/2014/june/tesco-twitter-or-facebook--which-will-be-the-next-big-bank/>.

<sup>223</sup> *Social Media: Consumer Compliance Risk Management Guidance*, FEDERAL FINANCIAL INSTITUTIONS EXAMINATION COUNCIL (Dec. 11, 2013), <https://www.ffiec.gov/press/pr121113.htm>. Hereinafter *FDIC Guidelines*.

<sup>224</sup> Penny Crosman, *Advisors Are Using Social Media to Connect with Clients*, AMERICAN BANKER (Mar. 4, 2014), available at [http://www.americanbanker.com/issues/179\\_43/how-ing-financial-advisors-are-using-social-media-to-connect-with-clients-1066016-1.html](http://www.americanbanker.com/issues/179_43/how-ing-financial-advisors-are-using-social-media-to-connect-with-clients-1066016-1.html).

<sup>225</sup> Rachel Louise Ensign, *Social Media Transform Bank-Customer Interplay*, WALL ST. J. (Mar. 13, 2014), <http://online.wsj.com/news/articles/SB10001424052702303546204579437692833009398>.

<sup>226</sup> *Accenture on Digital Disruption*, *supra* note 213.

<sup>227</sup> *Salmon*, *supra* note 217.

<sup>228</sup> Matthew Martin & Dinesh Nair, *JPMorgan's Dimon Sees Facebook to Google Challenging Bank*, BLOOMBERG (May 6, 2014), <http://www.bloomberg.com/news/2014-05-06/jpmorgan-s-dimon-sees-facebook-to-google-challenging-bank-online.html>. See also Emily McCormick, *More than 90 Percent of Bank Directors and Officers Worry About Non-Bank Competition*, BANKDIRECTOR.COM (May 16, 2014), <http://www.bankdirector.com/index.php/issues/growth/more-than-90-percent-of-bank-directors-and-officers-worry-about/>.

<sup>229</sup> Wayne Busch and Juan Pedro Moreno, *Banks' New Competitors: Starbucks, Google, and Alibaba*, HARVARD BUSINESS REVIEW (Feb. 20, 2014), <http://blogs.hbr.org/2014/02/banks-new-competitors-starbucks-google-and-alibaba/>.

In the present financial architecture, financial services and products are increasingly provided outside of the traditional banking system.<sup>230</sup> This shift, referred to as “disintermediation” and also described as creating a “shadow banking” system, has fundamentally transformed finance.<sup>231</sup> Historically, regulators in the U.S. used laws such as the Glass-Steagall Act, in order to better monitor, operate and restrain the banking industry. Nevertheless, the last few decades have witnessed the development of a wide range of business entities that perform many of the functions historically associated with banks, but which are not established under the banking laws or legally accredited to accept deposits.<sup>232</sup> Indeed, presently, there are thousands of nonbank businesses that offer financial products and services, but while banks, thrifts, and credit unions<sup>233</sup> have always been subject to federal regulations, most nonbanks have not, until recently.<sup>234</sup>

This different treatment given to different financial services-providers stems from the long-held view that the legal power to receive deposits is the essence of a “bank.”<sup>235</sup> And because entities that are not “banks” - despite the fact that they perform more and more bank-like financial services, are less strictly regulated - many business entities have built their business models based on this bank-like concept using technological tools and relying on the currently open financial landscape. For example, banking regulators do not control PayPal, which services millions of customers and is dominating an element of the financial market historically controlled by banks.<sup>236</sup> Faced with more and more nonbanks that are performing bank-like services, this trend requires regulatory attention and supervision. Nevertheless, even at present

---

<sup>230</sup> See generally Steven L. Schwarcz, *Regulating Shadows: Financial Regulation and Responsibility Failure*, 70. WASH. & LEE LAW REV. 1781 (2013) (describing that most corporate financing, for example, no longer is dependent on bank loans but raised through special-purpose entities, money-market mutual funds, securities lenders, hedge funds, and investment banks)

<sup>231</sup> *Id.* Rising over the last three decades, this “shadow” banking system, which played a major role in the 2008 financial crisis and caused many to reconsider their financial market assumptions, is yet to be fully regulated. See generally Gary Gorton & Andrew Metrick, *Regulating the Shadow Banking System*, THE BROOKINGS INSTITUTION, 41 (2 (Fall)), 261 (2010). Trying to better address the consequences of the shadow banking system, following the financial crisis, scholars discussed key market failures, including information failure. See generally Schwarcz, *Id.*

<sup>232</sup> Exemplifiers are Western Union (<https://www.westernunion.com/us/en/home.html>) and PayPal.

<sup>233</sup> U.S. depository institutions include commercial banks, thrifts, (savings and loan associations and savings banks that focus on deposits and home mortgage originations) and credit unions. See *DOB: ABCs of Banking - Banks, Thrifts and Credit Unions*, The State of Connecticut, Department of Banking, available at <http://www.ct.gov/dob/cwp/view.asp?a=2235&q=297886>.

<sup>234</sup> See *infra* section III.a.i. for how by requiring the CFPB to examine nonbanks, the Dodd-Frank Act sought to ensure that consumers get the benefit of federal consumer financial laws on a consistent basis.

<sup>235</sup> See *supra* notes 6, 7 and 9.

<sup>236</sup> *PayPal Financials*, *supra* note 52. See also EBAY Inc.’s Form 10k (Public Availability Date: July 24, 2013), 2013 WL 3945321 (C.C.H.) (PayPal’s recent letter to the SEC explained why PayPal should not be viewed as a bank: “[i]n contrast to PayPal, U.S. financial institutions such as banks and credit unions are generally permitted to hold a lower percentage of their liabilities in liquid assets and to put funds to a wider set of uses for investment purposes, including certain lending activities. See, e.g., FRB, Reserve Requirements of Depository Institutions, 12 C.F.R. § 204, and OCC, Comptroller’s Handbook-L (Liquidity): Safety and Soundness at 10 (illustrating the types of assets typically found on bank balance sheets, ranging from Fed Funds to Bank Owned Life Insurance). . . PayPal’s primary intent is to preserve the principal of assets underlying customer balances as opposed to generating a return on those assets, which is typically the aim of financial institutions. Therefore, PayPal’s use of the assets underlying customer balances is quite different than a financial institution’s use of customer deposits”); Mehra Baradaran, *Reconsidering the Separation of Banking and Commerce*, 80 GEO. WASH. L. REV. 385,423 (2012) (PayPal enables small traders to receive credit card payments or money wires and serves as a repository for deposits by buyers.)

time, regardless to their legal classification, all entities that offer bank-like services are already subject to some regulation, as further outlined and discussed below.

### **i. The Dodd-Frank Act**

Seeking to ensure that consumers get the benefit of federal consumer financial laws on a consistent basis, Title X of the Dodd-Frank Act,<sup>237</sup> established the CFPB on July 21, 2010. Under the Dodd-Frank Act, the Bureau has supervisory authority over nonbank covered persons<sup>238</sup> providing three main types of consumer financial products or services:<sup>239</sup> (1) mortgage loans and specifically the origination, brokerage, or servicing of consumer loans secured by real estate, and related loan adjustment or foreclosure relief services; (2) private student or education-related loans; and (3) payday loans.<sup>240</sup>

The Bureau also has supervisory authority over “larger participant[s] of a market for other consumer financial products or services,” as the Bureau defines through rulemaking.<sup>241</sup> As of Summer 2014, the Bureau has issued rules to supervise the larger participants in the debt collection,<sup>242</sup> consumer reporting, and student loan servicing markets.<sup>243</sup>

In addition to its authority to supervise certain types of institutions, and especially relevant for this Article’s purposes, the CFPB may supervise nonbank covered persons based on their conduct. Section 5514(a)(1)(C) of Dodd-Frank grants the CFPB authority over any nonbank covered persons that the Bureau has reasonable cause to determine is engaging, or has engaged, in conduct that poses risks to consumers with regard to the offering or provision of consumer financial products or services.<sup>244</sup>

---

<sup>237</sup> *Supra* note 12.

<sup>238</sup> “Covered persons” include “(A) any person that engages in offering or providing a consumer financial product or service; and (B) any affiliate of a person described [in (A)] if such affiliate acts as a service provider to such person.” 12 U.S.C. 5481(6).

<sup>239</sup> 12 U.S.C. 5514(a)(1)(A), (D), (E). The Bureau also has the authority to supervise any nonbank covered person that it “has reasonable cause to determine, by order, after notice to the covered person and a reasonable opportunity . . . to respond . . . is engaging, or has engaged, in conduct that poses risks to consumers with regard to the offering or provision of consumer financial products or services.” 12 U.S.C. 5514(a)(1)(C); *see also* 12 CFR part 1091 (prescribing procedures for making determinations under 12 U.S.C. 5514(a)(1)(C)). In addition, the Bureau has supervisory authority over very large depository institutions and credit unions and their affiliates. 12 U.S.C. 5515(a). Moreover, the Bureau has certain authorities relating to the supervision of other depository institutions and credit unions. 12 U.S.C. 5516(c)(1), (e).

<sup>240</sup> “Payday loans are frequently described as a way for consumers to bridge a cash flow shortage between paychecks or the receipt of other income. Payday loans often have small-dollar amounts, require borrowers to repay quickly, and ask that a borrower give lenders access to repayment through a claim on the borrower’s deposit account.” *See CFPB Supervision Report Highlights Risky Practices In Nonbank Markets*, CFPB (May 22, 2014), <http://www.consumerfinance.gov/newsroom/cfpb-supervision-report-highlights-risky-practices-in-nonbank-markets/>.

<sup>241</sup> 12 U.S.C. 5514(a)(1)(B), (a)(2); *see also* 12 U.S.C. 5481(5) (defining “consumer financial product or service”).

<sup>242</sup> The debt collection market was of special concerns because it has practices that “have generated a heavy volume of consumer complaints at all levels of government, including at the CFPB. It is estimated that there are more than 4,500 debt collection firms in the United States.” *See CFPB Supervision Report*, *supra* note 235.

<sup>243</sup> *See Final Rule, A Rule by the Consumer Financial Protection Bureau on 12/06/2013*, 78 FR 73383, Docket No. CFPB-2013-0005, available at [https://www.federalregister.gov/articles/2013/12/06/2013-29145/defining-larger-participants-of-the-student-loan-servicing-market#table\\_of\\_contents](https://www.federalregister.gov/articles/2013/12/06/2013-29145/defining-larger-participants-of-the-student-loan-servicing-market#table_of_contents), hereinafter *final rule*.

<sup>244</sup> *See generally* Saule T. Omarova, *The Quiet Metamorphosis: How Derivatives Changed the “Business of Banking,”* 63 U. MIAMI L. REV. 1041 (2009)

The CFPB defines the nonbank entities, which it seeks to supervise as “a company that offers consumer financial products or services, but does not have a bank, thrift, or credit union charter and does not take deposits.”<sup>245</sup> The CFPB is tasked with doing so for purposes of: (1) evaluating compliance with federal consumer financial law; (2) gaining information about such persons’ undertakings and compliance systems or procedures; and (3) identifying and assessing risks to consumers and consumer financial markets.<sup>246</sup> As part of this capacity, the Bureau examines different aspects of supervised entities. Furthermore, the Bureau may, as it sees fit, require the submission of information from supervised entities without actual official inspections.<sup>247</sup> It also prioritizes supervisory activity at nonbank covered persons on the basis of risk. It does so while taking into account factors such as entities’ size, the consumer financial products or services’ transactions volume, the size and risk presented by the financial products or services’ market, state oversight, and other relevant available information.<sup>248</sup>

The Dodd-Frank Act enables the CFPB to pursue its regulatory goals by carrying out relevant federal financial laws.<sup>249</sup> Accordingly, the CFPB’s work is critical in the context of nonbanks regulation and includes (i) writing rules, and overseeing relevant companies to which such laws may concern, including enforcing on them federal consumer financial protection laws; (ii) restricting unfair, misleading, or abusive acts or practices; (iii) recording and collecting consumer complaints; (iv) advancing financial education; (v) studying consumer behavior; (vi) monitoring financial markets for new risks to consumers; and (vii) enforcing laws that prohibit discrimination and other unfair practices in consumer finance.<sup>250</sup>

## ii. Bank Secrecy Act and Money Transmitting

A money transfer service refers to a business entity that provides money transfer services or payment instruments.<sup>251</sup> Businesses, including nonbanks, are required by law to register for a Money Transmitter license where their activity falls within the state definition of a money transmitter.<sup>252</sup> There are two distinct money transmitter regulatory schemes to consider, each with different purposes.<sup>253</sup> Under the first regulatory scheme, businesses must comply with the federal Bank Secrecy Act (“BSA”), as modified in 2001 by the Patriot Act.<sup>254</sup> Under the law, “Money Services Businesses” (MSBs), which include, *inter alia*, (i) money transmitters, (ii)

---

<sup>245</sup> *What is a nonbank? Questions and Answers*, CFPB, <http://www.consumerfinance.gov/blog/explainer-what-is-a-nonbank-and-what-makes-one-larger/>

<sup>246</sup> 12 U.S.C. 5514(b)(1).

<sup>247</sup> 12 U.S.C. 5514(b).

<sup>248</sup> *Final Rule*, *supra* note 238.

<sup>249</sup> According to the CFPB, its job is “ensuring that consumers get the information they need to make the financial decisions they believe are best for themselves and their families—that prices are clear up front, that risks are visible, and that nothing is buried in fine print.” See *CFPB’s mission statement*, <http://www.consumerfinance.gov/the-bureau/>.

<sup>250</sup> *Id.*

<sup>251</sup> *Money transmitter*, WIKIPEDIA, [http://en.wikipedia.org/wiki/Money\\_transmitter](http://en.wikipedia.org/wiki/Money_transmitter).

<sup>252</sup> 18 UCS § 1960.

<sup>253</sup> See Broox Peterson, *So You Want to Start a Payments Company?* PAYMENT VIEWS (Aug. 13, 2012), <http://paymentsviews.com/2012/08/13/so-you-want-to-start-a-payments-company/#sthash.XdF97AJg.dpuf>.

<sup>254</sup> Currency and Foreign Transactions Reporting Act of 1970, 31 U.S.C. § 5311 (2012) (recent amendments to the regulations implementing the registration requirements of the Bank Secrecy Act have adopted the term “money services business” in place of the term “money transmitting business” to identify those businesses subject to the registration requirements).

check cashers, (iii) issuers, sellers and redeemers of money orders or travelers checks, and (iv) providers of prepaid access,<sup>255</sup> are subject to registration and other requirements. All Money Services Businesses are required to register with the Financial Crimes Enforcement Network (FINCEN), and have effective anti-money-laundering programs in place (an “AML Program”). Money Services Businesses are also required to keep for 5 years (i) customers’ identifying information records; and (ii) transaction records created in the ordinary course of business necessary to reconstruct prepaid access activation, loads, reloads, purchases, withdrawals, transfers, or other prepaid-related transactions.<sup>256</sup> Moreover, Money Service Businesses must report suspicious transactions over certain amounts.<sup>257</sup> Under the second regulatory scheme, businesses must comply with state money transmitter licensing requirements, which typically have a consumer protection purpose, but also require anti-money laundering compliance.<sup>258</sup>

MSBs are subject to a high level of scrutiny.<sup>259</sup> Even if they are in compliance with state and federal law, the government could still prevent them from operating. Indeed, if the government has proof that a business involves the transmission or transportation of funds that were derived from a criminal offense or were designated to promote or support an unlawful activity, it could stop the business’ operation.<sup>260</sup>

Internet-based payment services must also obtain a state money transmitter license in order to be able to offer services to residents of that state.<sup>261</sup> Similarly, FINCEN has ruled that Informal Value Transfer Systems (IVTS) – “any system, mechanism, or network of people that receives money for the purpose of making the funds or an equivalent value payable to a third party in another geographic location, whether or not in the same form” – are considered money transmitters for the purpose of registration and licensing.<sup>262</sup>

---

<sup>255</sup> Not all prepaid schemes are covered under the rules (e.g. some closed network schemes), but if they are then participants in a prepaid scheme are permitted to designate one of them as the Provider of Prepaid Access by contract, but if they do not, then Department of Treasury Financial Crimes Enforcement Network (“FINCEN”, the regulator that enforces the BSA) will figure out which entity in the program has principal oversight and control over the program and is required to register and comply with the BSA.

<sup>256</sup> *Peterson, supra* note 248.

<sup>257</sup> *Id.*

<sup>258</sup> M. MacRae Robinson, *Easing the Burden on Mobile Payments: Resolving Current Deficiencies in Money Transmitter Regulations*, 18 N.C. BANKING INST., at 564-66 (2014). Unfortunately, there is no national standard for defining which type of money transmission requires licensing, and most regulators choose to take an expansive view of their authority without publishing that interpretation anywhere. As a result, it’s harder for businesses to comply with state money transmitter licensing requirements. *Id.*

<sup>259</sup> “It is important that money services businesses that comply with the requirements of the Bank Secrecy Act and applicable state laws remain within the formal financial sector, subject to appropriate anti-money laundering controls. FinCEN and the Federal Banking Agencies further believe it is essential that the money services business industry maintain the same level of transparency, including the implementation of a full range of anti-money laundering controls as required by law, as do banking organizations.” *Joint Statement On Providing Banking Services To Money Services Businesses*, FINCEN, (Mar. 30, 2005), [http://www.fincen.gov/statutes\\_regs/guidance/html/bsamsbrevisedstatement.html](http://www.fincen.gov/statutes_regs/guidance/html/bsamsbrevisedstatement.html)

<sup>260</sup> FINCEN’s operation based on the BSA is just one of the many initiatives aimed at analyzing and combating the movement of illicit funds. See *Money Laundering Threat Assessment*, DEPARTMENT OF THE TREASURY, (December 2005), <http://www.treasury.gov/resource-center/terrorist-illicit-finance/Documents/mlta.pdf>

<sup>261</sup> See generally Kevin V. Tu, *Regulating the New Cashless World*, 65 ALA. L. REV. 77 (2013). While PayPal, for example, received a positive note from the federal deposit insurance system (FDIC), acknowledging that this is a state issue had to meet the states’ regulators scrutiny. See *FDIC decides PayPal's no bank*, AD NET (Mar. 13, 2002), <http://www.zdnet.com/article/fdic-decides-paypals-no-bank/>

<sup>262</sup> *FINCEN Advisory - Informal Value Transfer Systems (IVTS)* (Mar. 2003), [http://www.fincen.gov/news\\_room/rp/advisory/pdf/advis33.pdf](http://www.fincen.gov/news_room/rp/advisory/pdf/advis33.pdf).

Against the backdrop of the fast growing online financial services market, commentators have argued that mobile wallets and other online payment platforms should be legally viewed as money transmitters via a one size fits all type of a regulation interpretation.<sup>263</sup> ApplePay,<sup>264</sup> Google Wallet,<sup>265</sup> Softcard (previously ISIS Wallet),<sup>266</sup> Square Wallet,<sup>267</sup> and LevelUp,<sup>268</sup> are all examples of services that would qualify as enabling online payments under state law. Indeed, while the business models differ, such platforms effectively allow merchants to accept payments from customers, and individuals to use send payments directly through their mobile phone or tablet.<sup>269</sup> Thus, in order to make online purchases, consumers need to transmit their credit/debit card information to an in-store terminal or scanner, and then the operator of the online platform could be deemed to be receiving money in the form of payment information for the purpose of sending it to the merchant seller.<sup>270</sup>

### iii. Electronic Fund Transfer Act

Similarly to money transmitters, remittance institutions, which can include nonbanks, are also regulated by federal law, and specifically covered by Regulation E<sup>271</sup> that implements the Electronic Fund Transfer Act, and focuses on consumers who send money electronically to foreign countries.<sup>272</sup> A remittance transfer is an electronic transfer of money from a consumer in the U.S. to an individual or an entity in a foreign country.<sup>273</sup> It can include transfers from retail “money transmitters” as well as banks and credit unions that transfer funds through wire transfers, automated clearing house (ACH) transactions, or other methods.<sup>274</sup> Up until recently, federal consumer protection rules have not applied to most of these transfers, but the Dodd-Frank Act has changed that. Focusing on remittance transfer, in 2013, the CFPB amended the regulation and issued a final rule to implement section 1073 of the Dodd-Frank Act that excludes in-person payment card transactions, but fails to exclude functionally equivalent mobile

---

<sup>263</sup> See *Tu, supra* note 256 (“[w]here a third party provides the application that enables a customer's mobile device to store payment information and the hardware that allows a merchant to accept a customer payment via the mobile device, money transmission regulation is potentially implicated because a third party arguably receives the payment and facilitates transfer of the payment to the merchant-seller.”)

<sup>264</sup> <http://www.apple.com/apple-pay/>

<sup>265</sup> <https://www.google.com/wallet/>

<sup>266</sup> <https://www.gosoftcard.com/>

<sup>267</sup> <https://squareup.com/>

<sup>268</sup> <https://www.thelevelup.com/>. See also *Tu, supra* note 256.

<sup>269</sup> *Id.*

<sup>270</sup> *Id.*

<sup>271</sup> Electronic Fund Transfers (Regulation E), 12 C.F.R. 1005.30(e)(1) (2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-02-07/pdf/2012-1728.pdf>

<sup>272</sup> 12 C.F.R. § 205 (2006), <http://www.gpo.gov/fdsys/pkg/CFR-2012-title12-vol2/pdf/CFR-2012-title12-vol2-part205.pdf> (implementing the Electronic Fund Transfer Act).

<sup>273</sup> A bill payment made via computer or mobile device would be an electronic transfer; providing funds to a courier for delivery would not. 12 C.F.R. § 1005.30, Comment 30(e)-1, <http://www.gpo.gov/fdsys/pkg/FR-2012-02-07/pdf/2012-1728.pdf> (“The definition of ‘remittance transfer’ requires an electronic transfer of funds.”) As for the amount, the World Bank defines these transfers as “cross-border person-to-person payments of relatively low value.” Comm. on Payment & Settlement Sys., THE WORLD BANK, GENERAL PRINCIPLES FOR INTERNATIONAL REMITTANCE SERVICES 6 (2007), [http://siteresources.worldbank.org/INTPAYMENTREMITTANCE/Resources/New\\_Remittance\\_Report.pdf](http://siteresources.worldbank.org/INTPAYMENTREMITTANCE/Resources/New_Remittance_Report.pdf).

<sup>274</sup> See in general *Report to the Congress on the Use of the Automated Clearinghouse System for Remittance Transfers to Foreign Countries*, <http://www.federalreserve.gov/publications/other-reports/ACH-report-201107.htm>.

payments.<sup>275</sup> The amendments provide new protections, including disclosure requirements, and error resolution and cancellation rights to consumers who send remittance transfers to other consumers or businesses in a foreign country.<sup>276</sup>

#### iv. Commercial Firms Owning Banks

Commercial firms, which are nonbanks, can own an FDIC-insured depository institution by either: (i) owning a single thrift as a unitary thrift holding company,<sup>277</sup> which can engage in any business enterprise if it meets specific activity restrictions;<sup>278</sup> or by (ii) owning an industrial bank.<sup>279</sup> If nonbanks do own such FDIC-insured institutions, however, the way those highly regulated owned entities are run has to be subject to the laws that govern and relate to depository institution.

#### v. Truth in Lending Act

The Truth in Lending Act (TILA)<sup>280</sup> and Regulation Z, which implements it,<sup>281</sup> administer open and closed-end credit transactions. This includes, for example, credit cards, as the regulation is relevant to “each individual or business that offers or extends credit” (1) extended to consumers, (2) done regularly, (3) subject to a finance charge or more than four installments, and (4) is mainly for personal, family, or household use.<sup>282</sup> The Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009,<sup>283</sup> which amended the federal TILA, is designed to permanently alter the relationship between consumers and their credit cards. The CARD Act’s purpose is two-fold: to outlaw unfair and abusive practices and to increase the transparency of rates and fees associated with credit cards.<sup>284</sup> Accordingly, the

---

<sup>275</sup> Electronic Fund Transfers (Regulation E), 78 Fed. Reg. 30,662 (May 22, 2013) (to be codified at 12 C.F.R. pt. 1005), <http://www.gpo.gov/fdsys/pkg/FR-2013-05-22/pdf/2013-10604.pdf>; Colin Richard, *Regulation E’s Remittance Definition Clarified: A Proposal to Bring Mobile Payments Into the Third-Party Payment Services Exclusion*, YALE LAW AND POLICY REVIEW (Sep. 23, 2013), [http://ylpr.yale.edu/inter\\_alia/regulation-es-remittance-definition-clarified-proposal-bring-mobile-payments-third-party](http://ylpr.yale.edu/inter_alia/regulation-es-remittance-definition-clarified-proposal-bring-mobile-payments-third-party) (discussing a discrepancy in the guidance accompanying the CFPB’s new “remittance transfer,” which may unnecessarily apply regulatory provisions to certain mobile payments, potentially raising the barrier to adoption of this new technology.).

<sup>276</sup> See *Summary of the final remittance transfer rule (amendment to Regulation E)*, CFPB, [http://files.consumerfinance.gov/f/201305\\_cfpb\\_remittance-transfer-rule\\_summary.pdf](http://files.consumerfinance.gov/f/201305_cfpb_remittance-transfer-rule_summary.pdf)

<sup>277</sup> Mehrsa Baradaran, *Reconsidering the Separation of Banking and Commerce*, 80 GEO. WASH. L. REV. 385, 422-423 (2012). Commercial firms that own thrifts through unitary thrift holding companies include E\*Trade, H&R Block, John Deere, Macy’s, Raymond James, Scottrade, State Farm, T. Rowe Price, Allstate, and Edward Jones. *Id.*

<sup>278</sup> *Id.*, at 422-423.

<sup>279</sup> *Id.*, at 422-423. Until not too long ago, commercial firms also had a third option, which enabled them to own an FDIC-insured depository institution through a One Bank Holding Company. This loophole, however, was closed by amendments to the Bank Holding Company Act in 1970. See Larry D. Wall et al., *The Final Frontier: The Integration of Banking and Commerce, Part I: The Likely Outcome of Eliminating the Barrier*, 93 FED. RES. BANK ATLANTA ECON. REV., no. 1, 2008 at 1, 9-11, [http://www.frbatlanta.org/filelegacydocs/er08no1\\_wall.pdf](http://www.frbatlanta.org/filelegacydocs/er08no1_wall.pdf).

<sup>280</sup> Consumer Credit Protection Act, Pub. L. No. 90-321, 82 Stat. 146 (1968).

<sup>281</sup> And was amended more than fifty times. See THOMAS A. DURKIN & GREGORY ELLIEHAUSEN, TRUTH IN LENDING: THEORY, HISTORY, AND A WAY FORWARD (2011), at 9 (giving a thorough overview of the TILA).

<sup>282</sup> *Id.*

<sup>283</sup> Credit Card Accountability Responsibility and Disclosure Act of 2009, Pub. L. No. 111- 24, 123 Stat. 1734 (2009).

<sup>284</sup> See *Wall Street Reform: The Dodd-Frank Act*, THE WHITE HOUSE, <http://www.whitehouse.gov/economy/middle-class/dodd-frank-wall-street-reform>.

CARD Act added a number of specific consumer protection provisions providing for enhanced consumer disclosures, creating specific protections for young consumers, addressing gift cards and other miscellaneous issues. Aiming to curb illegal and deceptive credit card practices, the CFPB is interpreting and executing TILA, whenever necessary, including in the context of nonbanks' business activities.<sup>285</sup>

#### **vi. The Equal Credit Opportunity Act**

The Equal Credit Opportunity (ECOA) Act and the regulation that implements it apply to all the business entities that extend credit, including nonbanks, and is intended to prevent discrimination against applicants for consumer credit.<sup>286</sup> Originally, ECOA gave the Federal Reserve Board responsibility for prescribing the implementing regulation. But the Dodd-Frank Act transferred this authority to the CFPB, and granted it a rule-making authority under ECOA.<sup>287</sup> In January 2013, the CFPB amended Regulation B to reflect the Dodd-Frank Act amendments,<sup>288</sup> requiring creditors to provide applicants with free copies of all appraisals and other written valuations developed in connection with all credit applications to be secured by a first lien on a dwelling.<sup>289</sup>

#### **vii. Gramm-Leach-Bliley Act and the Fair Credit Reporting Act**

Title V of the Gramm-Leach-Bliley (GLB) Act<sup>290</sup> governs the privacy of customer information held by a financial institution. For purposes of applicability, the GLB Act defines a financial institution is any “institution the business of which is engaging in financial activities as described in section 4(k) of the Bank Holding Company Act of 1956 (12 U.S.C. 1843(k).”<sup>291</sup> Thus, while banks are clearly covered, the GLB Act may also include nonbanks such as Mobile Network Operators (“MNOs”), which can include a wireless service provider, wireless carrier, cellular company, or mobile network carrier depending on their role.<sup>292</sup>

Similarly, the Fair Credit Reporting (FCRA) Act<sup>293</sup> is based on the notion that the banking system is dependent upon fair and accurate credit reporting. FCRA generally requires a consumer-reporting agency (CRA) to notify a furnisher when a consumer disputes the accuracy

---

<sup>285</sup> Rebecca Thiess, *Cleaning Up the Credit Card Industry*, US NEWS (May 20, 2014), <http://www.usnews.com/opinion/economic-intelligence/2014/05/20/card-act-and-the-cfpb-are-protecting-consumers-from-credit-card-deception>.

<sup>286</sup> See *Equal Credit Opportunity Act (ECOA) Valuations Rule*, CFPB (Jan. 13, 2014), [http://files.consumerfinance.gov/f/201401\\_cfpb\\_compliance-guide\\_ecoa.pdf](http://files.consumerfinance.gov/f/201401_cfpb_compliance-guide_ecoa.pdf)

<sup>287</sup> *Id.*

<sup>288</sup> Sec. 1071 of the Dodd-Frank Act added a new Sec. 704B to ECOA to require the collection of small business loan data.

<sup>289</sup> See generally *CFPB Consumer Laws and Regulations: Equal Credit Opportunity Act (ECOA)*, CFPB, [http://files.consumerfinance.gov/f/201306\\_cfpb\\_laws-and-regulations\\_ecoa-combined-june-2013.pdf](http://files.consumerfinance.gov/f/201306_cfpb_laws-and-regulations_ecoa-combined-june-2013.pdf)

<sup>290</sup> The Financial Services Modernization Act of 1999, (Pub.L. 106–102, 113 Stat. 1338).

<sup>291</sup> *Id.*

<sup>292</sup> About MNOs, see generally Stefan Jansen, *Managing the Risks of Mobile Money: The Banking Agent Reform in Kenya A Scenario-Based Policy Analysis*, HARVARD CENTER FOR INTERNATIONAL DEVELOPMENT, Working Paper No. 45 (Apr. 15, 2010), <http://ssrn.com/abstract=1804293>.

<sup>293</sup> The Fair Credit Reporting Act, as originally enacted, was title VI of Pub.L. 91–508, 84 Stat. 1114, enacted October 26, 1970.

or completeness of a piece of information offered by the furnisher to the CRA.<sup>294</sup> The CRA must also promptly provide the furnisher “all relevant information” regarding the dispute.<sup>295</sup> The furnisher, in turn, must “conduct an investigation with respect to the disputed information,” “review all relevant information” offered by the CRA, and respond suitably based on the findings of the research.<sup>296</sup>

### **viii. International Aspects of Payment Systems and Cards Law**

For a nonbank, attempting to operate payment service systems around the world through a multitude of technologies can get tricky as there is no consistent international payments law. As described above, in the U.S., payments and cards are regulated through a combination of federal regulations and non-uniform state laws. In the global arena, however, the lack of uniformity and certainty is even worse as different countries have different rules. For example, under the EU member state regulations, which were issued pursuant to the E-Money and Payment Services Directives, licensed nonbanks may provide their services throughout the EU,<sup>297</sup> if they have properly ‘passported’ their license wherever they wish to do business.<sup>298</sup>

#### **b. Regulatory Overlap**

Digital platforms operating as nonbanks providing financial services are subject to regulations enforced by several government agencies. A recent U.S. Government Accountability Office (“GAO”) report, which dealt, among other things with financial services regulation,<sup>299</sup> was delivered to the U.S. Senate Committee on Homeland Security and Government Affairs with several recommendations. On top of the CFPB, the report found additional agencies responsible for regulating and supervising virtual platforms, including the FINCEN, the prudential banking regulators, the Securities and Exchange Commission, the Department of Justice, and the Department of Homeland Security.<sup>300</sup>

Nevertheless, currently it appears that the CFPB is the main agency responsible for regulating online nonbanking services. Indeed, as described above, in 2010, as part of the Dodd-Frank Act legislation, the CFPB started to federally supervise certain nonbanks.<sup>301</sup> Doing so, the Bureau has published a rulemaking agenda and releasing semi-annual updates to its agenda.

---

<sup>294</sup> 15 U.S.C. § 1681i(a)(2)(A).

<sup>295</sup> *Id.*

<sup>296</sup> *The FCRA’s Requirement To Investigate Disputes And Review “All Relevant” Information Provided By Consumer Reporting Agencies (Cras) About The Dispute*, CFPB (Sep. 4, 2013), [http://files.consumerfinance.gov/f/201309\\_cfpb\\_bulletin\\_furnishers.pdf](http://files.consumerfinance.gov/f/201309_cfpb_bulletin_furnishers.pdf).

<sup>297</sup> Facebook has applied for such an e-money license recently. *Davies, Robinson & Kuchler, supra note 22.*

<sup>298</sup> Jon Kutner, *Passporting a financial services license*, PAYMENTS TALK (Jan. 23, 2013), <http://www.paymentsstalk.com/2013/01/23/passports-e-money-and-payments-services/#sthash.Qvkw72c9.dpuf>.

According to the EU Commission, “electronic money is a digital equivalent of cash, stored on an electronic device or remotely at a server. One common type of e-money is the ‘electronic purse’, where users store relatively small amounts of money on their payment card or other smart card, to use for making small payments. But e-money can also be stored on (and used via) mobile phones or in a payment account on the internet.” *See E-Money*, EUROPEAN COMMISSION, [http://ec.europa.eu/internal\\_market/payments/emoney/index\\_en.htm](http://ec.europa.eu/internal_market/payments/emoney/index_en.htm)

<sup>299</sup> “*Virtual Currencies: Emerging Regulatory, Law Enforcement, and Consumer Protection Challenges*,” GAO (Jun. 26, 2014), <http://www.gao.gov/products/GAO-14-496>.

<sup>300</sup> *Id.*

<sup>301</sup> Subject to 12 U.S.C. 5514 of the Dodd-Frank Act.

And after completing most of its required rulemaking under the Dodd-Frank Act, the CFPB has recently released an agenda update announcing that it started looking at various consumer financial products and services for additional regulation.<sup>302</sup> One such service, which captured the CFPB's attention, is online banking. The main reason for the CFPB's interest in online banking is the number of users. Indeed, there are more electronic devices connected to the Internet than there are people on Earth.<sup>303</sup> Specifically, as noted above, in the U.S., 90 percent of the population owns cellphones—with 60 percent of those owners using smartphones that are constantly connect to the Internet.<sup>304</sup> These statistics indicate to the CFPB that online banking is probably not just a phenomenon but an increasingly growing trend.<sup>305</sup> Accordingly, in June 2014, the CFPB issued a notice that it intends to consider both “the opportunities and challenges” relevant to mobile financial services. The CFPB plans to mainly focus on the trend's impact on the under-banked and underserved population, and the potential to provide access to banking services for those traditionally shut out.<sup>306</sup> The CFPB has decided to do so because it is its task to make sure all consumers are protected regardless of whether they are opening their physical wallets at a store, clicking on their computers at the convenience of their homes, or tapping the screen on their smartphones.<sup>307</sup> Among the areas of interest that the CFPB is collecting information on are (i) access for the underserved; (ii) real-time money management; (iii) customer service; and (iv) privacy concerns and data breaches.<sup>308</sup>

Based on the GAO report and the CFPB's rulemaking agenda, the CFPB is now focused on nonbanks, and entities that offer online bank-like services. But the CFPB is not the only regulator to cover those financial activities and therefore the CFPB's scope of supervision needs to be carefully defined in order to avoid problematic overlap issues. Indeed, “because mobile

---

<sup>302</sup> *Agency Rule Lists*, OFFICE OF INFORMATION AND REGULATORY AFFAIRS (Spring 2014), [http://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION\\_GET\\_AGENCY\\_RULE\\_LIST&currentPub=true&agencyCode=&showStage=active&agencyCd=3170&Image58.x=58&Image58.y=5&Image58=Submit](http://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST&currentPub=true&agencyCode=&showStage=active&agencyCd=3170&Image58.x=58&Image58.y=5&Image58=Submit).

<sup>303</sup> Shea Bennet, *How Social Media Brings Power To The People*, MEDIA BISTRO (Aug. 28, 2012), [http://www.mediabistro.com/alltwitter/social-power-people\\_b27575](http://www.mediabistro.com/alltwitter/social-power-people_b27575).

<sup>304</sup> See *Mobile Technology Fact Sheet*, PEW RESEARCH INTERNET PROJECT (Jan. 2014), <http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/>.

<sup>305</sup> See e.g. Daniel Terdiman, *Twitter Said To Be Teaming With Stripe For In-Tweet Payments*, CNET (Jan. 16, 2014),

<http://www.cnet.com/news/twitter-said-to-be-teaming-with-stripe-for-in-tweet-payments/>; John Adams, *Square Enters Banks' Turf by Pushing Past Payments*, PAYMENTS SOURCE (May 28, 2014), <http://www.paymentsource.com/news/square-enters-banks-turf-by-pushing-past-payments-3018025-1.html>.

(Square, which is in the business of plug-in payment device, is piling on services that should make banks and other companies take notice); Solon Harmony B. Dolor, *Facebook Inc (FB) Financial Service Might Make Me Buy: Kevin O'Leary*, TECH INSIDER (Jun. 10, 2014), <http://www.techinsider.net/facebook-inc-fb-financial-service-might-make-me-buy-kevin-oleary/115535.html> (explaining that Facebook is developing a financial service offering that will rival eBay Inc's PayPal, and that Amazon.com, Inc has also reported to be launching a similar product). THE LINK IN THE SOURCE I DELETED ISN'T WORKING...

<sup>306</sup> Charles Washburn, Jr., *Let's Get Mobile: The CFPB Turns Focus to Mobile Banking*, JD SUPRA (Jul. 8, 2014) <http://www.jdsupra.com/legalnews/lets-get-mobile-the-cfpb-turns-focus-t-26103/>.

<sup>307</sup> *Id.* See also *Written Testimony of Richard Cordray before the Senate Banking Committee* (Jun. 6, 2012), <http://www.consumerfinance.gov/newsroom/written-testimony-of-richard-cordray-director-of-the-consumer-financial-protection-bureau/> (“What will be very helpful to community banks around the country is our new mandate to oversee and regularize the practices of nonbank financial institutions that often compete in the same markets. We hear much favorable comment from the community banks about this important task.”)

<sup>308</sup> John Ginovsky, *CFPB Casts Eye on Mobile Banking Will Concentrate on Application to Unbanked, Privacy, Security, Money Management*, ABA (Jun. 25, 2014), <http://www.ababj.com/component/k2/item/4714-cfpb-casts-its-eye-on-mobile-banking>

payment usage is still in its infancy, the regulatory environment governing mobile payments is still uncertain. Mobile payments are a convergence of telecommunications, banking and web services, which results in significant regulatory overlap.”<sup>309</sup>

Specifically, the overlap results from the fact that several bodies, such as the FTC and FINCEN,<sup>310</sup> could also claim an interest in policing online nonbanks and mobile payments.<sup>311</sup> Similarly, while clearly much less relevant, two more authorities could also argue to have stakes in the regulation of online nonbanks and mobile payments are (i) the FCC, which is the main federal agency that regulates interstate and international communications,<sup>312</sup> and (ii) state public utility commissions, which regulate the utilities that provide essential services.<sup>313</sup>

Acknowledging this problematic jurisdiction overlap,<sup>314</sup> and the uncertainty it creates, in testimony before the House Financial Services Subcommittee, Marla Blow, Assistant Director for Card and Payment Markets at the CFPB, declared that the main oversight for online payments would be the responsibility of the CFPB. This is because the CFPB is a newer agency that seeks to “restrict unfair, deceptive, or abusive acts or practices.”<sup>315</sup> This statement is critical, as the infancy of the CFPB and the ambiguity of its defined scope have created insecurity among many entities or individuals, who may not know if they have violated a regulation until the CFPB commences enforcement actions.

The overlap in the jurisdiction of several regulators is problematic as it creates uncertainty in several levels. First, when dealing with online/mobile platforms offering bank-like services, it is not clear if existing banking regulators, such as the Federal Reserve, FDIC, the Office of the Comptroller of the Currency (OCC), or even National Credit Union Administration (NCUA)<sup>316</sup> should predominate the regulatory environment. Second, state financial services’ regulators also play a significant role, supervising and regulating financial services and activities, but it is not clear how to best coordinate this role with the federal regulation. Third, two government entities, the CFPB and the FTC,<sup>317</sup> currently assume concurrent responsibility of online nonbanking consumer protection. Indeed, according to the Electronic Fund Transfer Act,<sup>318</sup> the CFPB has authority to regulate both consumers and financial institutions engaged in

---

<sup>309</sup> Benjamin Seeger, *Mobile Payments: Is Plastic Becoming Obsolete?*, CH& (Jan. 25, 2013), <http://www.cairncross.com/eatdrinkshopstay/mobile-payments-is-plastic-becoming-obsolete/>.

<sup>310</sup> See text accompanying *supra* notes 250-251.

<sup>311</sup> Seeger, *supra* note 304.

<sup>312</sup> *What Do We Do*, FCC, <http://www.fcc.gov/what-we-do>.

<sup>313</sup> Such services include energy, telecommunications, water, and transportation utilities. For more on their work see the website of the National Association of Regulatory Utility Commissioners (NARUC), <http://www.naruc.org> (a non-profit organization dedicated to representing the State public service commissions who regulate utilities).

<sup>314</sup> Marianne Crowe & Cynthia Merritt, Et al, *The U.S. Regulatory Landscape for Mobile Payments: Summary Report of Meeting Between Mobile Payments Industry Group and Federal and State Regulators* (Apr. 24, 2012), [http://www.frbatlanta.org/documents/rprf/rprf\\_pubs/120730\\_wp.pdf](http://www.frbatlanta.org/documents/rprf/rprf_pubs/120730_wp.pdf)

<sup>315</sup> *Id.*

<sup>316</sup> NCUA is an independent federal agency that charters and supervises federal credit unions and insures savings in federal and most state-chartered credit unions. See <http://www.ncua.gov>

<sup>317</sup> The FTC protects consumers from fraudulent and deceptive practices through enforcement of the Unfair and Deceptive Trade Act. See Federal Trade Commission Act, 15 U.S.C. § 45(a)(1) (2012) (establishing power to regulate unfair or deceptive practices); 15 U.S.C. § 57(a) (2012) (bestowing authority upon the FTC to establish rules and policies). As part of its efforts concerning online practices, it helped create comprehensive privacy programs to protect consumers’ private information. See Staff Report, *Paper, Plastic... or Mobile?*, FTC Workshop, 6 (March 2013), <http://www.ftc.gov/os/2013/03/130306mobilereport.pdf>.

<sup>318</sup> Electronic Fund Transfer Act, 15 U.S.C. § 1693 (2012).

electronic funds transfers, in order to protect against fraudulent and unauthorized transactions.<sup>319</sup> Additionally, the CFPB acts as a backstop to state level consumer protection by providing that any state regulation or agreement between the consumer and financial institution that caps consumer liability for a lesser amount will govern.<sup>320</sup> Similarly, the FTC also has jurisdiction over entities operating in the online bank-like services and payments environment, and shares responsibility with the CFPB for enforcing regulation against Internet platforms to protect consumers.<sup>321</sup>

Moreover, this fragmentation in the regulation of online bank-like service providers is dangerous. As the 2008 financial crisis clearly demonstrated, when many regulatory agencies have an overlapping responsibility in overseeing and regulating a certain industry, the consequences could be harsh.<sup>322</sup> In retrospect, it is now clear that in 2008 the existing overly complex and blurred structure of overlapping responsibilities that many federal financial regulatory agencies had over the financial markets led to some dysfunctional competition and lack of clarity for businesses.<sup>323</sup> And while the Dodd-Frank Act attempted to make the financial regulatory structure clearer, some argue that it only made things worse.<sup>324</sup>

Finally, as the jurisdiction overlap causes confusion regarding the scope of the authority of each regulatory agency and its expected role, the agencies are not doing enough to address issues related to the constantly evolving online payment system.<sup>325</sup> The decision to subject a given technology company offering financial services to current federal regulation appears to be made somewhat randomly and it is impossible to draw any instructing guidelines for new entrants that consider offering similar services.<sup>326</sup> Indeed, the determination of whether an entity is required to register is based on the facts and circumstances of each individual entity.<sup>327</sup> An

---

<sup>319</sup> Electronic funds transfers include transfers of funds that are conducted by mobile payment businesses. 12 C.F.R. § 1005.3(b) (2013)

<sup>320</sup> 12 C.F.R. § 1005.6(b)(6) (explaining that any state law or financial institution agreement with the consumer that caps liability at a lesser amount than the amount given in 12 C.F.R. 1005.6(b)(1)-(3) will govern the transaction).

<sup>321</sup> 12 U.S.C. § 5581(b)(5)(C) (2012).

<sup>322</sup> Kevin McCoy, *2008 Financial Crisis: Could It Happen Again?*, USA TODAY (Sep. 9, 2013) (citing former Treasury Secretary Henry Paulson, who argued that "The problem with having this alphabet soup of regulators is nobody's in charge of looking at all the pieces and making sure they work together.")

<sup>323</sup> *Id.* See also Norbert J. Michel, *The Financial Stability Oversight Council: Helping to Enshrine "Too Big to Fail,"* THE HERITAGE FOUNDATION (Apr. 1, 2014), <http://www.heritage.org/research/reports/2014/04/the-financial-stability-oversight-council-helping-to-enshrine-too-big-to-fail> (the U.S. financial market regulation has long included multiple agencies with overlapping responsibilities, particularly with respect to banks. For example, almost all banks belong to the FDIC, which is the main federal regulator for state-chartered banks that are not participants of the Federal Reserve System. All state-chartered banks are also subject to their various state banking agencies. Contributing to the overlap are the facts that all publicly traded companies are regulated by the Securities and Exchange Commission (SEC), and that insurance companies are regulated by state agencies, as well as at the federal level if they are publicly traded. Other nonbank financial companies, such as securities brokers and dealers, fall under the oversight of either the Commodity Futures Trading Commission (CFTC) or the SEC.)

<sup>324</sup> The Dodd-Frank Act added the Financial Stability Oversight Council, which is not in charge of any of the already existing agencies, and adds more complexity to what has already been a tangled mess of federal and state regulatory agencies. *Id.*

<sup>325</sup> *Id.*

<sup>326</sup> *Paypal Anti-Money Laundering and Counter-Terrorist Financing Statement*, PAYPAL, <https://www.paypal.com/webapps/mpp/ua/aml-full> (explaining that as a financial institution operating internationally, PayPal employs an AML program in compliance with federal regulations, and discussing the exceptions to the federal regulation under the CFPB and FTC).

<sup>327</sup> 31 C.F.R. § 1010.100(ff)(5)(ii) ("Whether a person is a money transmitter as described in this section is a matter of facts and circumstances.").

example of such growing uncertainty is the increased use of mobile carrier billing--the funding mechanism whereby mobile payment systems or other third parties consent to bill the consumer's account with the mobile carrier.<sup>328</sup> Presently, many mobile wallet services allow carrier billing, but not enough federal regulation exists to regulate this kind of billing.<sup>329</sup> This vacuum forces consumers to rely on voluntary safeguards provided by the mobile payment businesses or mobile carriers, which might be insufficient to address customers' legitimate needs.

#### IV. Regulating Big data and Social Netbanking

The growing interest and stronger grip of online platforms in financial services has already become noticeable. The gradual invasion of nonbanks into the financial services market has started capturing the attention of major financial institutions and banks that have expressed concerns about this expanding and unregulated sub-industry.<sup>330</sup> Simultaneously, this growing interest has also started capturing the attention of regulators, who started discussing the need to examine some of the alternative payment methods,<sup>331</sup> and especially the activities of online and mobile nonbank. The regulators find this relevant because as the financial services offered by online platforms continue to advance, these services become increasingly similar to traditional deposit accounts. Indeed, various online platforms enable users features such as "to deposit money into an account stored on their cell phones, to send balances using SMS technology to other users (including sellers of goods and services), and to redeem deposits for regular money."<sup>332</sup> Moreover, as noted above, these types of services are quickly becoming more and more popular, as it is "easier to obtain a cell phone than a bank account in the developing world."<sup>333</sup>

Keeping up with the most recent trends in the market, big data giants and social networks have also recognized the advantages of incorporating financial services into their bundle of features and capitalizing on their existing user base with a promising (and currently not heavily regulated) revenue generator. Accordingly, some companies started making moves into big data and social netbanking. While we expect big data and social netbanks to play a key and constantly increasing role in various financial markets, existing regulation does not differentiate between social networks and general online/mobile platforms. As big data and social netbanks raise special concerns that may require specifically tailored regulation, in the following section we point to several distinctive characteristics of this trend that regulators should factor in when designing the appropriate regulatory scheme.

---

<sup>328</sup> MacRae M. Robinson, *Easing the Burden on Mobile Payments: Resolving Current Deficiencies in Money Transmitter Regulations*, 18 N.C. BANKING INST. 563 (2014).

<sup>329</sup> *Id.*; *FTC Workshop*, *supra* note 312.

<sup>330</sup> See e.g., Penny Crosman, *How Banks Can Win Back 'Mind Share' from PayPal, Google, Amazon*, AMERICAN BANKER (May 30, 2014), [http://www.americanbanker.com/issues/179\\_104/how-banks-can-win-back-mind-share-from-paypal-google-amazon-1067780-1.html](http://www.americanbanker.com/issues/179_104/how-banks-can-win-back-mind-share-from-paypal-google-amazon-1067780-1.html).

<sup>331</sup> See e.g., Eniola Akindemowo, *Contract, Deposit or E-Value? Reconsidering Stored Value Products for A Modernized Payments Framework*, 7 DEPAUL BUS. & COM. L. J. 275, 295-96 (2009) (discussing the FDIC's recently expressed opinion that Stored Value Products are access devices and as such are very similar to traditional payment mechanisms and might need to be assessed for regulation under the FDIC if the funds underlying them are ultimately deposited in a financial institution.)

<sup>332</sup> Colin Watterson, *More Flies with Honey: Encouraging Formal Channel Remittances to Combat Money Laundering*, 91 TEX L REV 711, 717-18 (2013).

<sup>333</sup> *Id.*

## a. Regulatory Considerations for Big Data and Social Netbanks

### i. Enhanced Access to Financial Services via Social Networks

Big data and social networks have many more users than traditional banks – those networks are widely used by billions of people from all over the world with a broad range of financial capabilities.<sup>334</sup> Some use the traditional banking system; some come from geographic areas where it is very difficult to get traditional banking services,<sup>335</sup> and some come from low social economic backgrounds that makes it virtually impossible for them to get financial services from more established financial entities.<sup>336</sup> If those billions of people were offered access to financial services via big data platforms or social networks accounts there is a good chance more people would use big data and social networks' services for bank-like purposes.

When regulating big data and social netbanks, regulators should bear in mind that because of the effortless access those new bank-like entities provide to financial services, they could potentially dominate the underbanked community. While enabling underserved populations to access financial services could generally be considered positive, it is imperative for regulators to keep in mind that these populations often do not have the luxury of choosing between alternatives. Hence, underbanked users could end up being captive consumers of big data and social netbanks. The limited choice of the underbanked community has been and will continue to be used to the advantage of big data and social netbanks. For example, big data already exploit information gathered on consumer vulnerabilities.<sup>337</sup>

### ii. Privacy Concerns

The aggregation of information by big data and social networks is central to their operation. As mentioned above, those companies' most common revenue source thus far has been advertising. Big data and social networks have dramatically increased the ability of firms to target advertising accurately to specific consumers and to use consumer information to personalize advertising content.<sup>338</sup> Naturally, big data and social networks are able to do so by using information collected on their users, their acquaintances and relatives, marital status, jobs, shopping preferences, political positions and more. Information is collected with the users' consent, either implied - by posting and disclosing personal information, or explicitly – by agreeing to the platforms' terms of service. Big data represents one of the most interesting and relevant privacy challenges of our time.<sup>339</sup> When rightly mastered, big data increases the amount and scope of personally identifiable information.<sup>340</sup> When poorly applied, it has been argued that big data can even erroneously drive decisions that would impact a person's life.<sup>341</sup> Importantly,

---

<sup>334</sup> For membership numbers *see supra* chapter II (a).

<sup>335</sup> *See supra* chapter II (b).

<sup>336</sup> *Id.*

<sup>337</sup> Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, (text accompanying footnotes 82-83) (2014).

<sup>338</sup> Catherine Tucker, *Social Networks, Personalized Advertising, and Perceptions of Privacy Control*, MIT SLOAN REPORT SERIES (Summer 2011), [http://209.59.135.49/pdf/TWC\\_Tucker\\_v3a.pdf](http://209.59.135.49/pdf/TWC_Tucker_v3a.pdf).

<sup>339</sup> Strahilevitz, *supra* note 18, at 2021.

<sup>340</sup> Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward A Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 98 (2014).

<sup>341</sup> *Id.*, at 101.

it is virtually impossible to forecast when an algorithm will generate personally identifiable information and when an appropriate privacy safeguard is due.<sup>342</sup> Furthermore, recent studies have highlighted the fragility of promised anonymity; it is often possible to use a few pieces of information to identify a specific person even when that person's name and other identifying details are stripped from the data sets.<sup>343</sup>

*Social Networks - Mixing Business With Pleasure?:* In modern times, most retail companies and nonbanks offering financial services and products to consumers try to collect data on their consumers in order to better sell to them. Indeed, since "almost every single major decision to drive revenue, to control costs, or to mitigate risks can be infused with data and analytics," having users' information readily available can greatly impact all providers of financial services.<sup>344</sup> And while marketing and risk management are two disciplines that have historically used information well, big data firms and social networks are now at the next frontier in terms of utilizing both data and analytics to drive revenue generation and better risk decisions.<sup>345</sup> Unlike those new players, traditional banks do not have access to so much personal information, and are lagging behind big data and social netbanks while struggling to understand the mostly structured data that they do have and generate daily.<sup>346</sup>

*The Right To Be Forgotten:* What one has been up to in the past and whom she has associated with could become detrimental when attempting to get financial services and products from big data and social netbanks.<sup>347</sup> Indeed, "Big data may mean that we are forever prisoners of our previous actions, which can be used against us in systems that presume to predict our future behavior."<sup>348</sup> Some critics view this as a concerning and discriminatory phenomenon, and argue against such usage of what is often more private data, especially when there is no regulation in place about vetting the financial integrity of a borrower based on such data.<sup>349</sup> Critics also submit that this ambiguity might leave applicants unfairly denied.<sup>350</sup> But while it is disturbing that the friends one connects with on his Facebook profile could jeopardize her loan application, it is much more troubling that an individual could be perpetually or periodically stigmatized as a consequence of available big data on actions performed by her in the past. Indeed, big data and social networks offering social netbanking services might leverage such data and adopt it into their lending decisions, as the Chinese giants – Alibaba and Tencent already do.<sup>351</sup> Doing so would prejudice individuals' desire to determine the development of

---

<sup>342</sup> *Id.*, 98-100. Target sending baby-related coupons to a pregnant teenager, who at the time did not disclose her pregnancy to her parents, exemplifies this point, Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES (Feb. 16, 2012), [http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=1&\\_r=1&hp](http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=1&_r=1&hp).

<sup>343</sup> Natasha Singer, *With a Few Bits of Data, Researchers Identify 'Anonymous' People*, N.Y. TIMES (Jan. 29, 2015), <http://bits.blogs.nytimes.com/2015/01/29/with-a-few-bits-of-data-researchers-identify-anonymous-people/>.

<sup>344</sup> *How advanced analytics are redefining banking* (Apr. 2013), [http://www.mckinsey.com/insights/business\\_technology/how\\_advanced\\_analytics\\_are\\_redefining\\_banking](http://www.mckinsey.com/insights/business_technology/how_advanced_analytics_are_redefining_banking)

<sup>345</sup> *Id.*; *The Financial Brand on Big Data*, *supra* note 36 ("60% of financial institutions in North America believe that big data analytics offers a significant competitive advantage and 90% think that successful big data initiatives will define the winners in the future.")

<sup>346</sup> *Big Banks Are Riskier Than Ever, Says FDIC Vice Chair*, FORTUNE (May 20, 2014), <http://continuumfi.com/boards/t/5999/news-fortune-big-banks-are-riskier-than-ever-says-fdic-vice-chair.aspx>.

<sup>347</sup> Jennifer Calonia, *Move Over FICO, Your Facebook Profile Could Cost Your Loan*, GO BANKING RATES (Apr. 23, 2014), <http://www.gobankingrates.com/auto-loans/social-media-profile-loan-rejection/>. See also *supra* notes 377-385 and accompanying text.

<sup>348</sup> *Mayer-Schönberger & Cukier*, *supra* note 29, at 195.

<sup>349</sup> *Id.*

<sup>350</sup> *Id.*

<sup>351</sup> See text accompanying *supra* notes 168-193.

their lives in an autonomous way, without being penalized by past actions, a notion that has been referred to as “the right to be forgotten.”<sup>352</sup>

In general, advocates of this right believe that since information posted to the Internet is never truly forgotten and carries substantial risks to a data subject if used out of context or in harmful ways to one’s reputation, the potential for harm is dire especially when the information becomes available without a subject’s consent.<sup>353</sup> Following this rationale, the European Court of Justice recognized the right to be forgotten, holding that all individuals within its jurisdiction had the right to forbid Google from linking their names and personal information to items that were “inadequate, irrelevant or no longer relevant, or excessive in relation to the purposes for which they were processed and in the light of the time that has elapsed.”<sup>354</sup> Conversely, other commentators warn against adopting such a right. Specifically, they argue that the right to be forgotten negatively impacts the right to freedom of expression, and fear that creating a right to be forgotten would decrease the quality of the Internet through censorship and a rewriting of historic data and narratives.<sup>355</sup> For now, discussions on the legitimacy of this right, which is a fairly new one, have not yet resulted in concrete conclusions about its status, mainly due to the vagueness of the concept.<sup>356</sup> Either way, regulators must make allowances for big data and social networks’ assessment of one’s financial reputation based on her past conducts as reflected by her online activities.

*Cyber Security Issues:* During 2013 and 2014, Target, Home Depot, Michaels, Neiman Marcus, AOL, eBay, Dairy Queen, Jimmy Johns, Kmart, Staples, Bebe Stores, Sony studios and many other big nonbanks and retail businesses disclosed massive data breaches.<sup>357</sup> The

---

<sup>352</sup> Alessandro Mantelero, *The EU Proposal for a General Data Protection Regulation and the roots of the ‘right to be forgotten,’* 29:3 COMPUTER LAW & SECURITY REVIEW, 231 (2013); Alexander Tsesis, *The Right to Erasure: Privacy, Data Brokers, and the Indefinite Retention of Data*, 49 WAKE FOREST L. REV. 433 (2014) (while businesses have valid reasons to use information in their day-to-day operations, a statutorily defined expiration period is needed to preserve the data subjects’ dignity and autonomy rights).

<sup>353</sup> Robert Kirk Walker, *The Right to be Forgotten*, 64 HASTINGS L. J. 257 (2012). Acknowledging this, European policymakers have pushed for a legislation that recognizes such a right, which would provide EU citizens with the ability to demand the removal of their personal information from online databases. *Id.* In the U.S., however, commentators have noted that only a limited form of such a right — a right to delete information that a user has personally submitted — could be adopted as only that component is compatible with American constitutional law. *Id.*

<sup>354</sup> Case C-131/12, *Google Spain SL, Google Inc. v. Agencia Española de Protección de Datos (AEPD), Mario Costeja González* (May 13, 2014), ¶ 94, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0131&rid=14>. See also Ana Azurmendi, *The Spanish Origins of the European “Right to be Forgotten”: The Mario Costeja and Les Alfacs Cases*, in Urs Gasser & Rebekah Heacock Jones, Et al, INTERNET MONITOR 2014: REFLECTIONS ON THE DIGITAL WORLD: PLATFORMS, POLICY, PRIVACY, AND PUBLIC DISCOURSE, Berkman Center Research Publication No. 2014-17, 43 (2014).

<sup>355</sup> While the right to be forgotten can provide exceptions for content that is deemed artistic, journalistic, or literary, it leaves the determination of what should be defined as such an exception to the entities in charge of its removal that are big internet companies such as Google or Facebook. Furthermore, it penalizes companies for noncompliance, and this has the potential to forcefully transform the role of such Internet companies from hosts to censors. See in general, Emily Shoor, *Narrowing the Right to Be Forgotten: Why the European Union Needs to Amend the Proposed Data Protection Regulation*, 39 Brook. J. Int’l L. 487 (2014). The potential chilling effect the Right to Be Forgotten may have on individuals around the world was recently exemplified by two cases focused on Yahoo and Google’s search engine. *Id.*

<sup>356</sup> *Id.* (the ambiguity in implementation and enforcement of the Right to Be Forgotten also contributes to the creation of a chilling effect); Peter Fleischer, *Foggy Thinking About The Right To Oblivion* (Mar. 9, 2011), <http://peterfleischer.blogspot.co.nz/2011/03/foggy-thinking-about-right-to-oblivion.html>

<sup>357</sup> Dan Berger, *One Year After Target Breach, Consumers Vulnerable as Ever*, AMERICAN BANKER (Dec. 19, 2014),

vulnerability of consumers' data to cybercriminals is also a key issue that banks have been required to deal with in recent years and spend large amounts of money on attempting to solve.<sup>358</sup> And while from their lack of comparable breaches it may be safe to assume that big data platforms have thus far established appropriate strategies to keep their information safe, the dangers posed by security related issues for those data-driven businesses, especially in the payments industry, are considerable. To use the words of a senior banker:

"[t]hink about this: If we're down the road two or three years, and three-fourths of the banks and three-fourths of the merchants are on Apple Pay or whatever system. . . If you're a smart terrorist, what better way to get in to disrupt the financial condition of the United States of America than go to one of their back rooms."<sup>359</sup>

Similarly, the Internet term "doxing" refers to the leaking of sensitive personal information. In reality, when most of our personal information is stored with social networks, consumers dox themselves constantly.<sup>360</sup> After all, as recently explained by an industry specialist the only right person to monetize her own data is that individual consumer.<sup>361</sup>

### iii. When Social Goes Financial: Social Consequences

*Interpersonal Connections' Effects:* Consumers go through several steps in the consumer decision process.<sup>362</sup> These steps include need recognition, information search, valuation, decision, and post-purchase evaluation.<sup>363</sup> And while personal recommendations have always played a central role in financial decision-making,<sup>364</sup> pre-social networks, word of mouth recommendations just did not travel very far. Nowadays, many of these recommendations are happening online, and social media enables word of mouth to reach millions of consumers.<sup>365</sup> People use social media to share their experiences, reviews, information, advice, warnings, tips,<sup>366</sup> and even personal health-related decisions, such as the desire to become an organ donor.<sup>367</sup> These social displays result in peer influence for others to do likewise,<sup>368</sup>

---

<http://www.americanbanker.com/bankthink/one-year-after-target-breach-consumers-vulnerable-as-ever-1071750-1.html>.

<sup>358</sup> "Unlike retailers, financial institutions maintain rigorous internal protections to ward off criminal attacks. They are required by federal law — specifically, the *Gramm-Leach-Bliley Act* — and by regulation to protect this information and to notify consumers when a breach occurs that may put them at risk. By contrast, retailers are not subject to any federal laws or regulations on consumer financial data protection and breach notification. *Id.*

<sup>359</sup> See *supra* note 11.

<sup>360</sup> Marc Hochstein, *Rethink Identity So Personal Data Can Stay Personal*, AMERICAN BANKER (Dec. 29, 2014), <http://www.americanbanker.com/news/national-regional/rethink-identity-so-personal-data-can-stay-personal-1071832-1.html>.

<sup>361</sup> *Id.*

<sup>362</sup> Angela Hausman, *Consumer Decision Making Process and Social Media*, HAUSMAN MARKETING LETTER (Feb. 20, 2014), <http://www.hausmanmarketingletter.com/social-media-drives-consumer-decision-making-process/>

<sup>363</sup> *Id.*

<sup>364</sup> *Grasping the Power of Social Networking for Financial Service*, IBM (November 2012), <https://www.aba.com/Tools/Offer/Document/IBM%201.pdf>.

<sup>365</sup> *Id.*

<sup>366</sup> See generally Lukas P. Forbes & Eve M. Vespoli, *Does social media influence consumer buying behavior? An investigation of recommendations and purchases*, 11 JOURNAL OF BUSINESS & ECONOMICS RESEARCH (2), 107, (2013).

<sup>367</sup> A 2012 Facebook program prompted 500,000 people to register as organ donors. Dick Dahl, *Experts Explore How Social Networks Can Influence Behavior And Decision-Making*, HARVARD LAW TODAY (Feb. 15, 2013),

especially as studies have shown that 72% of consumers trust online reviews as much as personal recommendations,<sup>369</sup> and that 78% of consumers are influenced by posts made by companies on social media.<sup>370</sup>

Accordingly, companies and financial service-providers understand social media is the new gold standard for customer-centric marketing, and therefore they may try to improve reviews on their products.<sup>371</sup> Regulators looking after consumers should acknowledge that those social recommendations, albeit legitimate, pose challenges. It is fairly easy, for example, to fabricate reviews and gain online trend-setters' influence.<sup>372</sup> Therefore, any regulation of big data and social networks must consider the concerns associated with social recommendations. One way of doing it could be broadening the scope of some already-existing laws and regulations enforced by the FTC, such as the TILA, which has specific advertising requirements,<sup>373</sup> in the context of big data and social networks.

A different possible abuse of interpersonal connections is the ability of big data and social networks to potentially manipulate users' views and desires. By allowing many to voice their opinions and thoughts to a vast audience, big data platforms and social networks transformed the way individuals develop their standpoints.<sup>374</sup> Concurrently and derivatively, those networks have become a common protest tool. For example, following thousands of posts on Cheerios' Facebook page, General Mills announced that Original Cheerios, its popular breakfast cereal, will be free of genetically modified organisms.<sup>375</sup> Social media outlets were also instrumental in political uprisings around the world, such as those leading to the Arab Spring.<sup>376</sup> In another famous protest that utilized social networks and tech platforms to spread

---

available at <http://today.law.harvard.edu/experts-explore-how-social-networks-can-influence-behavior-and-decision-making-video/>

<sup>368</sup> *Id.*

<sup>369</sup> Myles Anderson, *Study: 72% of Consumers Trust Online Reviews As Much As Personal Recommendations*, SEARCH ENGINE LAND (Mar. 12, 2012), <http://searchengineland.com/study-72-of-consumers-trust-online-reviews-as-much-as-personal-recommendations-114152>

<sup>370</sup> Steve Olenski, *Are Brands Wielding More Influence In Social Media Than We Thought?* FORBES (May 7, 2012), <http://www.forbes.com/sites/marketshare/2012/05/07/are-brands-wielding-more-influence-in-social-media-than-we-thought/>.

<sup>371</sup> Andy Sernovitz, et al., *WORD OF MOUTH MARKETING: HOW SMART COMPANIES GET PEOPLE TALKING* (2012).

<sup>372</sup> See e.g., *Social media: A new tool for terror fundraising*, CNN (Jun. 19, 2014), <http://outfront.blogs.cnn.com/2014/06/19/social-media-a-new-tool-for-terror-fundraising/> (reporting how significant social media is to terror fundraising, and stating that Twitter, Facebook and messaging site, WhatsApp are crucial tools); *Social Media Sites Now Recruiting Tools For Terrorists*, ASAHI (Jun. 21, 2013), [http://ajw.asahi.com/article/asia/around\\_asia/AJ201306210097](http://ajw.asahi.com/article/asia/around_asia/AJ201306210097) (a growing number of young people are being targeted for recruitment by terrorists on social media sites, and the use of social networking to plan and have the ability to execute terror attacks pose new challenges for authorities.)

<sup>373</sup> Including that certain information must be "clearly and conspicuously" disclosed. See *Advertising FAQ's: A Guide for Small Business*, Bureau of Consumer Protection, FTC, <http://www.business.ftc.gov/documents/bus35-advertising-faqs-guide-small-business>.

<sup>374</sup> Clay Shirky, *The Political Power of Social Media*, 90 FOREIGN AFF. 28, 28–29 (2011).

<sup>375</sup> Sreeja VN, *General Mills' Original Cheerios Goes GMO-Free; Advocacy Groups Claim It's A Major Victory For Non-GMO Movement*, INTERNATIONAL BUSINESS TIMES (Jan. 3, 2014) <http://www.ibtimes.com/general-mills-original-cheerios-goes-gmo-free-advocacy-groups-claim-its-major-victory-non-gmo>.

<sup>376</sup> Catherine O'Donnell, *New Study Quantifies Use of Social Media in Arab Spring*, U. WASH. NEWS (Sep. 12, 2011), <http://www.washington.edu/news/articles/new-study-quantifies-use-of-social-media-in-arab-spring>; Philip N. Howard et al., *Opening Closed Regimes: What Was the Role of Social Media During the Arab Spring?*, 23 (Project on Info. Tech. & Political Islam, Working Paper No. 1, 2011), [http://pitpi.org/wp-content/uploads/2013/02/2011\\_Howard-Duffy-Freelon-Hussain-Mari-Mazaid\\_pITPI.pdf](http://pitpi.org/wp-content/uploads/2013/02/2011_Howard-Duffy-Freelon-Hussain-Mari-Mazaid_pITPI.pdf).

and intensify, opponents of two controversial bills, The Stop Online Piracy Act (“SOPA”) and the Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act (“PIPA”), successfully pressured Congress to indefinitely shelve the bills.<sup>377</sup> The defeated supporters of the bills pointed out that the involved big data companies and social networks were not only the most effective organizational tools for users, but also their chief information source.<sup>378</sup> They accused the platforms of knowingly misinforming the public about the content of the bills to generate a vocal backlash, and insisted that the protest was in fact a demonstration of intentional misguidance orchestrated by those networks and other major technology industry players to promote their own corporate interests.<sup>379</sup>

The power to present the public with manipulated information has been used by Facebook in its “manipulation study.” In a series of massive and highly criticized<sup>380</sup> psychological experiments, Facebook manipulated the news feeds of 689,003 users to assess the effects on their emotions.<sup>381</sup> This power, in the context of big data and social networks can be immensely destructive if abused.

*Social Shaming:* Using applications and online lending services, several startups have been using social networks to collect relevant information on users and factor in that data when deciding if to allow or deny financial services. LendUp, one of those companies, which is a direct lender that uses big data to analyze risk,<sup>382</sup> views an active social media life as an indicator of stability.<sup>383</sup> Another U.S. based lender, Neo,<sup>384</sup> looks at the number and nature of an applicant’s LinkedIn connections to co-workers to determine whether a claimed job is real, and also calculates the quality and quantity of a user’s LinkedIn contacts to determine how quickly a laid-off debtor will be rehired.<sup>385</sup> Customers of Movencorp Inc. (better known as Moven) can link their financial account to their social-media account on Facebook, LinkedIn, and Twitter to make payments to friends and learn about their own financial behavior.<sup>386</sup> Hong-Kong based Lenddo,<sup>387</sup> which provides small loans to borrowers in developing countries, scrutinizes applicants’ connections on Facebook and Twitter.<sup>388</sup> Finally, Kreditech,<sup>389</sup> a Germany based

---

<sup>377</sup> Yafit Lev-Aretz, *Copyright Lawmaking and Public Choice: From Legislative Battles to Private Ordering*, 27 HARV. J. L. & TECH. 203 (2013).

<sup>378</sup> *Id.*, at 229.

<sup>379</sup> *Id.*

<sup>380</sup> Gregory S. McNeal, *Controversy Over Facebook Emotional Manipulation Study Grows As Timeline Becomes More Clear*, FORBES (Jun. 30, 2014), <http://www.forbes.com/sites/gregorymcneal/2014/06/30/controversy-over-facebook-emotional-manipulation-study-grows-as-timeline-becomes-more-clear/>.

<sup>381</sup> Adam D.I. Kramer, Jamie E. Guillory, Jeffrey T. Hancock, *Experimental evidence of massive-scale emotional contagion through social networks*, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA (Mar. 25, 2014), <http://www.pnas.org/content/111/24/8788.full>.

<sup>382</sup> <https://www.lendup.com/about>.

<sup>383</sup> Erika Eichelberger, *Your Deadbeat Facebook Friends Could Cost You a Loan*, MOTHER JONES (Sep. 18, 2013), <http://www.motherjones.com/politics/2013/09/lenders-vet-borrowers-social-media-facebook>.

<sup>384</sup> <https://neoverify.com/>.

<sup>385</sup> *Lenders are turning to social media to assess borrowers*, THE ECONOMIST (Feb. 9, 2013), <http://www.economist.com/news/finance-and-economics/21571468-lenders-are-turning-social-media-assess-borrowers-stat-oil>.

<sup>386</sup> Stephanie Armour, *Borrowers Hit Social-Media Hurdles*, WALL ST. J. (Jan. 8, 2014), <http://online.wsj.com/news/articles/SB10001424052702304773104579266423512930050>.

<sup>387</sup> <https://www.lenddo.com/>.

<sup>388</sup> Evgeny Morozov, *Your Social Networking Credit Score*, SLATE (Jan. 30, 2014), [http://www.slate.com/articles/technology/future\\_tense/2013/01/wonga\\_lenddo\\_lendup\\_big\\_data\\_and\\_social\\_networking\\_banking.html](http://www.slate.com/articles/technology/future_tense/2013/01/wonga_lenddo_lendup_big_data_and_social_networking_banking.html).

microloans provider operating in Poland, Russia, Spain, Mexico, and the Czech Republic, also uses social data to establish creditworthiness.<sup>390</sup>

While none of those applications has yet been purchased by any big data company or social network, the interest of those firms in the financial field could motivate them to acquire one of those startups or the technology used by them. Additionally, the available information already collected and analyzed by social networks and big data platforms would certainly be utilized to further promote their bank-like activities.

These applications use big and personal data. First, similarly to the Chinese networks, they apply an algorithm to existing big data for determining one's creditworthiness. Then, when a specific loan application is submitted, they look at the individual – her personal information, her social activity, and her cycle of friends – to establish her credit score. It is this combination of big and personal data that could bear real-life social consequences. Social shaming, which stems from the ability of the lender to publically announce the deficiencies in one's financial actions and state, epitomizes the risks of big and personal data combination in the context of financial services. Imagine for example, that Google, to be able to offer better loans while incentivizing the individual to pay them back, would stipulate that when the lender's name is searched, an indication of her loan status (e.g., paid in full, payment pending, past due) would appear first on the results list. When the terms of an alternative loan are worse, or, for the financially underserved community, do not exist, this sounds like a reasonable price to pay for a loan. From the lending platforms' perspective, the price is not only reasonable, but might make legal sense as well. After all, the stigmatized borrower would not be able to claim libel or slander against the lending platform's degrading acts, because the borrower not only agreed to provide full access to her social information, but this information is also considered to be true.<sup>391</sup>

*Cyber-Bullying*: The story of Amanda Todd, a 15 year old who hung herself after she was bullied online, is just one of many awful cyberbullying stories.<sup>392</sup> With the number of children who are victims of cyberbullying constantly rising, cyberbullying possess a major threat to the safety of many.<sup>393</sup> As cyberbullying must abuse a social platform to be effective, if social networks become widely-used social netbanks, any already-existing cyberbullying or online sexual solicitation<sup>394</sup> would also become financial-oriented.<sup>395</sup> This means that incidents

---

<sup>389</sup> <http://www.kreditech.com/>.

<sup>390</sup> *Armour*, *supra* note 381.

<sup>391</sup> Truth is a complete defense to a claim of defamation. The U.S. Bill of Rights enshrined that protection in the Bill's First Amendment, which guarantees "the freedom of speech, or of the press." U.S. CONST. amend. I. And while reputation is important, it was never considered to be as nearly significant to social and political life in the U.S. as freedom of speech, which was paramount, and so the presumption of truthfulness eventually became the cornerstone of American libel law. See e.g., Russell L. Weaver & David F. Partlett, *International and Comparative Perspectives on Defamation, Free Speech, and Privacy: Defamation Free Speech, and Democratic Governance*, 50 N.Y.L. SCH. L. REV. 57, 66 (2006); *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 279-80 (1964) (changed common law doctrine and practice in the); *People v. Crosswell* 3 Johns. Cas. 337(N.Y.Sup.Ct.1804) (officially established truth as a defense to criminal libel in the U.S.).

<sup>392</sup> Ryan Grenoble, *Amanda Todd: Bullied Canadian Teen Commits Suicide After Prolonged Battle Online And In School*, HUFF. POST (Oct. 11, 2012), [http://www.huffingtonpost.com/2012/10/11/amanda-todd-suicide-bullying\\_n\\_1959909.html](http://www.huffingtonpost.com/2012/10/11/amanda-todd-suicide-bullying_n_1959909.html).

<sup>393</sup> Press Association, *Number of Children who are Victims of Cyberbullying Doubles in a Year*, THE GUARDIAN (Nov. 13, 2014), <http://www.theguardian.com/society/2014/nov/14/35pc-children-teenagers-victims-cyberbullying-fears-grooming-tinder-snapchat>.

<sup>394</sup> See e.g. Susan Duncan, *My Space Is Also Their Space: Ideas for Keeping Children Safe from Sexual Predators on Social Networking Sites*, 96 KY. L.J. 527 (2007).

involving minors as victims of financial extortion, exploitation, assault and even murder could result from abuse of social networks. Social networking sites, extremely popular with children and teens, provide exceptional, highly independent and unsupervised channels of self-expression and socialization for these audiences. But these features also make social networks hazardous to children and teens, the most serious being child victimization by sexual predators.<sup>396</sup> As presently run, social networks enable minors to engage in hurtful and risky behaviors resulting in harmful and sometimes permanent physical and psychological damage. These behaviors include cyber-bullying and cyber-threats, and it has been argued that current legal and educational efforts to resolve these behaviors have been ineffective.<sup>397</sup> These well recognized problems are exacerbated the ability to blackmail, financially extort or exploit others, which is made increasingly easy because of online financial services. Therefore, regulators must consider the unique atmosphere of social networks to protect children using those networks from financial-bullying and harassments.

*Legal Capacity of Minors:* The Internet in general and big data and social networks in particular, are essential infrastructures for economic and social interaction. Nevertheless, those platforms may also expose children to different types of risks. As the number of children using the Internet is constantly growing and the age at which they begin to surf the Web is constantly dropping, identifying and addressing such risks becomes more critical.<sup>398</sup> Especially, as in the last few decades, children have emerged as a noteworthy market segment, particularly in the context of online products and services.<sup>399</sup> Risks pertaining to children being targeted as consumers on the Internet are extremely problematic, particularly concerning the three following aspects: first, the clash between the growing number of commercial transactions conducted by children online and the legal capacity doctrine of contract law, as it relates to minors. According to contract law theory minors are able to void contracts, with a few exceptions, as minors are viewed as not having full legal capacity until they turn eighteen years old.<sup>400</sup> Second, overspending on online or mobile services by minors can result in significant bills for parents. Third, fraudulent transactions, which can more easily take place when virtually entering into transactions,<sup>401</sup> occur more when inexperienced children enter into contracts online and pay, but do not receive adequate value, or find themselves tied into subscriptions.<sup>402</sup>

---

<sup>395</sup> For more on cyber-bullying see *The Protection of Children Online: Report on risks faced by children online and policies to protect them*, OECD Council, 29-33 (2012), [http://www.oecd.org/sti/ieconomy/childrenonline\\_with\\_cover.pdf](http://www.oecd.org/sti/ieconomy/childrenonline_with_cover.pdf). Hereinafter *The OECD Report*.

<sup>396</sup> *Id.*

<sup>397</sup> *Id.*

<sup>398</sup> *Id.* (93% of American children had access to the Internet in 2007; in 2006 in Japan 65% of children aged 10-14 and 90% of teenagers aged 15-19 had access to the Internet; in 2008 93-94% of children ages 6-17 had access to the Internet in Finland, Iceland and the Netherlands; and in 2008 99% of UK children aged 12-15 use the Internet, and 93% of 8-11 and 75% of 5-7.)

<sup>399</sup> For example a 2010 British study found that two-thirds of children were financially active online, spending £448 million a year. Moreover, according to the same study, children were spending close to £64 million dollars a year online without their parents' knowledge. Jill Insley, *Financially active children put parents at risk of online fraud*, THE GUARDIAN (Dec. 10, 2010), <http://www.theguardian.com/money/2010/dec/10/children-parents-risk-online-fraud>.

<sup>400</sup> See e.g., Cheryl B. Preston, *CyberInfants*, 39 PEPPERDINE L. REV. 225 (2012).

<sup>401</sup> See, e.g., Robert A. Hillman & Jeffery J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429 (2002) (consumers being take advantage of via internet outlets).

<sup>402</sup> *The OECD Report*, *supra* note 390, at 34.

If a child walks into a bank, asking to transfer money from one account to another, it would be virtually impossible for her to complete the action without a clear indication of consent from her parents or legal guardians. Online, however, the same child would be able to complete such action more easily. And while financial services applications and websites would rarely attract children and teenagers traffic, big data platforms and social networks are mostly sought after by that same age group.<sup>403</sup> Without proper safeguards, a childish mischief on a big data or social netbanks may turn into a financial disaster for the child's family.

#### iv. Competition with Banks

*Effect on traditional banks:* Referred by Prof. Julie Cohen as an “informational capitalism,” big data practitioners can be expected to utilize contemporary applications of big data beyond marketing and advertising.<sup>404</sup> Big data and social netbanks' unique advantages may help them grow quickly at the expense of the banking industry's traditional players,<sup>405</sup> which are subject to more burdensome regulation.<sup>406</sup> Indeed, such advantages, mainly in terms of storage and data management or brokering,<sup>407</sup> have already resulted in placing small banks, and even midsize ones, in an inferior position to big data and social netbanks in many respects.<sup>408</sup> And

---

<sup>403</sup> A recent study found that more than half of children have used an online social network by the age of 10. See *Kids not equipped for coming of digital age at nine*, KNOWTHENET (Feb. 5, 2014), <http://www.knowthenet.org.uk/articles/kids-not-equipped-coming-digital-age-nine>.

<sup>404</sup> Julie E. Cohen, *What Privacy Is For*, 126 HARV. L. REV. 1904 (2013)

<sup>405</sup> As the Internet grows, social media type of businesses is increasingly becoming the subject of antitrust concerns given the emergence and growth of large online expansive enterprises such as Google, Facebook, and eBay. David S. Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 NW. U. L. REV. COLLOQUY 285 (2008).

<sup>406</sup> A social network uses “digital technologies to deliver better or entirely new ways of meeting customer needs, often bypassing regulation and re-defining a given industry in the process.” See Karl, Flinders, *Why Google could become the Amazon of banking*, COMPUTERWEEKLY (Jul. 30, 2014), <http://www.computerweekly.com/news/2240225801/Could-Google-become-to-retail-banking-what-Amazon-is-to-high-street-retail>. Accordingly, big data or social netbanks' future lies in the integration and leverage of the firm's other products to create new customer value that goes beyond payments. “It will be by integrating digital assets such as its search engine, Google Maps, Gmail, Google Play, and Google Now that Google could redefine financial services. Thanks to these capabilities, Google is well positioned to disrupt four interlinked areas, disintermediating incumbents in the process.” *Id.* Meanwhile, trying to minimize their access-related disadvantage, traditional banks have successfully pushed the regulators to create guidelines to enable them to use social media in a variety of ways. Such methods include “marketing, providing incentives, facilitating applications for new accounts, inviting feedback from the public, and engaging with existing and potential customers, for example, by receiving and responding to complaints, or providing loan pricing.” *FDIC Guidelines*, *supra* note 218.

<sup>407</sup> Big data and social netbanks platforms can utilize the enhanced access to their services as well as their special expertise to manage or broker data and promote peripheral bank services' capabilities. For example, similarly to Amazon, which partners with individual retailers to connect them with customers, offering transactional services, product comparison, distribution and users' reviews, Google Plus could offer similar services in retail banking, becoming a middleman across the sector. *-Id.* (“since the launch of *Google Checkout* (which recently merged with *Google Wallet* in 2006, Google has been acquiring, partnering and investing in firms in areas of financial services, such as payments, comparison and loyalty cards.”).

<sup>408</sup> In 2014, there have been calls for antitrust intervention to handle concerns related to big data giants. Specifically, certain businesses argue that big data presents a major and durable entry barrier for online services that has led to entrenchment of big companies. Pursuant to these advocates of increased antitrust scrutiny, major online companies should face antitrust liability for not willing to provide user data in their possession to competitors or for collecting more user data by branching into new product lines. See, e.g., EUR. Data Prot. Supervisor, *Privacy and Competitiveness in the Age of Big Data: the Interplay Between Data Protection, Competition Law and Consumer*

while competition with new entrants in the financial services market is a welcome benefit, unequal competition between bank-like service providers, which are subject to different levels of regulatory scrutiny is not ideal, and could hinder the financial services industry's ability to prevent future crises.<sup>409</sup> Indeed, traditional banks have already started to understand the consequences of having innovative online nonbanks competition,<sup>410</sup> and specifically the unique attributes and advantages of big data and social netbanks in the financial services markets.<sup>411</sup>

And while recently the focus has been on the new Apple Pay system, traditional banks have been talking with the Fed about the influence of nonbanks in general on the payments system for quite some time.<sup>412</sup> Doing so, they suggested that the Federal Reserve or the CFPB would actively monitor nonbank payment companies, and in particular, start studying modern online payment services and social media outlets.<sup>413</sup> The Community Banks Council also noted that not only are nonbanks subject to less regulations, but they are also much less risk-averse than traditional community banks because the negative fallout associated with their failure is not nearly the same.<sup>414</sup> Thus, nonbanks, and especially big data and social netbanks, may not even attempt to meet consumers' expectation of bank-like entities, because they are not held to the same high standards as traditional banks. This outcome could be viewed as unfair, because nonbanks are taking advantage of the framework built by banks, without meeting the higher standards that banks do and that best serve consumers' interests.<sup>415</sup>

In a level playing field nonbanks in general, and big data and social netbanks in particular, would become familiar with the relevant regulatory burdens, and properly address them. This would make the competition between traditional – and especially smaller – banks and social networks fairer, and improve services for consumers. And given that these online issues related to nonbanks, and specifically to big data outlets and social networks, are newly emerging many of these issues have not yet found their way to the courtroom. This uncertainty, when coupled with the lack of guidance from the appropriate regulatory authority, worsen the de-facto discrimination between traditional banks, which have to adhere to existing laws and regulation, and new entrants, who are successfully stepping a foot into the financial services market with no obligation to follow the same strict rules.

## v. Conspicuous Disclosure and Informed Consent

---

*Protection in the Digital Economy* (preliminary opinion Mar. 2014); Letter from Jeff Chester, Exec. Dir., Ctr. for Digital Democracy & Edward Mierzwinski, Dir., U.S. PIRG Educ. Fund, to Edith Ramirez, Chairwoman, Fed. Trade Comm'n (Nov. 5, 2014); *Nest Acquisition: Another Brick in Google's Great Wall of Data*, FAIRSEARCH (Jan. 22, 2014), <http://www.fairsearch.org/nest-acquisition-another-brick-in-googles-great-wall-of-data/>; *Resolution on Supporting Consumer Rights in the Digital Single Market*, EUR. PARL. DOC. 2014/2973(RSP) (2014).

<sup>409</sup> *Broughton on Apple Pay*, *supra* note 11.

<sup>410</sup> Chris Larsen, *Bank Payment Systems Still Operate Like CompuServe and AOL*, AMERICAN BANKER (Jul. 29, 2014), <http://www.americanbanker.com/bankthink/bank-payment-systems-still-operate-like-compuserve-and-aol-1069045-1.html>.

<sup>411</sup> According to several senior bankers "[i]f those folks want to play in the financial services area, and in the payment system, they might well be deemed a SIFI" — a systemically important financial institution — "and let them understand what real regulation is." *Id.*

<sup>412</sup> "We told the board that if they wait to act until they complete a study, it will be too late." Matt Doffling, *Community bankers report to Fed on QM rule and tech-competitors for payment*, CFPB, (Jan. 23, 2014), <http://cfpbjournal.com/issue/cfpb-journal/article/community-bankers-report-to-fed-on-qm-rule-and-tech-competitors-for-payment>

<sup>413</sup> *Id.*

<sup>414</sup> *Id.*

<sup>415</sup> *Id.*

Attempting to minimize the large disparity of information between banks and their customers, and to prevent banks from abusing their information advantage, regulators have required banks to disclose relevant transaction-related information to their customers.<sup>416</sup> But banks are not the only financial institutions that face such disclosure requirements; other financial institutions have faced similar requirements too.<sup>417</sup> Moreover, following the 2008 financial crisis, it has become clear that increased and conspicuous disclosure is critical, even when dealing with nonbanks, in order to guarantee the safe functioning of our financial markets.<sup>418</sup> Thus, sections 115(f) and 165(d) of the Dodd Frank Act grant the newly created FSOC as well as the Federal Reserve Board broad authority to require additional periodic public disclosures of banks and nonbank financial companies to “support market evaluation of the risk profile, capital adequacy, and risk management capabilities thereof.”<sup>419</sup> Internationally, too, a similar attempt to enhance market discipline of global banks has been proposed for the Basel Accords of the Basel Committee on Banking Supervision.<sup>420</sup> Much like banks and other financial institutions, big data and social netbanks should also be required to do so with proper disclosure of all relevant information, policies, and terms. This is why, recently, a German consumer association filed a lawsuit against PayPal, complaining about its practices of holding users’ funds, and demanding more transparency in the terms and conditions as to when a user can expect PayPal to impose account limitations.<sup>421</sup> Similarly in the U.S., the CFPB has started to tackle the issue of transparency through various angles. For example, focusing on the issue of

---

<sup>416</sup> See e.g. Ruth Plato-Shinar, *The Bank's Duty of Disclosure – Towards a New Model*, 27 BANKING & FIN. L. REV. 427, 433 (2013) (The duty of disclosure, in its narrow meaning, imposes an obligation on the bank to disclose to the customer any significant information that is essential, required, vital, or necessary for the customer to reach a decision about performing a banking transaction.). One such major disclosure requirement can be found in Regulation DD, Truth In Saving, 12 CFR 230, which requires depository institutions to disclose the terms of deposit accounts to consumers, as well as subsequent and periodic updates, so that the consumers can make informed decisions. Among other things, the regulation requires depository institutions to “provide to consumers written disclosures about the terms of deposit accounts in a form they can keep. The disclosures must reflect the terms of the deposit contract and must be understandable and noticeable.”

<sup>417</sup> For example, the regulation of money market funds is also premised on disclosure. See e.g., Jonathan R. Macey, *Reducing Systemic Risk: The Role of Money Market Mutual Funds as Substitutes for Federally Insured Bank Deposits*, YALE LAW & ECONOMICS RESEARCH PAPER No. 422 (2012), <http://ssrn.com/abstract=1735008> (stating that “comprehensive disclosure requirements permit an investor to accurately assess the potential risk of an investment and then make an informed decision.”)

<sup>418</sup> Accordingly, the Dodd-Frank Act imposed disclosure and reporting provisions on certain nonbanks and investment advisors, increased the oversight of such institutions, and reformed the existing regulatory structure for financial institutions in general. Specifically, as mentioned above, one of the Dodd-Frank Act’s newly created FSOC’s goals is to designate certain nonbank financial companies to be supervised by the Federal Reserve’s Board of governors. See e.g. the Dodd Frank Act § 113(a)(2)(C), § 113(a)(2)(D), and 113(a)(2)(G).

<sup>419</sup> The Dodd Frank Act §§ 115(f) (authorizing FSOC), 165(d) (authorizing the Federal Reserve Board).

<sup>420</sup> On March 25, 2009, the European Commission published a report on possible amendments to the Basel II Capital Accords to increase market discipline of banking institutions. European Commission, *Commission Services Staff Working Document: Possible Changes to the CRD* (2010),

[http://ec.europa.eu/internal\\_market/bank/docs/regcapital/consutbesec\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/consutbesec_en.pdf). The Basel Committee on Banking Supervision is a committee of bank supervisory authorities that was established in 1974 in an attempt to promote international harmonization of banking regulations. Press Release, *Consultative Paper on a New Capital Adequacy Framework*, Bank for International Settlements, 16 (June 3, 1999), <http://www.bis.org/press/p990603.htm>. Although not binding on any specific country, the Basel Accords represent the Committee’s framework for regulating capital adequacy among international banks.

<sup>421</sup> *Ebay’s 10K Annual SEC Filing*, at 19 (Jan. 31, 2014), <http://investor.ebay.com/annuals.cfm?DocType=Annual&Year=>

remittance payments, the CFPB has recently finalized new disclosure rules under Regulation E, mandated by the Dodd-Frank Act.<sup>422</sup> Similarly, focusing on mortgage loan, under Regulation X and Z, the Real Estate Settlement Procedures Act and the Truth in Lending Act, the CFPB finalized in 2013 and then amended in 2014 a new Integrated Disclosure Rule, which combines the disclosures consumers are required to receive when applying for and closing on such loans.<sup>423</sup> The same rationale also led the CFPB to require PayPal, starting in October 2013, to provide to its potential and existing customers additional disclosures, error resolution privileges and cancellation rights.<sup>424</sup>

Nonetheless, disclosure is vital but not sufficient. It is a widely acceptable notion that most consumers do not read these guidelines, policies, and terms of service.<sup>425</sup> This notion is generally supported by a few empirical studies, anecdotal evidence, and the reported personal record of legal scholars and judges.<sup>426</sup> Reasons for not reading<sup>427</sup> vary and range from lack of interest and difficulty in understanding the legal language, to the time consuming nature of those contracts and consumers' non-existing bargaining power.<sup>428</sup> When a great number of consumers all enjoy the same product under the same contract, users are further incentivized not to read because they feel reassured that the terms must be reasonable. As articulated by Prof. Omri Ben Shahaar:

“Real people don’t read standard form contracts. Reading is boring, incomprehensible, alienating, time consuming, but most of all pointless. We want the product, not the contract. Besides, lots of people bought the product or the service along with the same contract and seem happy enough, so we presume that there must be nothing particularly important buried in the contract terms.”<sup>429</sup>

In the context of big data and social netbanks the problem of fictional consent<sup>430</sup> is exacerbated because consumers do not have the ability to interact in-person or to physically get

---

<sup>422</sup> Stanley F. Orszula & Michael Hearon, *CFPB to Supervise Larger Nonbank Transmitters*, FINANCIAL INSTITUTIONS LAW ALERT (Sep. 30, 2014), <http://www.quarles.com/publications/cfpb-to-supervise-larger-nonbank-transmitters/>.

<sup>423</sup> See 12 CFR 1024 and 1026. Among other things, the updated guidance includes additional clarifying questions regarding the timing for providing the Loan Estimate, as well as new information for finding additional resources. See the final rule at [http://files.consumerfinance.gov/f/201501\\_cfpb\\_final-rule\\_trid.pdf](http://files.consumerfinance.gov/f/201501_cfpb_final-rule_trid.pdf)

<sup>424</sup> *Ebay’s 10K Annual SEC Filing*, *supra* note 416. Additionally, according to EBay, “on August 7, 2013 and January 13, 2014, we received Civil Investigative Demands (CIDs) from the CFPB requesting that we provide testimony, produce documents and provide information relating primarily to the acquisition, management, and operation of the Bill Me Later business, including online credit products and services, advertising, loan origination, customer acquisition, servicing, debt collection, and complaints handling practices.” *Id.*

<sup>425</sup> Omri Ben-Shahaar, *The Myth of the “Opportunity to Read” in Contract Law*, 5 EUR. REV. CONT. L. 1 (2009).

<sup>426</sup> Melissa T. Lonegrass, *Finding Room for Fairness in Formalism-the Sliding Scale Approach to Unconscionability*, 44 LOY. U. CHI. L.J. 1, 30 (2012).

<sup>427</sup> *Ben-Shahaar*, *supra* note 420.

<sup>428</sup> Robert A. Hillman, *Online Boilerplate: Would Mandatory Website Disclosure of E-Standard Terms Backfire?*, 104 MICH. L. REV. 837, 840-41 (2006), and Margaret Jane Radin, *Boilerplate Today: The Rise of Modularity and the Waning of Consent*, 104 MICH. L. REV. 1223, 1231 (2006).

<sup>429</sup> *Ben Shahaar*, *supra* note 420, at 2.

<sup>430</sup> *Radin*, *supra* note 423, at 1231 (“Consent is fictional when the terms are filed somewhere we cannot access, as in airline tariffs. Consent is fictional when almost all of us click on-screen boxes affirming that we have read and understood things we have not read and would not understand if we did. Consent is fictional on websites whose terms of service state that just by browsing the site, whether or not one ever clicks on the terms, one has agreed to

information or assistance in the way they traditionally did with banks. Additionally, it is customary in the online environment that terms of service allow the provider to modify its terms at any time, a practice that if adopted by big data and social netbanks, not only would put users at risk but would also stand in sharp contrast to common perceptions of contract law principles and banks disclosure duties.<sup>431</sup>

Regulators should pay close attention to the difficulties associated with the absence of consent when looking into big data and social netbanks. The connection between one's financials and one's personal information or social activity is risky, and the vast audience of those networks could easily create an illusion that their terms of service are perfectly legitimate when such reasonableness may be missing. From a legal and policy perspective, users should be aware of the product they buy and the price they pay for it, let it be in actual money, money-equivalences, time (e.g., fill out a survey), or personal information.<sup>432</sup> The social lending applications mentioned above are a good example for a tremendous social price one may pay in return for a financial service or product.<sup>433</sup> Paying that price makes better sense when the person using those services had decided to bind herself to those terms willingly and knowingly. When the terms of the service are successfully communicated consumers, either individually or through the formation of advocacy groups, can propose stipulations,<sup>434</sup> and the dialog between those networks and their consumers is kept viable and open.

The current normative measures developed by standard-form contract drafters to help consumers give clearer indication of assent, such as by clicking an "I Agree" button or having the terms popping up automatically,<sup>435</sup> could be proven to be inadequate for big data and social netbanks. Recent studies in behavioral economics indicate that individual consumers fail to process risk in the way the academic definitions of risk suppose.<sup>436</sup> These studies are why the impact of social influences and psychological biases on financial decision making has recently begun to draw significant scholarly attention. Indeed, a key notion in behavioral economics is that people do not necessarily conduct themselves based on the rational risk-averse utility-maximizer,<sup>437</sup> or pursuant to traditional law and economics theories.<sup>438</sup> Building on that,

---

whatever the terms say, now or as they may be changed in the future. Consent is fictional when the contract ends, as one I saw recently did, with "By reading the above you have agreed to it.")

<sup>431</sup> Patricia Sánchez Abril, *Private Ordering: A Contractual Approach to Online Interpersonal Privacy*, 45 WAKE FOREST L. REV. 689, 693-694, 705 (2010)

<sup>432</sup> For example, how does one feel if she gets discounts, better loan rates, or even a loan approved, all conditioned upon her agreeing to allow GPS location tracking of her movements? Or cookies that trail the websites she browses? Adam Levitin, *Google Wallet-Regulatory Implications Posted*, CREDITSLIPS (May 27, 2011), <http://www.creditslips.org/creditslips/2011/05/google-wallet-regulatory-implications.html> (how Amazon is pricing Kindle is very similar to this type of a business model; there's a discount if a user chooses to accept a version that displays advertisements).

<sup>433</sup> See text accompanying *supra* notes 378-385.

<sup>434</sup> As done by social networks users in the past – for example, Facebook's users used the platform to voice their opposition to changes to the website's policy. See Andrés Sanchez, *The Facebook Feeding Frenzy: Resistance-Through-Distance and Resistance-Through-Persistence in the Societed Network*, 6 SURVEILLANCE & SOC'Y 275, 282-83 (2009).

<sup>435</sup> Justin P. Green, *The Consumer-Redistributive Stance: A Perspective on Restoring Balance to Transactions Involving Consumer Standard-Form Contracts*, 46 AKRON L. REV. 551, 561 (2013)

<sup>436</sup> Nizan Geslevich Packin, *It's (Not) All About the Money: Using Behavioral Economics to Improve Regulation of Risk Management in Financial*, 15 U. OF PENNSYLVANIA JOURNAL OF BUSINESS LAW 2, at 132 (2013).

<sup>437</sup> Jon Hanson & David Yosifon, *The Situation: An Introduction to the Situational Character, Critical Realism, Power Economics, and Deep Capture*, 152 U. PA. L. REV. 129, 154 (2003) (noting that the rational actor model is criticized for failing to take into account human irrationality).

behavioral law and economics takes the psychology-based insights from behavioral economics and incorporates them into legal frameworks. Specifically, Richard Thaler and Cass Sunstein,<sup>439</sup> use such studies to create default rules that would help resolve problems and nudge parties and market-participants to do what is viewed as the right thing. In this case, resolving problems, which result from unclear and nontransparent terms and conditions provisions, that would mean finding creative ways to incorporate appropriate default rules that would help minimize fictional consents in order to better protect consumers.<sup>440</sup>

## **b. General Nonbanks Regulatory Considerations**

### **i. Clear Regulation**

The importance of clearing the legal requirements and providing transparency about the enforcement of such regulations is crucial for existing big data and social netbanking platforms as well as for new ones that would want to enter this market.<sup>441</sup> In general, the practice of an open government that conducts its business in a transparent fashion in order to allow for public scrutiny and public participation is widely viewed as both a key feature and a necessary condition of a contemporary democratic state. It is based upon the notion that people can only effectively elect or criticize their government actions if they have access to information about such government actions.<sup>442</sup> Moreover, it appears that in recent years there has been a push in the U.S. for transparency of regulation, at both the federal and state level. Regulators created such laws with the purpose of maintaining free and open access to the government's proceedings, deliberations, decision-making and records. Such laws include sunshine or open meeting laws,<sup>443</sup> which seek to ensure that the public may observe the meetings and deliberations of

---

<sup>438</sup> See generally Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, (1998) (discussing how assumptions about human behavior employed by neoclassical economics could be improved by empirical insights).

<sup>439</sup> Richard H. Thaler & Cass R. Sunstein, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 4-6 (2008) (making a case for “libertarian paternalism,” the practice of making strategic determination of default options to “nudge” individuals into making better choices in the face of their cognitive defects).

<sup>440</sup> Nevertheless, despite the field’s popularity, some commentators have great concerns about the challenges of basing policy recommendations on evidence of bounded rationality. For more on bounded rationality see Bryan D. Jones, *Bounded Rationality*, 2 ANNUAL REVIEW OF POLITICAL SCI., 297 (1999) (explaining that bounded rationality claims that decision-makers are rational, meaning they are goal-oriented and adaptive, but noting that they sometimes fail, even in important decisions, because of human cognitive and emotional architecture).

<sup>441</sup> For example, the Federal Deposit Insurance Corp. withdrawal of its list of high-risk merchants because the list, which rather than settle the issue, has left bankers and technology companies that play in these market segments ill at ease and waiting to see what happens next. Glenn Fosella, *Regulatory Uncertainty Is Stifling Innovation in Payments*, AMERICAN BANKER (Aug. 18, 2014), <http://www.americanbanker.com/bankthink/regulatory-uncertainty-is-stifling-innovation-in-payments-1069433-1.html> (arguing that “the ongoing dispute between the Federal Trade Commission and the Federal Reserve Board over remotely created checks leave innovators frozen in their tracks,” and describing that these and other instances stifle innovation in payments and other areas, and the U.S. could be left behind as a result).

<sup>442</sup> See e.g., Arnold S. Kaufman, *Human Nature and Participatory Democracy*, in NOMOS III: RESPONSIBILITY 266 (Carl J. Friedrich ed., 1960).

<sup>443</sup> See e.g., William Funk, *Public Participation and Transparency in Administrative Law - Three Examples as an Object Lesson*, 61 ADMIN. L. REV. 171, (2009) (the federal Sunshine Act, which does not apply at the state or local level and has been viewed as a failure, requires not only that every portion of every meeting of a agency be open to public observation, but that there be prior public notice of each meeting in order to enable public attendance. It also prohibits agency heads from conducting or disposing of any agency business other than in accordance with the Act.)

government bodies, and freedom of information or public record acts, which seek to ensure public access to the documents and records of government.<sup>444</sup>

With big data refineries and social networks gradually entering the bank-like financial services market, it is critical to create clear and transparent regulation for an additional reason. As a society, we want to promote a helpful, pro-consumer, and constantly improving financial services market and must be careful not to strangle innovation with red tape.<sup>445</sup> It is always hard to start a business, and particularly an innovative one that promotes a new technology or a novel business model. Those who were the first to launch the big data and social netbanking business model have a fundamental advantage: they are already involved and established in the market. For new market entrants, however, it would take greater efforts to get customers comfortable with a new product, or even to hear about it to begin with.<sup>446</sup>

A recent example of unclear regulation is the 2010 financial reform. As a response to a wave of criticism concerning the vagueness of its regulations,<sup>447</sup> the CFPB has made several attempts to increase clarity and transparency of its consumer protection activities.<sup>448</sup> Clearly, uncertainty is highly threatening to innovation, which is difficult to regulate<sup>449</sup> and is dependent on following clear and transparent rules. The more intricacy, the more incumbents get a preference, as they have the capital to participate in complex regulatory proceedings, or hire expensive lobbyists to favorably present them and make it harder for new competitors to successfully enter the market.<sup>450</sup>

## ii. Size Does Matter

As mentioned above, the CFPB is authorized to supervise nonbanks. Particularly, the CFPB has the authority to supervise nonbanks of all sizes in the residential mortgage, private education lending, and payday lending markets, as well as “larger participant[s]” of certain markets and nonbank covered persons that the CFPB has reasonable cause to determine is

---

<sup>444</sup> See e.g., *What is FOIA?*, www.FOIA.gov. James Madison wrote that the people are “the only legitimate fountain of power [from which] the constitutional charter, under which the several branches of government hold their power, is derived.” James Madison, THE FEDERALIST NO. 49 (February 2, 1788), <http://www.constitution.org/fed/federa49.htm>. Yet, how might the People exercise their sovereignty over the government if they do not know what their government is doing? How can government be fully accountable to the People for the actions it takes on their behalf if it conducts itself in secrecy or behind closed doors?

<sup>445</sup> Morris Panner, *Strangling innovation with red tape*, WASHINGTON POST (Nov. 19, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/11/18/AR2010111806073.html>.

<sup>446</sup> *Id.*

<sup>447</sup> Douglas J. Elliott, *Financial Reform: Now It's Up to the Regulators*, THE BROOKINGS INSTITUTION (Jul. 12, 2010), <http://www.brookings.edu/research/papers/2010/07/12-regulators-elliott>.

<sup>448</sup> Evan Weinberger, *CFPB To Open Advisory Council Meetings To The Public*, LAW 360 (May 21, 2014), <http://www.law360.com/articles/540185/cfpb-to-open-advisory-council-meetings-to-the-public> (the CFPB has decided to open Advisory Council Meetings to the public).

<sup>449</sup> Gregory N. Mandel, *Regulating Emerging Technologies*, TEMPLE UNIVERSITY, BEASLEY SCHOOL OF LAW, RESEARCH PAPER No. 2009-18, <http://law.uh.edu/faculty/thester/courses/Emerging%20Tech%202011/mandel%20on%20regulating%20emerging%20techs.pdf> (“the challenge is how to simultaneously leverage a promising innovation’s anticipated benefits while guarding against its potential risks, particularly when the potential risks of the technology cannot be suitably understood until the technology further develops.”)

<sup>450</sup> Panner, *supra* note 440.

involved with conduct that poses risks to consumers with regard to the offering of consumer financial products or services.<sup>451</sup>

In the big data and social netbanking context, the CFPB supervision can be based on the size of a service provider, if such networks are viewed as “larger participant.” In this Article, we argue that not all big data outlets and social networks should be viewed equally for this purpose, and that when regulating those entities as nonbanks the CFPB should use its broad discretion in choosing a criterion for assessing whether a specific nonbank is a larger participant. Specifically, while the Bureau could use a measure that directly relates to the number of transactions taking place as the criterion that measures the size of a market’s participants,<sup>452</sup> it might be better to focus on a different measure – account volume. Indeed, using account volume as the relevant criterion and examining the number of accounts on which a person performs servicing, could be helpful in better understanding the magnitude of the big data and social netbanks’ interactions with users and consumers. Each account represents a regular series of interactions with at least one consumer. Account volume could therefore appropriately reflect the comparative amount of consumer impact of various servicers, and a minimum threshold of users should be set. This is especially true given two major arguments. First, as has been argued by bankers, if big data and social netbanks want to become competitors in the financial services market, including in the payment system, they should be prepared for the possibility of being classified as a SIFI, and being subjected to regulation under the Dodd-Frank Act and following the model of the BHCA discussed above.<sup>453</sup> Second, the biggest big data and social netbanks are trying to expand their hold over unbanked and underbanked populations of users by providing Internet access and becoming gatekeepers.<sup>454</sup> And while most of them, at least in the United States are doing so by cooperating to some extent with regulated banks, as financial intermediaries, not all do. The ones that do not, such as the global big data owned company M-Pesa,<sup>455</sup> are almost unregulated at all and hence very concerning, but even the ones that do, are becoming the gatekeepers of many captive audiences that will learn to be solely dependent on them, and that is troubling. Third, if big data and social netbanks become such large participants in the financial markets the nature of their activities and the potential threats that they would pose to consumers’ financial well-being and the financial markets would be significant, regardless to whether they are mainly financial intermediaries or actual independent bank-like entities.<sup>456</sup> Indeed, the Apple scenario described above, according to which in a few years from now three-fourths of the banks and three-fourths of the merchants are on Apple Pay, and as a result of an unforeseen Apple-related destructive event the U.S. financial market is greatly

---

<sup>451</sup> Omarova, *supra* note 1.

<sup>452</sup> *Final Rule: Defining Larger Participants of the Student Loan Servicing Market*, FEDERAL REGISTER, 78 FR 73383 (Dec. 6, 2013), <https://federalregister.gov/a/2013-29145>. Hereinafter *Final Rule on Defining Larger Participants*.

<sup>453</sup> See *supra* note 15.

<sup>454</sup> Some might even argue that enabling such social media giants to function as gatekeepers of banking and payment services like that creates an entire new species of too-big-to-fail, given these social netbanks already existing dominance of their users’ lives in so many other ways. See Jared Kagan, *Bricks, Mortar, And Google: Defining The Relevant Antitrust Market For Internet-Based Companies*, 55 N.Y.L. Sch. L. Rev. 271 (2010).

<sup>455</sup> See e.g., *Why does Kenya lead the world in mobile money?*, THE ECONOMIST, (May 27, 2013), <http://www.economist.com/blogs/economist-explains/2013/05/economist-explains-18>.

<sup>456</sup> See e.g., Nathan Newman, *Search, Antitrust and the Economics of the Control of User Data*, 31 YALE J. ON REG. 401 (2014) (discussing “how control of personal data by corporations can entrench monopoly power in an economy shaped increasingly by the power of “big data.” ”).

harmed, is a scenario we should strive to avoid and actively prevent if possible.<sup>457</sup> Additionally, while financial intermediation on its face facilitates more efficient risk sharing among borrowers, the suppliers of funds and society, it also forms new risks, which include exposure to “runs” or premature liquidation of projects due to massive pull outs of the suppliers of funds. Thus, financial intermediation activity is inherently fragile, and carries a substantial social externality, represented by the risk of systemic disruptions in the case of contagion of run events.<sup>458</sup>

### c. Cost Benefit Analysis

Following pressure from certain members of Congress, the D.C. Circuit and some voices in the legal academia, a cost-benefit analysis approach for financial regulation has recently been adopted.<sup>459</sup> Mandating the use of such an approach, which focuses on judicially enforced quantification, the D.C. court held that existing law requires the SEC to quantify the costs and benefits of its proposed rules,<sup>460</sup> even though another D.C. Circuit judge held that such quantification is not mandatory, if the SEC is required by statute to adopt a rule and the benefits to be achieved are humanitarian and not economic in nature.<sup>461</sup> Accordingly, any type of regulation of social networks and particularly their banking services would require conducting a cost-benefit analysis, as was done in the CFPB’s 2013 final rule on Defining Larger Participants of the Student Loan Servicing Market.<sup>462</sup> The 2013 CFPB’s final rule examined the potential benefits and costs to consumers and covered persons, and included the following sub-issues: (i) benefits and costs of responses to the possibility of supervision and specifically from increased compliance; (ii) benefits and costs of individual supervisory activities; (iii) costs of assessing larger-participant status; (iv) consideration of alternatives; and (v) potential specific impacts of the final rule.<sup>463</sup>

## V. Conclusion

In this article we present a new form of nonbanks – big data and social netbanks – which even the regulators are now beginning to understand are a key component of our future financial

---

<sup>457</sup> See *supra* note 354.

<sup>458</sup> Tobias Adrian, Adam B. Ashcraft & Nicola Cetorelli, *Shadow Bank Monitoring*, Federal Reserve Bank of New York, September 2013, [http://www.newyorkfed.org/research/staff\\_reports/sr638.pdf](http://www.newyorkfed.org/research/staff_reports/sr638.pdf)

<sup>459</sup> This is despite the fact that several notable academics have argued against this. Prof. John Coates, for example, persuasively argues that the existing cost benefit analysis fall flat and expresses skepticism that it is even possible, in light of the current state of knowledge, for serious and noteworthy analysis of financial regulations to be conducted. See John Coates, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, EUROPEAN CORPORATE GOVERNANCE INSTITUTE (ECGI) - Law Working Paper No. 234/2014 (Jan.8, 2014), <http://ssrn.com/abstract=2375396> (describing efforts by agencies, and other entities to perform cost-benefit analysis of six major financial regulations.). Prof. Coates argues, thus, that even though it is beneficial for agencies to consider cost-benefit balancing as a helpful tool, using rough guesstimates, the agencies’ efforts should not be subject to judicial review. *Id.*

<sup>460</sup> *Business Roundtable et al. v. SEC*, 647 F. 3d 1144 (D.C. Cir. 2011).

<sup>461</sup> *National Association of Manufacturers et al. v. SEC*, -- F. Supp. 2d. --, 2013 WL 3803918 (D.D.C.). Earlier, the D.C. Circuit upheld a decision of the Office of Thrift Supervision against a CBA-based challenge, *Stilwell v. Office of Thrift Supervision*, 569 F.3d 514 (2009), and another judge upheld a decision of the CFTC against a CBA-based challenge in 2012, even though the CFTC’s did not quantify the benefits or certain costs of the rule, *Investment Company Institute v. Commodities and Futures Trading Commission*, 891 F. Supp. 2d 162 (2012).

<sup>462</sup> *Final Rule on Defining Larger Participants*, *supra* note 447.

<sup>463</sup> *Id.*

services system.<sup>464</sup> Indeed, by building on their existing user base and the cold shoulder millennials are giving traditional banks, big data goliath and social networks successfully set a foot in the financial services market. After providing a detail account of this recent trend, the Article surveys existing laws and regulations that apply to Internet-powered nonbanks and discusses the responsible regulatory authorities. Against the backdrop of the regulatory vacuum and the regulatory overlap, this Article first advocates for including the regulation of big data and social netbanks under the CFPB regulatory scope, and then moves to present a list of regulatory considerations that the CFPB ought to take account of when designing the appropriate regulatory regime for big data and social netbanks.

The list includes issues such as privacy concerns, social consequences, and cybersecurity. We also discuss a few general considerations that should be regarded such as the need for clear regulation and the size of the financial institution. Setting concrete, transparent, and carefully tailored guidelines for the regulation of big data and social netbanks would be instrumental in avoiding many of the challenges they raise, capitalizing on many of the benefits they offer, and balancing key values like fair competition and privacy with innovation and expediency.

---

<sup>464</sup> *As the U.S. Speeds Up Payments, Keep Your Eyes on These People*, AMERICAN BANKER (July 310, 2015) [http://www.americanbanker.com/gallery/as-the-us-speeds-up-payments-keep-your-eyes-on-these-people-1075745-1.html?utm\\_medium=email&ET=americanbanker%3Ae97638%3Aa%3A&utm\\_campaign=-jul+30+2015&utm\\_source=newsletter&st=email](http://www.americanbanker.com/gallery/as-the-us-speeds-up-payments-keep-your-eyes-on-these-people-1075745-1.html?utm_medium=email&ET=americanbanker%3Ae97638%3Aa%3A&utm_campaign=-jul+30+2015&utm_source=newsletter&st=email) (in an attempt to study and improve the payments system, in July 2015, the Federal Reserve created a task force on the issue and elected a steering committee with 19 members that represent various parts of the payments ecosystem, including banking giants, major corporations such as Walmart, and nonbank payment innovators.).